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FEBRUARY 1964

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FUSELAGE STRUCTURAL ANALYSIS
VOLUME II
CENTER FUSELAGE AND ENGINE MOUNTS

LIFT FAN FLIGHT RESEARCH AIRCRAFT PROGRAM

CONTRACT NUMBER D543

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Report Number 144
February 1964

FUSELAGE STRUCTURAL ANALYSIS
Volume II
CENTER FUSELAGE AND ENGINE MOUNTS

XV-5A Lift Fan
Flight Research Aircraft Program

Advanced Engine and Technology Department
General Electric Company
Cincinnati, Ohio 45215

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I. INTRODUCTION

The structural analyses of the fuselage space frame, engine mounts and the propulsion system supports of the U.S. Army XV-5A Lift Fan Research Aircraft are presented in this report.

The space frame internal loads analysis was performed utilizing the IBM 704 computer program developed in conjunction with the XV-5A wing basic components analysis. Therefore, much of this report is made up of the deflections and internal member loads program output for the several loading conditions investigated. The space frame member critical loads are summarized and member allowables and margins of safety are presented.

The propulsion system, including crossover ducts, tailpipe and forward engine support is reviewed and supporting structure analyzed for critical loading conditions.

II. SUMMARY AND METHOD OF APPROACH

The space frame provides fuselage structural continuity in the area of the engines, diverter valves and crossover ducting, Fuselage Station 214.00 to Fuselage Station 287.00. The space frame structure was desirable over the more conventional monocoque fuselage configuration, because of the crossover duct installation and the required accessibility to ducting and engines in the XV-5A aircraft.

The space frame mostly consists of tubular steel members gusseted and welded at the joints. This structure lends itself readily to internal loads analysis by the Wehle and Lansing matrix method of solution for redundant structures. This method was programed for the IBM 704 computer for the XV-5A wing stress analysis and is described in Report No. 130, "Structural Analysis of Basic Wing Components,"

The structure was first idealized in order to present to the computer program a closed network of bars running from joint to joint. The space frame idealization is outlined in Section III. The aft fuselage was represented by a rigid plate, to which fuselage loads were applied. The plate in turn applied these loads to the space frame according to the relative flexibility of the space frame components. Unit redundant loads solutions were made both for symmetric and asymmetric applied loads. For symmetrical applied loads, plate reactions 75, 76, 77 and 83 and forward reactions 71, 79, 81 and 87 were assigned relatively high flexibility coefficients. This was done to preclude apparent induced external side reactions, and external vertical reactions at the upper plane. For asymmetrical applied loads, all plate reactions and forward reactions were assigned zero flexibility coefficients, allowing the flexibility of the space frame only to determine the distribution of internal loads.

The end point coordinates (joint coordinates) for each member were supplied to a separate computer program to obtain the member direction cosines and true lengths. This information was then used to write the 81 equations of statics for the space frame. Since in the idealized structure there are 71 members, 12 plate reactions and 12 forward end reactions for a total of 95 unknown loads and reactions, the structure has 14 redundant unknowns. The members and reactions selected as redundants (included on the right hand side of the static equations) along with the 19 externally applied loads are:

1. Space frame members 82 and 83,

2. Plate reactions 88, 89, 90, 91, 92 and 93 and
3. Forward end reactions 84, 85, 86, 87, 94 and 95.

The 81 equations of statics, shown in Section V-B were used in the computer program to derive the internal loads in the static structure in terms of unit applied loads and unit redundant loads.

An additional computer program input consisted of the member flexibility influence coefficients, from which the influence flexibility coefficient matrix, AMN, was derived. These inputs and matrices are given in Section V-C for symmetrical loading conditions and Section V-E for asymmetrical loading conditions. With these inputs, the computer was programmed to perform the necessary matrix computations to solve for the internal loads on the redundant structure, for unit applied loads. These solutions are given in Section V-D for symmetrical loading conditions and Section V-F for asymmetrical loading conditions.

The internal loads in the redundant structure and the deflections of the redundant structure for actual loads were then computed as above with the introduction of the externally applied load input matrices. Applied load conditions, deflections of redundant structure and internal loads in redundant structure are included consecutively in Sections VI, VII and VIII.

The member internal loads output was surveyed to determine the critical tension and compression load in a given member. The results of this survey, with member allowables and margins of safety are presented in summary form in Section XI.

III. STRUCTURAL ARRANGEMENT

The arrangement of structural members in the basic fuselage load carrying space frame consists of five simple trusses and an end bulkhead, arranged to form a nearly rectangular box. The identical side trusses are designed to carry vertical fuselage loads, and are statically determinate for vertical loading. The upper plane truss at W. L. 132.00 and the lower plane truss at W. L. 95.50 are designed to carry side loads. Due to the use of two diagonals to form a corner to corner X, these two trusses are not statically determinate. The use of two diagonals in the upper truss was required to react engine mount loads, and in the lower truss two diagonals were desirable since a side load in either direction could be carried primarily by a tension diagonal, rather than by a long column member.

Instead of a bulkhead web at station 287.00 (made impractical by other design considerations) the frame is stabilized by members 9-28 and 9-31, which together with member 9-14, serve as a single corner-to-corner diagonal member.

The bulkhead at station 214.00 serves as the forward closing end of the space frame. For redundant loads analysis, the web is replaced by a single diagonal member as shown in Figure II, Sheet 1.

Other idealization for analysis purposes consists of assuming a common member runout point at joints 25, 26, 28 and 31, ignoring the small offsets of the actual end points of members 25-30, 26-29, 9-28 and 10-31. Members 25-31 and 26-28 are assumed to be straight members between indicated points.

The engine mounts, crossover duct supports and fan scroll support members, while forming an integral part of the space frame assembly, are essentially independent of the basic fuselage space frame. Although a limited number of basic space frame members are used also to carry engine mount, duct or fan loads, the engine mount structure is designed to be free of loading by fuselage shears and bending moments.

The engine mount structure, duct and fan supports were idealized in the redundant loads analysis, as shown in Figure II, Sheets 1 and 2. Wing fan scroll support loads are introduced directly to the outboard engine mounts, rather than through members 17-33-81 and 19-34-82. The lateral supports to the outboard engine mounts were deleted, and

the engine loads were applied at points 17 and 19. Bending and torsion of the outboard engine mount members due to eccentrically applied loads were analyzed as shown in Section X and are superimposed on the axial loading of these members.

The center main engine mount structure was idealized to allow the application of engine loads directly to joint locations at 18A and 18B. The actual eccentric application of loads and a revised analysis is shown in Section X. The geometry of the space frame, including the engine mount structure is shown in Figure I, which is Sheet 1 of Drawing No. 143F009.

IV. MATERIAL

The material used in the construction of the XV-5A space frame is 18 NiCoMo (250) maraging steel. This material was selected because of high strength properties which could be attained by relatively mild heat treatment, (three-hour soak at 900 degrees F. followed by air cooling with no quenching required). The material also exhibited exceptionally good weldability which was an important consideration in the construction of the space frame structure.

Since very little data were available on the maraging steels, a program of material testing and evaluation was conducted by Ryan's Material Laboratory. The results of this program are included in a series of Metallurgical Research Reports, Ryan Internal Report Nos. MR 62-12, 63-1, 63-2, 63-4, 63-9, and 63-10.

As a result of the material test program, the relatively short tension-tension fatigue life of this material was discovered. Additional fatigue tests were conducted using welded tubular specimens similar in construction to typical joints in the XV-5A space frame. These specimens were subjected to a fatigue type spectrum of loading applicable to the XV-5A aircraft during a 250-hour life. The results of this testing are shown in Ryan Internal Report No. MR 63-4, Addendum II, which indicate satisfactory fatigue endurance for the XV-5A aircraft.

Material properties used in the analysis of the space frame based on an operating temperature of 300 degrees F. are:

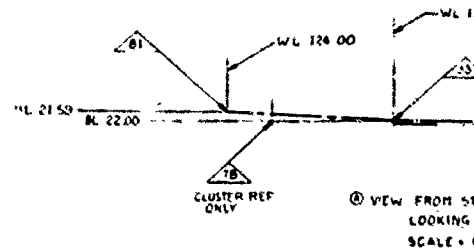
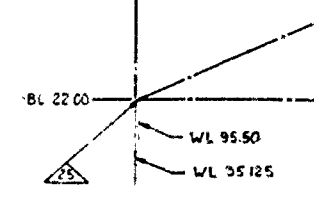
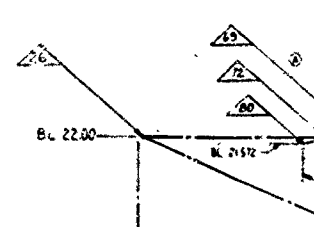
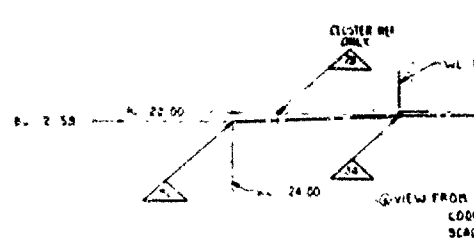
$F_{tu} = 180,000 \text{ psi}$ Ref: Ryan Internal Report No. MR 63-9,
Figure 6

$E = 26,000,000 \text{ psi}$ Ref: Allegheny-Ludlum Data Sheets,
"Maraging Steels", 1961 and
Mil-Hdbk-5 (1961)
.96 (27,000,000) \cong 26,000,000 psi

Column allowable loads, shown in the loads summary sheets, Section X, are computed from the allowable column stress curves, Figure 2.4.2.3(c), Mil-Hdbk-5 (1961), and are reduced to $\frac{26 (10)^6}{29 (10)^6} = .896$ of

the curve allowables to account for a 300-degree F. operating temperature.

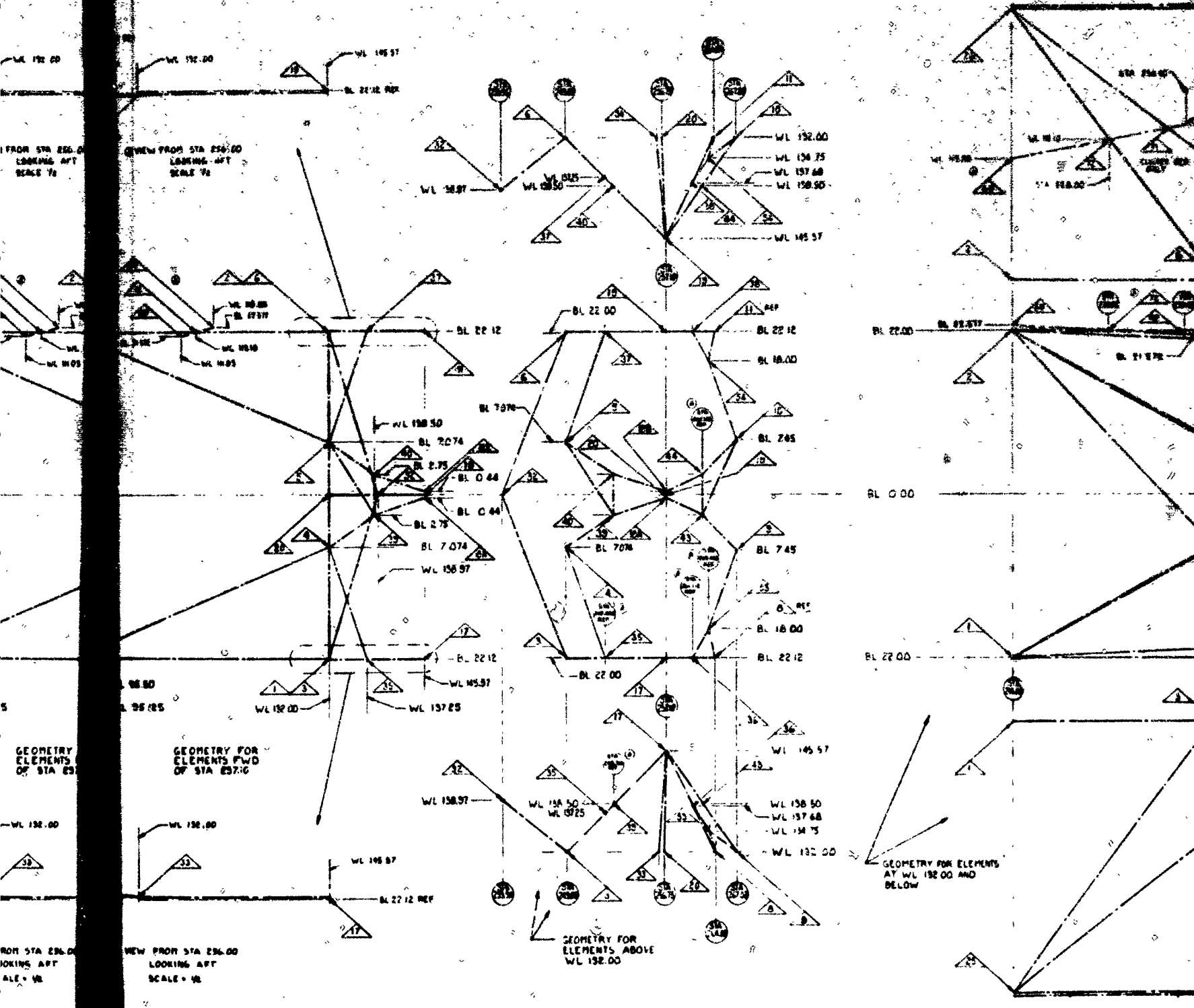
NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	100# PLATE	1	PLATE	1.00	1.00
2	100# PLATE	1	PLATE	1.00	1.00
3	100# PLATE	1	PLATE	1.00	1.00
4	100# PLATE	1	PLATE	1.00	1.00
5	100# PLATE	1	PLATE	1.00	1.00
6	100# PLATE	1	PLATE	1.00	1.00
7	100# PLATE	1	PLATE	1.00	1.00
8	100# PLATE	1	PLATE	1.00	1.00
9	100# PLATE	1	PLATE	1.00	1.00
10	100# PLATE	1	PLATE	1.00	1.00
11	100# PLATE	1	PLATE	1.00	1.00
12	100# PLATE	1	PLATE	1.00	1.00
13	100# PLATE	1	PLATE	1.00	1.00
14	100# PLATE	1	PLATE	1.00	1.00
15	100# PLATE	1	PLATE	1.00	1.00
16	100# PLATE	1	PLATE	1.00	1.00
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24	100# PLATE	1	PLATE	1.00	1.00
25	100# PLATE	1	PLATE	1.00	1.00
26	100# PLATE	1	PLATE	1.00	1.00
27	100# PLATE	1	PLATE	1.00	1.00
28	100# PLATE	1	PLATE	1.00	1.00
29	100# PLATE	1	PLATE	1.00	1.00
30	100# PLATE	1	PLATE	1.00	1.00
31	100# PLATE	1	PLATE	1.00	1.00
32	100# PLATE	1	PLATE	1.00	1.00
33	100# PLATE	1	PLATE	1.00	1.00
34	100# PLATE	1	PLATE	1.00	1.00
35	100# PLATE	1	PLATE	1.00	1.00
36	100# PLATE	1	PLATE	1.00	1.00
37	100# PLATE	1	PLATE	1.00	1.00
38	100# PLATE	1	PLATE	1.00	1.00
39	100# PLATE	1	PLATE	1.00	1.00
40	100# PLATE	1	PLATE	1.00	1.00
41	100# PLATE	1	PLATE	1.00	1.00
42	100# PLATE	1	PLATE	1.00	1.00
43	100# PLATE	1	PLATE	1.00	1.00
44	100# PLATE	1	PLATE	1.00	1.00
45	100# PLATE	1	PLATE	1.00	1.00
46	100# PLATE	1	PLATE	1.00	1.00
47	100# PLATE	1	PLATE	1.00	1.00
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49	100# PLATE	1	PLATE	1.00	1.00
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54	100# PLATE	1	PLATE	1.00	1.00
55	100# PLATE	1	PLATE	1.00	1.00
56	100# PLATE	1	PLATE	1.00	1.00
57	100# PLATE	1	PLATE	1.00	1.00
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60	100# PLATE	1	PLATE	1.00	1.00
61	100# PLATE	1	PLATE	1.00	1.00
62	100# PLATE	1	PLATE	1.00	1.00
63	100# PLATE	1	PLATE	1.00	1.00
64	100# PLATE	1	PLATE	1.00	1.00
65	100# PLATE	1	PLATE	1.00	1.00
66	100# PLATE	1	PLATE	1.00	1.00
67	100# PLATE	1	PLATE	1.00	1.00
68	100# PLATE	1	PLATE	1.00	1.00
69	100# PLATE	1	PLATE	1.00	1.00
70	100# PLATE	1	PLATE	1.00	1.00
71	100# PLATE	1	PLATE	1.00	1.00
72	100# PLATE	1	PLATE	1.00	1.00
73	100# PLATE	1	PLATE	1.00	1.00
74	100# PLATE	1	PLATE	1.00	1.00
75	100# PLATE	1	PLATE	1.00	1.00
76	100# PLATE	1	PLATE	1.00	1.00
77	100# PLATE	1	PLATE	1.00	1.00
78	100# PLATE	1	PLATE	1.00	1.00
79	100# PLATE	1	PLATE	1.00	1.00
80	100# PLATE	1	PLATE	1.00	1.00
81	100# PLATE	1	PLATE	1.00	1.00
82	100# PLATE	1	PLATE	1.00	1.00
83	100# PLATE	1	PLATE	1.00	1.00
84	100# PLATE	1	PLATE	1.00	1.00
85	100# PLATE	1	PLATE	1.00	1.00
86	100# PLATE	1	PLATE	1.00	1.00
87	100# PLATE	1	PLATE	1.00	1.00
88	100# PLATE	1	PLATE	1.00	1.00
89	100# PLATE	1	PLATE	1.00	1.00
90	100# PLATE	1	PLATE	1.00	1.00
91	100# PLATE	1	PLATE	1.00	1.00
92	100# PLATE	1	PLATE	1.00	1.00
93	100# PLATE	1	PLATE	1.00	1.00
94	100# PLATE	1	PLATE	1.00	1.00
95	100# PLATE	1	PLATE	1.00	1.00
96	100# PLATE	1	PLATE	1.00	1.00
97	100# PLATE	1	PLATE	1.00	1.00
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100	100# PLATE	1	PLATE	1.00	1.00



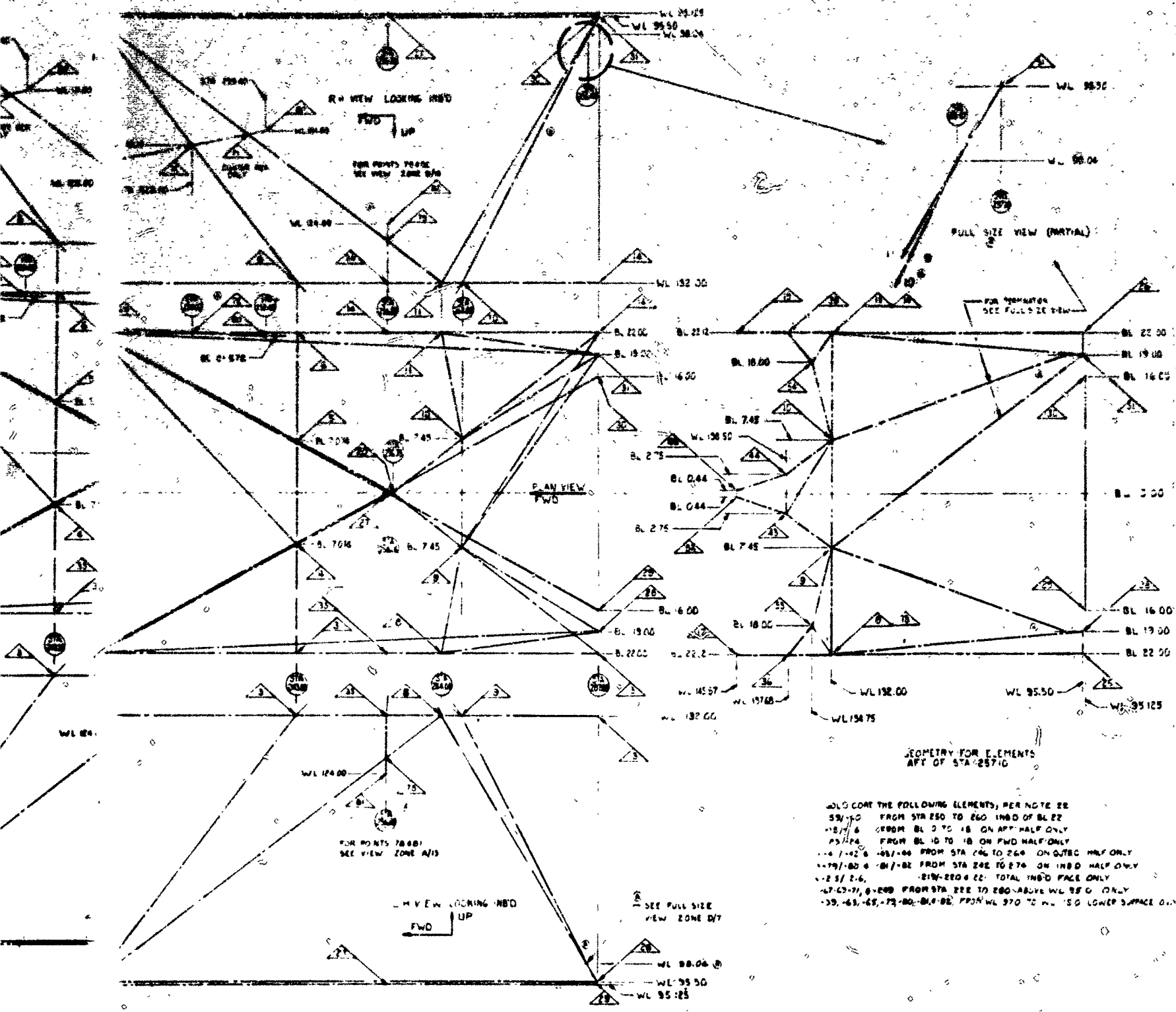
1. ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
 2. ALL MATERIALS ARE TO BE OF THE BEST QUALITY AVAILABLE.
 3. ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS APPLICABLE.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
 7. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE THROUGHOUT THE PROJECT.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL ENVIRONMENTAL FEATURES.
 9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE RECORDS OF ALL WORK DONE.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND STRUCTURES.

L&A CONTINUED FROM ZONE DA

A

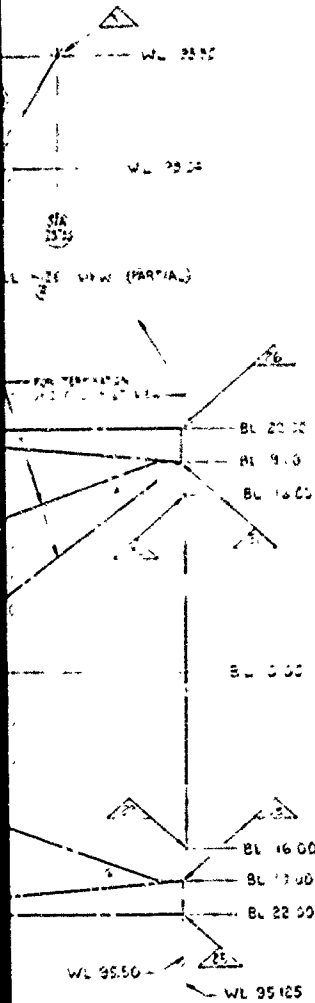


B



- 53/110 FROM STA 250 TO 260 INBD OF BL 22
- 15/116 FROM BL 3 TO 18 ON AFT HALF ONLY
- 25/116 FROM BL 18 TO 19 ON FWD HALF ONLY
- 14/142 FROM STA 242 TO 260 ON Q/REC HALF ONLY
- 179/180 & 181/182 FROM STA 242 TO 274 ON INBD HALF ONLY
- 2/5/2/6 FROM STA 222 TO 224 TOTAL INBD FACE ONLY
- 16/13/37, 6-ENB FROM STA 222 TO 220 ABOVE WL 95.00 ONLY
- 39, 43, 45, 73, 80, 81, 82 FROM WL 97.0 TO WL 150 LOWER SURFACE ONLY

1 c



R ELEMENTS
25710

PER NOTE 22
260 INBD OF BL 22
ON APT HALF ONLY
ON FWD HALF ONLY
242 TO 264 ON QTED HALF ONLY
242 TO 274 ON INBD HALF ONLY
221 TOTAL INBD FACE ONLY
TO 280 ABOVE WL 95 0 ONLY
ON WL 970 TO WL 95 LOWER SURFACE ONLY

- (19) 23-TUBE ENDS WHICH HAVE FEATHERED EDGES DUE TO CONTOUR CUTS MUST BE TRIMMED BACK SO THAT A MINIMUM OF 90% OF TUBE WALL THICKNESS REMAINS.
- (20) REMOVE FINAL HEAT TREAT BRUSH COAT AREAS AS DESIGNATED IN ZONE A/F WITH HANDSOME BRIGHT GOLD GRASS
- (21) AFTER HEAT TREAT COAT REMAINING UNPROTECTED AREAS WITH SILVER PRTE B 50-5 3 REMOVE FINISH MACHINED SURFACES WHICH MAY, ON FINAL ASSEMBLY, COME IN CONTACT WITH MATING PARTS
- (22) ALL SURFACES TO BE PROTECTED WITH ZINC CHROMATE PRIMER AND FINISH ALL UNPROTECTED SURFACES WITH SILVER PRTE B 50-5 3
- (23) FOR PERMISSIBLE MISMATCH ON MACHINED PARTS SEE DETAIL ZONE C U 546
- (24) ALL MACHINE SURFACES UNLESS OTHERWISE STATED
- (25) FOR TUBE MFG INFORMATION SEE RYAN MPD 107
- (26) WHERE TOLERANCES ARE REQUIRED, ENDOR APPROVAL OF LOCATION IS NECESSARY
- (27) WELD PROCESS AND QUALITY PER RYAN MPD 127

- (28) TUBE STRAIGHTNESS
20% OF O.D. OR WHICHEVER IS SMALLER. MAXIMUM LENGTHS DEFINED AS THE NOMINAL LENGTH ALONG THE TUBE THEORETICAL C. THIS DIM REPRESENTS THE LOCATION OF THE TUBE FROM THE THEORETICAL C.
- (29) THE JOINT OFFSET ACROSS ANY POINT AT THE TUBE THEORETICAL INTERSECTION + .006 TOTAL FOR CLUSTERS CONTAINING STUDS OF LESS, AND .10" TOTAL FOR CLUSTERS CONTAINING MORE THAN STUDS. DIMENSIONS REPRESENT THE ADDITIVE BOUNDS OF ANY OFFSET TOLERANCE AT THE JOINTS
- (30) TUBES MUST LOCATING 1" IN STAGGERED PLANE, AND 3" ON
- (31) SCAMP SHALL TUBES SHALL BE LOCATED APPROX 400 FROM ANY ADJACENT WELDS WHERE POSSIBLE
- (32) HEAT TREAT TO CONFORM WITH RYAN MPD 107 4 B & 13
- (33) HOLES OR DIA REQD FOR PRESSURE RELIEF AND INTERNAL SURFACE TREATMENT. LOCATION OF HOLES SHOWN ON F/D WITH THIS SYMBOL. ALL HOLES TO BE DRILLED BEFORE WELDING
- (34) FINISH COMPLETE WELD ASSY PER RYAN SPEC 1888H EXCEPT. NO CADMIUM PLATING REQD. SEE A.30 NOTE 22
- (35) CROSS REF FOR JOINT CALLOUT (GEOMETRY) AND SEQUENCE LETTER (L/M)
- A-JOINT, B-JOINT, C-JOINT, D-JOINT, E-JOINT, F-JOINT
G-JOINT, H-JOINT, I-JOINT, K-JOINT, L-JOINT, M-JOINT
N-JOINT, P-JOINT, R-JOINT, S-JOINT, T-JOINT, U-JOINT
V-JOINT, W-JOINT, X-JOINT, Y-JOINT, Z-JOINT, AA-JOINT, AB-JOINT
- (36) OX DENOTES OPTIONAL OR NORMAL SEQUENCE
- (37) PROGRESSIVE INSPECTION REQD. ALL WELDED JOINTS ARE TO BE INSPECTED BY X-RAY OR PENETRANT METHODS, THE INTEGRITY OF ANY SINGLE WELD IS TO BE ASSURED BEFORE PROCEEDING TO NEXT WELD. COMPLETE CLUSTER X-RAY INSPECTOR, REQD INSPECTOR NUMBER (CASH) 4.11.11.11
- (38) THE FOLLOWING TUBES REQUIRE TAPERING AT ONE END OR BOTH ENDS FOR DIMS SEE F/D TUBE NUMBERS -75-76, -77-78, -79-80, -81-82, -85, -87-88, -89, -90

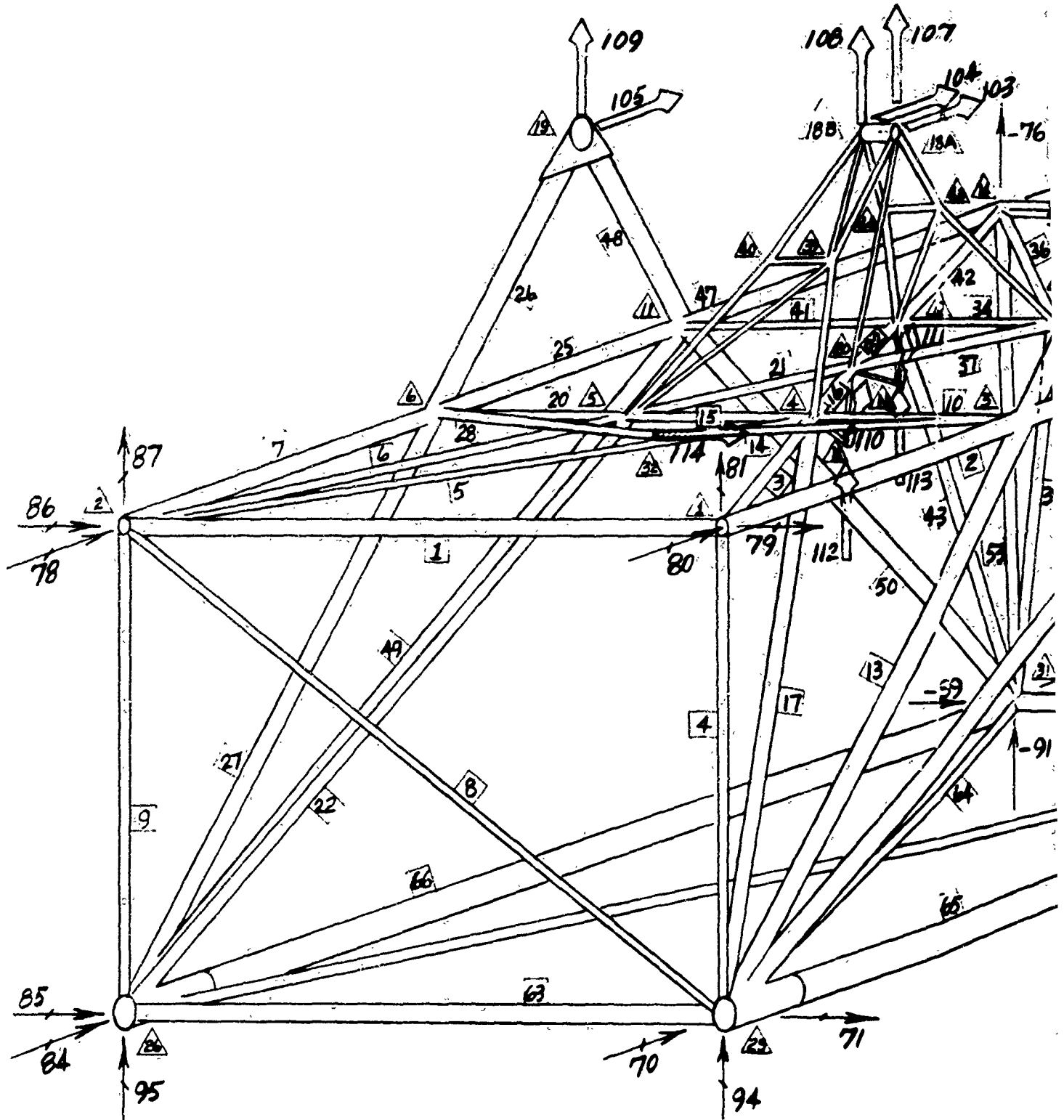
- (39) EXCEPT WHERE OTHERWISE STATED ALL WELDS TO BE PER DETAIL 10 ON SHEET 3 ZONE A/F
- (40) ON GEOMETRY ALL JOINTS ARE IDENTIFIED BY THE SYMBOL
- (41) CORRESPONDING JOINT TO JOINT NOS ARE GIVEN IN L/M FOR EACH TUBULAR MEMBER. (REFER TO GEOMETRY ON SHEET)
- (42) TUBE LENGTHS NOT GIVEN TO BE TAKEN FROM LOFT
- (43) ALL TUBES/TUBULAR MEMBERS DRESSED TO BE FABRICATED .05" OR WIDER THAN THE THICKNESS OF THE AFFECTED GUSSET OR PLATE. ALL SLOTS TO END IN A RADIUS APPROX .06 BEYOND EDGE OF GUSSET. LOCATION OF ALL SLOTS TO BE ESTABLISHED FROM GIVEN DIMS. WHERE DIMS NOT GIVEN, LOCATE ON GEOMETRIC C OF TUBE
- (44) WELD SEQUENCE DESIGNATION
1, 2, 3, 4, ETC DENOTES ORDER IN WHICH MEMBERS ARE TO BE WELDED
A, B, C, D ETC DENOTES IDENTITY OF JOINT CLUSTERS ONLY
IF IS PERMISSIBLE TO FABRICATE ANY CLUSTER IN ANY SEQUENCE, PROVIDED THAT THE SEQUENCE OF MEMBERS IN CLUSTER IS MAINTAINED
- NOTES

CONTINUED AT ZONE A/F

NO.	DESCRIPTION	QTY	UNIT	REF. DIM.	ASSEMBLY
29	GUSSET				
30	GUSSET				
31	GUSSET				
32	WASHER				
33	GUSSET				
34	GUSSET				
35	GUSSET				
36	GUSSET				
37	GUSSET				
38	GUSSET				
39	GUSSET				
40	GUSSET				
41	GUSSET				
42	GUSSET				
43	GUSSET				
44	GUSSET				
45	GUSSET				
46	GUSSET				
47	GUSSET				
48	GUSSET				
49	GUSSET				
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97	GUSSET				
98	GUSSET				
99	GUSSET				
100	GUSSET				

D

SPACE FRAME - IDE



A

DEA
15 - IDEALIZED STRUCTURE

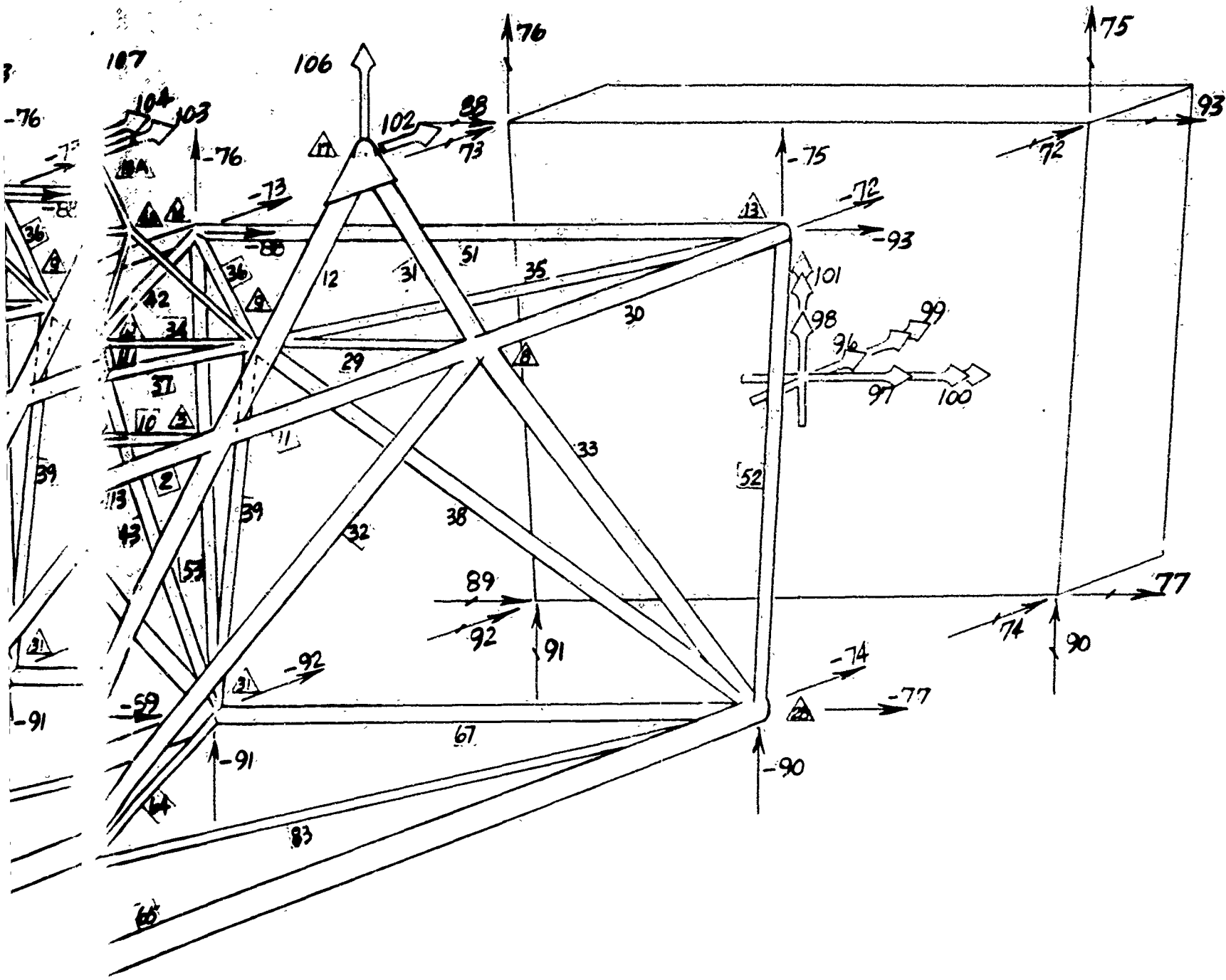


FIGURE II (Sheet 1)

b

SPACE FRAME-IDEALIZED STRUCTURE
CENTER ENGINE MOUNT

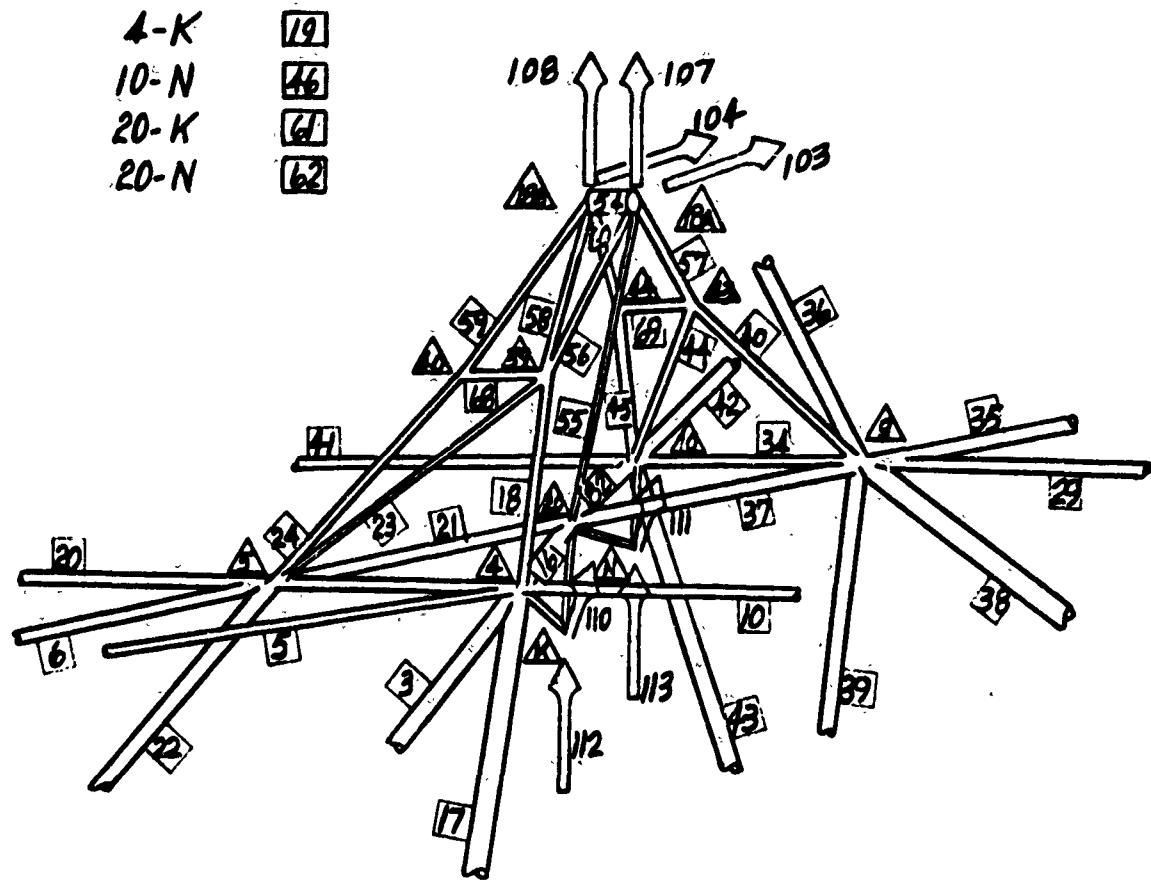


FIGURE II (Sheet 2)

23. AUG 1963

V-A

XV-5A SPACE FRAME MEMBER DIRECTION COSINES
AND MEMBER TRUE LENGTHS

PT.1		MEMBER	PT.2	LOAD NO.	DELTA	LENGTH	COSINES
		1-2		1			
X	214.		214.		0.		0.
Y	22.		-22.		-44.0000	44.0000	-1.0000000
Z	132.		132.		0.		0.
		1-3		2			
X	214.		243.		29.0000		1.0000000
Y	22.		22.		0.	29.0000	0.
Z	132.		132.		0.		0.
		1-4		3			
X	214.		243.		29.0000		0.8891417
Y	22.		7.074		-14.9260	32.6157	-0.4576320
Z	132.		132.		0.		0.
		1-25		4			
X	214.		214.		0.		0.
Y	22.		22.		0.	36.5000	0.
Z	132.		95.5		-36.5000		-1.0000000
		2-4		5			
X	214.		243.		29.0000		0.7062052
Y	-22.		7.074		29.0740	41.0646	0.7080072
Z	132.		132.		0.		0.
		2-5		6			
X	214.		243.		29.0000		0.8891417
Y	-22.		-7.074		14.9260	32.6157	0.4576320
Z	132.		132.		0.		0.
		2-6		7			
X	214.		243.		29.0000		1.0000000
Y	-22.		-22.		-0.	29.0000	-0.
Z	132.		132.		0.		0.
		2-25		8			
X	214.		214.		0.		0.
Y	-22.		22.		44.0000	57.1686	0.7696531
Z	132.		95.5		-36.5000		-0.6384623

23. AUG 1963

		MEMBER 2-26	LOAD NO. 9			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	214.	214.	214.	0.		0.
Y	-22.	-22.	-22.	-0.	36.5000	-0.
Z	132.	95.5	95.5	-36.5000		-1.0000000

		MEMBER 3-4	LOAD NO. 10			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	243.	243.	0.		0.
Y	22.	7.074	7.074	-14.9260	14.9260	-1.0000000
Z	132.	132.	132.	0.		0.

		MEMBER 3-8	LOAD NO. 11			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	264.	264.	21.0000		1.0000000
Y	22.	22.	22.	0.	21.0000	0.
Z	132.	132.	132.	0.		0.

		MEMBER 3-17	LOAD NO. 12			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	257.1	257.1	14.1000		0.7205187
Y	22.	22.	22.	0.	19.5692	0.
Z	132.	145.57	145.57	13.5700		0.6934355

		MEMBER 3-25	LOAD NO. 13			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	214.	214.	-29.0000		-0.6220756
Y	22.	22.	22.	0.	46.6181	0.
Z	132.	95.5	95.5	-36.5000		-0.7829572

		MEMBER 3-32	LOAD NO. 14			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	233.96	233.96	-9.0400		-0.3647349
Y	22.			-22.0000	24.7851	-0.8876291
Z	132.	138.97	138.97	6.9700		0.2812170

		MEMBER 4-5	LOAD NO. 15			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	243.	243.	0.		0.
Y	7.074	-7.074	-7.074	-14.1480	14.1480	-1.0000000
Z	132.	132.	132.	0.		0.

		MEMBER 4-20	LOAD NO. 16			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	256.75	256.75	13.7500		0.8892202
Y	7.074			-7.0740	15.4630	-0.4574795
Z	132.	132.	132.	0.		0.

		MEMBER 4-25	LOAD NO. 17			
		PT.1	PT.2	DELTAS	LENGTH	COSINES
X	243.	214.	214.	-29.0000		-0.5924496
Y	7.074	22.	22.	14.9260	48.9493	0.3049277
Z	132.	95.5	95.5	-36.5000		-0.7456693

23. AUG 1963

	MEMBER	4-39	LOAD NO. 18		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	249.753869		6.7539		0.6542624
Y 7.074	2.75		-4.3240	10.3229	-0.4188756
Z 132.	138.5		6.5000		0.6296697
	MEMBER	4-K	LOAD NO. 19		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	251.037		8.0370		0.6858829
Y 7.074	2.837		-4.2370	11.7177	-0.3615883
Z 132.	124.6		-7.4000		-0.6315209
	MEMBER	5-6	LOAD NO. 20		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	243.		0.		0.
Y-7.074	-22.		-14.9260	14.9260	-1.0000000
Z 132.	132.		0.		0.
	MEMBER	5-20	LOAD NO. 21		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	256.75		13.7500		0.8892202
Y-7.074			7.0740	15.4630	0.4574795
Z 132.	132.		0.		0.
	MEMBER	5-26	LOAD NO. 22		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	214.		-29.0000		-0.5924496
Y-7.074	-22.		-14.9260	48.9493	-0.3049277
Z 132.	95.5		-36.5000		-0.7456693
	MEMBER	5-39	LOAD NO. 23		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	249.753869		6.7539		0.4973942
Y-7.074	2.75		9.8240	13.5785	0.7234966
Z 132.	138.5		6.5000		0.4786979
	MEMBER	5-40	LOAD NO. 24		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	249.753869		6.7539		0.6542624
Y-7.074	-2.75		4.3240	10.3229	0.4188756
Z 132.	138.5		6.5000		0.6296697
	MEMBER	6-11	LOAD NO. 25		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	264.		21.0000		1.0000000
Y-22.	-22.		-0.	21.0000	-0.
Z 132.	132.		0.		0.
	MEMBER	6-19	LOAD NO. 26		
PT.1	PT.2		DELTAS	LENGTH	COSINES
X 243.	257.1		14.1000		0.7205187
Y-22.	-22.		-0.	19.5692	-0.
Z 132.	145.57		13.5700		0.6934355

23. AUG 1963

PT.1	MEMBER 6-26	LOAD NO. 27	DELTA	LENGTH	COSINES
X 243.	PT.2 214.		-29.0000		-0.6220756
Y-22.	-22.		-0.	46.6181	-0.
Z 132.	95.5		-36.5000		-0.7829572

PT.1	MEMBER 6-32	LOAD NO. 28	DELTA	LENGTH	COSINES
X 243.	PT.2 233.96		-9.0400		-0.3647349
Y-22.			22.0000	24.7851	0.8876291
Z 132.	138.97		6.9700		0.2812170

PT.1	MEMBER 8-9	LOAD NO. 29	DELTA	LENGTH	COSINES
X 264.	PT.2 267.		3.0000		0.2019378
Y 22.	7.45		-14.5500	14.8561	-0.9793984
Z 132.	132.		0.		0.

PT.1	MEMBER 8-13	LOAD NO. 30	DELTA	LENGTH	COSINES
X 264.	PT.2 287.		23.0000		1.0000000
Y 22.	22.		0.	23.0000	0.
Z 132.	132.		0.		0.

PT.1	MEMBER 8-17	LOAD NO. 31	DELTA	LENGTH	COSINES
X 264.	PT.2 257.1		-6.9000		-0.4532468
Y 22.	22.		0.	15.2235	0.
Z 132.	145.57		13.5700		0.8913851

PT.1	MEMBER 8-25	LOAD NO. 32	DELTA	LENGTH	COSINES
X 264.	PT.2 214.		-50.0000		-0.8076870
Y 22.	22.		0.	61.9052	0.
Z 132.	95.5		-36.5000		-0.5896115

PT.1	MEMBER 8-28	LOAD NO. 33	DELTA	LENGTH	COSINES
X 264.	PT.2 287.		23.0000		0.5318363
Y 22.	19.		-3.0000	43.2464	-0.0693699
Z 132.	95.5		-36.5000		-0.8440011

PT.1	MEMBER 9-10	LOAD NO. 34	DELTA	LENGTH	COSINES
X 267.	PT.2 267.		0.		0.
Y 7.45	-7.45		-14.9000	14.9000	-1.0000000
Z 132.	132.		0.		0.

PT.1	MEMBER 9-13	LOAD NO. 35	DELTA	LENGTH	COSINES
X 267.	PT.2 287.		20.0000		0.8086487
Y 7.45	22.		14.5500	24.7326	0.5882919
Z 132.	132.		0.		0.

23. AUG 1963

MEMBER 9-14		LOAD NO. 36		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	287.	20.0000		0.5618105
Y 7.45	-22.	-29.4500	35.5992	-0.8272660
Z 132.	132.	0.		0.
MEMBER 9-20		LOAD NO. 37		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	256.75	-10.2500		-0.8089067
Y 7.45		-7.4500	12.6714	-0.5879371
Z 132.	132.	0.		0.
MEMBER 9-28		LOAD NO. 38		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	287.	20.0000		0.4630359
Y 7.45	19.	11.5500	43.1932	0.2674032
Z 132.	95.5	-36.5000		-0.8450404
MEMBER 9-31		LOAD NO. 39		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	287.	20.0000		0.4055659
Y 7.45	-19.	-26.4500	49.3138	-0.5363608
Z 132.	95.5	-36.5000		-0.7401577
MEMBER 9-43		LOAD NO. 40		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	262.257922	-4.7421		-0.5089094
Y 7.45	2.75	-4.7000	9.3181	-0.5043938
Z 132.	138.5	6.5000		0.6975659
MEMBER 10-11		LOAD NO. 41		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	264.	-3.0000		-0.2019378
Y -7.45	-22.	-14.5500	14.8561	-0.9793984
Z 132.	132.	0.		0.
MEMBER 10-14		LOAD NO. 42		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	287.	20.0000		0.8086487
Y -7.45	-22.	-14.5500	24.7326	-0.5882919
Z 132.	132.	0.		0.
MEMBER 10-31		LOAD NO. 43		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	287.	20.0000		0.4630359
Y -7.45	-19.	-11.5500	43.1932	-0.2674032
Z 132.	95.5	-36.5000		-0.8450404
MEMBER 10-43		LOAD NO. 44		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	262.257922	-4.7421		-0.3650157
Y -7.45	2.75	10.2000	12.9914	0.7851329
Z 132.	138.5	6.5000		0.5003298

23. AUG 1963

MEMBER 10-44		LOAD NO. 45		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 267.	262.257922	-4.7421	9.3181	-0.5089094
Y-7.45	-2.75	4.7000		0.5043938
Z 132.	138.5	6.5000		0.6975659
MEMBER 10-N.		LOAD NO. 46		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 267.	260.963	-6.0370	10.6059	-0.5692113
Y-7.45	-2.837	4.6130		0.4349466
Z 132.	124.6	-7.4000		-0.6977249
MEMBER 11-14		LOAD NO. 47		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 264.	287.	23.0000	23.0000	1.0000000
Y-22.	-22.	-0.		-0.
Z 132.	132.	0.		0.
MEMBER 11-19		LOAD NO. 48		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 264.	257.1	-6.9000	15.2235	-0.4532468
Y-22.	-22.	-0.		-0.
Z 132.	145.57	13.5700		0.8913851
MEMBER 11-26		LOAD NO. 49		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 264.	214.	-50.0000	61.9052	-0.8076870
Y-22.	-22.	-0.		-0.
Z 132.	95.5	-36.5000		-0.5896115
MEMBER 11-31		LOAD NO. 50		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 264.	287.	23.0000	43.2464	0.5318363
Y-22.	-19.	3.0000		0.0693699
Z 132.	95.5	-36.5000		-0.8440011
MEMBER 13-14		LOAD NO. 51		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 287.	287.	0.	44.0000	0.
Y 22.	-22.	-44.0000		-1.0000000
Z 132.	132.	0.		0.
MEMBER 13-28		LOAD NO. 52		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 287.	287.	0.	36.6231	0.
Y 22.	19.	-3.0000		-0.0819156
Z 132.	95.5	-36.5000		-0.9966393
MEMBER 14-31		LOAD NO. 53		
PT.1	PT.2	DELTA	LENGTH	COSINES
X 287.	287.	0.	36.6231	0.
Y-22.	-19.	3.0000		0.0819156
Z 132.	95.5	-36.5000		-0.9966393

23. AUG 1963

MEMBER 18A-18B		LOAD NO. 54	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	257.1	0.	4.7600	0.
Y 2.38	-2.38	-4.7600		-1.000000
Z 145.57	145.57	0.		0.
MEMBER 18A-20		LOAD NO. 55	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	256.75	-0.3500	13.7816	-0.0253961
Y 2.38		-2.3800		-0.1726943
Z 145.57	132.	-13.5700		-0.9846480
MEMBER 18A-39		LOAD NO. 56	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	249.753869	-7.3461	10.2023	-0.7200448
Y 2.38	2.75	0.3700		0.0362662
Z 145.57	138.5	-7.0700		-0.6929793
MEMBER 18A-43		LOAD NO. 57	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	262.257922	5.1579	8.7593	0.5888488
Y 2.38	2.75	0.3700		0.0422406
Z 145.57	138.5	-7.0700		-0.8071387
MEMBER 18B-39		LOAD NO. 58	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	249.753869	-7.3461	11.4135	-0.6423366
Y -2.38	2.75	5.1300		0.4494687
Z 145.57	138.5	-7.0700		-0.6194432
MEMBER 18B-40		LOAD NO. 59	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	249.753869	-7.3461	10.2023	-0.7200448
Y -2.38	-2.75	-0.3700		-0.0362662
Z 145.57	138.5	-7.0700		-0.6929793
MEMBER 18B-44		LOAD NO. 60	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 257.1	262.257922	5.1579	8.7593	0.5888488
Y -2.38	-2.75	-0.3700		-0.0422406
Z 145.57	138.5	-7.0700		-0.8071387
MEMBER 20-K		LOAD NO. 61	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 256.75	251.037	-5.7130	9.7697	-0.5847674
Y	2.837	2.8370		0.2903878
Z 132.	124.6	-7.4000		-0.7574444
MEMBER 20-N		LOAD NO. 62	LENGTH	COSINES
PT.1	PT.2	DELTAS		
X 256.75	260.963	4.2130	8.9754	0.4693938
Y	-2.837	-2.8370		-0.3160859
Z 132.	124.6	-7.4000		-0.8244751

23. AUG 1963

MEMBER 25-26		LOAD NO. 63		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 214.	214.	0.		0.
Y 22.	-22.	-44.0000	44.0000	-1.0000000
Z 95.5	95.5	0.		0.

MEMBER 25-31		LOAD NO. 64		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 214.	287.0	73.0000		0.8718943
Y 22.	-19.0	-41.0000	83.7257	-0.4896941
Z 95.5	95.5	0.		0.

MEMBER 25-28		LOAD NO. 65		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 214.	287.	73.0000		0.9991566
Y 22.	19.	-3.0000	73.0616	-0.0410612
Z 95.5	95.5	0.		0.

MEMBER 26-31		LOAD NO. 66		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 214.	287.	73.0000		0.9991566
Y-22.	-19.	3.0000	73.0616	0.0410612
Z 95.5	95.5	0.		0.

MEMBER 28-31		LOAD NO. 67		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 287.	287.	0.		0.
Y 19.	-19.	-38.0000	38.0000	-1.0000000
Z 95.5	95.5	0.		0.

MEMBER 39-40		LOAD NO. 68		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 249.753869	249.753869	0.		0.
Y 2.75	-2.75	-5.5000	5.5000	-1.0000000
Z 138.5	138.5	0.		0.

MEMBER 43-44		LOAD NO. 69		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 262.257922	262.257922	0.		0.
Y 2.75	-2.75	-5.5000	5.5000	-1.0000000
Z 138.5	138.5	0.		0.

MEMBER 10-20		LOAD NO. 82		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 267.	256.75	-10.2500		-0.8089067
Y-7.45		7.4500	12.6714	0.5879371
Z 132.	132.	0.		0.

MEMBER 26-28		LOAD NO. 83		
PT.1	PT.2	DELTAS	LENGTH	COSINES
X 214.	287.0	73.0000		0.8718943
Y-22.	19.0	41.0000	83.7257	0.4896941
Z 95.5	95.5	0.		0.

V-B. STATIC EQUATIONS

Equations are written in x, y, z order: First loads, then moments identified with the following structural locations and joint numbers:

<u>LOCATION OR JOINT NO.</u>	<u>EQUATION NO.</u>	<u>LOCATION OR JOINT NO.</u>	<u>EQUATION NO.</u>
STA. 287.00 BLKHD.	1-6	1	46-48
13	7-9	2	49-51
14	10-12	43	52-53
28	13-15	44	54-55
31	16-18	17	56-57
8	19-21	18A	58-60
9	22-24	18B	61-63
10	25-27	19	64-65
11	28-30	39	66-67
20	31-33	40	68-69
3	34-36	32	70-71
4	37-39	N	72-73
5	40-42	K	74-75
6	43-45	25	76-78
		26	79-81

SFXV5A

EQN	1	1.000 X72 +	1.000 X73 +	1.000 X74	
=	-	1.000 X92 -	1.000 X96		
EQN	2	1.000 X77			
=	-	1.000 X88 -	1.000 X89 -	1.000 X93 -	1.000 X97
EQN	3	1.000 X75 +	1.000 X76		
=	-	1.000 X90 -	1.000 X91 -	1.000 X98	
EQN	4	22.000 X75 -	22.000 X76 +	17.500 X77	
=		19.000 X88 -	17.500 X89 -	19.000 X90 +	19.000 X91
		+ 19.000 X93 -	1.000 X99		
EQN	5	19.000 X72 +	19.000 X73 -	17.500 X74	
=		17.500 X92 -	1.000 X100		
EQN	6	22.000 X72 +	22.000 X73 -	19.000 X74	
=	-	19.000 X92 -	1.000 X101		
EQN	7	1.000 X30 -	0.809 X35 -	1.000 X72	
=	0				
EQN	8	0.588 X35 -	1.000 X51 -	0.082 X52	
=		1.000 X93			
EQN	9	0.997 X52 -	1.000 X75		
=	0				
EQN	10	0.562 X36 -	0.809 X42 -	1.000 X47 -	1.000 X73
=	0				
EQN	11	0.827 X36 +	0.588 X42 +	1.000 X51 +	0.082 X53
=		1.000 X88			
EQN	12	0.997 X53 -	1.000 X76		
=	0				
EQN	13	0.532 X33 -	0.463 X38 -	0.999 X65 -	1.000 X74
=		0.872 X83			
EQN	14	0.069 X33 -	0.267 X38 +	0.082 X52 +	0.041 X65
	-	1.000 X67 -	1.000 X77		
=		0.490 X83			
EQN	15	0.844 X33 +	0.845 X38 +	0.997 X52	
=		1.000 X90			
EQN	16	0.406 X39 -	0.463 X43 -	0.532 X50 -	0.872 X64
	-	0.999 X66			
=		1.000 X92			
EQN	17	0.536 X39 +	0.267 X43 -	0.069 X50 -	0.082 X53
	+	0.490 X64 -	0.041 X66 +	1.000 X67	
=		1.000 X89			

SFXV5A

EQN 18	0.740 X39 +	0.845 X43 +	0.844 X50 +	0.997 X53
=	1.000 X91			
EQN 19	- 1.000 X11 +	0.202 X29 +	1.000 X30 -	0.453 X31
-	0.808 X32 +	0.532 X33		
= 0				
EQN 20	- 0.979 X29 -	0.069 X33		
= 0				
EQN 21	0.891 X31 -	0.590 X32 -	0.844 X33	
= 0				
EQN 22	- 0.202 X29 +	0.809 X35 +	0.562 X36 -	0.809 X37
+	0.463 X38 +	0.406 X39 -	0.509 X40	
= 0				
EQN 23	0.979 X29 -	1.000 X34 +	0.588 X35 -	0.827 X36
-	0.588 X37 +	0.267 X38 -	0.536 X39 -	0.504 X40
= 0				
EQN 24	- 0.845 X38 -	0.740 X39 +	0.698 X40	
= 0				
EQN 25	- 0.202 X41 +	0.809 X42 +	0.463 X43 -	0.365 X44
-	0.509 X45 -	0.569 X46		
=	0.809 X82			
EQN 26	1.000 X34 -	0.979 X41 -	0.588 X42 -	0.267 X43
+	0.785 X44 +	0.504 X45 +	0.435 X46	
= -	0.588 X82			
EQN 27	- 0.845 X43 +	0.500 X44 +	0.698 X45 -	0.698 X46
= 0				
EQN 28	- 1.000 X25 +	0.202 X41 +	1.000 X47 -	0.453 X48
-	0.808 X49 +	0.532 X50		
= 0				
EQN 29	0.979 X41 +	0.069 X50		
= 0				
EQN 30	0.891 X48 -	0.590 X49 -	0.844 X50	
= 0				
EQN 31	- 0.889 X16 -	0.889 X21 +	0.809 X37 +	0.025 X55
-	0.585 X61 +	0.469 X62		
= -	0.809 X82			
EQN 32	0.457 X16 -	0.457 X21 +	0.588 X37 +	0.173 X55
+	0.290 X61 -	0.316 X62		
=	0.588 X82			
EQN 33	0.985 X55 -	0.757 X61 -	0.824 X62	
= 0				

SFXV5A

EQN 34	=	1.000 X2	+	1.000 X11	+	0.721 X12	-	0.622 X13
	=	0.365 X14						
	=	0						
EQN 35	-	1.000 X10	-	0.888 X14				
	=	0						
EQN 36		0.693 X12	-	0.783 X13	+	0.281 X14		
	=	0						
EQN 37	-	0.889 X3	-	0.706 X5	+	0.889 X16	-	0.592 X17
	+	0.654 X18	+	0.686 X19				
	=	0						
EQN 38		0.458 X3	-	0.708 X5	+	1.000 X10	-	1.000 X15
	-	0.457 X16	+	0.305 X17	-	0.419 X18	-	0.362 X19
	=	0						
EQN 39	-	0.746 X17	+	0.630 X18	-	0.632 X19		
	=	0						
EQN 40	-	0.889 X6	+	0.889 X21	-	0.592 X22	+	0.497 X23
	+	0.654 X24						
	=	0						
EQN 41	-	0.458 X6	+	1.000 X15	-	1.000 X20	+	0.457 X21
	-	0.305 X22	+	0.723 X23	+	0.419 X24		
	=	0						
EQN 42	-	0.746 X22	+	0.479 X23	+	0.630 X24		
	=	0						
EQN 43	-	1.000 X7	+	1.000 X25	+	0.721 X26	-	0.622 X27
	-	0.365 X28						
	=	0						
EQN 44		1.000 X20	+	0.888 X28				
	=	0						
EQN 45		0.693 X26	-	0.783 X27	+	0.281 X28		
	=	0						
EQN 46		1.000 X2	+	0.889 X3	+	1.000 X80		
	=	0						
EQN 47	-	1.000 X1	-	0.458 X3	+	1.000 X79		
	=	0						
EQN 48	-	1.000 X4	+	1.000 X81				
	=	0						
EQN 49		0.706 X5	+	0.889 X6	+	1.000 X7	+	1.000 X78
	=	0						
EQN 50		1.000 X1	+	0.708 X5	+	0.458 X6	+	0.770 X8
	=	1.000 X86						

SFXV5A

EQN 51 - 0.638 X8 - 1.000 X9
 = - 1.000 X87

EQN 52 0.509 X40 + 0.365 X44 - 0.589 X57
 = 0

EQN 53 0.504 X40 - 0.785 X44 - 0.042 X57 - 1.000 X69
 = 0

EQN 54 0.509 X45 - 0.589 X60
 = 0

EQN 55 - 0.504 X45 + 0.042 X60 + 1.000 X69
 = 0

EQN 56 - 0.721 X12 + 0.453 X31
 = - 1.000 X102

EQN 57 - 0.693 X12 - 0.891 X31
 = - 1.000 X106

EQN 58 - 0.025 X55 - 0.720 X56 + 0.589 X57
 = - 1.000 X103

EQN 59 - 1.000 X54 - 0.173 X55 + 0.036 X56 + 0.042 X57
 = 0

EQN 60 - 0.985 X55 - 0.693 X56 - 0.807 X57
 = - 1.000 X107

EQN 61 - 0.644 X58 - 0.720 X59 + 0.589 X60
 = - 1.000 X104

EQN 62 1.000 X54 + 0.449 X58 - 0.036 X59 - 0.042 X60
 = 0

EQN 63 - 0.619 X58 - 0.693 X59 - 0.807 X60
 = - 1.000 X108

EQN 64 - 0.721 X26 + 0.453 X48
 = - 1.000 X105

EQN 65 - 0.693 X26 - 0.891 X48
 = - 1.000 X109

EQN 66 - 0.654 X18 - 0.497 X23 + 0.720 X56 + 0.644 X58
 = 0

EQN 67 0.419 X18 - 0.723 X23 - 0.036 X56 - 0.449 X58
 = 0
 = 0

EQN 68 - 0.654 X24 + 0.720 X59
 = 0

SFXV5A

EQN 69	-	0.419 X24	+	0.036 X59	+	1.000 X68		
	=	0						
EQN 70		0.365 X14	+	0.365 X28				
	=	0						
EQN 71		0.888 X14	-	0.888 X28				
	=	1.000 X114						
EQN 72		0.716 X46	-	0.566 X62				
	=	1.000 X111						
EQN 73		0.698 X46	+	0.825 X62				
	=	1.000 X113						
EQN 74	-	0.775 X19	+	0.653 X61				
	=	1.000 X110						
EQN 75		0.632 X19	+	0.758 X61				
	=	1.000 X112						
EQN 76		0.622 X13	+	0.592 X17	+	0.808 X32	+	0.872 X64
	+	0.999 X65	+	1.000 X70				
	=	0						
EQN 77	-	0.770 X8	-	0.305 X17	-	1.000 X63	-	0.490 X64
	-	0.041 X65	+	1.000 X71				
	=	0						
EQN 78		1.000 X4	+	0.638 X8	+	0.783 X13	+	0.746 X17
	+	0.590 X32						
	=	1.000 X94						
EQN 79		0.592 X22	+	0.622 X27	+	0.808 X49	+	0.999 X66
	=	0.872 X83	-	1.000 X84				
EQN 80		0.305 X22	+	1.000 X63	+	0.041 X66		
	=	0.490 X83	-	1.000 X85				
EQN 81		1.000 X9	+	0.746 X22	+	0.783 X27	+	0.590 X49
	=	1.000 X95						

MATRIX OF SOLUTION VECTORS (AS 33 COLUMNS)

X.	1	2	3	4
1	-4.1633587E-01	-0.	5.1151178E-02	-0.
2	-8.0890698E-01	-0.	-9.0061742E-01	-0.
3	9.0976130E-01	-0.	-1.1177338E-01	-0.
4	0.	0.	1.1175871E-08	0.
5	-9.6060830E-09	-0.	-1.3733240E-04	-0.
6	9.0976130E-01	0.	6.5399722E-01	0.
7	-8.0890698E-01	0.	4.1860059E-01	0.
8	0.	0.	-4.5519735E-01	0.
9	-0.	-0.	2.9062621E-01	-0.
10	-0.	-0.	-0.	-0.
11	-8.0890698E-01	-0.	-9.0061742E-01	-0.
12	-0.	-0.	-1.7357386E-09	-0.
13	-0.	-0.	-1.5372793E-09	-0.
14	0.	0.	0.	0.
15	1.7479412E-04	0.	1.2565369E-04	0.
16	9.0968151E-01	-0.	-1.1187264E-01	-0.
17	-0.	-0.	-0.	-0.
18	-0.	-0.	-0.	-0.
19	-0.	-0.	-0.	-0.
20	1.6414323E-13	-0.	-1.1896130E-12	-0.
21	9.0968149E-01	0.	6.5393985E-01	0.
22	0.	0.	0.	0.
23	-0.	-0.	-0.	-0.
24	0.	0.	0.	0.
25	-8.0890698E-01	0.	4.1860059E-01	0.
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	8.2486670E-09	0.	2.4389579E-02	0.
30	-8.0890698E-01	-0.	-3.2429063E-01	-0.
31	-0.	-0.	1.3502848E-09	-0.
32	0.	0.	4.9291093E-01	0.
33	-0.	-0.	-3.4434343E-01	-0.
34	5.4268539E-04	-0.	-2.7470169E-02	-0.
35	1.0003190E 00	0.	4.0102768E-01	0.
36	9.6297299E-09	0.	2.8951322E-01	0.
37	9.9999998E-01	0.	5.9588680E-01	0.
38	0.	0.	3.4392006E-01	0.
39	-0.	-0.	-3.9265428E-01	-0.
40	-0.	-0.	-3.7252903E-09	-0.
41	-0.	-0.	-2.4389578E-02	-0.
42	1.0003190E 00	-0.	-6.0906298E-03	-0.
43	-0.	-0.	-1.8626451E-09	-0.
44	0.	0.	-1.8626451E-09	0.
45	-0.	-0.	-0.	-0.
46	-0.	-0.	-0.	-0.
47	-8.0890698E-01	-0.	-1.5772624E-01	-0.
48	-0.	-0.	-0.	-0.
49	-0.	-0.	-4.9291095E-01	-0.
50	0.	0.	3.4434345E-01	0.

X	1	2	3	4
51	-5.8847968E-01	-0.	-2.3592137E-01	-0.
52	-0.	-0.	-0.	-0.
53	0.	0.	0.	0.
54	0.	0.	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	-0.	-0.	-0.	-0.
59	0.	0.	0.	0.
60	-0.	-0.	-0.	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	-0.	-4.5386296E-01	2.4734737E-02	-1.0000000E 00
64	0.	1.0000000E 00	6.6291913E-01	0.
65	0.	-8.7262962E-01	2.3907019E-02	0.
66	-0.	-8.7262962E-01	-6.0239003E-01	-0.
67	-0.	-5.2552504E-01	-1.1487071E-01	-0.
68	0.	0.	0.	0.
69	-0.	-0.	-2.7755575E-17	-0.
70	0.	-7.4505806E-09	-9.9999982E-01	0.
71	0.	0.	-1.0058284E-07	-1.0000000E 00
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	-0.	-0.	-0.	-0.
77	-0.	-0.	-0.	-0.
78	2.2351742E-08	-0.	-1.0000000E 00	-0.
79	-0.	-0.	9.6857548E-08	-0.
80	2.2351742E-08	0.	9.9999982E-01	0.
81	0.	0.	1.1175871E-08	0.

X	5	6	7	8
1	-1.0000000E 00	-1.2054797E 00	2.0079480E-02	-0.
2	-0.	-0.	3.9013617E-02	-0.
3	-0.	-0.	-4.3878089E-02	-0.
4	0.	-9.9999998E-01	2.9802322E-08	0.
5	-0.	-0.	-5.3911665E-05	-0.
6	0.	0.	2.5673512E-01	0.
7	0.	0.	-2.2823515E-01	0.
8	0.	1.5662639E 00	-1.7869288E-01	0.
9	-0.	1.4901161E-08	1.1408861E-01	-0.
10	-0.	-0.	-0.	-0.
11	-0.	-0.	3.9013617E-02	-0.
12	-0.	-0.	-4.3393464E-10	-0.
13	-0.	-0.	-3.8431983E-10	-0.
14	0.	0.	0.	0.
15	0.	0.	4.9326991E-05	0.
16	-0.	-0.	-4.3917055E-02	-0.
17	-0.	-0.	-0.	-0.
18	-0.	-0.	-0.	-0.
19	-0.	-0.	-0.	-0.
20	-0.	-0.	-4.6699859E-13	-0.
21	0.	0.	2.5671259E-01	0.
22	0.	0.	0.	0.
23	-0.	-0.	-0.	-0.
24	0.	0.	0.	0.
25	0.	0.	-2.2823515E-01	0.
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	0.	0.	9.5743964E-03	0.
30	-0.	-0.	2.6525719E-01	-0.
31	-0.	-0.	4.0628614E-09	-0.
32	0.	0.	1.9349774E-01	0.
33	-0.	-0.	-1.3517589E-01	-0.
34	-0.	-0.	-1.0783723E-02	-0.
35	0.	0.	-3.2802514E-01	0.
36	0.	0.	8.1239603E-01	0.
37	0.	0.	2.3392312E-01	0.
38	0.	0.	1.1166738E 00	0.
39	-0.	-0.	-1.2749089E 00	-0.
40	-0.	-0.	-3.7252903E-09	-0.
41	-0.	-0.	-9.5744058E-03	-0.
42	-0.	-0.	-2.3909361E-03	-0.
43	-0.	-0.	-1.6298145E-08	-0.
44	0.	0.	-9.3132257E-10	0.
45	-0.	-0.	-0.	-0.
46	-0.	-0.	-0.	-0.
47	-0.	-0.	-4.5447877E-01	-0.
48	-0.	-0.	-0.	-0.
49	-0.	-0.	-1.9349778E-01	-0.
50	0.	0.	1.3517593E-01	0.

X	5	6	7	8
51	-0.	-0.	2.6115676E-01	-0.
52	-0.	-0.	-8.3234293E-01	-0.
53	0.	0.	8.3234293E-01	0.
54	0.	0.	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	-0.	-0.	-0.	-0.
59	0.	0.	0.	0.
60	-0.	-0.	-0.	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	-0.	-0.	-6.4226584E-03	-0.
64	0.	0.	3.3132773E-01	0.
65	0.	0.	-4.4554436E-01	0.
66	-0.	-0.	1.5641750E-01	-0.
67	-0.	-0.	6.0554423E-01	1.0000000E 00
68	0.	0.	0.	0.
69	-0.	-0.	-2.7755575E-17	-0.
70	0.	0.	5.0850213E-07	0.
71	0.	1.2054797E 00	5.2340329E-07	0.
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	8.2954544E-01	0.
76	-0.	-0.	-8.2954544E-01	-0.
77	-0.	-0.	-1.0000000E 00	-1.0000000E 00
78	-0.	-0.	-7.5064600E-07	-0.
79	-1.0000000E 00	-1.2054797E 00	-5.4016709E-07	-0.
80	0.	0.	2.4028122E-07	0.
81	0.	-9.9999998E-01	2.9802322E-08	0.

		10	11	12
1	1.6508042E-03	-1.6507938E-03	-4.4176061E-02	2.0079480E-02
2	3.2065586E-03	-3.2065282E-03	-8.5829712E-02	3.9013617E-02
3	-3.6063564E-03	3.6063582E-03	9.6531645E-02	-4.3878089E-02
4	1.0593794E-08	6.0535967E-09	-1.4901161E-08	2.9802322E-08
5	-4.4310148E-06	4.4310219E-06	1.1860536E-04	-5.3911665E-05
6	2.1101154E-02	-2.1101165E-02	-5.6481630E-01	2.5673512E-01
7	-1.8758731E-02	1.8758741E-02	5.0211734E-01	-2.2823515E-01
8	-1.4687438E-02	1.4687431E-02	3.9312534E-01	-1.7869288E-01
9	9.3773710E-03	-9.3773663E-03	-2.5099559E-01	1.1408861E-01
10	-0.	-0.	-0.	-0.
11	3.2065586E-03	-3.2065282E-03	-8.5829712E-02	3.9013617E-02
12	2.1696732E-10	5.9666013E-10	3.4714771E-09	-4.3393464E-10
13	1.9215991E-10	5.2843976E-10	3.0745586E-09	-3.8431983E-10
14	0.	0.	0.	0.
15	4.0542037E-06	-4.0542057E-06	-1.0851920E-04	4.9326991E-05
16	-3.6095590E-03	3.6095608E-03	9.6617368E-02	-4.3917055E-02
17	-0.	-0.	-0.	-0.
18	-0.	-0.	-0.	-0.
19	-0.	-0.	-0.	-0.
20	-3.8382789E-14	3.8382808E-14	1.0273940E-12	-4.6699859E-13
21	2.1099303E-02	-2.1099314E-02	-5.6476674E-01	2.5671259E-01
22	0.	0.	0.	0.
23	-0.	-0.	-0.	-0.
24	0.	0.	0.	0.
25	-1.8758731E-02	1.8758741E-02	5.0211734E-01	-2.2823515E-01
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	7.8695486E-04	-7.8695590E-04	-2.1063747E-02	9.5743964E-03
30	2.1802350E-02	-2.1802345E-02	-5.8356692E-01	2.6525719E-01
31	6.4045045E-11	6.9999282E-10	4.7500110E-09	4.0628614E-09
32	1.5904290E-02	-1.5904311E-02	-4.2569619E-01	1.9349774E-01
33	-1.1110603E-02	1.1110618E-02	2.9738778E-01	-1.3517589E-01
34	-8.8635441E-04	8.8635424E-04	2.3724258E-02	-1.0783723E-02
35	-2.6961451E-02	2.6961445E-02	-3.4634239E-01	-3.2802514E-01
36	6.6772500E-02	-6.6772506E-02	-2.5003437E-01	8.1239603E-01
37	1.9226228E-02	-1.9226237E-02	-5.1462997E-01	2.3392312E-01
38	9.1781677E-02	-9.1781683E-02	-2.9702213E-01	1.1166738E 00
39	-1.0478734E-01	1.0478735E-01	3.3911082E-01	-1.2749089E 00
40	-1.1641532E-10	1.1641532E-10	-0.	-3.7252903E-09
41	-7.8695628E-04	7.8695586E-04	2.1063746E-02	-9.5744058E-03
42	-1.9652024E-04	1.9652023E-04	5.2600912E-03	-2.3909361E-03
43	-1.9208528E-09	1.9208528E-09	3.7252903E-09	-1.6298145E-08
44	0.	0.	0.	-9.3132257E-10
45	-0.	-0.	-0.	-0.
46	-0.	-0.	-0.	-0.
47	-3.7354542E-02	3.7354544E-02	9.9985458E-01	-4.5447877E-01
48	-0.	-0.	-0.	-0.
49	-1.5904308E-02	1.5904300E-02	4.2569621E-01	-1.9349778E-01
50	1.1110616E-02	-1.1110610E-02	-2.9738780E-01	1.3517593E-01

X

9

10

11

12

51	-6.0727025E-02	-2.1465218E-02	2.0375046E-01	-7.3884324E-01
52	9.3496058E-01	6.8411751E-02	-0.	-8.3234293E-01
53	6.8411751E-02	9.3496058E-01	0.	8.3234293E-01
54	0.	0.	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	-0.	-0.	-0.	-0.
59	0.	0.	0.	0.
60	-0.	-0.	-0.	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	-5.2790239E-04	5.2790213E-04	1.4129886E-02	-6.4226584E-03
64	2.7232044E-02	-2.7232057E-02	-7.2892001E-01	3.3132773E-01
65	-3.6620072E-02	3.6620067E-02	9.8019673E-01	-4.4554436E-01
66	1.2856540E-02	-1.2856534E-02	-3.4411939E-01	1.5641750E-01
67	4.9771135E-02	3.2421114E-02	1.4030226E-01	6.0554423E-01
68	0.	0.	0.	0.
69	-8.6736174E-19	8.6736174E-19	-0.	-2.7755575E-17
70	5.8906153E-08	-2.5378540E-08	-1.5646219E-07	5.0850213E-07
71	-4.2200554E-07	4.0937448E-07	8.7544322E-08	5.2340329E-07
72	0.	0.	8.6363637E-01	0.
73	0.	0.	-8.6363635E-01	0.
74	0.	0.	-1.0000000E 00	0.
75	-9.3181818E-01	-6.8181820E-02	0.	8.2954544E-01
76	-6.8181820E-02	-9.3181818E-01	-0.	-8.2954544E-01
77	-0.	-0.	-0.	-1.0000000E 00
78	-6.2165782E-08	6.1467290E-08	7.8976154E-07	-7.5064600E-07
79	4.1991006E-07	-4.0873419E-07	-8.9406967E-08	-5.4016709E-07
80	4.6566129E-09	-3.6554411E-08	-6.3329935E-07	2.4028122E-07
81	1.0593794E-08	6.0535967E-09	-1.4901161E-08	2.9802322E-08

X	13	14	15	16
1	-0.	-1.2054797E 00	1.8154421E-03	-3.5564769E-01
2	-0.	-0.	-1.7020489E-02	-1.4185489E 00
3	-0.	-0.	-3.9670273E-03	-2.7053295E-01
4	-1.0000000E 00	-9.9999998E-01	2.3283064E-10	2.9802322E-08
5	-0.	-0.	-4.8741602E-06	-3.3239533E-04
6	0.	0.	2.3211473E-02	1.5829153E 00
7	0.	0.	4.7936493E-01	2.5188979E-01
8	0.	1.5662639E 00	-1.6155728E-02	-4.7879975E-01
9	-0.	-9.9999998E-01	1.0314818E-02	3.0569544E-01
10	-0.	-0.	-0.	-0.
11	-0.	-0.	-1.7020489E-02	-1.4185489E 00
12	-0.	-0.	-0.	-5.2072157E-09
13	-0.	-0.	-0.	-4.6118379E-09
14	0.	0.	0.	0.
15	0.	0.	4.4596632E-06	3.0412843E-04
16	-0.	-0.	-3.9705502E-03	-2.7077319E-01
17	-0.	-0.	-0.	-0.
18	-0.	-0.	-0.	-0.
19	-0.	-0.	-0.	-0.
20	-0.	-0.	-4.2221388E-14	-2.8793054E-12
21	0.	0.	2.3209437E-02	1.5827764E 00
22	0.	0.	0.	0.
23	-0.	-0.	-0.	-0.
24	0.	0.	0.	0.
25	0.	0.	4.7936493E-01	2.5188979E-01
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	0.	0.	8.6562762E-04	2.5654202E-02
30	-0.	-0.	3.4343286E-03	-8.1233909E-01
31	-0.	-0.	-0.	-3.3997262E-09
32	0.	0.	1.7494247E-02	5.1846878E-01
33	-0.	-0.	-1.2221334E-02	-3.6219793E-01
34	-0.	-0.	-9.7496301E-04	-2.8894520E-02
35	0.	0.	1.4233154E-02	1.0045633E 00
36	0.	0.	1.0275316E-02	6.3989721E-01
37	0.	0.	2.1149035E-02	1.4422666E 00
38	0.	0.	1.2206308E-02	8.3241348E-01
39	-0.	-0.	-1.3935968E-02	-9.5036829E-01
40	-0.	-0.	-1.1641532E-10	-7.4505806E-09
41	-0.	-0.	-8.6562759E-04	-2.5654200E-02
42	-0.	-0.	-2.1616684E-04	-6.4064266E-03
43	-0.	-0.	-1.1641532E-10	-1.8626451E-08
44	0.	0.	-1.1641532E-10	-3.7252903E-09
45	-0.	-0.	-0.	-0.
46	-0.	-0.	-0.	-0.
47	-0.	-0.	4.5891011E-01	-3.5432009E-01
48	-0.	-0.	-0.	-0.
49	-0.	-0.	-1.7494248E-02	-5.1846884E-01
50	0.	0.	1.2221334E-02	3.6219797E-01

X	13	14	15	16
51	-0.	-0.	-8.3732505E-03	-5.5828644E-01
52	-0.	-0.	-0.	-3.9906854E-01
53	0.	0.	0.	3.9906854E-01
54	0.	0.	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	-0.	-0.	-0.	-0.
59	0.	0.	0.	0.
60	-0.	-0.	-0.	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	-0.	-0.	-5.8067634E-04	-1.7209233E-02
64	0.	0.	-1.7178312E-02	-2.5915233E-01
65	0.	0.	5.2183563E-01	-1.9297018E-01
66	-0.	-0.	1.4141797E-02	4.1911383E-01
67	-0.	-0.	1.7315296E-02	7.1167083E-01
68	0.	0.	0.	0.
69	-0.	-0.	-8.6736174E-19	-5.5511151E-17
70	0.	0.	-5.2054793E-01	3.8743019E-07
71	0.	1.2054797E 00	-3.3178367E-09	-5.2054778E-01
72	0.	0.	-1.4943954E-02	0.
73	0.	0.	-4.6450809E-01	0.
74	0.	0.	-5.2054794E-01	0.
75	0.	0.	0.	3.9772727E-01
76	-0.	-0.	-0.	-3.9772727E-01
77	-0.	-0.	-0.	-1.0000000E 00
78	-0.	-0.	-4.9999978E-01	-1.6590915E 00
79	-0.	-1.2054797E 00	3.2596290E-09	-4.7945223E-01
80	0.	0.	2.0547740E-02	1.6590911E 00
81	-1.0000000E 00	-9.9999998E-01	2.3283064E-10	2.9802322E-08

X	17	18	19	20
1	-5.5158870E-01	2.5172124E-02	-9.5549606E-05	8.4538110E-13
2	-1.9006160E 00	-4.3232895E-03	2.7211605E-02	-2.2727273E-02
3	-1.1177330E-01	4.8623260E-03	2.0879091E-04	-1.8472911E-12
4	-9.9999995E-01	2.3283064E-10	-3.6379788E-11	1.0842022E-19
5	-1.3733243E-04	5.9741912E-06	2.5653475E-07	-2.2697077E-15
6	6.5399675E-01	-2.8449955E-02	-1.2216565E-03	1.0808684E-11
7	-5.8139898E-01	2.5291817E-02	1.0860561E-03	2.2727272E-02
8	3.2793493E-01	-1.5795098E-02	8.5030147E-04	-7.5230969E-12
9	-2.0937398E-01	1.0084570E-02	-5.4288517E-04	4.8032115E-12
10	-0.	-0.	-0.	-0.
11	-1.9006160E 00	-4.3232895E-03	2.7211605E-02	-2.2727273E-02
12	-3.4714771E-09	-5.4241830E-11	3.3901144E-12	-0.
13	-3.0745586E-09	-4.8039978E-11	3.0024987E-12	-0.
14	0.	0.	0.	0.
15	1.2565360E-04	-5.4661422E-06	-2.3471911E-07	2.0766925E-15
16	-1.1187256E-01	4.8666439E-03	2.0897633E-04	-1.8489315E-12
17	-0.	-0.	-0.	-0.
18	-0.	-0.	-0.	-0.
19	-0.	-0.	-0.	-0.
20	-1.1896142E-12	5.1750216E-14	2.2221783E-15	-1.9660866E-23
21	6.5393937E-01	-2.8447459E-02	-1.2215493E-03	1.0807736E-11
22	0.	0.	0.	0.
23	-0.	-0.	-0.	-0.
24	0.	0.	0.	0.
25	-5.8139898E-01	2.5291817E-02	1.0860561E-03	2.2727272E-02
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	6.6349949E-02	8.4630483E-04	-4.5559348E-05	4.0308927E-13
30	-3.3276379E-01	1.5674934E-02	2.6135035E-02	-2.2727273E-02
31	-4.7500110E-09	4.2196400E-11	4.6386827E-12	-0.
32	1.3409259E 00	1.7103739E-02	-9.2074981E-04	8.1463935E-12
33	-9.3675953E-01	-1.1948528E-02	6.4322808E-04	-5.6910020E-12
34	1.9790169E-02	-9.5319980E-04	5.1313838E-05	-4.5400252E-13
35	4.1150584E-01	-1.9384101E-02	-7.4911336E-04	6.6278288E-12
36	2.8951301E-01	-9.1181917E-03	-5.4080611E-04	4.7848170E-12
37	5.9588637E-01	-2.5922056E-02	-1.1131071E-03	9.8482870E-12
38	3.4391980E-01	-1.4961070E-02	-6.4243721E-04	5.6840049E-12
39	-3.9265400E-01	1.7081086E-02	7.3347199E-04	-6.4894408E-12
40	-1.4901161E-08	-2.3283064E-10	1.4551915E-11	-5.4210109E-20
41	1.7570828E-02	-8.4630499E-04	4.5559347E-05	-4.0308926E-13
42	4.3878397E-03	-2.1134167E-04	1.1377198E-05	-1.0066053E-13
43	-1.4901161E-08	-1.1641532E-10	7.2759576E-12	-5.4210109E-20
44	-1.4901161E-08	-1.1641532E-10	7.2759576E-12	-5.4210109E-20
45	-0.	-0.	-0.	-0.
46	-0.	-0.	-0.	-0.
47	-1.6619952E-01	5.2935923E-03	2.1626254E-03	2.2727272E-02
48	-0.	-0.	-0.	-0.
49	3.5510470E-01	-1.7103740E-02	9.2074987E-04	-8.1463939E-12
50	-2.4807315E-01	1.1948528E-02	-6.4322811E-04	5.6910022E-12

X

17

18

19

20

51	-2.8318171E-01	9.5355059E-03	4.4069739E-04	-3.8990986E-12
52	5.0168616E-01	2.2803916E-02	-0.	-0.
53	5.0168616E-01	-2.2803916E-02	0.	0.
54	0.	0.	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	-0.	-0.	-0.	-0.
59	0.	0.	0.	0.
60	-0.	-0.	-0.	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	1.1786783E-02	-5.6771445E-04	3.0561913E-05	-2.7039849E-13
64	6.6291865E-01	-3.1077898E-02	9.0412166E-04	-7.9992747E-12
65	3.3924116E-01	1.3293378E-02	-2.7465034E-02	2.4299865E-10
66	-2.8705543E-01	1.3826123E-02	-7.4430514E-04	6.5852876E-12
67	-1.0192249E-01	5.5856106E-03	-9.1133137E-04	8.0630630E-12
68	0.	0.	0.	0.
69	-1.1102230E-16	-1.7347234E-18	1.0842022E-19	-4.0389678E-28
70	-1.9999983E 00	-5.5879354E-09	2.7397260E-02	-2.4239902E-10
71	6.0273973E-01	-2.7397279E-02	1.9281288E-10	-1.5449881E-18
72	0.	0.	-2.5529265E-02	2.2727273E-02
73	0.	0.	-1.8679954E-03	-2.2727272E-02
74	0.	0.	2.7397260E-02	-2.4239902E-10
75	-5.0000000E-01	-2.2727273E-02	0.	0.
76	-5.0000000E-01	2.2727273E-02	-0.	-0.
77	-0.	-0.	-0.	-0.
78	-1.4901161E-08	1.3504177E-08	-1.1161319E-08	-2.2727272E-02
79	-6.0273974E-01	2.7397280E-02	-1.9645085E-10	1.5178830E-18
80	1.9999984E 00	-8.6147338E-09	-2.7397250E-02	2.2727273E-02
81	-9.9999995E-01	2.3283064E-10	-3.6379788E-11	1.0842022E-19

X	21	22	23	24
1	-1.4357259E-08	-2.3635111E-02	-6.6545989E-02	-1.9016949E-02
2	1.3717796E 00	8.7994918E-01	6.8839555E-01	3.3483123E-01
3	-1.1885134E-09	5.1645113E-02	1.4541238E-01	4.1555070E-02
4	-1.4901161E-08	-1.1846424E-06	-9.5304360E-07	1.1175871E-08
5	-1.4603721E-12	9.5681250E-02	-9.5630189E-02	5.1057392E-05
6	6.9541085E-09	-4.9298575E-02	-3.8341004E-02	-2.4314286E-01
7	-1.4902724E-08	4.2217201E-01	6.5571589E-01	1.2161524E 00
8	1.1175871E-08	-2.7996094E-02	1.9723032E-01	1.6923309E-01
9	-7.4505806E-09	1.7874442E-02	-1.2592406E-01	-1.0804889E-01
10	-0.	-0.	-0.	-0.
11	1.2137634E 00	8.7994918E-01	6.8839555E-01	3.3483123E-01
12	9.3186754E-01	-2.3954491E-10	2.8492360E-10	8.6786928E-10
13	8.2532054E-01	-2.1215605E-10	2.5234625E-10	7.6863965E-10
14	0.	0.	0.	0.
15	1.3361057E-12	-1.5550327E-01	8.1703545E-02	-4.6715486E-05
16	-1.1895687E-09	1.5923176E-02	2.5668676E-02	4.1591972E-02
17	-0.	5.4475409E-01	2.1351509E-01	-0.
18	-0.	6.4510972E-01	2.5284924E-01	-0.
19	-0.	-0.	-0.	-0.
20	-1.2650277E-20	1.8769149E-09	-1.8781321E-09	4.4227391E-13
21	6.9534984E-09	-9.3077233E-02	-1.5004357E-01	-2.4312153E-01
22	0.	2.1351497E-01	5.4475421E-01	0.
23	-0.	3.3259392E-01	-3.3259392E-01	-0.
24	0.	-8.7458571E-07	8.9795984E-01	0.
25	-1.4902724E-08	4.2217201E-01	6.5571589E-01	1.0581362E 00
26	0.	0.	0.	9.3186754E-01
27	0.	0.	0.	8.2532054E-01
28	0.	0.	0.	0.
29	1.3969839E-09	-3.2589006E-02	-2.3928728E-02	-9.0675492E-03
30	-5.2402542E-09	1.0986949E-01	1.2295871E-01	1.2056466E-01
31	-7.2492862E-01	-2.1135321E-10	1.7832241E-09	-6.7514239E-10
32	-1.0959589E 00	-6.5862061E-01	-4.8359718E-01	-1.8325425E-01
33	-1.4901161E-08	4.6010682E-01	3.3783692E-01	1.2801988E-01
34	-7.4505806E-09	1.6867090E-01	-5.6682299E-02	1.0212850E-02
35	6.6855413E-09	-1.3586796E-01	-1.5205448E-01	-1.4909393E-01
36	3.7280724E-09	-6.7558322E-02	-4.0076473E-02	-1.0763513E-01
37	6.3362064E-09	-8.4814359E-02	-1.3672356E-01	-2.2153859E-01
38	1.4901161E-08	-4.5954111E-01	-3.3742154E-01	-1.2786248E-01
39	-1.8626451E-09	-1.5728619E-02	1.6170903E-01	1.4598087E-01
40	2.2351742E-08	-5.7338271E-01	-2.3717392E-01	1.8626451E-09
41	4.6566129E-10	-1.4861189E-02	-2.3521506E-02	9.0675492E-03
42	9.3132257E-10	-4.0866328E-02	-9.5698276E-02	2.2643760E-03
43	7.4505806E-09	-1.9578276E-01	-4.7331782E-01	5.1222742E-09
44	7.4505806E-09	-3.3067028E-01	3.3067029E-01	1.8626451E-09
45	-0.	9.0236340E-14	-8.1055664E-01	-0.
46	-0.	-0.	-0.	-0.
47	-3.7268533E-09	7.1001455E-02	9.9901674E-02	5.8639407E-02
48	-0.	-0.	-0.	-7.2492862E-01
49	7.4505806E-09	-3.0034316E-01	-4.7536730E-01	-9.1270460E-01
50	-7.4505806E-09	2.0981720E-01	3.3208759E-01	-1.2801988E-01

X	21	22	23	24
51	-3.8440070E-09	7.9930032E-02	8.9452432E-02	8.7710763E-02
52	-0.	-0.	-0.	-0.
53	0.	0.	0.	0.
54	0.	-4.2743611E-07	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	8.1592183E-01	0.	0.
57	0.	-7.0051960E-01	0.	0.
58	-0.	8.8157264E-07	-8.7171793E-07	-0.
59	0.	-7.8723335E-07	8.1592262E-01	0.
60	-0.	7.9040781E-14	-7.0051960E-01	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	3.4924597E-10	-6.9877334E-02	-1.6862620E-01	-9.1958709E-03
64	3.7252903E-09	-1.4983610E-01	-9.6622956E-02	-2.4645983E-01
65	4.6566129E-10	-3.1944221E-02	-2.3455287E-02	-8.8881433E-03
66	-7.4505806E-09	1.1618426E-01	6.1259987E-02	2.2395634E-01
67	-3.7252903E-09	1.5348862E-01	1.1270018E-01	4.2706593E-02
68	0.	-3.3566032E-07	3.4654358E-01	0.
69	1.6653345E-16	-3.8063301E-09	-3.7924925E-01	1.3877788E-17
70	3.7177961E-01	3.7177823E-01	3.7177862E-01	3.7177958E-01
71	1.1175871E-08	6.6029020E-07	6.5565109E-07	2.9802322E-08
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	-0.	-0.	-0.	-0.
77	-0.	-0.	-0.	-0.
78	8.7205654E-09	-4.4590915E-01	-5.5409078E-01	-9.9999995E-01
79	-1.4901161E-08	-6.5097697E-07	-6.4074993E-07	-1.8626451E-08
80	-1.3717796E 00	-9.2586904E-01	-8.1768781E-01	-3.7177959E-01
81	-1.4901161E-08	-1.1846424E-06	-9.5304360E-07	1.1175871E-08

x

	25	26	27	28
1	1.0631969E-08	-5.2255914E-01	-6.7443809E-01	-1.1450793E 00
2	-1.1808212E 00	-1.1517253E 00	-1.1934362E 00	-1.0634682E 00
3	1.1885134E-09	-3.2724097E-02	1.4186423E-02	-1.3198438E-01
4	-9.9999998E-01	-1.0000006E 00	-1.0000011E 00	-9.9999995E-01
5	1.4603443E-12	6.8469090E-02	-6.8631253E-02	-1.6216501E-04
6	-6.9541085E-09	3.1486796E-01	5.7083333E-01	7.7225381E-01
7	1.4902724E-08	-3.2831562E-01	-4.5908405E-01	-6.8652875E-01
8	-1.1175871E-08	4.2875022E-01	6.0000793E-01	1.0287572E 00
9	7.4505806E-09	-2.7374072E-01	-3.8308226E-01	-6.5682237E-01
10	-0.	-0.	-0.	-0.
11	-1.2611685E 00	-1.1517253E 00	-1.1934362E 00	-1.0634682E 00
12	4.7383136E-01	-8.5126501E-11	-1.1259069E-09	-1.7357386E-09
13	4.1965488E-01	-7.5393386E-11	-9.9717404E-10	-1.5372793E-09
14	0.	0.	0.	0.
15	-1.3361057E-12	-1.0548028E-01	5.1822169E-02	1.4837455E-04
16	1.1895686E-09	-4.6035322E-02	-8.6066388E-02	-1.3210159E-01
17	-0.	3.3010817E-01	2.2308687E-01	-0.
18	-0.	3.9092131E-01	2.6418436E-01	-0.
19	-0.	-0.	-0.	-0.
20	1.2650690E-20	1.2764934E-09	-1.2791088E-09	-1.4047203E-12
21	-6.9534984E-09	2.6909463E-01	5.0309209E-01	7.7218606E-01
22	0.	2.2308679E-01	3.3010824E-01	0.
23	-0.	2.0696957E-01	-2.0696957E-01	-0.
24	0.	1.0683847E-01	5.4826719E-01	0.
25	1.4902724E-08	-3.2831562E-01	-4.5908405E-01	-7.6687602E-01
26	0.	0.	0.	4.7383136E-01
27	0.	0.	0.	4.1965487E-01
28	0.	0.	0.	0.
29	-4.6566133E-10	4.0291074E-02	3.7812182E-02	2.8799733E-02
30	5.3566695E-09	-1.9964546E-01	-2.9993278E-01	-3.8292926E-01
31	7.5324161E-01	-1.1647830E-10	-3.1093224E-09	-2.3750055E-09
32	1.1387629E 00	8.1427861E-01	7.6418037E-01	5.8203969E-01
33	1.4901161E-08	-5.6884820E-01	-5.3384998E-01	-4.0660803E-01
34	7.4505806E-09	-1.8250004E-01	4.4311768E-02	-3.2437357E-02
35	-6.5691260E-09	2.4688766E-01	3.7090601E-01	4.7354199E-01
36	-3.7280724E-09	1.4651422E-01	1.9534944E-01	3.4186336E-01
37	-6.3362063E-09	2.4520594E-01	4.5843045E-01	7.0363579E-01
38	0.	5.6814879E-01	5.3319360E-01	4.0610810E-01
39	9.3132257E-10	-8.7162831E-02	-3.7649207E-01	-4.6365452E-01
40	-1.4901161E-08	5.9577759E-01	2.4643733E-01	-1.1175871E-08
41	-4.6566129E-10	9.0124059E-03	1.1491338E-02	-2.8799733E-02
42	-1.8626451E-09	4.0856940E-02	9.6202387E-02	-7.1919420E-03
43	-1.1175871E-08	2.0342954E-01	4.9180441E-01	-5.5879354E-09
44	-7.4505806E-09	3.4358543E-01	-3.4358543E-01	-7.4505806E-09
45	-0.	-1.1129776E-08	8.4221494E-01	-0.
46	-0.	-0.	-0.	-0.
47	3.7268533E-09	-1.1535207E-01	-1.8754322E-01	-1.8624649E-01
48	-0.	-0.	-0.	7.5324161E-01
49	-7.4505806E-09	1.8213983E-01	2.3223881E-01	5.5672318E-01
50	1.1175871E-08	-1.2724135E-01	-1.6224007E-01	4.0660805E-01

X	25	26	27	28
51	3.8440070E-09	-1.4524203E-01	-2.1820104E-01	-2.7858096E-01
52	-0.	-0.	-0.	-0.
53	0.	0.	0.	0.
54	0.	5.2333920E-02	0.	0.
55	-0.	-0.	-0.	-0.
56	0.	5.9525551E-01	0.	0.
57	0.	7.2788013E-01	0.	0.
58	-0.	-1.0860215E-01	1.0860216E-01	-0.
59	0.	9.7077760E-02	4.9817775E-01	0.
60	-0.	-9.7097883E-09	7.2788013E-01	-0.
61	-0.	-0.	-0.	-0.
62	0.	0.	0.	0.
63	-2.3283064E-10	-5.6548228E-02	-8.4913493E-02	2.9207302E-02
64	-3.7252903E-09	3.3043736E-01	4.5235229E-01	7.8278897E-01
65	-9.3132257E-10	3.9493901E-02	3.7064050E-02	2.8229916E-02
66	7.4505806E-09	-2.7951536E-01	-3.8347215E-01	-7.1131492E-01
67	7.4505806E-09	-1.8976403E-01	-1.7808885E-01	-1.3564177E-01
68	0.	4.1231453E-02	2.1158905E-01	0.
69	-1.1102230E-16	-1.2865619E-09	3.9406177E-01	-8.3266726E-17
70	-1.1808212E 00	-1.1808218E 00	-1.1808224E 00	-1.1808210E 00
71	-1.1175871E-08	5.3753472E-01	6.6794590E-01	1.2054795E 00
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	-0.	-0.	-0.	-0.
77	-0.	-0.	-0.	-0.
78	-8.7205654E-09	6.4261258E-08	-1.0803342E-07	-2.2351742E-08
79	1.1175871E-08	-5.3753473E-01	-6.6794593E-01	-1.2054796E 00
80	1.1808212E 00	1.1808217E 00	1.1808225E 00	1.1808210E 00
81	-9.9999998E-01	-1.0000006E 00	-1.0000011E 00	-9.9999995E-01

X

	29	30	31	32
1	-3.0676709E-01	2.7053677E-01	-3.8555807E-01	-5.0240198E-01
2	-5.9791694E-01	4.3073887E-01	-7.3400865E-01	-9.5365646E-01
3	1.4673319E 00	4.3310625E-01	-3.2366753E-01	-3.5397856E-01
4	1.0805606E-07	5.8714808E-07	-9.9992542E-01	-9.9969826E-01
5	2.5953920E-02	-3.8828837E-02	4.4527583E-02	3.9953769E-02
6	1.2258672E-01	-5.0764517E-01	1.5048865E-01	-8.2505894E-03
7	-1.2513387E-01	3.0786922E-01	-1.5361555E-01	-5.0286046E-02
8	3.0181383E-01	-1.3942666E-02	3.7050959E-01	6.2091640E-01
9	-1.9269667E-01	8.9018624E-03	-2.3655629E-01	-3.9643151E-01
10	-0.	-0.	-0.	-0.
11	-5.9791694E-01	4.3073887E-01	-7.3400865E-01	-9.5365646E-01
12	-1.6151835E-10	2.3019742E-10	-2.0445448E-10	-2.3620785E-10
13	-1.4305082E-10	2.0387733E-10	-1.8107776E-10	-2.0920053E-10
14	0.	0.	0.	0.
15	-3.9734105E-02	4.8418930E-02	-4.8777972E-02	-4.9784805E-02
16	4.6407298E-01	4.1642884E-01	5.6970050E-01	-3.3678539E-01
17	-5.8505130E-01	-6.9238362E-02	6.2276313E-01	7.1046160E-02
18	6.7191062E-02	-8.1993583E-02	8.2484399E-02	8.4134417E-02
19	7.5779400E-01	-0.	-6.5308551E-01	-0.
20	3.9920313E-10	-5.9146401E-10	6.7439785E-10	6.0786956E-10
21	7.8004801E-02	-4.5321022E-01	9.5759451E-02	-6.4060402E-02
22	2.1735911E-01	-2.6524438E-01	2.6683214E-01	2.7216988E-01
23	4.5938956E-02	-5.6059533E-02	5.6395108E-02	5.7523236E-02
24	2.2247695E-01	-2.7148971E-01	2.7311486E-01	2.7857827E-01
25	-1.2513387E-01	3.0786922E-01	-1.5361555E-01	-5.0286046E-02
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	2.0439564E-02	5.0797355E-03	2.5091808E-02	4.6180747E-02
30	-1.1492913E-01	5.5077333E-01	-1.4108811E-01	1.3759671E-01
31	-2.7921267E-10	3.1497835E-10	-3.3796202E-10	-3.2320239E-10
32	4.1308157E-01	1.0266103E-01	5.0710294E-01	9.3330837E-01
33	-2.8857531E-01	-7.1718128E-02	-3.5425785E-01	-6.5200138E-01
34	-8.7012810E-02	9.7015722E-02	-1.0681777E-01	-1.1524021E-01
35	1.4212487E-01	-6.8110311E-01	1.7447387E-01	-1.7015629E-01
36	8.7800313E-02	2.2884420E-01	1.0778452E-01	3.4033563E-01
37	1.5441390E-01	-4.7007895E-01	1.8956000E-01	2.1959515E-04
38	2.8822050E-01	7.1629949E-02	3.5382228E-01	6.5119973E-01
39	-5.7022145E-02	-4.0154855E-01	-8.2277036E-02	-4.1535858E-01
40	2.7803947E-01	-3.3929291E-01	3.4132395E-01	3.4815179E-01
41	2.5695471E-03	1.5851179E-02	3.1544011E-03	1.6237235E-02
42	1.8658607E-02	-1.0029076E 00	2.2905487E-02	-6.4874191E-01
43	9.4937162E-02	5.7522960E-01	1.1654578E-01	5.9276941E-01
44	1.6034560E-01	-1.9567052E-01	1.9684182E-01	2.0077944E-01
45	-2.3176203E-08	2.8282131E-08	-2.8451429E-08	-2.9020574E-08
46	-0.	-8.3699429E-01	-0.	-5.7394804E-01
47	-6.4415357E-02	6.8243329E-01	-7.9076917E-02	3.3340054E-01
48	-0.	-0.	-0.	-0.
49	5.1930290E-02	3.2035076E-01	6.3750134E-02	3.2815290E-01
50	-3.6278064E-02	-2.2379434E-01	-4.4535305E-02	-2.2924486E-01

X

29

30

31

32

51	-8.3610921E-02	4.0068750E-01	-1.0264158E-01	1.0010158E-01
52	-0.	-0.	-0.	-0.
53	0.	0.	0.	0.
54	1.0897845E-01	-1.3298693E-01	1.3378300E-01	1.3645920E-01
55	-4.8602386E-01	5.9309730E-01	-5.9664761E-01	-6.0858299E-01
56	2.9493789E-01	-3.5991415E-01	3.6206861E-01	3.6931145E-01
57	3.3968952E-01	-4.1452478E-01	4.1700615E-01	4.2534796E-01
58	-2.2614956E-01	2.7597142E-01	-2.7762339E-01	-2.8317700E-01
59	2.0215155E-01	-2.4668653E-01	2.4816321E-01	2.5312749E-01
60	-2.0219347E-08	2.4673768E-08	-2.4821466E-08	-2.5317996E-08
61	-6.3181229E-01	-0.	-7.7561890E-01	-0.
62	0.	7.0831992E-01	0.	-7.2681406E-01
63	-5.9263119E-02	8.5055717E-02	-7.2751976E-02	-6.5473475E-02
64	1.9868744E-01	1.3433218E-01	2.4391063E-01	5.0716519E-01
65	2.0035160E-02	4.9792342E-03	2.4595357E-02	4.5267045E-02
66	-1.7086186E-01	-1.0168482E-01	-2.0975167E-01	-4.2665154E-01
67	-9.6266831E-02	-2.3924698E-02	-1.1817810E-01	-2.1750338E-01
68	8.5859029E-02	-1.0477419E-01	1.0540137E-01	1.0750983E-01
69	-9.0283639E-09	1.1070674E-08	-1.1083307E-08	-1.1353649E-08
70	-1.8027962E-01	-1.6399616E-01	-1.0157753E 00	-1.2833355E 00
71	9.2748990E-02	1.1919610E-01	5.2276123E-01	6.8429509E-01
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	-0.	-0.	-0.	-0.
77	-0.	-0.	-0.	-0.
78	-2.1919245E-03	1.7092055E-01	-1.1635825E-02	2.9406439E-02
79	3.6473093E-01	4.6874006E-01	-5.3367868E-01	-6.6439388E-01
80	-7.0674946E-01	-8.1583183E-01	1.0217950E 00	1.2683937E 00
81	1.0805606E-07	5.8714808E-07	-9.9992542E-01	-9.9969826E-01

X

33

1	-8.4529386E-01
2	2.1796288E-01
3	-7.5533403E-01
4	6.9849193E-09
5	9.3326840E-01
6	8.2311686E-02
7	-2.7862920E-01
8	1.9081957E-01
9	-1.2183104E-01
10	5.0000000E-01
11	-1.1335115E-01
12	-2.4443468E-10
13	-2.0232157E-01
14	-5.6329840E-01
15	-4.9998415E-01
16	-1.4080222E-02
17	-0.
18	-0.
19	-0.
20	-4.9999997E-01
21	8.2304465E-02
22	0.
23	-0.
24	0.
25	5.2684811E-02
26	0.
27	2.0232156E-01
28	5.6329839E-01
29	3.0696574E-03
30	-4.0815018E-02
31	-3.3445919E-10
32	6.2037466E-02
33	-4.3338852E-02
34	-3.4573784E-03
35	5.0473095E-02
36	3.6437956E-02
37	7.4997944E-02
38	4.3285566E-02
39	-4.9419227E-02
40	-1.3969839E-09
41	-3.0696574E-03
42	-7.6656282E-04
43	-4.6566129E-10
44	-6.9849193E-10
45	-0.
46	-0.
47	-1.9851327E-02
48	-0.
49	-6.2037470E-02
50	4.3338854E-02

X

33

51	-2.9692917E-02
52	-0.
53	0.
54	0.
55	-0.
56	0.
57	0.
58	-0.
59	0.
60	-0.
61	-0.
62	0.
63	3.1130987E-03
64	8.3434595E-02
65	3.0089228E-03
66	-7.5816438E-02
67	-1.4457557E-02
68	0.
69	-1.0408341E-17
70	2.7939677E-08
71	1.9095892E-01
72	0.
73	0.
74	0.
75	0.
76	-0.
77	-0.
78	-4.5363638E-01
79	-1.1909589E 00
80	4.5363633E-01
81	6.9849193E-09

DETERMINANT = -4.07E 01

TO WITHIN 6.0E-08

INTERNAL LOADS IN STATIC STRUCTURE
FROM 1098 RUN OF 18. JULY. '63 (SFXV5A)

SFXV5A	1	2	3	4
1	-4.1633587E-01	0.	5.1151177E-02	0.
2	-8.0890697E-01	0.	-9.0061741E-01	0.
3	9.0976129E-01	0.	-1.1177338E-01	0.
4	0.	0.	1.1175871E-08	0.
5	-9.6060829E-09	0.	-1.3733240E-04	0.
6	9.0976129E-01	0.	6.5399721E-01	0.
7	-8.0890697E-01	0.	4.1860059E-01	0.
8	0.	0.	-4.5519735E-01	0.
9	0.	0.	2.9062621E-01	0.
10	0.	0.	0.	0.
11	-8.0890697E-01	0.	-9.0061741E-01	0.
12	0.	0.	-1.7357386E-09	0.
13	0.	0.	-1.5372793E-09	0.
14	0.	0.	0.	0.
15	1.7479412E-04	0.	1.2565369E-04	0.
16	9.0968150E-01	0.	-1.1187264E-01	0.
17	0.	0.	0.	0.
18	0.	0.	0.	0.
19	0.	0.	0.	0.
20	1.6414323E-13	0.	-1.1896130E-12	0.
21	9.0968148E-01	0.	6.5393984E-01	0.
22	0.	0.	0.	0.
23	0.	0.	0.	0.
24	0.	0.	0.	0.
25	-8.0890697E-01	0.	4.1860059E-01	0.
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	8.2486669E-09	0.	2.4389579E-02	0.
30	-8.0890697E-01	0.	-3.2429063E-01	0.
31	0.	0.	1.3502848E-09	0.
32	0.	0.	4.9291093E-01	0.
33	0.	0.	-3.4434343E-01	0.
34	5.4268539E-04	0.	-2.7470169E-02	0.
35	1.0003190E 00	0.	4.0102768E-01	0.
36	9.6297297E-09	0.	2.8951322E-01	0.
37	9.9999998E-01	0.	5.9588680E-01	0.
38	0.	0.	3.4392006E-01	0.
39	0.	0.	-3.9265428E-01	0.
40	0.	0.	-3.7252903E-09	0.
41	0.	0.	-2.4389578E-02	0.
42	1.0003190E 00	0.	-6.0906298E-03	0.
43	0.	0.	-1.8626451E-09	0.
44	0.	0.	-1.8626451E-09	0.
45	0.	0.	0.	0.
46	0.	0.	0.	0.
47	-8.0890697E-01	0.	-1.5772624E-01	0.
48	0.	0.	0.	0.
49	0.	0.	-4.9291095E-01	0.
50	0.	0.	3.4434345E-01	0.

SFXV5A

	1	2	3	4
51	-5.8847967E-01	0.	-2.3592137E-01	0.
52	0.	0.	0.	0.
53	0.	0.	0.	0.
54	0.	0.	0.	0.
55	0.	0.	0.	0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	0.	0.	0.	0.
59	0.	0.	0.	0.
60	0.	0.	0.	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	0.	-4.5386295E-01	2.4734737E-02	-1.0000000E 00
64	0.	1.0000000E 00	6.6291912E-01	0.
65	0.	-8.7262961E-01	2.3907019E-02	0.
66	0.	-8.7262961E-01	-6.0239003E-01	0.
67	0.	-5.2552503E-01	-1.1487071E-01	0.
68	0.	0.	0.	0.
69	0.	0.	-2.7755575E-17	0.
70	0.	-7.4505806E-09	-9.9999981E-01	0.
71	0.	0.	-1.0058284E-07	-1.0000000E 00
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	0.	0.	0.	0.
77	0.	0.	0.	0.
78	2.2351742E-08	0.	-1.0000000E 00	0.
79	0.	0.	9.6857547E-08	0.
80	2.2351742E-08	0.	9.9999981E-01	0.
81	0.	0.	1.1175871E-08	0.
82	1.0000000E 00	0.	0.	0.
83	0.	1.0000000E 00	0.	0.
84	0.	0.	1.0000000E 00	0.
85	0.	0.	0.	1.0000000E 00
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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8

1	-1.0000000E 00	-1.2054797E 00	2.0079480E-02	0.
2	0.	0.	3.9013617E-02	0.
3	0.	0.	-4.3878089E-02	0.
4	0.	-9.9999998E-01	2.9802321E-08	0.
5	0.	0.	-5.3911664E-05	0.
6	0.	0.	2.5673512E-01	0.
7	0.	0.	-2.2823515E-01	0.
8	0.	1.5662639E 00	-1.7869288E-01	0.
9	0.	1.4901161E-08	1.1408861E-01	0.
10	0.	0.	0.	0.
11	0.	0.	3.9013617E-02	0.
12	0.	0.	-4.3393464E-10	0.
13	0.	0.	-3.8431983E-10	0.
14	0.	0.	0.	0.
15	0.	0.	4.9326990E-05	0.
16	0.	0.	-4.3917055E-02	0.
17	0.	0.	0.	0.
18	0.	0.	0.	0.
19	0.	0.	0.	0.
20	0.	0.	-4.6699858E-13	0.
21	0.	0.	2.5671259E-01	0.
22	0.	0.	0.	0.
23	0.	0.	0.	0.
24	0.	0.	0.	0.
25	0.	0.	-2.2823515E-01	0.
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	0.	0.	9.5743963E-03	0.
30	0.	0.	2.6525719E-01	0.
31	0.	0.	4.0628613E-09	0.
32	0.	0.	1.9349774E-01	0.
33	0.	0.	-1.3517589E-01	0.
34	0.	0.	-1.0783723E-02	0.
35	0.	0.	-3.2802514E-01	0.
36	0.	0.	8.1239603E-01	0.
37	0.	0.	2.3392312E-01	0.
38	0.	0.	1.1166738E 00	0.
39	0.	0.	-1.2749089E 00	0.
40	0.	0.	-3.7252903E-09	0.
41	0.	0.	-9.5744057E-03	0.
42	0.	0.	-2.3909360E-03	0.
43	0.	0.	-1.6298145E-08	0.
44	0.	0.	-9.3132257E-10	0.
45	0.	0.	0.	0.
46	0.	0.	0.	0.
47	0.	0.	-4.5447876E-01	0.
48	0.	0.	0.	0.
49	0.	0.	-1.9349778E-01	0.
50	0.	0.	1.3517593E-01	0.

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51	0.	0.	2.6115676E-01	0.
52	0.	0.	-8.3234292E-01	0.
53	0.	0.	8.3234292E-01	0.
54	0.	0.	0.	0.
55	0.	0.	0.	0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	0.	0.	0.	0.
59	0.	0.	0.	0.
60	0.	0.	0.	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	0.	0.	-6.4226584E-03	0.
64	0.	0.	3.3132773E-01	0.
65	0.	0.	-4.4554436E-01	0.
66	0.	0.	1.5641750E-01	0.
67	0.	0.	6.0554422E-01	1.0000000E 00
68	0.	0.	0.	0.
69	0.	0.	-2.7755575E-17	0.
70	0.	0.	5.0850213E-07	0.
71	0.	1.2054797E 00	5.2340329E-07	0.
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	8.2954544E-01	0.
76	0.	0.	-8.2954544E-01	0.
77	0.	0.	-1.0000000E 00	-1.0000000E 00
78	0.	0.	-7.5064600E-07	0.
79	-1.0000000E 00	-1.2054797E 00	-5.4016708E-07	0.
80	0.	0.	2.4028122E-07	0.
81	0.	-9.9999998E-01	2.9802321E-08	0.
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	1.0000000E 00	0.	0.	0.
87	0.	1.0000000E 00	0.	0.
88	0.	0.	1.0000000E 00	0.
89	0.	0.	0.	1.0000000E 00
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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12

1	1.6508042E-03	-1.6507938E-03	-4.4176061E-02	2.0079480E-02
2	3.2065586E-03	-3.2065282E-03	-8.5829711E-02	3.9013617E-02
3	-3.6063564E-03	3.6063582E-03	9.6531844E-02	-4.3878089E-02
4	1.0593794E-08	6.0535967E-09	-1.4901161E-08	2.9802321E-08
5	-4.4310198E-06	4.4310218E-06	1.1860536E-04	-5.3911664E-05
6	2.1101154E-02	-2.1101165E-02	-2.5481630E-01	2.5673512E-01
7	-1.8758731E-02	1.8758741E-02	5.0211734E-01	-2.2823515E-01
8	-1.4687438E-02	1.4687431E-02	3.9312533E-01	-1.7869288E-01
9	9.3773708E-03	-9.3773662E-03	-2.5099559E-01	1.1408861E-01
10	0.	0.	0.	0.
11	3.2065586E-03	-3.2065282E-03	-8.5829711E-02	3.9013617E-02
12	2.1696732E-10	5.9666013E-10	3.4714771E-09	-4.3393464E-10
13	1.9215991E-10	5.2843975E-10	3.0745586E-09	-3.8431983E-10
14	0.	0.	0.	0.
15	4.0542037E-06	-4.0542057E-06	-1.0851920E-04	4.9326990E-05
16	-3.6095590E-03	3.6095608E-03	9.6617366E-02	-4.3917055E-02
17	0.	0.	0.	0.
18	0.	0.	0.	0.
19	0.	0.	0.	0.
20	-3.8382789E-14	3.8382808E-14	1.0273940E-12	-4.6699858E-13
21	2.1099303E-02	-2.1099314E-02	-5.6476673E-01	2.5671259E-01
22	0.	0.	0.	0.
23	0.	0.	0.	0.
24	0.	0.	0.	0.
25	-1.8758731E-02	1.8758741E-02	5.0211734E-01	-2.2823515E-01
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	7.8695486E-04	-7.8695589E-04	-2.1063747E-02	9.5743963E-03
30	2.1802350E-02	-2.1802345E-02	-5.8356692E-01	2.6525719E-01
31	6.4045045E-11	6.9999222E-10	4.7500110E-09	4.0628613E-09
32	1.5904290E-02	-1.5904311E-02	-4.2569618E-01	1.9349774E-01
33	-1.1110603E-02	1.1110618E-02	2.9738778E-01	-1.3517589E-01
34	-8.8635440E-04	8.8635423E-04	2.3724258E-02	-1.0783723E-02
35	-2.6961451E-02	2.6961445E-02	-3.4634239E-01	-3.2802514E-01
36	6.6772499E-02	-6.6772506E-02	-2.5003437E-01	8.1239603E-01
37	1.9226228E-02	-1.9226237E-02	-5.1462997E-01	2.3392312E-01
38	9.1781676E-02	-9.1781682E-02	-2.9702213E-01	1.1166738E 00
39	-1.0478734E-01	1.0478735E-01	3.3911082E-01	-1.2749089E 00
40	-1.1641532E-10	1.1641532E-10	0.	-3.7252903E-09
41	-7.8695627E-04	7.8695585E-04	2.1063746E-02	-9.5744057E-03
42	-1.9652024E-04	1.9652023E-04	5.2600911E-03	-2.3909360E-03
43	-1.9208528E-09	1.9208528E-09	3.7252903E-09	-1.6298145E-08
44	0.	0.	0.	-9.3132257E-10
45	0.	0.	0.	0.
46	0.	0.	0.	0.
47	-3.7354542E-02	3.7354544E-02	9.9985458E-01	-4.5447876E-01
48	0.	0.	0.	0.
49	-1.5904308E-02	1.5904300E-02	4.2569621E-01	-1.9349778E-01
50	1.1110616E-02	-1.1110610E-02	-2.9738780E-01	1.3517593E-01

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51	-6.0727025E-02	-2.1465218E-02	2.0375046E-01	-7.3884324E-01
52	9.3496057E-01	6.8411750E-02	0.	-8.3234292E-01
53	6.8411750E-02	9.3496057E-01	0.	8.3234292E-01
54	0.	0.	0.	0.
55	0.	0.	0.	0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	0.	0.	0.	0.
59	0.	0.	0.	0.
60	0.	0.	0.	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	-5.2790239E-04	5.2790213E-04	1.4129886E-02	-6.4226584E-03
64	2.7232044E-02	-2.7232057E-02	-7.2892000E-01	3.3132773E-01
65	-3.6620072E-02	3.6620067E-02	9.8019673E-01	-4.4554436E-01
66	1.2856540E-02	-1.2856534E-02	-3.4411939E-01	1.5641750E-01
67	4.9771134E-02	3.2421114E-02	1.4030226E-01	6.0554422E-01
68	0.	0.	0.	0.
69	-8.6736174E-19	-8.6736174E-19	0.	-2.7755575E-17
70	5.8906152E-08	-2.5378540E-08	-1.5646219E-07	5.0850213E-07
71	-4.2200553E-07	4.0937448E-07	8.7544321E-08	5.2340329E-07
72	0.	0.	8.6363636E-01	0.
73	0.	0.	-8.6363634E-01	0.
74	0.	0.	-1.0000000E 00	0.
75	-9.3181818E-01	-6.8181819E-02	0.	8.2954544E-01
76	-6.8181819E-02	-9.3181818E-01	0.	-8.2954544E-01
77	0.	0.	0.	-1.0000000E 00
78	-6.2165781E-08	6.1467289E-08	7.8976153E-07	-7.5064600E-07
79	4.1991005E-07	-4.0873418E-07	-8.9406966E-08	-5.4016708E-07
80	4.6566129E-09	-3.6554410E-08	-6.3329934E-07	2.4028122E-07
81	1.0593794E-08	6.0535967E-09	-1.4901161E-08	2.9802321E-08
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	1.0000000E 00	0.	0.	0.
91	0.	1.0000000E 00	0.	0.
92	0.	0.	1.0000000E 00	0.
93	0.	0.	0.	1.0000000E 00
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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16

1	0.	-1.2054797E 00	1.8154421E-03	-3.5564769E-01
2	0.	0.	-1.7020489E-02	-1.4185489E 00
3	0.	0.	-3.9670273E-03	-2.7053294E-01
4	-1.0000000E 00	-9.9999998E-01	2.3283064E-10	2.9802321E-08
5	0.	0.	-4.8741602E-06	-3.3239533E-04
6	0.	0.	2.3211473E-02	1.5829153E 00
7	0.	0.	4.7936493E-01	2.5188979E-01
8	0.	1.5662639E 00	-1.6155728E-02	-4.7879975E-01
9	0.	-9.9999998E-01	1.0314818E-02	3.0569544E-01
10	0.	0.	0.	0.
11	0.	0.	-1.7020489E-02	-1.4185489E 00
12	0.	0.	0.	-5.2072156E-09
13	0.	0.	0.	-4.6118378E-09
14	0.	0.	0.	0.
15	0.	0.	4.4596632E-06	3.0412843E-04
16	0.	0.	-3.9705502E-03	-2.7077319E-01
17	0.	0.	0.	0.
18	0.	0.	0.	0.
19	0.	0.	0.	0.
20	0.	0.	-4.2221388E-14	-2.8793054E-12
21	0.	0.	2.3209437E-02	1.5827764E 00
22	0.	0.	0.	0.
23	0.	0.	0.	0.
24	0.	0.	0.	0.
25	0.	0.	4.7936493E-01	2.5188979E-01
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	0.	0.	8.6562761E-04	2.5654202E-02
30	0.	0.	3.4343286E-03	-8.1233908E-01
31	0.	0.	0.	-3.3997262E-09
32	0.	0.	1.7494247E-02	5.1846877E-01
33	0.	0.	-1.2221334E-02	-3.6219793E-01
34	0.	0.	-9.7496300E-04	-2.8894520E-02
35	0.	0.	1.4233154E-02	1.0045633E 00
36	0.	0.	1.0275316E-02	6.3989720E-01
37	0.	0.	2.1149035E-02	1.4422666E 00
38	0.	0.	1.2206308E-02	8.3241347E-01
39	0.	0.	-1.3935968E-02	-9.5036824E-01
40	0.	0.	-1.1641532E-10	-7.4505825E-02
41	0.	0.	-8.6562759E-04	-2.5654202E-02
42	0.	0.	-2.1616684E-04	-6.4064781E-03
43	0.	0.	-1.1641532E-10	-1.8625441E-02
44	0.	0.	-1.1641532E-10	-3.7257401E-02
45	0.	0.	0.	0.
46	0.	0.	0.	0.
47	0.	0.	4.5891011E-01	-1.0441011E-01
48	0.	0.	0.	0.
49	0.	0.	-1.7494248E-02	-5.1111111E-01
50	0.	0.	1.2221334E-02	1.0000000E 00

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16

51	0.	0.	-8.3732505E-03	-5.5828643E-01
52	0.	0.	0.	-3.9906854E-01
53	0.	0.	0.	3.9906854E-01
54	0.	0.	0.	0.
55	0.	0.	0.	0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	0.	0.	0.	0.
59	0.	0.	0.	0.
60	0.	0.	0.	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	0.	0.	-5.8067634E-04	-1.7209233E-02
64	0.	0.	-1.7178312E-02	-2.5915233E-01
65	0.	0.	5.2183563E-01	-1.9297018E-01
66	0.	0.	1.4141797E-02	4.1911383E-01
67	0.	0.	1.7315296E-02	7.1167082E-01
68	0.	0.	0.	0.
69	0.	0.	-8.6736174E-19	-5.5511150E-17
70	0.	0.	-5.2054793E-01	3.8743019E-07
71	0.	1.2054797E 00	-3.3178367E-09	-5.2054778E-01
72	0.	0.	-1.4943954E-02	0.
73	0.	0.	-4.6450809E-01	0.
74	0.	0.	-5.2054793E-01	0.
75	0.	0.	0.	3.9772727E-01
76	0.	0.	0.	-3.9772727E-01
77	0.	0.	0.	-1.0000000E 00
78	0.	0.	-4.9999977E-01	-1.6590915E 00
79	0.	-1.2054797E 00	3.2596290E-09	-4.7945222E-01
80	0.	0.	2.0547740E-02	1.6590911E 00
81	-1.0000000E 00	-9.9999998E-01	2.3283064E-10	2.9802321E-08
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	1.0000000E 00	0.	0.	0.
95	0.	1.0000000E 00	0.	0.

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20

1	-5.5158870E-01	2.5172124E-02	-9.5549605E-05	8.4538109E-13
2	-1.9006160E 00	-4.3232895E-03	2.7211605E-02	-2.2727273E-02
3	-1.1177330E-01	4.8623259E-03	2.0879091E-04	-1.8472911E-12
4	-9.9999994E-01	2.3283064E-10	-3.6379788E-11	1.0842022E-19
5	-1.3733243E-04	5.9741912E-06	2.5653475E-07	-2.2697077E-15
6	6.5399674E-01	-2.8449955E-02	-1.2216565E-03	1.0808684E-11
7	-5.8139898E-01	2.5291817E-02	1.0860561E-03	2.2727272E-02
8	3.2793493E-01	-1.5795098E-02	8.5030147E-04	-7.5230969E-12
9	-2.0937398E-01	1.0034570E-02	-5.4288516E-04	4.8032115E-12
10	0.	0.	0.	0.
11	-1.9006160E 00	-4.3232895E-03	2.7211605E-02	-2.2727273E-02
12	-3.4714771E-09	-5.4241830E-11	3.3901144E-12	0.
13	-3.0745586E-09	-4.8039978E-11	3.0024987E-12	0.
14	0.	0.	0.	0.
15	1.2565360E-04	-5.4661421E-06	-2.3471911E-07	2.0766925E-15
16	-1.1187256E-01	4.8666438E-03	2.0897633E-04	-1.8489315E-12
17	0.	0.	0.	0.
18	0.	0.	0.	0.
19	0.	0.	0.	0.
20	-1.1896142E-12	5.1750215E-14	2.2221783E-15	-1.9660866E-23
21	6.5393937E-01	-2.8447459E-02	-1.2215493E-03	1.0807736E-11
22	0.	0.	0.	0.
23	0.	0.	0.	0.
24	0.	0.	0.	0.
25	-5.8139898E-01	2.5291817E-02	1.0860561E-03	2.2727272E-02
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	6.6349949E-02	8.4630482E-04	-4.5559347E-05	4.0308926E-13
30	-3.3276379E-01	1.5674934E-02	2.6135035E-02	-2.2727273E-02
31	-4.7500110E-09	4.2196400E-11	4.6386827E-12	0.
32	1.3409259E 00	1.7103739E-02	-9.2074981E-04	8.1463934E-12
33	-9.3675952E-01	-1.1948528E-02	6.4322808E-04	-5.6910020E-12
34	1.9790169E-02	-9.5319979E-04	5.1313837E-05	-4.5400251E-13
35	4.1150584E-01	-1.9384101E-02	-7.4911336E-04	6.6278288E-12
36	2.8951301E-01	-9.1181916E-03	-5.4080610E-04	4.7848170E-12
37	5.9588636E-01	-2.5922056E-02	-1.1131071E-03	9.8482870E-12
38	3.4391980E-01	-1.4961070E-02	-6.4243720E-04	5.6840048E-12
39	-3.9265400E-01	1.7081086E-02	7.3347198E-04	-6.4894407E-12
40	-1.4901161E-08	-2.3283064E-10	1.4551915E-11	-5.4210109E-20
41	1.7570828E-02	-8.4630499E-04	4.5559347E-05	-4.0308926E-13
42	4.3878397E-03	-2.1134167E-04	1.1377198E-05	-1.0066053E-13
43	-1.4901161E-08	-1.1641532E-10	7.2759576E-12	-5.4210109E-20
44	-1.4901161E-08	-1.1641532E-10	7.2759576E-12	-5.4210109E-20
45	0.	0.	0.	0.
46	0.	0.	0.	0.
47	-1.6619952E-01	5.2935923E-03	2.1626254E-03	2.2727272E-02
48	0.	0.	0.	0.
49	3.5510470E-01	-1.7103740E-02	9.2074986E-04	-8.1463938E-12
50	-2.4807315E-01	1.1948528E-02	-6.4322811E-04	5.6910022E-12

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20

51	-2.8318171E-01	9.5355058E-03	4.4069738E-04	-3.8990986E-12
52	5.0168616E-01	2.2803916E-02	0.	0.
53	5.0168616E-01	-2.2803916E-02	0.	0.
54	0.	0.	0.	0.
55	0.	0.	0.	0.
56	0.	0.	0.	0.
57	0.	0.	0.	0.
58	0.	0.	0.	0.
59	0.	0.	0.	0.
60	0.	0.	0.	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	1.1786783E-02	-5.6771444E-04	3.0561913E-05	-2.7039849E-13
64	6.6291865E-01	-3.1077898E-02	9.0412165E-04	-7.9992746E-12
65	3.3924116E-01	1.3293378E-02	-2.7465034E-02	2.4299865E-10
66	-2.8705543E-01	1.3826123E-02	-7.4430513E-04	6.5852876E-12
67	-1.0192249E-01	5.5856106E-03	-9.1133136E-04	8.0630629E-12
68	0.	0.	0.	0.
69	-1.1102230E-16	-1.7347234E-18	1.0842022E-19	-4.0389678E-28
70	-1.9999983E 00	-5.5879354E-09	2.7397260E-02	-2.4239902E-10
71	6.0273973E-01	-2.7397279E-02	1.9281288E-10	-1.5449881E-18
72	0.	0.	-2.5529265E-02	2.2727273E-02
73	0.	0.	-1.8679954E-03	-2.2727272E-02
74	0.	0.	2.7397260E-02	-2.4239902E-10
75	-5.0000000E-01	-2.2727273E-02	0.	0.
76	-5.0000000E-01	2.2727273E-02	0.	0.
77	0.	0.	0.	0.
78	-1.4901161E-08	1.3504177E-08	-1.1161319E-08	-2.2727272E-02
79	-6.0273973E-01	2.7397280E-02	-1.9645085E-10	1.5178830E-18
80	1.9999984E 00	-8.6147337E-09	-2.7397250E-02	2.2727273E-02
81	-9.9999994E-01	2.3283064E-10	-3.6379788E-11	1.0842022E-19
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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1	-1.4357259E-08	-2.3635111E-02	-6.6545988E-02	-1.9016949E-02
2	1.3717796E 00	8.7994916E-01	6.8839554E-01	3.3483123E-01
3	-1.1885134E-09	5.1645113E-02	1.4541238E-01	4.1555070E-02
4	-1.4901161E-08	-1.1846424E-06	-9.5304359E-07	1.1175871E-08
5	-1.4603721E-12	9.5681249E-02	-9.5630188E-02	5.1057391E-05
6	6.9541084E-09	-4.9298574E-02	-3.8341004E-02	-2.4314286E-01
7	-1.4902724E-08	4.2217201E-01	6.5571588E-01	1.2161524E 00
8	1.1175871E-08	-2.7996094E-02	1.9723032E-01	1.6923309E-01
9	-7.4505806E-09	1.7874442E-02	-1.2592406E-01	-1.0804889E-01
10	0.	0.	0.	0.
11	1.2137634E 00	8.7994916E-01	6.8839554E-01	3.3483123E-01
12	9.3186754E-01	-2.3954491E-10	2.8492360E-10	8.6786928E-10
13	8.2532053E-01	-2.1215605E-10	2.5234625E-10	7.6863965E-10
14	0.	0.	0.	0.
15	1.3361057E-12	-1.5550327E-01	8.1703544E-02	-4.6715485E-05
16	-1.1895687E-09	1.5923176E-02	2.5668676E-02	4.1591972E-02
17	0.	5.4475409E-01	2.1351509E-01	0.
18	0.	6.4510971E-01	2.5284924E-01	0.
19	0.	0.	0.	0.
20	-1.2650277E-20	1.8769149E-09	-1.8781321E-09	4.4227390E-13
21	6.9534984E-09	-9.3077232E-02	-1.5004357E-01	-2.4312153E-01
22	0.	2.1351497E-01	5.4475421E-01	0.
23	0.	3.3259392E-01	-3.3259392E-01	0.
24	0.	-8.7458570E-07	8.9795983E-01	0.
25	-1.4902724E-08	4.2217201E-01	6.5571588E-01	1.0581362E 00
26	0.	0.	0.	9.3186754E-01
27	0.	0.	0.	8.2532053E-01
28	0.	0.	0.	0.
29	1.3969839E-09	-3.2589006E-02	-2.3928728E-02	-9.0675491E-03
30	-5.2402542E-09	1.0986949E-01	1.2295871E-01	1.2056466E-01
31	-7.2492862E-01	-2.1135321E-10	1.7632241E-09	-6.7514238E-10
32	-1.0959589E 00	-6.5862060E-01	-4.8359718E-01	-1.8325425E-01
33	-1.4901161E-08	4.6010682E-01	3.3783692E-01	1.2801988E-01
34	-7.4505806E-09	1.6867090E-01	-5.6682299E-02	1.0212850E-02
35	6.6855413E-09	-1.3586796E-01	-1.5205448E-01	-1.4909393E-01
36	3.7280723E-09	-6.7558321E-02	-4.0076473E-02	-1.0763513E-01
37	6.3362064E-09	-8.4814358E-02	-1.3672356E-01	-2.2153859E-01
38	1.4901161E-08	-4.5954111E-01	-3.3742154E-01	-1.2786248E-01
39	-1.8626451E-09	-1.5728619E-02	1.6170903E-01	1.4598087E-01
40	2.2351742E-08	-5.7338271E-01	-2.3717392E-01	1.8626451E-09
41	4.6566129E-10	-1.4861189E-02	-2.3521506E-02	9.0675491E-03
42	9.3132257E-10	-4.0866328E-02	-9.5698276E-02	2.2643760E-03
43	7.4505806E-09	-1.9578276E-01	-4.7331781E-01	5.1222742E-09
44	7.4505806E-09	-3.3067028E-01	3.3067029E-01	1.8626451E-09
45	0.	9.0236340E-14	-8.1055663E-01	0.
46	0.	0.	0.	0.
47	-3.7268533E-09	7.1001454E-02	9.9901673E-02	5.8639407E-02
48	0.	0.	0.	-7.2492862E-01
49	7.4505806E-09	-3.0034316E-01	-4.7536730E-01	-9.1270459E-01
50	-7.4505806E-09	2.0981720E-01	3.3208759E-01	-1.2801988E-01

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51	-3.8440069E-09	7.9930031E-02	8.9452431E-02	8.7710762E-02
52	0.	0.	0.	0.
53	0.	0.	0.	0.
54	0.	-4.2743610E-07	0.	0.
55	0.	0.	0.	0.
56	0.	8.1592182E-01	0.	0.
57	0.	-7.0051960E-01	0.	0.
58	0.	8.8157263E-07	-8.7171792E-07	0.
59	0.	-7.8723335E-07	8.1592262E-01	0.
60	0.	7.9040781E-14	-7.0051960E-01	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	3.4924597E-10	-6.9877334E-02	-1.6862620E-01	-9.1958708E-03
64	3.7252903E-09	-1.4983610E-01	-9.6622956E-02	-2.4645983E-01
65	4.6566129E-10	-3.1944221E-02	-2.3455287E-02	-8.8881432E-03
66	-7.4505806E-09	1.1618426E-01	6.1259987E-02	2.2395634E-01
67	-3.7252903E-09	1.5348862E-01	1.1270018E-01	4.2706593E-02
68	0.	-3.3566031E-07	3.4654357E-01	0.
69	1.6653345E-16	-3.8063301E-09	-3.7924925E-01	1.3877788E-17
70	3.7177961E-01	3.7177823E-01	3.7177862E-01	3.7177958E-01
71	1.1175871E-08	6.6029019E-07	6.5565108E-07	2.9802321E-08
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	0.	0.	0.	0.
77	0.	0.	0.	0.
78	8.7205653E-09	-4.4590915E-01	-5.5409077E-01	-9.9999994E-01
79	-1.4901161E-08	-6.5097696E-07	-6.4074992E-07	-1.8626451E-08
80	-1.3717796E 00	-9.2586902E-01	-8.1768781E-01	-3.7177958E-01
81	-1.4901161E-08	-1.1846424E-06	-9.5304359E-07	1.1175871E-08
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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1	1.0631969E-08	-5.2255914E-01	-6.7443809E-01	-1.1450793E 00
2	-1.1808212E 00	-1.1517253E 00	-1.1934362E 00	-1.0634682E 00
3	1.1885134E-09	-3.2724097E-02	1.4186423E-02	-1.3198438E-01
4	-9.9999998E-01	-1.0000006E 00	-1.0000011E 00	-9.9999994E-01
5	1.4603443E-12	6.8469089E-02	-6.8631252E-02	-1.6216501E-04
6	-6.9541084E-09	3.1486798E-01	5.7083333E-01	7.7225330E-01
7	1.4902724E-08	-3.2831562E-01	-4.5908405E-01	-6.8652875E-01
8	-1.1175871E-08	4.2875022E-01	6.0000793E-01	1.0287572E 00
9	7.4505806E-09	-2.7374071E-01	-3.8308226E-01	-6.5682237E-01
10	0.	0.	0.	0.
11	-1.2611685E 00	-1.1517253E 00	-1.1934362E 00	-1.0634682E 00
12	4.7383136E-01	-8.5126501E-11	-1.1259069E-09	-1.7357386E-09
13	4.1965488E-01	-7.5393386E-11	-9.9717404E-10	-1.5372793E-09
14	0.	0.	0.	0.
15	-1.3361057E-12	-1.0548028E-01	5.1822168E-02	1.4837455E-04
16	1.1895686E-09	-4.6035321E-02	-8.6066387E-02	-1.3210159E-01
17	0.	3.3010817E-01	2.2308687E-01	0.
18	0.	3.9092131E-01	2.6418436E-01	0.
19	0.	0.	0.	0.
20	1.2650690E-20	1.2764934E-09	-1.2791088E-09	-1.4047203E-12
21	-6.9534984E-09	2.6909463E-01	5.0309209E-01	7.7218605E-01
22	0.	2.2308679E-01	3.3010823E-01	0.
23	0.	2.0696957E-01	-2.0696957E-01	0.
24	0.	1.0683847E-01	5.4826719E-01	0.
25	1.4902724E-08	-3.2831562E-01	-4.5908405E-01	-7.6687602E-01
26	0.	0.	0.	4.7383136E-01
27	0.	0.	0.	4.1965486E-01
28	0.	0.	0.	0.
29	-4.6566132E-10	4.0291073E-02	3.7812182E-02	2.8799733E-02
30	5.3566695E-09	-1.9964546E-01	-2.9993278E-01	-3.8292926E-01
31	7.5324160E-01	-1.1647830E-10	-3.1093224E-09	-2.3750055E-09
32	1.1387629E 00	8.1427860E-01	7.6418037E-01	5.8203968E-01
33	1.4901161E-08	-5.6884819E-01	-5.3384997E-01	-4.0660802E-01
34	7.4505806E-09	-1.8250004E-01	4.4311768E-02	-3.2437356E-02
35	-6.5691260E-09	2.4688766E-01	3.7090600E-01	4.7354199E-01
36	-3.7280723E-09	1.4651422E-01	1.9534944E-01	3.4186336E-01
37	-6.3362063E-09	2.4520594E-01	4.5843045E-01	7.0363579E-01
38	0.	5.6814878E-01	5.3319359E-01	4.0610810E-01
39	9.3132257E-10	-8.7162831E-02	-3.7649207E-01	-4.6365452E-01
40	-1.4901161E-08	5.9577758E-01	2.4643733E-01	-1.1175871E-08
41	-4.6566129E-10	9.0124059E-03	1.1491338E-02	-2.8799733E-02
42	-1.8626451E-09	4.0856940E-02	9.6202385E-02	-7.1919419E-03
43	-1.1175871E-08	2.0342954E-01	4.9180441E-01	-5.5879354E-09
44	-7.4505806E-09	3.4358543E-01	-3.4358543E-01	-7.4505806E-09
45	0.	-1.1129776E-08	8.4221493E-01	0.
46	0.	0.	0.	0.
47	3.7268533E-09	-1.1535207E-01	-1.8754322E-01	-1.8624649E-01
48	0.	0.	0.	7.5324160E-01
49	-7.4505806E-09	1.8213983E-01	2.3223881E-01	5.5672318E-01
50	1.1175871E-08	-1.2724135E-01	-1.6224007E-01	4.0660805E-01

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51	3.8440069E-09	-1.4524203E-01	-2.1820104E-01	-2.7858096E-01
52	0.	0.	0.	0.
53	0.	0.	0.	0.
54	0.	5.2333919E-02	0.	0.
55	0.	0.	0.	0.
56	0.	5.9525551E-01	0.	0.
57	0.	7.2788013E-01	0.	0.
58	0.	-1.0860215E-01	1.0860216E-01	0.
59	0.	9.7077760E-02	4.9817774E-01	0.
60	0.	-9.7097881E-09	7.2788013E-01	0.
61	0.	0.	0.	0.
62	0.	0.	0.	0.
63	-2.3283064E-10	-5.6548227E-02	-8.4913492E-02	2.9207302E-02
64	-3.7252903E-09	3.3043736E-01	4.5235229E-01	7.8278897E-01
65	-9.3132257E-10	3.9493901E-02	3.7064050E-02	2.8229915E-02
66	7.4505806E-09	-2.7951536E-01	-3.8347215E-01	-7.1131492E-01
67	7.4505806E-09	-1.8976403E-01	-1.7808885E-01	-1.3564177E-01
68	0.	4.1231453E-02	2.1158905E-01	0.
69	-1.1102230E-16	-1.2865619E-09	3.9406177E-01	-8.3266724E-17
70	-1.1808212E 00	-1.1808218E 00	-1.1808224E 00	-1.1808210E 00
71	-1.1175871E-08	5.3753471E-01	6.6794590E-01	1.2054795E 00
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	0.	0.	0.	0.
77	0.	0.	0.	0.
78	-8.7205653E-09	6.4261258E-08	-1.0803342E-07	-2.2351742E-08
79	1.1175871E-08	-5.3753473E-01	-6.6794593E-01	-1.2054796E 00
80	1.1808212E 00	1.1808217E 00	1.1808225E 00	1.1808210E 00
81	-9.9999998E-01	-1.0000006E 00	-1.0000011E 00	-9.9999994E-01
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

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1	-3.0715709E-01	2.7053677E-01	-3.8555807E-01	-5.0240198E-01
2	-5.5791694E-01	4.3073887E-01	-7.3400865E-01	-9.5365645E-01
3	1.4673319E 00	4.3310624E-01	-3.2366753E-01	-3.5397856E-01
4	1.0805606E-07	5.8714807E-07	-9.9992541E-01	-9.9969826E-01
5	2.5953920E-02	-3.8828837E-02	4.4527583E-02	3.9953769E-02
6	1.2258672E-01	-5.0764517E-01	1.5048865E-01	-8.2505893E-03
7	-1.2513387E-01	3.0786922E-01	-1.5361555E-01	-5.0286046E-02
8	3.0181383E-01	-1.3942666E-02	3.7050959E-01	6.2091640E-01
9	-1.9269667E-01	8.9018623E-03	-2.3655629E-01	-3.9643151E-01
10	0.	0.	0.	0.
11	-5.9791694E-01	4.3073887E-01	-7.3400865E-01	-9.5365645E-01
12	-1.6151835E-10	2.3019742E-10	-2.0445448E-10	-2.3620785E-10
13	-1.4305082E-10	2.0387733E-10	-1.8107776E-10	-2.0920053E-10
14	0.	0.	0.	0.
15	-3.9734105E-02	4.8418930E-02	-4.8777972E-02	-4.9784805E-02
16	4.6407298E-01	4.1642883E-01	5.6970049E-01	-3.3678539E-01
17	-5.8505130E-01	-6.9238362E-02	6.2276313E-01	7.1046159E-02
18	6.7191061E-02	-8.1993582E-02	8.2484398E-02	8.4134417E-02
19	7.5779399E-01	0.	-6.5308551E-01	0.
20	3.9920313E-10	-5.9146401E-10	6.7439785E-10	6.0786956E-10
21	7.8004801E-02	-4.5321022E-01	9.5759450E-02	-6.4060401E-02
22	2.1735911E-01	-2.6524438E-01	2.6683214E-01	2.7216988E-01
23	4.5938956E-02	-5.6059533E-02	5.6395108E-02	5.7523236E-02
24	2.2247695E-01	-2.7148971E-01	2.7311485E-01	2.7857827E-01
25	-1.2513387E-01	3.0786922E-01	-1.5361555E-01	-5.0286046E-02
26	0.	0.	0.	0.
27	0.	0.	0.	0.
28	0.	0.	0.	0.
29	2.0439564E-02	5.0797355E-03	2.5091808E-02	4.6180747E-02
30	-1.1492913E-01	5.5077332E-01	-1.4108811E-01	1.3759671E-01
31	-2.7921267E-10	3.1497835E-10	-3.3796202E-10	-3.2320239E-10
32	4.1308156E-01	1.0266103E-01	5.0710294E-01	9.3330836E-01
33	-2.8857531E-01	-7.1718127E-02	-3.5425785E-01	-6.5200137E-01
34	-8.7012810E-02	9.7015721E-02	-1.0681777E-01	-1.1524021E-01
35	1.4212487E-01	-6.8110310E-01	1.7447387E-01	-1.7015629E-01
36	8.7800312E-02	2.2884420E-01	1.0778452E-01	3.4033563E-01
37	1.5441390E-01	-4.7007895E-01	1.8956000E-01	2.1959515E-04
38	2.8822050E-01	7.1629949E-02	3.5382228E-01	6.5119973E-01
39	-6.7022145E-02	-4.0154855E-01	-8.2277035E-02	-4.1535857E-01
40	2.7803946E-01	-3.3929291E-01	3.4132395E-01	3.4815179E-01
41	2.5695471E-03	1.5851179E-02	3.1544011E-03	1.6237235E-02
42	1.8658607E-02	-1.0029076E 00	2.2905487E-02	-6.4874191E-01
43	9.4937161E-02	5.7522959E-01	1.1654578E-01	5.9276940E-01
44	1.6034560E-01	-1.9567052E-01	1.9684182E-01	2.0077944E-01
45	-2.3176283E-08	2.8282131E-08	-2.8451429E-08	-2.9020573E-08
46	0.	-8.3699428E-01	0.	-5.7394803E-01
47	-6.4415356E-02	6.8243328E-01	-7.9076917E-02	3.3340054E-01
48	0.	0.	0.	0.
49	5.1930289E-02	3.2035076E-01	6.3750134E-02	3.2815290E-01
50	-3.6278064E-02	-2.2379434E-01	-4.4535304E-02	-2.2924486E-01

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51	-8.3610920E-02	4.0068749E-01	-1.0264158E-01	1.0010158E-01
52	0.	0.	0.	0.
53	0.	0.	0.	0.
54	1.0897845E-01	-1.3298693E-01	1.3378300E-01	1.3645920E-01
55	-4.8602386E-01	5.9309730E-01	-5.9664760E-01	-6.0858299E-01
56	2.9493788E-01	-3.5991414E-01	3.6206861E-01	3.6931145E-01
57	3.3968952E-01	-4.1452478E-01	4.1700615E-01	4.2534795E-01
58	-2.2614956E-01	2.7597142E-01	-2.7762339E-01	-2.8317700E-01
59	2.0215155E-01	-2.4668653E-01	2.4816321E-01	2.5312749E-01
60	-2.0219347E-08	2.4673768E-08	-2.4821466E-08	-2.5317996E-08
61	-6.3181229E-01	0.	-7.7561889E-01	0.
62	0.	7.0831991E-01	0.	-7.2681405E-01
63	-5.9263119E-02	8.5055716E-02	-7.2751975E-02	-6.5473474E-02
64	1.9868744E-01	1.3433218E-01	2.4391063E-01	5.0716518E-01
65	2.0035160E-02	4.9792342E-03	2.4595357E-02	4.5267044E-02
66	-1.7086186E-01	-1.0168482E-01	-2.0975167E-01	-4.2665154E-01
67	-9.6266830E-02	-2.3924698E-02	-1.1817810E-01	-2.1750338E-01
68	8.5859028E-02	-1.0477419E-01	1.0540137E-01	1.0750983E-01
69	-9.0283638E-09	1.1070674E-08	-1.1083307E-08	-1.1353649E-08
70	-1.8027962E-01	-1.6399616E-01	-1.0157753E 00	-1.2833355E 00
71	9.2748989E-02	1.1919810E-01	5.2276123E-01	6.8429509E-01
72	0.	0.	0.	0.
73	0.	0.	0.	0.
74	0.	0.	0.	0.
75	0.	0.	0.	0.
76	0.	0.	0.	0.
77	0.	0.	0.	0.
78	-2.1919245E-03	1.7092055E-01	-1.1635825E-02	2.9406439E-02
79	3.6473093E-01	4.6874005E-01	-5.3367867E-01	-6.6439388E-01
80	-7.0674945E-01	-8.1583182E-01	1.0217950E 00	1.2683937E 00
81	1.0805606E-07	5.8714807E-07	-9.9992541E-01	-9.9969826E-01
82	0.	0.	0.	0.
83	0.	0.	0.	0.
84	0.	0.	0.	0.
85	0.	0.	0.	0.
86	0.	0.	0.	0.
87	0.	0.	0.	0.
88	0.	0.	0.	0.
89	0.	0.	0.	0.
90	0.	0.	0.	0.
91	0.	0.	0.	0.
92	0.	0.	0.	0.
93	0.	0.	0.	0.
94	0.	0.	0.	0.
95	0.	0.	0.	0.

1	-8.4529386E-01
2	2.1796288E-01
3	-7.5533403E-01
4	6.9849192E-09
5	9.3326839E-01
6	8.2311685E-02
7	-2.7867920E-01
8	1.9081957E-01
9	-1.2183104E-01
10	5.0000000E-01
11	-1.1335115E-01
12	-2.4443468E-10
13	-2.0232157E-01
14	-5.6329839E-01
15	-4.9998415E-01
16	-1.4080222E-02
17	0.
18	0.
19	0.
20	-4.9999996E-01
21	8.2304465E-02
22	0.
23	0.
24	0.
25	5.2684811E-02
26	0.
27	2.0232156E-01
28	5.6329839E-01
29	3.0696574E-03
30	-4.0815017E-02
31	-3.3445919E-10
32	6.2037466E-02
33	-4.3338851E-02
34	-3.4573784E-03
35	5.0473095E-02
36	3.6437955E-02
37	7.4997944E-02
38	4.3285565E-02
39	-4.9419226E-02
40	-1.3969839E-09
41	-3.0696574E-03
42	-7.6656281E-04
43	-4.6566129E-10
44	-6.9849193E-10
45	0.
46	0.
47	-1.9851327E-02
48	0.
49	-6.2037470E-02
50	4.3338854E-02

51	-2.9692917E-02
52	0.
53	0.
54	0.
55	0.
56	0.
57	0.
58	0.
59	0.
60	0.
61	0.
62	0.
63	3.1130987E-03
64	8.3434594E-02
65	3.0089228E-03
66	-7.5816438E-02
67	-1.4457557E-02
68	0.
69	-1.0408341E-17
70	2.7939677E-08
71	1.9095892E-01
72	0.
73	0.
74	0.
75	0.
76	0.
77	0.
78	-4.5363638E-01
79	-1.1909589E 00
80	4.5363632E-01
81	6.9849192E-09
82	0.
83	0.
84	0.
85	0.
86	0.
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89	0.
90	0.
91	0.
92	0.
93	0.
94	0.
95	0.

V-C MEMBER FLEXIBILITY INFLUENCE COEFFICIENTS
CONDITION II SYMMETRICAL LOADING CONDITIONS
SFXV5A

E = 26000000.0

EQN 1	440.000	X1
EQN 2	217.000	X2
EQN 3	353.000	X3
EQN 4	263.000	X4
EQN 5	523.000	X5
EQN 6	353.000	X6
EQN 7	217.000	X7
EQN 8	343.000	X8
EQN 9	263.000	X9
EQN 10	190.000	X10
EQN 11	157.000	X11
EQN 12	59.000	X12
EQN 13	349.000	X13
EQN 14	316.000	X14
EQN 15	179.000	X15
EQN 16	168.000	X16
EQN 17	333.000	X17
EQN 18	79.000	X18
EQN 19	184.000	X19
EQN 20	190.000	X20
EQN 21	168.000	X21
EQN 22	333.000	X22
EQN 23	173.000	X23
EQN 24	79.000	X24
EQN 25	157.000	X25
EQN 26	59.000	X26
EQN 27	349.000	X27
EQN 28	316.000	X28

SFXV5A

EQN 29 188.000 X29
EQN 30 95.000 X30
EQN 31 44.000 X31
EQN 32 385.000 X32
EQN 33 246.000 X33
EQN 34 190.000 X34
EQN 35 267.000 X35
EQN 36 390.000 X36
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EQN 39 369.000 X39
EQN 40 73.000 X40
EQN 41 188.000 X41
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EQN 46 173.000 X46
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EQN 48 44.000 X48
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EQN 50 246.000 X50
EQN 51 587.000 X51
EQN 52 127.000 X52
EQN 53 127.000 X53
EQN 54 5.000 X54
EQN 55 176.000 X55
EQN 56 79.000 X56

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EQN 58 90.000 X58

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EQN 61 195.000 X61

EQN 62 179.000 X62

EQN 63 72.000 X63

EQN 64 625.000 X64

EQN 65 109.000 X65

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EQN 67 74.000 X67

EQN 68 43.000 X68

EQN 69 43.000 X69

EQN 70 0

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EQN 74 0

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SFXV5A

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EQN 86 0

EQN 87 10000.000 X87

EQN 88 0

EQN 89 0

EQN 90 0

EQN 91 0

EQN 92 0

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EQN 95 0

TRIPLE PRODUCT

TRIPLE	1	2	3	4
1	9.8616617E-05	0.	2.6887795E-05	0.
2	0.	5.5818138E-05	1.8192566E-05	1.2568512E-06
3	2.6887795E-05	1.8192566E-05	5.8390620E-05	-6.8457508E-08
4	0.	1.2568512E-06	-6.8457508E-08	3.8738461E-04
5	7.0456839E-06	0.	-8.6567255E-07	0.
6	8.4934287E-06	0.	-1.0449178E-05	-4.6364603E-04
7	8.6810579E-07	8.1246753E-06	2.4705617E-05	1.7584514E-08
8	0.	-1.4957251E-06	-3.2693971E-07	0.
9	1.1633392E-06	6.6777088E-07	2.4683856E-06	1.6241933E-09
10	-7.1328939E-08	-7.9070819E-07	-2.0574714E-06	-1.6193345E-09
11	-2.3221299E-05	-2.0076710E-05	-3.3734073E-05	-3.9162585E-08
12	1.4154166E-05	8.1246753E-06	3.0031995E-05	1.7584514E-08
13	0.	0.	-4.4114600E-12	0.
14	8.4934287E-06	0.	-1.3388974E-05	-4.6364603E-04
15	-6.0416006E-06	-2.3988925E-06	3.6971051E-06	1.6093028E-09
16	6.8721643E-05	-8.0997660E-06	7.3649410E-05	2.0025833E-04
17	5.5299563E-05	1.5882265E-05	5.8159510E-05	-2.3185561E-04
18	-1.3778478E-06	-8.5391797E-07	-6.6412199E-07	1.0538987E-05
19	-4.4999138E-07	1.2625750E-07	-4.2339609E-07	-8.4707146E-11
20	1.6385769E-14	-1.1170714E-15	4.4511463E-07	7.4939004E-19
21	-1.5189935E-05	1.2023646E-13	-2.4911371E-05	-4.2993790E-12
22	-1.9267709E-05	-4.0517586E-06	-1.9374838E-05	1.9325251E-07
23	-1.9692276E-05	-2.4175998E-06	-1.3854130E-05	4.6671268E-07
24	-2.5186270E-05	-6.7636253E-06	-5.8485534E-06	2.5454026E-08
25	1.4132278E-05	-1.2425124E-13	2.4046218E-05	4.2990566E-12
26	3.2807133E-05	9.1761911E-06	3.1666127E-05	-2.0658752E-04
27	4.5211586E-05	1.2514224E-05	3.7751943E-05	-2.5666712E-04
28	5.4375385E-05	2.1482167E-05	3.9934927E-05	-4.6372683E-04
29	3.7505095E-05	5.5463880E-06	1.3983444E-05	-3.5508575E-05
30	-4.0381281E-5	3.5118024E-06	-1.4317921E-05	-4.6080961E-05
31	1.9857583E-05	6.8087998E-06	2.0383094E-05	-2.0086054E-04
32	-2.7424020E-06	1.3994317E-05	2.7239721E-05	-2.6300911E-04
33	2.2856915E-07	2.2897052E-06	2.1300390E-06	-7.3454358E-05

TRIPLE

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8

1	7.0456839E-06	8.4934287E-06	8.6810579E-07	0.
2	0.	0.	8.1246753E-06	-1.4957251E-06
3	-8.6567255E-07	-1.0449178E-05	2.4705617E-05	-3.2693971E-07
4	0.	-4.6364603E-04	1.7584514E-08	0.
5	4.0153846E-04	4.8404645E-04	-3.3959882E-07	0.
6	4.8404645E-04	1.9541333E-03	-4.1014143E-06	0.
7	-3.3959882E-07	-4.1014143E-06	9.8189465E-04	3.8633885E-04
8	0.	0.	3.8633885E-04	3.8746153E-04
9	-2.8098190E-08	-3.3755280E-07	-2.7452847E-04	1.4165630E-07
10	2.8093715E-08	3.3753484E-07	2.7418551E-04	9.2275476E-08
11	7.4762924E-07	9.0243036E-06	-3.0539632E-05	3.9932181E-07
12	-3.3959882E-07	-4.1014143E-06	9.7599853E-04	3.8633885E-04
13	0.	3.9473075E-04	-1.1763893E-11	0.
14	4.8404645E-04	1.5695179E-03	-5.2554644E-06	0.
15	-3.0724119E-08	-3.7085883E-07	-2.6338134E-06	4.9281995E-08
16	1.9042335E-04	-2.1691700E-05	6.8491943E-04	3.8664090E-04
17	2.4115755E-04	9.7167513E-04	2.4127989E-05	-2.9008708E-07
18	-1.0963405E-05	-2.6245170E-05	-1.5523278E-05	1.5897507E-08
19	1.6170688E-09	1.9518915E-08	4.8798981E-08	-2.5937892E-09
20	-1.4307033E-17	-1.7269460E-16	-1.4713806E-07	2.2948717E-17
21	5.9741847E-12	1.8496276E-11	-2.4075901E-06	-1.0602749E-14
22	4.0022917E-07	-9.5231177E-08	-9.4278854E-06	4.3685222E-07
23	1.1264093E-06	5.4338415E-06	-1.0658948E-05	3.2076204E-07
24	3.2183245E-07	3.8847734E-06	-1.0330721E-05	1.2154953E-07
25	-4.4783375E-12	3.9473073E-04	2.5812338E-06	2.1205498E-14
26	2.1558743E-04	9.1270219E-04	1.4800625E-05	-5.4009761E-07
27	2.6831584E-04	1.0402687E-03	2.1203704E-05	-5.0686826E-07
28	4.8302426E-04	1.5571793E-03	2.4642063E-05	-3.8605734E-07
29	-1.3508968E-04	-1.1360894E-04	6.7163194E-06	-2.7399020E-07
30	-1.8486295E-04	-1.6787113E-04	1.1143705E-05	-6.8093370E-08
31	2.1178585E-04	9.0003672E-04	9.5081441E-06	-3.3635305E-07
32	2.6403829E-04	1.0430049E-03	2.4752560E-05	-6.1904806E-07
33	4.7236608E-04	6.6190789E-04	3.2320029E-06	-4.1148431E-08

TRIPLE

	9	10	11	12
1	1.1633392E-06	-7.1328939E-08	-2.3221299E-05	1.4154166E-05
2	6.6777088E-07	-7.9070819E-07	-2.0076710E-05	8.1246753E-06
3	2.4683856E-06	-2.0574714E-06	-3.3734073E-05	3.0031995E-05
4	1.6241933E-09	-1.6193345E-09	-3.9162585E-08	1.7584514E-08
5	-2.8098190E-08	2.8093715E-08	7.4762924E-07	-3.3959882E-07
6	-3.3755280E-07	3.3753484E-07	9.0243036E-06	-4.1014143E-06
7	-2.7452847E-04	2.7418551E-04	-3.0539632E-05	9.7599853E-04
8	1.4165630E-07	9.2275476E-08	3.9932181E-07	3.8633885E-04
9	3.4052262E-04	4.9134695E-05	-2.8881926E-06	-2.7315744E-04
10	4.9134695E-05	3.4044571E-04	2.5429251E-06	2.7467013E-04
11	-2.8881926E-06	2.5429251E-06	4.9552708E-05	-3.5139691E-05
12	-2.7315744E-04	2.7467013E-04	-3.5139691E-05	1.3772947E-03
13	-4.1816964E-12	-2.3895408E-12	5.8819466E-12	-1.1763893E-11
14	-4.3240850E-07	4.3239050E-07	1.1563220E-05	-5.2554644E-06
15	-2.0093759E-07	2.2052603E-07	6.6158207E-06	-2.4447711E-06
16	-1.2920938E-04	1.3041184E-04	-4.2681615E-05	6.9752383E-04
17	1.9727488E-04	1.9275975E-04	-3.3353823E-05	3.0521361E-05
18	7.5594532E-06	-7.5758408E-06	1.0318245E-06	-1.5738561E-05
19	3.1931012E-09	-4.2240562E-09	-1.5059087E-07	3.8849391E-08
20	-1.2093464E-08	1.2093457E-08	3.2370386E-07	-1.4713806E-07
21	-1.9789080E-07	1.9789173E-07	5.2967222E-06	-2.4075900E-06
22	-9.2321582E-07	8.1080058E-07	1.0942535E-05	-1.1232460E-05
23	-1.0420676E-06	9.0244026E-07	1.1525669E-05	-1.2678508E-05
24	-1.0118484E-06	8.5907925E-07	1.5062112E-05	-1.2310961E-05
25	2.1215986E-07	-2.1216731E-07	-5.6787583E-06	2.5812338E-06
26	1.4858039E-06	-1.2606905E-06	-1.6944235E-05	1.8079743E-05
27	2.1474172E-06	-1.7841878E-06	-2.3311140E-05	2.6130012E-05
28	2.5418587E-06	-2.0566608E-06	-2.9864817E-05	3.0931564E-05
29	7.0722390E-07	-5.7459087E-07	-6.1046525E-06	8.6039966E-06
30	1.7246275E-07	-9.2159270E-07	1.1144429E-05	2.0974145E-06
31	9.7176000E-07	-8.0895125E-07	-1.0272345E-05	1.1825475E-05
32	1.8484577E-06	-2.0851060E-06	-1.1887330E-05	2.2492575E-05
33	3.2048742E-07	-2.6877621E-07	-4.5147021E-06	3.9023776E-06

TRIPLE

13

14

15

16

1	0.	8.4934287E-06	-6.0416006E-06	6.8721643E-05
2	0.	0.	-2.3988925E-06	-8.0997660E-06
3	-4.4114600E-12	-1.3388974E-05	3.6971051E-06	7.3649410E-05
4	0.	-4.6364603E-04	1.6093028E-09	2.0025833E-04
5	0.	4.8404645E-04	-3.0724119E-08	1.9042335E-04
6	3.9473075E-04	1.5695179E-03	-3.7085883E-07	-2.1691700E-05
7	-1.1763893E-11	-5.2554644E-06	-2.6338134E-06	6.8491943E-04
8	0.	0.	4.9281995E-08	3.8664090E-04
9	-4.1816964E-12	-4.3240850E-07	-2.0093759E-07	-1.2920938E-04
10	-2.3895408E-12	4.3239050E-07	2.2052603E-07	1.3041184E-04
11	5.8819466E-12	1.1563220E-05	6.6158207E-06	-4.2681615E-05
12	-1.1763893E-11	-5.2554644E-06	-2.4447711E-06	6.9752383E-04
13	3.9473076E-04	3.9473075E-04	-9.1905415E-14	-1.1763893E-11
14	3.9473075E-04	1.5796333E-03	-4.7519717E-07	-2.4783927E-05
15	-9.1905415E-14	-4.7519717E-07	5.2693651E-06	3.2842797E-06
16	-1.1763893E-11	-2.4783927E-05	3.2842797E-06	8.6133586E-04
17	3.9473073E-04	9.7379303E-04	-2.4861372E-06	7.9094366E-05
18	-9.1905415E-14	-2.6347179E-05	2.1618057E-07	-7.8581886E-06
19	1.4360222E-14	2.5010407E-08	-5.7861820E-08	-7.2666557E-07
20	-4.2796795E-23	-2.2128092E-16	2.0010343E-07	5.8413974E-07
21	5.8819466E-12	1.8571641E-11	-6.0352426E-07	-3.5052035E-05
22	4.6761480E-10	-2.7603802E-07	2.5526490E-06	-2.9108602E-05
23	3.7619562E-10	6.7076118E-06	4.2738703E-06	-2.5226825E-05
24	-4.4114600E-12	4.9777294E-06	7.9110800E-06	-1.4237247E-05
25	3.9473075E-04	3.9473073E-04	5.9235799E-07	3.3525872E-05
26	3.9473099E-04	9.1547118E-04	-1.8141341E-06	4.2010008E-05
27	3.9473119E-04	1.0441437E-03	-2.7481297E-06	5.3856897E-05
28	3.9473073E-04	1.5638233E-03	-4.7794769E-06	4.9039506E-05
29	-4.2653050E-11	-1.1165974E-04	-7.6567976E-07	-6.6748815E-05
30	-2.3176540E-10	-1.6796117E-04	2.6923502E-06	-1.5038815E-04
31	3.9470132E-04	9.0242958E-04	-8.2578309E-07	2.5030508E-05
32	3.9461165E-04	1.0470150E-03	5.2524160E-07	1.7255950E-05
33	-2.7571625E-12	6.6314026E-04	-9.6304828E-07	1.9182142E-04

TRIPLE

	17	18	19	20
1	5.5299563E-05	-1.3778478E-06	-4.4999138E-07	1.6385769E-14
2	1.5882265E-05	-8.5391797E-07	1.2625750E-07	-1.1170714E-15
3	5.8159510E-05	-6.6412199E-07	-4.2339609E-07	4.4511463E-07
4	-2.3185561E-04	1.0538987E-05	-8.4707146E-11	7.4939004E-19
5	2.4115755E-04	-1.0963405E-05	1.6170688E-09	-1.4307033E-17
6	9.7167513E-04	-2.6245170E-05	1.9518915E-08	-1.7269460E-16
7	2.4127989E-05	-1.5523278E-05	4.8798981E-08	-1.4713806E-07
8	-2.9008708E-07	1.5897507E-08	-2.5937892E-09	2.2948717E-17
9	1.9727488E-04	7.5594532E-06	3.1931012E-09	-1.2093464E-08
10	1.9275975E-04	-7.5758408E-06	-4.2240562E-09	1.2093457E-08
11	-3.3353823E-05	1.0318245E-06	-1.5059087E-07	3.2370386E-07
12	3.0521361E-05	-1.5738561E-05	3.8849391E-08	-1.4713806E-07
13	3.9473073E-04	-9.1905415E-14	1.4360222E-14	-4.2796795E-23
14	9.7379303E-04	-2.6347179E-05	2.5010407E-08	-2.2128092E-16
15	-2.4861372E-06	2.1618057E-07	-5.7861820E-08	2.0010343E-07
16	7.9094366E-05	-7.8581886E-06	-7.2666557E-07	5.8413974E-07
17	1.0012886E-03	-1.4116518E-05	-8.5667607E-07	4.4511431E-07
18	-1.4116518E-05	1.0758615E-06	-1.4242430E-09	8.8197740E-09
19	-8.5667607E-07	-1.4242430E-09	1.6478153E-08	-1.0531761E-08
20	4.4511431E-07	8.8197740E-09	-1.0531761E-08	1.8634773E-08
21	-5.7451794E-05	-3.5875462E-07	5.2593144E-07	-4.2678061E-07
22	-5.3986513E-05	2.9007614E-07	3.7594968E-07	-1.5288560E-07
23	-4.5734335E-05	4.2514647E-07	3.0529163E-07	-1.2598448E-08
24	-3.8303105E-05	9.9941590E-07	1.6286189E-07	2.6129602E-07
25	4.5054736E-04	3.6394256E-07	-4.9093547E-07	3.9706438E-07
26	7.2429619E-04	-1.2217551E-05	-4.9506583E-07	2.7619151E-07
27	7.9724104E-04	-1.5541540E-05	-5.2778341E-07	2.4940971E-07
28	1.0586144E-03	-2.7861668E-05	-4.7839290E-07	1.2853645E-07
29	-2.3897392E-05	2.4991657E-06	-2.5065118E-07	1.5875846E-07
30	-1.0269382E-04	4.2200793E-06	2.5646946E-07	-2.9235628E-08
31	6.9098295E-04	-1.1726559E-05	-3.1371090E-07	1.9489343E-07
32	7.8253397E-04	-1.4973061E-05	-3.6239100E-07	3.1159256E-07
33	3.3451364E-04	-1.5206811E-05	2.1888680E-08	-6.9668951E-08

TRIPLE

	21	22	23	24
1	-1.5189935E-05	-1.9267709E-05	-1.9692276E-05	-2.5186270E-05
2	1.2023846E-13	-4.0517586E-06	-2.4175998E-06	-6.7636253E-06
3	-2.4911371E-05	-1.9374838E-05	-1.3854130E-05	-5.8485534E-06
4	-4.2993790E-12	1.9325251E-07	4.6671268E-07	2.5454026E-08
5	5.9741847E-12	4.0022917E-07	1.1264093E-06	3.2183245E-07
6	1.8496276E-11	-9.5231177E-08	5.4338415E-06	3.8847734E-06
7	-2.4075901E-06	-9.4278854E-06	-1.0658948E-05	-1.0330721E-05
8	-1.0602749E-14	4.3685222E-07	3.2076204E-07	1.2154953E-07
9	-1.9789080E-07	-9.2321582E-07	-1.0420676E-06	-1.0118484E-06
10	1.9789173E-07	8.1080058E-07	9.0244026E-07	8.5907925E-07
11	5.2967222E-06	1.0942535E-05	1.1525669E-05	1.5062112E-05
12	-2.4075900E-06	-1.1232460E-05	-1.2678508E-05	-1.2310961E-05
13	5.8819466E-12	4.6761480E-10	3.7619562E-10	-4.4114600E-12
14	1.8571641E-11	-2.7603802E-07	6.7076118E-06	4.9777294E-06
15	-6.0352426E-07	2.5526490E-06	4.2738703E-06	7.9110800E-06
16	-3.5052035E-05	-2.9108602E-05	-2.5226825E-05	-1.4237247E-05
17	-5.7451794E-05	-5.3986513E-05	-4.5734335E-05	-3.8303105E-05
18	-3.5875462E-07	2.9007614E-07	4.2514647E-07	9.9941590E-07
19	5.2593144E-07	3.7594968E-07	3.0529163E-07	1.6286189E-07
20	-4.2678061E-07	-1.5288560E-07	-1.2598448E-08	2.6129602E-07
21	5.4390586E-05	2.7212495E-05	2.0775045E-05	9.2615403E-06
22	2.7212495E-05	4.0229590E-05	2.7996215E-05	2.0005017E-05
23	2.0775045E-05	2.7996215E-05	4.3276392E-05	2.5178497E-05
24	9.2615403E-06	2.0005017E-05	2.5178497E-05	5.0668569E-05
25	-3.6516327E-05	-2.6478934E-05	-2.0181100E-05	-8.9398998E-06
26	-3.4842105E-05	-3.1975811E-05	-2.4989640E-05	-2.0893936E-05
27	-3.4812340E-05	-3.4591547E-05	-3.0200842E-05	-2.6425171E-05
28	-2.9415858E-05	-3.5594476E-05	-2.9123397E-05	-3.2635644E-05
29	-1.7931637E-05	-2.0221855E-05	-9.1944544E-06	-8.3913218E-06
30	6.4225145E-06	4.5200753E-06	-4.2992828E-07	5.9055383E-06
31	-2.2013040E-05	-1.6929702E-05	-1.1828905E-05	-1.1497253E-05
32	-3.3054388E-05	-3.2621511E-05	-2.3530733E-05	-1.6396945E-05
33	-1.5834673E-06	8.5987378E-07	-3.3864344E-06	-3.4765223E-07

TRIPLE

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27

28

1	1.4132278E-05	3.2807133E-05	4.5211586E-05	5.4375385E-05
2	-1.2425124E-13	9.1761911E-06	1.2514224E-05	2.1482167E-05
3	2.4046218E-05	3.1666127E-05	3.7751943E-05	3.9934927E-05
4	4.2990566E-12	-2.0658752E-04	-2.5666712E-04	-4.6372683E-04
5	-4.4783375E-12	2.1558743E-04	2.6831584E-04	4.8302426E-04
6	3.9473073E-04	9.1270219E-04	1.0402687E-03	1.5571793E-03
7	2.5812338E-06	1.4800625E-05	2.1203704E-05	2.4642063E-05
8	2.1205498E-14	-5.4009761E-07	-5.0686826E-07	-3.8605734E-07
9	2.1215986E-07	1.4858039E-06	2.1474172E-06	2.5418587E-06
10	-2.1216731E-07	-1.2606905E-06	-1.7841878E-06	-2.0566608E-06
11	-5.6787583E-06	-1.6944235E-05	-2.3311140E-05	-2.9864817E-05
12	2.5812338E-06	1.8079743E-05	2.6130012E-05	3.0931564E-05
13	3.9473075E-04	3.9473099E-04	3.9473119E-04	3.9473073E-04
14	3.9473073E-04	9.1547118E-04	1.0441437E-03	1.5638233E-03
15	5.9235799E-07	-1.8141341E-06	-2.7481297E-06	-4.7794769E-06
16	3.3525872E-05	4.2010008E-05	5.3856897E-05	4.9039506E-05
17	4.5054736E-04	7.2429619E-04	7.9724104E-04	1.0586144E-03
18	3.6394256E-07	-1.2217551E-05	-1.5541540E-05	-2.7861668E-05
19	-4.9093547E-07	-4.9506583E-07	-5.2778341E-07	-4.7839290E-07
20	3.9706438E-07	2.7619151E-07	2.4940971E-07	1.2853645E-07
21	-3.6516327E-05	-3.4842105E-05	-3.4812340E-05	-2.9415858E-05
22	-2.6478934E-05	-3.1975811E-05	-3.4591547E-05	-3.5594476E-05
23	-2.0181100E-05	-2.4989640E-05	-3.0200842E-05	-2.9123397E-05
24	-8.9398998E-06	-2.0893936E-05	-2.6425171E-05	-3.2635644E-05
25	4.3900848E-04	4.2858331E-04	4.2846745E-04	4.2312501E-04
26	4.2858331E-04	6.7799708E-04	7.3386444E-04	9.6167046E-04
27	4.2846745E-04	7.3386444E-04	8.2182267E-04	1.1006587E-03
28	4.2312501E-04	9.6167046E-04	1.1006587E-03	1.6368067E-03
29	1.7411633E-05	-2.8141626E-05	-3.7800151E-05	-9.2085932E-05
30	-5.7944801E-06	-8.8641635E-05	-1.0615839E-04	-1.8484492E-04
31	4.1607605E-04	6.5430713E-04	7.0898334E-04	9.3025712E-04
32	4.2701068E-04	7.2962325E-04	8.0231546E-04	1.0855922E-03
33	-1.3784599E-06	2.9876392E-04	3.6842809E-04	6.6809379E-04

TRIPLE

29

30

31

32

1	3.7505095E-05	-4.0381281E-05	1.9857583E-05	-2.7424020E-06
2	5.5463880E-06	3.5118024E-06	6.8087998E-06	1.3994317E-05
3	1.3983444E-05	-1.4317921E-05	2.0383094E-05	2.7239721E-05
4	-3.5508575E-05	-4.6080961E-05	-2.0086054E-04	-2.6300911E-04
5	-1.3508968E-04	-1.8486295E-04	2.1178585E-04	2.6403829E-04
6	-1.1360894E-04	-1.6787113E-04	9.0003672E-04	1.0430049E-03
7	6.7163194E-06	1.1143705E-05	9.5081441E-06	2.4752560E-05
8	-2.7399020E-07	-6.8093370E-08	-3.3635305E-07	-6.1904806E-07
9	7.0722390E-07	1.7246275E-07	9.7176000E-07	1.8484577E-06
10	-5.7459087E-07	-9.2159270E-07	-8.0895125E-07	-2.0851060E-06
11	-6.1046525E-06	1.1144429E-05	-1.0272345E-05	-1.1887330E-05
12	8.6039966E-06	2.0974145E-06	1.1825475E-05	2.2492575E-05
13	-4.2653050E-11	-2.3176540E-10	3.9470132E-04	3.9461165E-04
14	-1.1165974E-04	-1.6796117E-04	9.0242958E-04	1.0470150E-03
15	-7.6567976E-07	2.6923502E-06	-8.2578309E-07	5.2524160E-07
16	-6.6748815E-05	-1.5038815E-04	2.5030508E-05	1.7255950E-05
17	-2.3897392E-05	-1.0269382E-04	6.9098295E-04	7.8253397E-04
18	2.4991657E-06	4.2200793E-06	-1.1726559E-05	-1.4973061E-05
19	-2.5065118E-07	2.5646946E-07	-3.1371090E-07	-3.6239100E-07
20	1.5875846E-07	-2.9235628E-08	1.9489343E-07	3.1159256E-07
21	-1.7931637E-05	6.4225145E-06	-2.2013040E-05	-3.3054388E-05
22	-2.0221855E-05	4.5200753E-06	-1.6929702E-05	-3.2621511E-05
23	-9.1944544E-06	-4.2992828E-07	-1.1828905E-05	-2.3530733E-05
24	-8.3913218E-06	5.9055383E-06	-1.1497253E-05	-1.6396945E-05
25	1.7411633E-05	-5.7944801E-06	4.1607605E-04	4.2701068E-04
26	-2.8141626E-05	-8.8641635E-05	6.5430713E-04	7.2962325E-04
27	-3.7800151E-05	-1.0615839E-04	7.0898334E-04	8.0231546E-04
28	-9.2085932E-05	-1.8484492E-04	9.3025712E-04	1.0855922E-03
29	1.1540869E-04	6.9802698E-05	-4.2231925E-05	-4.4803392E-05
30	6.9802698E-05	1.5010406E-04	-8.6235013E-05	-8.1886566E-05
31	-4.2231925E-05	-8.6235013E-05	6.5391244E-04	7.0950910E-04
32	-4.4803392E-05	-8.1886566E-05	7.0950910E-04	8.2792823E-04
33	-1.6822943E-04	-2.1663313E-04	2.9522298E-04	3.6991502E-04

TRIPLE

33

1	2.2856915E-07
2	2.2897052E-06
3	2.1300390E-06
4	-7.3454358E-05
5	4.7236608E-04
6	6.6190789E-04
7	3.2320029E-06
8	-4.1148431E-08
9	3.2048742E-07
10	-2.6877621E-07
11	-4.5147021E-06
12	3.9023776E-06
13	-2.7571625E-12
14	6.6314026E-04
15	-9.6304828E-07
16	1.9182142E-04
17	3.3451364E-04
18	-1.5206811E-05
19	2.1888680E-08
20	-6.9668951E-08
21	-1.5834673E-06
22	8.5987378E-07
23	-3.3864344E-06
24	-3.4765223E-07
25	-1.3784599E-06
26	2.9876392E-04
27	3.6842809E-04
28	6.6809379E-04
29	-1.6822943E-04
30	-2.1663313E-04
31	2.9522298E-04
32	3.6991502E-04
33	6.1351132E-04

REDUNDANT SOLUTIONS

(GRN)	1	2	3	4
1	7.2818463E-02	3.4358575E-02	-2.6058973E-01	-2.6285198E-03
2	-3.5491584E-01	5.4822020E-01	-1.1927468E 00	-5.6348727E-01
3	-2.4543002E-01	4.0348053E-02	-9.9946839E-01	-2.5968552E-03
4	1.0424344E-02	1.1026554E-02	-4.5503061E-03	-1.1319749E-02
5	4.1522503E-03	-1.8088430E-03	1.3699016E-02	1.2890730E-04
6	7.7463017E-04	-6.4056833E-04	-1.9144322E-02	-8.6533134E-04
7	3.2355906E-02	-1.1963860E-01	6.3517578E-01	1.4009526E-01
8	1.2896337E-01	-1.6206772E-02	3.0145498E-01	1.0086003E-01
9	1.8073089E-01	2.2040920E-03	8.1331406E-02	-1.1517797E-01
10	2.8351204E-01	1.1961894E-01	-2.6403823E-01	-1.4046851E-01
11	-2.0903721E-02	1.2276500E-01	-6.0775868E-01	-1.4061725E-01
12	-1.5098119E-01	1.4767021E-02	-5.8194858E-01	4.4829845E-03
13	-2.5214520E-01	-1.0907471E-02	-6.0672551E-01	-2.5088549E-02
14	-2.7297086E-01	-1.2274677E-01	-5.7246512E-01	1.4096546E-01
15	-4.4800894E-01	-1.4110494E-01	-1.1423390E-01	-9.9854141E-02
16	2.5335877E-01	-1.8114700E-01	1.9915653E-01	2.3571235E-01
17	-6.0844004E-02	2.7061701E-03	-4.1135061E-01	8.2926035E-02
18	2.2170860E-01	-4.6466887E-02	-6.6232514E-01	-1.8281221E-02
19	1.5788117E-01	5.9234589E-02	-7.7555388E-02	-4.3567896E-02

(GRN)	5	6	7	8
1	1.1791614E-03	-4.7951092E-05	1.5144679E-02	-1.2932813E-02
2	-4.2583230E-01	5.4494897E-04	-3.4926820E-01	-6.3828716E-01
3	6.6995621E-03	-5.7995319E-05	-4.9803048E-02	4.3206066E-02
4	1.1102676E-02	1.0946300E-05	1.1205268E-02	-1.1468565E-02
5	-1.9272813E-04	2.5429513E-06	8.6931446E-04	-7.4873391E-04
6	8.4911902E-04	8.3421488E-07	6.5616292E-04	-6.7454401E-04
7	-1.4023815E-01	-1.3485612E-04	-7.3412705E-02	8.1080112E-02
8	-1.0465209E-01	-3.1496201E-04	7.2278356E-02	-7.1048499E-02
9	1.0907886E-01	-1.0753097E-04	1.2963699E-01	-1.2991924E-01
10	1.3506913E-01	1.3561605E-04	1.3933333E-01	-1.3762556E-01
11	1.4055753E-01	1.3539940E-04	7.6093472E-02	-8.3445288E-02
12	-2.9945374E-03	-1.6723573E-04	-7.6799870E-02	7.4844986E-02
13	2.7360916E-02	-1.4036894E-04	-1.5110600E-01	1.4972883E-01
14	-1.3574934E-01	-1.3586879E-04	-1.3742414E-01	1.3605356E-01
15	5.3778610E-01	1.9969419E-04	-1.9290262E-01	1.8734804E-01
16	3.3964735E-01	-1.3274327E-04	-3.4755496E-01	3.4313733E-01
17	-8.8584423E-02	-3.3903122E-04	-4.0186197E-02	3.9947599E-02
18	3.9453983E-02	-8.7052584E-05	-2.4064866E-01	2.3884827E-01
19	-9.4503736E-01	4.2244792E-05	5.7765990E-02	-5.5156291E-02

(GRN)	9	10	11	12
1	1.2322453E-02	-1.2488545E-02	-2.5312746E-01	-2.1292543E-03
2	1.1456787E-01	-1.1521120E-01	-8.4905026E-02	-1.0184595E-02
3	-5.4061913E-01	-4.5880198E-01	-2.3084402E-02	6.8644723E-03
4	-1.5225018E-02	1.5253802E-02	-1.2301316E-02	3.0895287E-04
5	7.0728778E-04	-7.1726395E-04	1.4091281E-02	-1.2175395E-04
6	6.5252327E-04	-6.5060326E-04	-1.8811163E-02	2.1019758E-05
7	-7.8965423E-02	7.8283936E-02	2.0700269E-01	-8.0323956E-03
8	6.7211768E-02	-6.7443711E-02	7.1213191E-02	-2.0439324E-03
9	1.2434386E-01	-1.2438838E-01	2.3319672E-02	-1.3310130E-04
10	1.3260052E-01	-1.3265949E-01	-1.7659063E-01	-1.2172092E-03
11	8.1216320E-02	-8.0559492E-02	-1.7219892E-01	7.7227342E-03
12	-7.0781201E-02	7.1073920E-02	-6.9624782E-02	2.7810009E-03
13	-1.4326498E-01	1.4343861E-01	-4.0369093E-02	1.7583650E-03
14	-1.3111693E-01	1.3114896E-01	1.4390445E-01	8.8283325E-04
15	-1.7959766E-01	1.8002967E-01	-3.2869533E-01	5.4389775E-03
16	-3.3031669E-01	3.3051641E-01	-3.2231620E-01	3.4392676E-03
17	-3.7820935E-02	3.7915826E-02	-4.2597115E-02	7.0432107E-04
18	-2.2884560E-01	2.2905129E-01	-1.6439497E-01	2.1674130E-03
19	5.2954704E-02	-5.3137347E-02	2.3608685E-01	-2.4299910E-03

(GRN)	13	14
1	2.0391316E-03	-1.9911786E-03
2	3.7226513E-02	-3.7771426E-02
3	-4.9801731E-01	-5.0192475E-01
4	-1.3304748E-02	1.3293803E-02
5	-9.9438773E-05	9.6895746E-05
6	7.2029063E-04	-7.2112477E-04
7	-1.1661289E-01	1.1674773E-01
8	-8.4597038E-02	8.4910827E-02
9	9.5227922E-02	-9.5121346E-02
10	1.1692475E-01	-1.1706036E-01
11	-8.8295269E-01	-1.1718261E-01
12	-5.5830359E-01	-4.4152999E-01
13	-4.2551184E-01	-5.7434893E-01
14	-1.1733913E-01	-8.8252497E-01
15	1.6036192E-01	-1.6056147E-01
16	-9.7044557E-02	9.7177923E-02
17	-6.3606191E-01	-3.6352444E-01
18	-4.1713667E-01	-5.8247471E-01
19	1.9467402E-01	-1.9471669E-01

INFLUENCE FLEXIBILITY COEFFICIENT MATRIX

(AMN)	1	2	3	4
1	2.0693024E-06	3.6837003E-08	-4.5857027E-06	-2.5474562E-09
2	3.6837637E-08	3.2336034E-05	-1.2506314E-07	-1.1110257E-07
3	-4.5857025E-06	-1.2506314E-07	5.1712617E-05	6.9361476E-09
4	-2.5475080E-09	-1.1110257E-07	6.9361476E-09	4.1207922E-08
5	6.2893245E-08	3.5441508E-09	-3.2910054E-07	-1.1675550E-10
6	-4.2316292E-11	7.5857024E-08	7.1166142E-11	1.4867935E-09
7	3.4050239E-06	4.2229443E-07	-2.8828315E-05	-4.9059172E-07
8	3.1439210E-06	3.4905759E-07	-2.9630261E-05	-9.1019583E-08
9	3.2734203E-06	-1.5863897E-06	-3.0171993E-05	1.1351551E-07
10	3.3913082E-06	-2.0540065E-07	-2.8805250E-05	4.8066914E-07
11	-3.1684383E-06	-5.6787388E-07	2.8317656E-05	4.9495324E-07
12	-3.1105038E-06	-4.0901670E-07	3.0342531E-05	8.6144723E-08
13	-2.9752227E-06	9.1873072E-07	2.9954219E-05	-1.0104696E-07
14	-3.1546736E-06	3.6609674E-07	2.8295006E-05	-4.8573770E-07
15	3.2191778E-07	-1.3601218E-05	8.1190385E-06	4.4074844E-07
16	1.2070985E-06	-1.0804332E-05	4.3927416E-06	1.1000026E-07
17	-1.9695235E-06	-6.5146997E-07	1.8056182E-05	5.6304827E-08
18	-3.2266857E-06	-2.1294024E-06	3.6018238E-05	-4.8521542E-09
19	-8.3362577E-07	5.3184023E-06	2.8096046E-06	-2.0551030E-07

(AMN)

	5	6	7	8
1	6.2893245E-08	-4.2315477E-11	3.4050239E-06	3.1439210E-06
2	3.5441508E-09	7.5857024E-08	4.2229443E-07	3.4905759E-07
3	-3.2910054E-07	7.1166142E-11	-2.8828315E-05	-2.9630261E-05
4	-1.1675550E-10	1.4867935E-09	-4.9059172E-07	-9.1019583E-08
5	6.5062410E-09	5.1372415E-14	1.9415365E-07	1.8358336E-07
6	5.1372415E-14	3.9087107E-09	-6.3161651E-08	-7.6141970E-09
7	1.9415365E-07	-6.3161651E-08	3.9399642E-05	1.7925346E-05
8	1.8358336E-07	-7.6141970E-09	1.7925346E-05	3.1896953E-05
9	1.9168089E-07	9.0890396E-09	1.5766182E-05	2.1739005E-05
10	1.9417040E-07	6.3075632E-08	1.0212194E-05	1.5710291E-05
11	-1.8063434E-07	5.6511661E-08	-2.2204603E-05	-1.7602542E-05
12	-1.8379297E-07	7.2263970E-09	-1.8214090E-05	-1.7643499E-05
13	-1.7581128E-07	-8.2783700E-09	-1.5665440E-05	-1.6492332E-05
14	-1.8065116E-07	-5.6431587E-08	-9.8657213E-06	-1.5382516E-05
15	1.6842388E-08	3.3443502E-08	-9.4991909E-06	-1.0010016E-05
16	6.6594349E-08	1.3701135E-08	-3.1352055E-06	-2.8976409E-06
17	-1.1697804E-07	4.7316439E-09	-1.0957109E-05	-7.7298886E-06
18	-1.9132380E-07	4.1939257E-09	-2.0128689E-05	-2.2752862E-05
19	-4.7526048E-08	-3.7192802E-08	-9.5340389E-07	6.9767348E-07

(AMN)

	9	10	11	12
1	3.2734201E-06	3.3913083E-06	-3.1684386E-06	-3.1105033E-06
2	-1.5863897E-06	-2.0540065E-07	-5.6787388E-07	-4.0901670E-07
3	-3.0171993E-05	-2.8805250E-05	2.8317656E-05	3.0342531E-05
4	1.1351551E-07	4.8066914E-07	4.9495324E-07	8.6144723E-08
5	1.7168089E-07	1.9417040E-07	-1.8063434E-07	-1.8379297E-07
6	9.0890396E-07	6.3075632E-08	5.6511661E-08	7.2263970E-09
7	1.5766182E-05	1.0212194E-05	-2.2204603E-05	-1.8214090E-05
8	2.1739005E-05	1.5710291E-05	-1.7602542E-05	-1.7643499E-05
9	3.0620981E-05	1.8459419E-05	-1.5416998E-05	-1.6811018E-05
10	1.8459419E-05	3.9371747E-05	-9.8667405E-06	-1.6134679E-05
11	-1.5416998E-05	-9.8667405E-06	3.0596603E-05	1.7899199E-05
12	-1.6811018E-05	-1.6134679E-05	1.7899199E-05	2.8297370E-05
13	-1.7188008E-05	-1.8085935E-05	1.5366414E-05	2.1475292E-05
14	-1.8116935E-05	-2.2177622E-05	9.5457771E-06	1.5815771E-05
15	-3.5660596E-07	1.2210913E-06	9.6397898E-06	7.5273076E-06
16	-5.8980680E-06	-4.6340286E-07	3.3771563E-06	-1.3342615E-06
17	-7.4250348E-06	-9.5739807E-06	1.0747426E-05	1.8916031E-05
18	-2.1315529E-05	-2.0239918E-05	1.9826727E-05	2.8309896E-05
19	-5.9395155E-06	-2.6622981E-06	-2.1875294E-06	2.9048397E-06

(AMN)

	13	14	15	16
1	-2.9752215E-06	-3.1546719E-06	3.2191786E-07	1.2070985E-06
2	9.1873072E-07	3.6609674E-07	-1.3601218E-05	-1.0804332E-05
3	2.9954219E-05	2.8295006E-05	8.1190385E-06	4.39.7416E-06
4	-1.0104696E-07	-4.8573770E-07	4.4074844E-07	1.1000026E-07
5	-1.7581128E-07	-1.8065116E-07	1.6842388E-08	6.6594349E-08
6	-8.2783700E-09	-5.6431587E-08	3.3443502E-08	1.3701135E-08
7	-1.5665440E-05	-9.8657213E-06	-9.4991909E-06	-3.1352055E-06
8	-1.6492332E-05	-1.5382516E-05	-1.0010016E-05	-2.8976409E-06
9	-1.9188008E-05	-1.8116935E-05	-3.5660596E-07	-5.8980680E-06
10	-1.8085935E-05	-2.2177622E-05	1.2210913E-06	-4.6340286E-07
11	1.5366414E-05	9.5457771E-06	9.6397898E-06	3.3771563E-06
12	2.1475292E-05	1.5815771E-05	7.5273076E-06	-1.3342615E-06
13	3.0493895E-05	1.7792885E-05	4.5627275E-06	2.9652378E-06
14	1.7792885E-05	3.0571595E-05	-1.1179827E-06	7.1696559E-07
15	4.5627275E-06	-1.1179827E-06	4.5503932E-05	1.5142095E-05
16	2.9652378E-06	7.1696559E-07	1.5142095E-05	3.8592776E-05
17	1.4676358E-05	9.3613561E-06	-6.6241182E-07	-5.1743563E-06
18	2.6862421E-05	1.9956438E-05	1.3407727E-05	5.1011238E-06
19	4.6360492E-07	5.5517775E-06	-1.3106106E-05	-8.9508141E-06

(AMN)

	17	18	19
1	-1.9695236E-06	-3.2266853E-06	-8.3362532E-07
2	-6.5146997E-07	-2.1294024E-06	5.3184023E-06
3	1.8056182E-05	3.6018238E-05	2.8096046E-06
4	5.6304827E-08	-4.8521542E-09	-2.0551030E-07
5	-1.1697804E-07	-1.9132380E-07	-4.7526048E-08
6	4.7316439E-09	4.1939257E-09	-3.7192802E-08
7	-1.0957109E-05	-2.0128689E-05	-9.5340389E-07
8	-7.1298886E-06	-2.2752862E-05	6.9767348E-07
9	-7.4250348E-06	-2.1315529E-05	-5.9395155E-06
10	-9.5739807E-06	-2.0239918E-05	-2.6622981E-06
11	1.0747426E-05	1.9826727E-05	-2.1875294E-06
12	1.8916031E-05	2.8309896E-05	2.9048397E-06
13	1.4676358E-05	2.6862421E-05	4.6360492E-07
14	9.3613561E-06	1.9956438E-05	5.5517775E-06
15	-6.6241182E-07	1.3407727E-05	-1.3106106E-05
16	-5.1743563E-06	5.1011238E-06	-8.9508141E-06
17	2.9488703E-05	2.0695961E-05	5.1525821E-06
18	2.0695961E-05	4.4294233E-05	1.9361387E-06
19	5.1525821E-06	1.9361387E-06	4.0362860E-05

V-D INTERNAL LOADS ON REDUNDANT STRUCTURE FOR UNIT APPLIED LOADS
 SYMMETRICAL LOADING CONDITIONS

(GIM)	1	2	3	4
1	-2.9067525E-02	1.9872664E-01	9.7921594E-02	-5.8176297E-03
2	1.8108099E-01	-6.3245888E-02	-8.0190355E-01	-7.2502309E-03
3	6.6312008E-02	-4.5335689E-01	-2.2339132E-01	1.3271823E-02
4	-4.3655745E-10	-2.8871000E-08	8.1956387E-08	-3.4924597E-10
5	7.8659012E-08	-1.6029879E-04	-1.3119171E-07	4.6542950E-06
6	6.5869507E-02	4.4049374E-01	-2.2264735E-01	-1.2681227E-02
7	1.8084287E-01	7.4796306E-02	-8.0150318E-01	6.7218215E-03
8	-2.5397786E-03	3.3307391E-02	-3.5477206E-03	6.6912476E-04
9	1.8232403E-03	-2.0720566E-02	2.2071041E-03	-4.1626405E-04
10	-0.	-0.	-0.	0.
11	1.8108099E-01	-6.3245888E-02	-8.0190355E-01	-7.2502309E-03
12	-4.3683622E-10	-3.3195704E-09	-2.1892112E-09	-8.8245840E-11
13	-3.8688966E-10	-2.9400205E-09	-1.9389032E-09	-7.8156071E-11
14	-0.	-0.	-0.	0.
15	1.2655632E-05	8.4632870E-05	-4.2777644E-05	-2.4364674E-06
16	6.6306255E-02	-4.5344442E-01	-2.2337184E-01	1.3274355E-02
17	-0.	-0.	-0.	0.
18	-0.	-0.	-0.	0.
19	-0.	-0.	-0.	0.
20	1.2640069E-14	-1.4468419E-12	-4.1443440E-14	4.2028843E-14
21	6.5863726E-02	4.4045507E-01	-2.2262783E-01	-1.2680115E-02
22	-0.	-0.	-0.	0.
23	-0.	-0.	-0.	0.
24	-0.	-0.	-0.	0.
25	1.8084287E-01	7.4796306E-02	-8.0150318E-01	6.7218215E-03
26	-0.	-0.	-0.	0.
27	-0.	-0.	-0.	0.
28	-0.	-0.	-0.	0.
29	-1.4092970E-05	-4.9086919E-03	4.1984081E-02	1.0806929E-03
30	1.8074796E-01	-1.7923855E-01	1.9018222E-01	1.8286592E-02
31	-1.5093014E-09	-6.9472901E-09	-6.7394645E-09	3.4103952E-11
32	-2.8482821E-04	-9.9204218E-02	8.4849418E-01	2.1840698E-02
33	1.9897754E-04	6.9303223E-02	-5.9275089E-01	-1.5257728E-02
34	5.5391221E-05	5.3360922E-03	4.7100439E-02	-1.2115357E-03
35	6.5301593E-02	3.1233036E-01	-2.1053101E-01	-9.4759640E-03
36	1.0352062E-02	3.9135526E-02	-3.4420669E-02	-4.0853265E-05
37	7.2474126E-02	3.4063686E-01	-2.4485109E-01	-9.7711036E-03
38	1.4579909E-02	6.7120604E-02	-4.8418545E-02	-2.8120165E-03
39	-1.6645915E-02	-7.6631753E-02	5.5279534E-02	3.2104853E-03
40	8.0298246E-10	-1.6949364E-09	-1.1008367E-08	-2.5522504E-10
41	1.4093340E-05	4.9086928E-03	4.1936694E-02	-1.0806931E-03
42	7.2845213E-02	-3.5380324E-01	-2.3503577E-01	1.0157795E-02
43	-8.3378798E-10	-1.1304041E-08	-1.2268524E-08	-2.8288080E-10
44	3.5684930E-10	-1.1688599E-09	-1.2999516E-08	-1.1866317E-10
45	-0.	-0.	-0.	0.
46	-0.	-0.	-0.	0.
47	1.8117590E-01	1.9078897E-01	1.8946280E-01	-1.8815003E-02
48	-0.	-0.	-0.	0.
49	2.8482364E-04	9.9204191E-02	8.4753643E-01	-2.1840699E-02
50	-1.9897762E-04	-6.9303225E-02	-5.9208182E-01	1.5257728E-02

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51	-3.6273503E-02	-1.7350393E-01	1.1694167E-01	5.2633145E-03
52	-1.6665272E-04	-6.4590119E-04	5.8075384E-04	2.8883543E-05
53	-2.7648639E-10	4.0023587E-07	7.2468538E-08	-2.5174813E-09
54	-0.	-0.	-0.	0.
55	-0.	-0.	-0.	0.
56	-0.	-0.	-0.	0.
57	-0.	-0.	-0.	0.
58	-0.	-0.	-0.	0.
59	-0.	-0.	-0.	0.
60	-0.	-0.	-0.	0.
61	-0.	-0.	-0.	0.
62	-0.	-0.	-0.	0.
63	-2.3665213E-02	2.6894657E-01	-2.8657644E-02	5.4032615E-03
64	3.3928058E-02	-5.5257712E-01	4.1071895E-02	-1.1116173E-02
65	2.3080116E-01	-6.3136436E-01	2.7963789E-01	-1.2509173E-02
66	2.3059703E-01	6.3516631E-01	2.7998101E-01	1.2587380E-02
67	-1.1164211E-02	-3.0531814E-01	-3.6132793E-02	-6.1717413E-03
68	-0.	-0.	-0.	0.
69	5.9826851E-18	-1.2628261E-17	-8.2018728E-17	-1.9015747E-18
70	-2.5995820E-01	1.1927467E 00	-1.0005301E 00	4.5503060E-03
71	1.7038762E-04	-1.9364338E-03	2.0669401E-04	-3.8907863E-05
72	-2.3355404E-01	-7.3327068E-02	-1.9936529E-02	-1.0623864E-02
73	-2.4589801E-01	7.3327066E-02	1.9936529E-02	1.0623864E-02
74	-2.6742047E-01	8.4905026E-02	2.3084402E-02	1.2301316E-02
75	1.6609269E-04	6.4372388E-04	-5.7880533E-04	-2.8787101E-05
76	1.1641532E-10	-3.9208680E-07	-7.6834112E-08	3.1213858E-09
77	-8.2611662E-05	-2.2600430E-03	-2.6748981E-04	-4.5655877E-05
78	-2.3941025E-01	-4.6634453E-01	9.9946840E-01	4.5503035E-03
79	1.2789720E-03	-8.7439817E-03	-4.3094009E-03	2.5598146E-04
80	-2.4004177E-01	4.6634452E-01	1.0005302E 00	-4.5503036E-03
81	-4.3655745E-10	-2.8871000E-08	8.1956387E-08	-3.4924597E-10
82	7.2818463E-02	-3.5491584E-01	-2.4543002E-01	1.0424344E-02
83	3.4358575E-02	5.4822020E-01	4.0348053E-02	1.1026554E-02
84	-2.6058973E-01	-1.1927468E 00	-9.9946839E-01	-4.5503061E-03
85	-2.6285198E-03	-5.6348727E-01	-2.5968552E-03	-1.1319749E-02
86	1.1791614E-05	-4.2583230E-01	6.6995621E-03	1.1102676E-02
87	-4.7951022E-05	5.4494897E-04	-5.7995319E-05	1.0946300E-05
88	1.5144679E-02	-3.4926820E-01	-4.9803048E-02	1.1205268E-02
89	-1.2932813E-02	-6.3828716E-01	4.3206066E-02	-1.1468565E-02
90	1.2322453E-02	1.1456787E-01	-5.4061913E-01	-1.5225018E-02
91	-1.2488545E-02	-1.1521120E-01	-4.5880198E-01	1.5253802E-02
92	-2.5312746E-01	-8.4905026E-02	-2.3084402E-02	-1.2301316E-02
93	-2.1292543E-03	-1.0184595E-02	6.8644723E-03	3.0895287E-04
94	2.0491316E-03	3.7226513E-02	-4.9801731E-01	-1.3304748E-02
95	-1.9911786E-03	-3.7771426E-02	-5.0192475E-01	1.3293803E-02

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1	-1.6558378E-03	-4.3583260E-04	7.6432247E-03	-6.0747278E-02
2	1.0339531E-02	-4.4670124E-03	7.5210766E-01	5.0119387E-01
3	3.7774779E-03	9.9426855E-04	-1.7436532E-02	1.3858331E-01
4	1.0913936E-11	0.	-9.3132257E-10	-4.6566129E-09
5	-1.3680074E-10	3.5574126E-07	-5.7591283E-05	9.5643914E-02
6	3.7780176E-03	-9.8939919E-04	3.0369290E-01	2.4582868E-01
7	1.0339822E-02	4.4624308E-03	3.6519009E-01	4.6124332E-01
8	1.5542603E-04	5.0987364E-05	-8.2425419E-03	-1.9250575E-02
9	-9.6690654E-05	-3.1719326E-05	5.1276916E-03	1.1975800E-02
10	0.	-0.	0.	0.
11	1.0339531E-02	-4.4670124E-03	5.9409145E-01	5.0119387E-01
12	2.7930866E-11	-3.2613449E-11	9.3186754E-01	-5.7171236E-10
13	2.4737334E-11	-2.8884524E-11	8.2532053E-01	-5.0634444E-10
14	0.	-0.	0.	0.
15	7.2587740E-07	-1.9009501E-07	5.8349075E-05	-1.5544657E-01
16	3.7771465E-03	9.9446391E-04	-1.7480739E-02	1.0282410E-01
17	0.	-0.	0.	5.4475409E-01
18	0.	-0.	0.	6.4510971E-01
19	0.	-0.	0.	0.
20	6.8072473E-16	3.2087474E-15	-4.9355866E-13	1.8766126E-09
21	3.7776863E-03	-9.8931271E-04	3.0366627E-01	2.0202413E-01
22	0.	-0.	0.	2.1351497E-01
23	0.	-0.	0.	3.3259392E-01
24	0.	-0.	0.	-8.7458570E-07
25	1.0339822E-02	4.4624308E-03	3.6519009E-01	4.6124332E-01
26	0.	-0.	0.	0.
27	0.	-0.	0.	0.
28	0.	-0.	0.	0.
29	1.7233688E-08	-6.3179252E-05	1.0227884E-02	-2.5958241E-02
30	1.0339937E-02	-5.9599414E-03	-3.7798669E-01	-1.1220058E-01
31	9.2650447E-11	-1.1286585E-10	-7.2492862E-01	7.7640749E-10
32	3.4776099E-07	-1.2768465E-03	-8.8925442E-01	-5.2461353E-01
33	-2.4285941E-07	8.9199414E-04	-1.4440200E-01	3.6649061E-01
34	2.2339734E-06	7.1579660E-05	-1.1502190E-02	1.6127260E-01
35	3.7341116E-03	-6.4468943E-04	2.4635120E-01	6.2695028E-02
36	6.0437151E-04	-2.0194346E-04	5.5468395E-02	6.7960586E-02
37	4.1526705E-03	-7.6896747E-04	2.8224379E-01	2.0615198E-01
38	8.4903570E-04	-1.2098936E-04	5.1585110E-02	-2.8622874E-01
39	-9.6934576E-04	1.3813360E-04	-5.8894814E-02	-2.1359972E-01
40	-3.9431614E-11	6.8643752E-11	2.0307240E-08	-5.7338271E-01
41	-1.7203433E-08	6.3179244E-05	-1.0227880E-02	-2.1491953E-02
42	4.1535706E-03	7.9065462E-04	2.9812092E-02	8.6482326E-02
43	1.9333463E-11	-4.7957903E-11	8.6680751E-09	-1.9578276E-01
44	-1.8936666E-11	3.5028402E-11	6.3433251E-09	-3.3067028E-01
45	0.	-0.	0.	9.0236340E-14
46	0.	-0.	0.	0.
47	1.0339415E-02	5.9553597E-03	1.2350482E-01	-4.6612486E-02
48	0.	-0.	0.	0.
49	-3.4769800E-07	1.2768464E-03	-2.0670445E-01	-4.3435023E-01
50	2.4297105E-07	-8.9199414E-04	1.4440199E-01	3.0343341E-01

(GIM)	5	6	7	8
51	-2.0741739E-03	3.5808791E-04	-1.3683804E-01	-3.4819992E-02
52	-1.0009789E-05	1.9264041E-06	-6.8376271E-04	-2.3271393E-04
53	-2.0008883E-11	7.5260686E-11	-2.1304004E-08	-1.0360964E-08
54	0.	-0.	0.	-4.2743610E-07
55	0.	-0.	0.	0.
56	0.	-0.	0.	8.1592182E-01
57	0.	-0.	0.	-7.0051960E-01
58	0.	-0.	0.	8.8157263E-07
59	0.	-0.	0.	-7.8723335E-07
60	0.	-0.	0.	7.9040781E-14
61	0.	-0.	0.	0.
62	0.	-0.	0.	0.
63	1.2550178E-03	4.1169499E-04	-6.6553795E-02	-1.5544124E-01
64	-1.8083177E-03	6.3998391E-04	1.1927595E-01	8.8262402E-03
65	-1.2132092E-02	-1.8686780E-02	3.6453458E-01	2.2984471E-02
66	-1.2131842E-02	1.8687290E-02	-3.6421813E-01	-6.3055451E-02
67	1.5857885E-04	-3.5658860E-04	4.9322283E-02	1.1000886E-01
68	0.	-0.	0.	-3.3566031E-07
69	-2.9378841E-19	5.1143578E-19	1.5130072E-16	-3.8063301E-09
70	1.3698245E-02	1.9144321E-02	-2.6339613E-01	7.0323333E-02
71	-9.0361254E-06	-2.9641960E-06	4.7918409E-04	1.1191806E-03
72	-1.3359522E-02	6.4812682E-03	1.7877505E-01	6.1502301E-02
73	-1.4037738E-02	-6.4812675E-03	-1.7877504E-01	-6.1502300E-02
74	1.3305979E-02	1.8811163E-02	-2.0700269E-01	-7.1213191E-02
75	9.9761581E-06	-1.9199272E-06	6.8146351E-04	2.3193310E-04
76	1.0004442E-11	-7.7079676E-11	2.2700988E-08	9.8807504E-09
77	1.1734091E-06	-2.6386733E-06	3.6498730E-04	8.1407528E-04
78	-1.3699016E-02	-3.5829651E-03	-6.3517557E-01	-7.4736413E-01
79	7.2856860E-05	1.9176623E-05	-3.3629499E-04	2.6728809E-03
80	-1.3698245E-02	3.5829667E-03	-7.3660406E-01	-6.2441413E-01
81	1.0913936E-11	0.	-9.3132257E-10	-4.6566129E-09
82	4.1522503E-03	7.7463017E-04	3.2355906E-02	1.2896337E-01
83	-1.8088430E-03	-6.4056833E-04	-1.1963860E-01	-1.6206772E-02
84	1.3699016E-02	-1.9144322E-02	6.3517578E-01	3.0145498E-01
85	1.2890730E-04	-8.6533134E-04	1.4009526E-01	1.0086003E-01
86	-1.9272813E-04	8.4911902E-04	-1.4023815E-01	-1.0465209E-01
87	2.5429513E-06	8.3421488E-07	-1.3485612E-04	-3.1496201E-04
88	8.6931446E-04	6.5616292E-04	-7.3412705E-02	7.2278356E-02
89	-7.4873391E-04	-6.7454401E-04	8.1080112E-02	-7.1048499E-02
90	7.0728778E-04	6.5252327E-04	-7.8965423E-02	6.7211768E-02
91	-7.1726395E-04	-6.5060326E-04	7.8283936E-02	-6.7443711E-02
92	1.4091281E-02	-1.8811163E-02	2.0700269E-01	7.1213191E-02
93	-1.2175395E-04	2.1019758E-05	-8.0323956E-03	-2.0439324E-03
94	-9.9438773E-05	7.2029063E-04	-1.1661289E-01	-8.4597038E-02
95	9.6895746E-05	-7.2112477E-04	1.1674773E-01	8.4910827E-02

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1	-1.2993212E-01	-1.3366551E-01	-1.2286970E-02	4.7339275E-02
2	4.7280105E-01	3.6468948E-01	-5.9798552E-01	-5.0284927E-01
3	2.9641535E-01	3.0493231E-01	2.8030086E-02	-1.0799619E-01
4	2.7939677E-04	5.5879354E-09	-6.2398612E-08	2.0489097E-07
5	-9.5646676E-02	5.7749634E-05	5.7805943E-05	6.8545371E-02
6	2.0459688E-01	-1.7097027E-02	-2.9429691E-01	-1.8575294E-01
7	5.2105275E-01	7.5112287E-01	-3.4612753E-01	-4.6519498E-01
8	-6.5721757E-03	8.2889850E-03	8.2741249E-03	-1.0223888E-02
9	4.0885592E-03	-5.1565785E-03	-5.1473118E-03	6.3603371E-03
10	-0.	-0.	-0.	-0.
11	4.7280105E-01	3.6468948E-01	-6.7833282E-01	-5.0284927E-01
12	1.2127199E-10	6.0282429E-10	4.7383136E-01	7.4245238E-10
13	1.0740609E-10	5.3389911E-10	4.1965488E-01	6.5756253E-10
14	-0.	-0.	-0.	-0.
15	8.1750219E-02	-3.2848812E-06	-5.6543808E-05	-1.0557646E-01
16	1.7664531E-01	3.0495143E-01	2.8073534E-02	-1.2124023E-01
17	2.1351509E-01	-0.	-0.	3.3010817E-01
18	2.5284924E-01	-0.	-0.	3.9092131E-01
19	-0.	-0.	-0.	-0.
20	-1.8782452E-09	5.4680419E-13	4.9729886E-13	1.2771294E-09
21	9.2873002E-02	-1.7095532E-02	-2.9427110E-01	-2.3148237E-01
22	5.4475421E-01	-0.	-0.	2.2308679E-01
23	-3.3259392E-01	-0.	-0.	2.0696957E-01
24	8.9795983E-01	-0.	-0.	1.0683847E-01
25	5.2105275E-01	5.9310667E-01	-3.4612753E-01	-4.6519498E-01
26	-0.	9.3186754E-01	-0.	-0.
27	-0.	8.2532053E-01	-0.	-0.
28	-0.	-0.	-0.	-0.
29	-2.1000625E-02	-1.0256542E-02	-1.0266025E-02	2.6743831E-02
30	-2.3444588E-02	1.2232695E-01	3.4024914E-01	1.2910866E-01
31	2.4508623E-09	-1.3936982E-09	7.5324160E-01	-1.4885034E-09
32	-4.2442051E-01	-2.0728369E-01	9.3128757E-01	5.4049019E-01
33	2.9649660E-01	1.4480664E-01	1.4494051E-01	-3.7758192E-01
34	-5.9882163E-02	1.1705880E-02	1.1551364E-02	-1.6732361E-01
35	4.0869067E-03	3.7325375E-02	-2.3685419E-01	-8.5300493E-02
36	9.9456241E-02	-1.0006893E-02	-5.4004400E-02	-7.4163656E-02
37	1.1554677E-01	3.2923886E-02	-2.7172350E-01	-2.3676178E-01
38	-1.4893384E-01	1.2357468E-02	-4.9430096E-02	2.9301047E-01
39	-5.3487784E-02	-1.4108551E-02	5.6434448E-02	2.2696318E-01
40	-2.3717392E-01	2.3008612E-09	-1.2968156E-08	5.9577758E-01
41	-2.6449609E-02	1.0256542E-02	1.0266022E-02	2.2559648E-02
42	8.4359055E-02	2.8616377E-01	-1.8346731E-02	-1.0678936E-01
43	-4.7331781E-01	2.1956703E-09	-1.2367119E-08	2.0342954E-01
44	3.3067029E-01	2.2258239E-09	-6.3966017E-09	3.4358543E-01
45	-8.1055663E-01	-0.	-0.	-1.1129776E-08
46	-0.	-0.	-0.	-0.
47	-1.0395266E-01	-3.7829416E-01	-1.0354097E-01	6.7890504E-02
48	-0.	-7.2492862E-01	-0.	-0.
49	-5.3454396E-01	-8.8867515E-01	2.0747530E-01	4.5592824E-01
50	3.7342791E-01	-1.4480664E-01	-1.4494049E-01	-3.1850763E-01

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	9	10	11	12
51	-2.2675403E-03	-2.0736174E-02	1.3156270E-01	4.7376540E-02
52	-4.4661943E-05	-5.9186757E-05	6.5901514E-04	2.9374045E-04
53	-6.0335878E-09	2.1464075E-08	2.7823262E-08	-3.4429831E-08
54	-0.	-0.	-0.	5.2333919E-02
55	-0.	-0.	-0.	-0.
56	-0.	-0.	-0.	5.9525551E-01
57	-0.	-0.	-0.	7.2788013E-01
58	-8.7171792E-07	-0.	-0.	-1.0860215E-01
59	8.1592262E-01	-0.	-0.	9.7077760E-02
60	-7.0051960E-01	-0.	-0.	-9.7097881E-09
61	-0.	-0.	-0.	-0.
62	-0.	-0.	-0.	-0.
63	-5.3070430E-02	6.6928813E-02	6.6809139E-02	-8.2561266E-02
64	-7.8191792E-03	-1.2017117E-01	-1.2243450E-01	-1.8217075E-02
65	-6.7384701E-02	-3.6392779E-01	-3.3371497E-01	-1.7377445E-02
66	2.5773161E-02	3.6440966E-01	3.3342657E-01	6.8716149E-02
67	5.6128096E-02	-6.6293386E-02	-5.0122770E-02	-1.1163941E-01
68	3.4654357E-01	-0.	-0.	4.1231553E-02
69	-3.7924925E-01	1.7142752E-17	-9.6620290E-17	-1.2865619E-09
70	2.9044730E-01	6.3581784E-01	-5.7306257E-01	-5.9887335E-01
71	3.8210861E-04	-4.8188865E-04	-4.8077665E-04	5.9476495E-04
72	2.0139717E-02	-1.5251009E-01	-1.4871725E-01	-6.0130493E-02
73	-2.0139716E-02	1.5251008E-01	1.4871725E-01	6.0130492E-02
74	-2.3319672E-02	1.7659063E-01	1.7219892E-01	6.9624782E-02
75	4.4513799E-05	5.8989637E-05	-6.5679906E-04	-2.9275354E-04
76	2.4883775E-09	-2.3530447E-08	-2.8405339E-08	3.4895492E-08
77	4.1535350E-04	-4.9056440E-04	-3.7091854E-04	-8.2611758E-04
78	-6.5542227E-01	-7.3596197E-01	6.0775849E-01	5.8194864E-01
79	5.7170140E-03	5.8812816E-03	5.4050050E-04	-2.0832196E-03
80	-7.3635640E-01	-6.3581762E-01	5.7306275E-01	5.9887324E-01
81	2.7939677E-09	5.5879354E-09	-6.2398612E-08	2.0489097E-07
82	1.8073089E-01	2.8351204E-01	-2.0903721E-02	-1.5098119E-01
83	2.2040920E-03	1.1961894E-01	1.2276500E-01	1.4767021E-02
84	8.1331406E-02	-2.6403823E-01	-6.0775868E-01	-5.8194858E-01
85	-1.1517797E-01	-1.4046851E-01	-1.4061725E-01	4.4829845E-03
86	1.0907886E-01	1.3506913E-01	1.4055753E-01	-2.9945374E-03
87	-1.0753097E-04	1.3561605E-04	1.3539940E-04	-1.6723573E-04
88	1.2963699E-01	1.3933333E-01	7.6093472E-02	-7.6799870E-02
89	-1.2991924E-01	-1.3762556E-01	-8.3445286E-02	7.4844986E-02
90	1.2434386E-01	1.3260052E-01	8.1216320E-02	-7.0781201E-02
91	-1.2438838E-01	-1.3265949E-01	-8.0559492E-02	7.1073920E-02
92	2.3319672E-02	-1.7659063E-01	-1.7219892E-01	-6.9624782E-02
93	-1.3310130E-04	-1.2172092E-03	7.7227342E-03	2.7810009E-03
94	9.5227922E-02	1.1692475E-01	-8.8295269E-01	-5.5830359E-01
95	-9.5121346E-02	-1.1706036E-01	-1.1718261E-01	-4.4152999E-01

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14

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16

1	6.2989764E-02	1.2953328E-01	-4.6039868E-01	-2.7515373E-01
2	-4.4632767E-01	-3.4560731E-01	-1.1289331E-01	5.8551473E-02
3	-1.4369961E-01	-2.9550801E-01	1.0503120E 00	6.2771047E-01
4	2.2351742E-00	-7.4505806E-09	-3.5390258E-08	-3.7252903E-08
5	-6.8543394E-02	-5.7953268E-05	2.5942326E-02	-3.8872938E-02
6	-7.6946850E-02	2.7656262E-02	-2.2976770E-01	-6.7142841E-02
7	-4.8990314E-01	-5.9701474E-01	7.3933638E-02	1.1538772E-01
8	-8.5858852E-03	-8.3145499E-03	1.2205884E-02	-8.1135238E-03
9	5.3414032E-03	5.1726699E-03	-7.5933076E-03	5.0474358E-03
10	-0.	-0.	-0.	0.
11	-4.4632767E-01	-3.4560731E-01	-1.1289331E-01	5.8551473E-02
12	-9.3622999E-11	-1.3347453E-10	-9.5449978E-10	-9.5953779E-10
13	-8.2918478E-11	-1.1821342E-10	-8.4536507E-10	-8.4982704E-10
14	-0.	-0.	-0.	0.
15	5.1697710E-02	5.3136492E-06	-3.9801802E-02	4.8503564E-02
16	-2.4386880E-01	-2.9552812E-01	4.7080448E-02	6.1098097E-01
17	2.2308687E-01	-0.	-5.8505130E-01	-6.9238362E-02
18	2.6418436E-01	-0.	6.7191061E-02	-8.1993582E-02
19	-0.	-0.	7.5779399E-01	0.
20	-1.2783892E-09	-5.4683700E-13	3.9902913E-10	-5.9180441E-10
21	-1.4463126E-01	2.7653835E-02	-2.7431871E-01	-1.2746537E-02
22	3.3010823E-01	-0.	2.1735911E-01	-2.6524438E-01
23	-2.0696957E-01	-0.	4.5938956E-02	-5.6059533E-02
24	5.4826719E-01	-0.	2.2247695E-01	-2.7148971E-01
25	-4.8990314E-01	-6.7736201E-01	7.3933638E-02	1.1538772E-01
26	-0.	4.7383136E-01	-0.	0.
27	-0.	4.1965486E-01	-0.	0.
28	-0.	-0.	-0.	0.
29	2.2209188E-02	1.0292689E-02	2.2499137E-02	1.2911522E-02
30	7.8476353E-02	-1.0239060E-01	4.1876233E-01	3.6365125E-01
31	-4.6358763E-09	-2.9357912E-09	-2.6418890E-09	-2.1349995E-09
32	4.4884546E-01	2.0801421E-01	4.5470536E-01	2.6094054E-01
33	-3.1355966E-01	-1.4531697E-01	-3.1765334E-01	-1.8229086E-01
34	6.1748701E-02	-1.1740870E-02	-8.9575652E-02	8.8332219E-02
35	-5.3932098E-02	-2.7070455E-02	-1.6680796E-01	-1.0546886E-01
36	-1.1068530E-01	1.1708315E-02	-3.9394718E-02	4.3409078E-02
37	-1.7492742E-01	-2.1499556E-02	-2.4327539E-01	-2.5373811E-02
38	1.4343231E-01	-1.0060246E-02	1.0422002E-01	-2.0905843E-01
39	6.8499234E-02	1.1485786E-02	1.4305160E-01	-8.1086025E-02
40	2.4643733E-01	-8.5040842E-09	2.7803946E-01	-3.3929291E-01
41	2.7094330E-02	-1.0292690E-02	5.0997249E-04	8.0193983E-03
42	-1.5212683E-01	-2.7562825E-01	-4.3000757E-01	-7.5142378E-01
43	4.9180441E-01	-1.2564061E-09	9.4937162E-02	5.7522959E-01
44	-3.4358543E-01	-6.2571172E-09	1.6034560E-01	-1.9567052E-01
45	8.4221493E-01	-0.	-2.3176283E-08	2.8282131E-08
46	-0.	-0.	-0.	-8.3699428E-01
47	1.5033711E-01	3.4058978E-01	8.5984310E-02	3.0488645E-01
48	-0.	7.5324160E-01	-0.	0.
49	5.4757373E-01	9.3074865E-01	1.0306492E-02	1.6207125E-01
50	-3.8253041E-01	1.4531698E-01	-7.2000295E-03	-1.1322161E-01

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	13	14	15	16
51	2.9955184E-02	1.5039873E-02	9.2657307E-02	5.8590802E-02
52	1.7422621E-04	3.2163589E-05	4.3345196E-04	2.0038211E-04
53	-1.2660166E-08	-1.8641003E-08	2.2933818E-08	1.4057150E-08
54	-0.	-0.	1.0897845E-01	-1.3298693E-01
55	-0.	-0.	-4.8602386E-01	5.9309730E-01
56	-0.	-0.	2.9493788E-01	-3.5991414E-01
57	-0.	-0.	3.3968952E-01	-4.1452478E-01
58	1.0860216E-01	-0.	-2.2614956E-01	2.7597142E-01
59	4.9817774E-01	-0.	2.0215155E-01	-2.4668653E-01
60	7.2788013E-01	-0.	-2.0219347E-08	2.4673768E-08
61	-0.	-0.	-6.3181229E-01	0.
62	-0.	-0.	-0.	7.0831991E-01
63	-6.9341493E-02	-6.7158962E-02	9.8557217E-02	-6.5509934E-02
64	1.1370173E-02	1.2326734E-01	1.4954197E-01	1.8814166E-01
65	6.9547680E-02	3.3315051E-01	-8.5056617E-02	2.9399979E-02
66	-2.1623382E-02	-3.3360476E-01	1.0024813E-01	-1.4986977E-02
67	-5.1513370E-02	6.5912241E-02	1.5621282E-02	1.3220918E-01
68	2.1158905E-01	-0.	8.5859028E-02	-1.0477419E-01
69	3.9406177E-01	-6.3360365E-17	-9.0283638E-09	1.1070674E-08
70	-5.7409707E-01	-6.0835607E-01	-6.6045803E-02	-3.6315280E-01
71	4.9936771E-04	4.8440695E-04	-7.0970505E-04	4.7178939E-04
72	-3.4864217E-02	1.2428111E-01	-2.8387324E-01	-2.7836399E-01
73	3.4864216E-02	-1.2428111E-01	2.8387323E-01	2.7836398E-01
74	4.0369093E-02	-1.4390445E-01	3.2869533E-01	3.2231620E-01
75	-1.7364377E-04	-3.2058313E-05	-4.3199770E-04	-1.9971392E-04
76	1.2412784E-08	2.0350853E-08	-1.9674189E-08	-4.0163286E-09
77	-3.8119964E-04	4.8774574E-04	1.1559983E-04	9.7835668E-04
78	6.0672550E-01	5.7246532E-01	1.1204186E-01	-2.8235931E-02
79	-2.7717575E-03	-5.7006329E-03	2.0257672E-02	1.2106671E-02
80	5.7409708E-01	6.0835586E-01	-8.2098317E-01	-6.1667522E-01
81	2.2351742E-08	-7.4505806E-09	-3.5390258E-08	-3.7252903E-08
82	-2.5214520E-01	-2.7297086E-01	-4.4800894E-01	2.5335877E-01
83	-1.0907471E-02	-1.2274677E-01	-1.4110494E-01	-1.8114700E-01
84	-6.0672551E-01	-5.7246512E-01	-1.1423390E-01	1.9915653E-01
85	-2.5088549E-02	1.4096546E-01	-9.9854141E-02	2.3571235E-01
86	2.7360916E-02	-1.3574934E-01	5.3778610E-01	3.3964735E-01
87	-1.4036894E-04	-1.3586879E-04	1.9969419E-04	-1.3274327E-04
88	-1.5110600E-01	-1.3742414E-01	-1.9290262E-01	-3.4755496E-01
89	1.4972883E-01	1.3605356E-01	1.8734804E-01	3.4313733E-01
90	-1.4326498E-01	-1.3111693E-01	-1.7959766E-01	-3.3031669E-01
91	1.4343861E-01	1.3114896E-01	1.8002967E-01	3.3051641E-01
92	-4.0369093E-02	1.4390445E-01	-3.2869533E-01	-3.2231620E-01
93	1.7583650E-03	8.8283325E-04	5.4389775E-03	3.4392676E-03
94	-4.2551184E-01	-1.1733913E-01	1.6036192E-01	-9.7044557E-02
95	-5.7434893E-01	-8.8252497E-01	-1.6056147E-01	9.7177923E-02

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19

1	1.4691082E-01	3.5944320E-02	2.5557782E-01
2	-3.1244907E-01	-5.3315883E-01	1.4233521E-01
3	-3.3514945E-01	-8.2000217E-02	-5.8305202E-01
4	-6.3329935E-06	1.4901161E-07	4.3213367E-07
5	4.4581486E-02	4.0040113E-02	9.3330359E-01
6	-1.6156199E-01	-2.1774319E-01	5.8324515E-02
7	-2.8754689E-01	-5.2640355E-01	-3.3488158E-01
8	-2.0729430E-02	-5.3280145E-03	2.5763698E-03
9	1.2895919E-02	3.3146963E-03	-1.6026665E-03
10	-0.	-0.	5.0000000E-01
11	-3.1244907E-01	-5.3315883E-01	-1.8897882E-01
12	3.9321724E-10	5.3322112E-10	6.6552356E-10
13	3.4825791E-10	4.7225413E-10	-2.0232157E-01
14	-0.	-0.	-5.6329839E-01
15	-4.8837926E-02	-4.9825054E-02	-4.9998876E-01
16	5.5826238E-01	-6.4762326E-02	1.5821463E-01
17	6.2276313E-01	7.1046159E-02	-0.
18	8.2484398E-02	8.4134417E-02	-0.
19	-6.5308551E-01	-0.	-0.
20	6.7485478E-10	6.0865390E-10	-4.9999996E-01
21	-2.1626381E-01	-2.7353463E-01	5.8319402E-02
22	2.6683214E-01	2.7216988E-01	-0.
23	5.6395108E-02	5.7523236E-02	-0.
24	2.7311485E-01	2.7857827E-01	-0.
25	-2.8754689E-01	-5.2640355E-01	-3.5675743E-03
26	-0.	-0.	-0.
27	-0.	-0.	2.0232156E-01
28	-0.	-0.	5.6329839E-01
29	1.5518778E-02	3.0846033E-02	-3.1814596E-03
30	5.4260353E-02	1.9573429E-01	-2.6415685E-01
31	-1.2320301E-09	-2.8216463E-09	8.7325227E-10
32	3.1363297E-01	6.2339527E-01	-6.4296991E-02
33	-2.1910135E-01	-4.3549869E-01	4.4917338E-02
34	-9.6068612E-02	-9.7848283E-02	3.6689829E-03
35	-2.1606316E-02	-6.6477333E-02	7.4523897E-02
36	-3.7788227E-02	-3.4627995E-02	6.9935989E-03
37	-1.0517250E-01	-1.5272995E-01	8.0151632E-02
38	1.7396322E-01	1.6390947E-01	1.8019260E-02
39	1.2306844E-01	1.4098176E-01	-2.0572629E-02
40	3.4132395E-01	3.4815179E-01	-1.3265609E-09
41	1.2727431E-02	3.1571952E-02	3.1814600E-03
42	-3.5567324E-02	-4.2313316E-01	1.5872601E-01
43	1.1654578E-01	5.9276940E-01	-5.4737243E-10
44	1.9684182E-01	2.0077944E-01	-6.0556944E-10
45	-2.8451429E-08	-2.9020573E-08	-0.
46	-0.	-5.7394803E-01	-0.
47	1.3202871E-02	2.1964307E-01	7.1610471E-02
48	-0.	-0.	-0.
49	2.5722011E-01	6.3806600E-01	6.4296992E-02
50	-1.7969181E-01	-4.4574756E-01	-4.4917340E-02

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19

51	1.1998698E-02	3.6923756E-02	-4.1396816E-02
52	9.5264251E-05	2.0636627E-04	-1.8318612E-04
53	-5.3718395E-08	2.5524059E-08	-7.3574483E-08
54	1.3378300E-01	1.3645920E-01	-0.
55	-5.9664760E-01	-6.0858299E-01	-0.
56	3.6206861E-01	3.6931145E-01	-0.
57	4.1700615E-01	4.2534795E-01	-0.
58	-2.7762339E-01	-2.8317700E-01	-0.
59	2.4816321E-01	2.5312749E-01	-0.
60	-2.4821466E-08	-2.5317996E-08	-0.
61	-7.7561889E-01	-0.	-0.
62	-0.	-7.2681405E-01	-0.
63	-1.6738922E-01	-4.3034567E-02	2.0802766E-02
64	-1.0169403E-02	4.9976160E-02	-5.9608734E-02
65	-8.9894345E-03	3.1863977E-02	1.5233676E-01
66	4.3189474E-02	2.6256795E-02	-1.5201026E-01
67	-6.2938134E-02	-4.9593573E-02	-2.4289508E-02
68	1.0540137E-01	1.0750983E-01	-0.
69	-1.1083307E-08	-1.1353649E-08	-9.8836489E-18
70	-6.0442478E-01	-6.2101058E-01	7.7555395E-02
71	1.2052171E-03	3.1005591E-04	-1.4926121E-04
72	-3.6788417E-02	-1.4197748E-01	2.0389318E-01
73	3.6788417E-02	1.4197747E-01	-2.0389318E-01
74	4.2597115E-02	1.6439497E-01	-2.3608685E-01
75	-9.4944538E-05	-2.0567387E-04	1.8257121E-04
76	5.3827534E-08	-2.3268512E-08	7.2497641E-08
77	-4.6572368E-04	-3.6702491E-04	-1.7970894E-04
78	3.9971478E-01	6.9173165E-01	-3.7608084E-01
79	-6.4642764E-03	-1.5816018E-03	-1.1245439E-02
80	6.1044447E-01	6.0606871E-01	3.7608082E-01
81	-6.3329935E-08	1.4901161E-07	4.3213367E-07
82	-6.0844004E-02	2.2170860E-01	1.5788117E-01
83	2.7061701E-03	-4.6466887E-02	5.9234589E-02
84	-4.1135061E-01	-6.6232514E-01	-7.7555388E-02
85	8.2926035E-02	-1.8281221E-02	-4.3567896E-02
86	-8.8584423E-02	3.9453983E-02	-9.4503736E-01
87	-3.3903122E-04	-8.7052584E-05	4.2244792E-05
88	-4.0186197E-02	-2.4064866E-01	5.7765990E-02
89	3.9947599E-02	2.3884827E-01	-5.5156291E-02
90	-3.7820935E-02	-2.2884560E-01	5.2954704E-02
91	3.7915826E-02	2.2905129E-01	-5.3137347E-02
92	-4.2597115E-02	-1.6439497E-01	2.3608685E-01
93	7.0432107E-04	2.1674130E-03	-2.4299910E-03
94	-6.3606191E-01	-4.1713667E-01	1.9467402E-01
95	-3.6352444E-01	-5.8247471E-01	-1.9471669E-01

V-E MEMBER FLEXIBILITY INFLUENCE COEFFICIENTS
CONDITION I ASYMMETRICAL LOADING CONDITIONS

SFXV5A

E = 26000000.0

EQN 1	440.000	X1
EQN 2	217.000	X2
EQN 3	353.000	X3
EQN 4	263.000	X4
EQN 5	523.000	X5
EQN 6	353.000	X6
EQN 7	217.000	X7
EQN 8	343.000	X8
EQN 9	263.000	X9
EQN 10	190.000	X10
EQN 11	157.000	X11
EQN 12	59.000	X12
EQN 13	349.000	X13
EQN 14	316.000	X14
EQN 15	179.000	X15
EQN 16	168.000	X16
EQN 17	333.000	X17
EQN 18	79.000	X18
EQN 19	184.000	X19
EQN 20	190.000	X20
EQN 21	168.000	X21
EQN 22	333.000	X22
EQN 23	173.000	X23
EQN 24	79.000	X24
EQN 25	157.000	X25
EQN 26	59.000	X26
EQN 27	349.000	X27
EQN 28	316.000	X28

SFXV5A

EQN 29	188.000	X29
EQN 30	95.000	X30
EQN 31	44.000	X31
EQN 32	385.000	X32
EQN 33	246.000	X33
EQN 34	190.000	X34
EQN 35	267.000	X35
EQN 36	390.000	X36
EQN 37	137.000	X37
EQN 38	323.000	X38
EQN 39	369.000	X39
EQN 40	73.000	X40
EQN 41	188.000	X41
EQN 42	267.000	X42
EQN 43	323.000	X43
EQN 44	165.000	X44
EQN 45	73.000	X45
EQN 46	173.000	X46
EQN 47	95.000	X47
EQN 48	44.000	X48
EQN 49	385.000	X49
EQN 50	246.000	X50
EQN 51	587.000	X51
EQN 52	127.000	X52
EQN 53	127.000	X53
EQN 54	5.000	X54
EQN 55	176.000	X55
EQN 56	79.000	X56

SFXV5A.

EQN 57 69.000 X57
EQN 58 90.000 X58
EQN 59 79.000 X59
EQN 60 69.000 X60
EQN 61 195.000 X61
EQN 62 179.000 X62
EQN 63 72.000 X63
EQN 64 625.000 X64
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EQN 66 109.000 X66
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EQN 68 43.000 X68
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EQN 70 0
EQN 71 0
EQN 72 0
EQN 73 0
EQN 74 0
EQN 75 0
EQN 76 0
EQN 77 0
EQN 78 0
EQN 79 0
EQN 80 0
EQN 81 0
EQN 82 137.000 X82
EQN 83 625.000 X83
EQN 84 0

SFXV5A

EQN 85 0

EQN 86 0

EQN 87 0

EQN 88 0

EQN 89 0

EQN 90 0

EQN 91 0

EQN 92 0

EQN 93 0

EQN 94 0

EQN 95 0

TRIPLE PRODUCT

TRIPLE	1	2	3	4
1	9.8616617E-05	0.	2.6887795E-05	0.
2	0.	5.5818138E-05	1.8192566E-05	1.2568512E-06
3	2.6887795E-05	1.8192566E-05	5.8390620E-05	-6.8496193E-08
4	0.	1.2568512E-06	-6.8496193E-08	2.7692307E-06
5	7.0456839E-06	0.	-8.6563530E-07	0.
6	8.4934287E-06	0.	-1.0449082E-05	0.
7	8.6810579E-07	8.1246753E-06	2.4705617E-05	1.7785823E-08
8	0.	-1.4957251E-06	-3.2693971E-07	0.
9	1.1633392E-06	6.6777088E-07	2.4683856E-06	1.4618835E-09
10	-7.1328939E-08	-7.9070819E-07	-2.0574714E-06	-1.4618828E-09
11	-2.3221299E-05	-2.0076710E-05	-3.3734073E-05	-3.9128914E-08
12	1.4154166E-05	8.1246753E-06	3.0031995E-05	1.7785823E-08
13	0.	0.	-1.1304823E-13	0.
14	8.4934287E-06	0.	-1.3388878E-05	0.
15	-6.0416006E-06	-2.3988925E-06	3.6971051E-06	1.6080268E-09
16	6.8721643E-05	-8.0997660E-06	7.3649408E-05	4.7656336E-08
17	5.5299563E-05	1.5882265E-05	5.8159559E-05	-3.2640322E-08
18	-1.3778478E-06	-8.5391797E-07	-6.6412407E-07	1.5721323E-09
19	-4.4999138E-07	1.2625750E-07	-4.2339609E-07	-8.4632988E-11
20	1.6385769E-14	-1.1170714E-15	4.4511463E-07	7.4879581E-19
21	-1.5189935E-05	1.2023646E-13	-2.4911371E-05	-9.6714267E-16
22	-1.9267709E-05	-4.0517586E-06	-1.9374838E-05	1.9350646E-07
23	-1.9692276E-05	-2.4175998E-06	-1.3854130E-05	4.6696485E-07
24	-2.5186270E-05	-6.7636253E-06	-5.8485534E-06	2.5465488E-08
25	1.4132278E-05	-1.2425124E-13	2.4046221E-05	6.4476176E-16
26	3.2807133E-05	9.1761911E-06	3.1666172E-05	1.5659509E-07
27	4.5211586E-05	1.2514224E-05	3.7751998E-05	2.3514505E-07
28	5.4375385E-05	2.1482167E-05	3.9935022E-05	-8.0881758E-08
29	3.7505095E-05	5.5463880E-06	1.3983434E-05	1.6411325E-07
30	-4.0381281E-05	3.5118024E-06	-1.4317934E-05	-2.3553890E-07
31	1.9857583E-05	6.8087998E-06	2.0383138E-05	2.0146700E-07
32	-2.7424020E-06	1.3994317E-05	2.7239776E-05	1.8131116E-07
33	2.2856915E-07	2.2897052E-06	2.1300907E-06	-8.6208885E-09

TRIPLE	5	6	7	8
1	7.0456839E-06	8.4934287E-06	8.6810579E-07	0.
2	0.	0.	8.1246753E-06	-1.4957251E-06
3	-8.6563530E-07	-1.0449082E-05	2.4705617E-05	-3.2693971E-07
4	0.	0.	1.7785823E-08	0.
5	1.6923077E-05	2.0400425E-05	-3.3980658E-07	0.
6	2.0400425E-05	6.7070821E-05	-4.1018959E-06	0.
7	-3.3980658E-07	-4.1018959E-06	6.7936488E-05	1.7234720E-06
8	0.	0.	1.7234720E-06	2.8461538E-06
9	-2.7936686E-08	-3.3715838E-07	1.0198347E-06	1.4165630E-07
10	2.7936510E-08	3.3715785E-07	-1.3627941E-06	9.2275476E-08
11	7.4759486E-07	9.0242158E-06	-3.0539632E-05	3.9932181E-07
12	-3.3980658E-07	-4.1018959E-06	6.2040373E-05	1.7234720E-06
13	0.	1.0115384E-05	-3.0146194E-13	0.
14	2.0400425E-05	6.7070821E-05	-5.2559460E-06	0.
15	-3.0722866E-08	-3.7085570E-07	-2.6338134E-06	4.9281995E-08
16	6.0186531E-06	-2.6379006E-06	4.6509582E-05	2.0255246E-06
17	9.3345778E-06	2.8144027E-05	2.4127755E-05	-2.9008708E-07
18	-4.2598978E-07	-8.3989037E-07	-1.0207249E-06	1.5897507E-08
19	1.6169933E-09	1.9518722E-08	4.8798981E-08	-2.5937892E-09
20	-1.4306449E-17	-1.7269314E-16	-1.4713806E-07	2.2948717E-17
21	2.4296899E-13	6.7454809E-13	-2.4075901E-06	-1.0602749E-14
22	3.9997879E-07	-9.6294771E-08	-9.4278854E-06	4.3685222E-07
23	1.1261629E-06	5.4320741E-06	-1.0658948E-05	3.2076204E-07
24	3.2182528E-07	3.8847552E-06	-1.0330721E-05	1.2154953E-07
25	-1.7992562E-13	1.0115384E-05	2.5812453E-06	2.1205498E-14
26	8.8433083E-06	2.9634928E-05	1.4800417E-05	-5.4009761E-07
27	1.1413568E-05	3.6271964E-05	2.1203443E-05	-5.0686826E-07
28	1.9378265E-05	5.4732322E-05	2.4641581E-05	-3.8605734E-07
29	5.1914430E-06	1.2494447E-05	6.7163765E-06	-2.7399020E-07
30	-4.5783144E-06	-5.8071632E-06	1.1143779E-05	-6.8093370E-08
31	6.5248287E-06	2.5635882E-05	9.5079396E-06	-3.3635305E-07
32	8.5021873E-06	3.3191314E-05	2.4752296E-05	-6.1904806E-07
33	1.4304973E-05	2.1187189E-05	3.2317171E-06	-4.1148431E-08

TRIPLE

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10

11

12

1	1.1633392E-06	-7.1328939E-08	-2.3221299E-05	1.4154166E-05
2	6.6777088E-07	-7.9070819E-07	-2.0076710E-05	8.1246753E-06
3	2.4683856E-06	-2.0574714E-06	-3.3734073E-05	3.0031995E-05
4	1.4618835E-09	-1.4618828E-09	-3.9128914E-08	1.7785823E-08
5	-2.7936686E-08	2.7936510E-08	7.4759486E-07	-3.3980658E-07
6	-3.3715838E-07	3.3715785E-07	9.0242158E-06	-4.1018959E-06
7	1.0198347E-06	-1.3627941E-06	-3.0539632E-05	6.2040373E-05
8	1.4165630E-07	9.2275476E-08	3.9932181E-07	1.7234720E-06
9	4.7788344E-06	2.6311232E-07	-2.8881926E-06	2.3908640E-06
10	2.6311232E-07	4.7019197E-06	2.5429251E-06	-8.7817560E-07
11	-2.8881926E-06	2.5429251E-06	4.9552708E-05	-3.5139691E-05
12	2.3908640E-06	-8.7817560E-07	-3.5139691E-05	7.8721179E-05
13	-1.0716030E-13	-6.1234458E-14	1.5073097E-13	-3.0146194E-13
14	-4.3201408E-07	4.3201352E-07	1.1563133E-05	-5.2559460E-06
15	-2.0093759E-07	2.2052603E-07	6.6158207E-06	-2.4447711E-06
16	2.9028171E-06	-1.7003530E-06	-4.2681614E-05	5.9113970E-05
17	4.9673831E-06	4.5187302E-07	-3.3353870E-05	3.0521126E-05
18	1.0175486E-08	-2.6563348E-08	1.0318263E-06	-1.2360073E-06
19	3.1931012E-09	-4.2240562E-09	-1.5059087E-07	3.8849391E-08
20	-1.2093464E-08	1.2093457E-08	3.2370386E-07	-1.4713806E-07
21	-1.9789080E-07	1.9789173E-07	5.2967222E-06	-2.4075900E-06
22	-9.2321582E-07	8.1080058E-07	1.0942535E-05	-1.1232460E-05
23	-1.0420676E-06	9.0244026E-07	1.1525669E-05	-1.2678508E-05
24	-1.0118484E-06	8.5907925E-07	1.5062112E-05	-1.2310961E-05
25	2.1216393E-07	-2.1216498E-07	-5.6787640E-06	2.5812452E-06
26	1.4859820E-06	-1.2608573E-06	-1.6944278E-05	1.8079535E-05
27	2.1476375E-06	-1.7843956E-06	-2.3311191E-05	2.6129750E-05
28	2.5422531E-06	-2.0570378E-06	-2.9864905E-05	3.0931082E-05
29	7.0718005E-07	-5.7454814E-07	-6.1046430E-06	8.6040536E-06
30	1.7240639E-07	-9.2153778E-07	1.1144441E-05	2.0974879E-06
31	9.7193511E-07	-8.0911512E-07	-1.0272387E-05	1.1825271E-05
32	1.8486801E-06	-2.0853159E-06	-1.1887382E-05	2.2492311E-05
33	3.2071076E-07	-2.6899350E-07	-4.5147494E-06	3.9020917E-06

TRIPLE

13

14

15

16

1	0.	8.4934287E-06	-6.0416006E-06	6.8721643E-05
2	0.	0.	-2.3988925E-06	-8.0997660E-06
3	-1.1304823E-13	-1.3388878E-05	3.6971051E-06	7.3649408E-05
4	0.	0.	1.6080268E-09	4.7656336E-08
5	0.	2.0400425E-05	-3.0722866E-08	6.0186531E-06
6	1.0115384E-05	6.7070821E-05	-3.7085570E-07	-2.6379006E-06
7	-3.0146194E-13	-5.2559460E-06	-2.6338134E-06	4.6509582E-05
8	0.	0.	4.9281995E-08	2.0255246E-06
9	-1.0716030E-13	-4.3201408E-07	-2.0093759E-07	2.9028171E-06
10	-6.1234458E-14	4.3201352E-07	2.2052603E-07	-1.7003530E-06
11	1.5073097E-13	1.1563133E-05	6.6158207E-06	-4.2681614E-05
12	-3.0146194E-13	-5.2559460E-06	-2.4447711E-06	5.9113970E-05
13	1.0115385E-05	1.0115384E-05	-2.3551714E-15	-3.0146194E-13
14	1.0115384E-05	7.7186205E-05	-4.7519404E-07	-5.7301273E-06
15	-2.3551714E-15	-4.7519404E-07	5.2693651E-06	3.2842796E-06
16	-3.0146194E-13	-5.7301273E-06	3.2842796E-06	1.6240574E-04
17	1.0115384E-05	3.0261925E-05	-2.4861356E-06	8.8621267E-05
18	-2.3551714E-15	-9.4189967E-07	2.1618051E-07	-1.3379554E-06
19	3.6799555E-16	2.5010214E-08	-5.7861820E-08	-7.2666557E-07
20	-1.0967122E-24	-2.2127947E-16	2.0010343E-07	5.8413974E-07
21	1.5073097E-13	7.4991357E-13	-6.0352426E-07	-3.5052036E-05
22	1.1983113E-11	-2.7710162E-07	2.5526490E-06	-2.9108590E-05
23	9.6404024E-12	6.7066443E-06	4.2738703E-06	-2.5226812E-05
24	-1.1304823E-13	4.9777113E-06	7.9110800E-06	-1.4237244E-05
25	1.0115384E-05	1.0115384E-05	5.9235808E-07	3.3525883E-05
26	1.0115390E-05	3.2403921E-05	-1.8141327E-06	5.0506280E-05
27	1.0115395E-05	4.0146987E-05	-2.7481280E-06	6.4414443E-05
28	1.0115384E-05	6.1376332E-05	-4.7794738E-06	6.8093283E-05
29	-1.0930286E-12	1.4443648E-05	-7.6568010E-07	1.9078620E-05
30	-5.9392285E-12	-5.8972089E-06	2.6923498E-06	-4.0085550E-05
31	1.0114630E-05	2.8028740E-05	-8.2578168E-07	3.1280045E-05
32	1.0112332E-05	3.7201371E-05	5.2524338E-07	3.1741794E-05
33	-7.0655144E-14	2.2419556E-05	-9.6304655E-07	1.0435022E-05

TRIPLE

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18

19

20

1	5.5299563E-05	-1.3778478E-06	-4.4999138E-07	1.6385769E-14
2	1.5882265E-05	-8.5391797E-07	1.2625750E-07	-1.1170714E-15
3	5.8159559E-05	-6.6412407E-07	-4.2339609E-07	4.4511463E-07
4	-3.2640322E-08	1.5721323E-09	-8.4632988E-11	7.4879581E-19
5	9.3345778E-06	-4.2598978E-07	1.6169933E-09	-1.4306449E-17
6	2.8144027E-05	-8.3989037E-07	1.9518722E-08	-1.7269314E-16
7	2.4127755E-05	-1.0207249E-06	4.8798981E-08	-1.4713806E-07
8	-2.9008708E-07	1.5897507E-08	-2.5937892E-09	2.2948717E-17
9	4.9673831E-06	1.0175486E-08	3.1931012E-09	-1.2093464E-08
10	4.5187302E-07	-2.6563348E-08	-4.2240562E-09	1.2093457E-08
11	-3.3353870E-05	1.0318263E-06	-1.5059087E-07	3.2370386E-07
12	3.0521126E-05	-1.2360073E-06	3.8849391E-08	-1.4713806E-07
13	1.0115384E-05	-2.3551714E-15	3.6799555E-16	-1.0967122E-24
14	3.0261925E-05	-9.4189967E-07	2.5010214E-08	-2.2127947E-16
15	-2.4861356E-06	2.1618051E-07	-5.7861820E-08	2.0010343E-07
16	8.8621267E-05	-1.3379554E-06	-7.2666557E-07	5.8413974E-07
17	1.4490773E-04	-1.4138811E-06	-8.5667614E-07	4.4511431E-07
18	-1.4138811E-06	1.0113852E-07	-1.4242389E-09	8.8197740E-09
19	-8.5667614E-07	-1.4242389E-09	1.6478153E-08	-1.0531761E-08
20	4.4511431E-07	8.8197740E-09	-1.0531761E-08	1.8634773E-08
21	-5.7451805E-05	-3.5875435E-07	5.2593144E-07	-4.2678061E-07
22	-5.3987272E-05	2.9008996E-07	3.7594968E-07	-1.5288560E-07
23	-4.5735001E-05	4.2516012E-07	3.0529163E-07	-1.2598448E-08
24	-3.8303112E-05	9.9941641E-07	1.6286189E-07	2.6129602E-07
25	6.5932023E-05	3.6394242E-07	-4.9093548E-07	3.9706438E-07
26	9.0454820E-05	-8.8909811E-07	-4.9506591E-07	2.7619151E-07
27	1.0293486E-04	-1.4646935E-06	-5.2778351E-07	2.4940971E-07
28	1.1508342E-04	-2.4563914E-06	-4.7839309E-07	1.2853645E-07
29	3.9154310E-05	-3.6682098E-07	-2.5065116E-07	1.5875846E-07
30	-2.1661736E-05	5.3681065E-07	2.5646948E-07	-2.9235628E-08
31	6.1489250E-05	-5.9441302E-07	-3.1371099E-07	1.9489343E-07
32	8.5377589E-05	-7.6136558E-07	-3.6239111E-07	3.1159256E-07
33	1.4153349E-05	-6.4496981E-07	2.1888576E-08	-6.9668951E-08

TRIPLE	21	22	23	24
1	-1.5189935E-05	-1.9267709E-05	-1.9692276E-05	-2.5186270E-05
2	1.2023646E-13	-4.0517586E-06	-2.4175998E-06	-6.7636253E-06
3	-2.4911371E-05	-1.9374838E-05	-1.3854130E-07	-5.8485534E-06
4	-9.6714267E-16	1.9350646E-07	4.6696485E-07	2.5465488E-08
5	2.4296899E-13	3.9997879E-07	1.1261629E-06	3.2182528E-07
6	6.7454809E-13	-9.6294771E-08	5.4328741E-06	3.8847552E-06
7	-2.4015901E-06	-9.4278854E-06	-1.0658948E-05	-1.0330721E-05
8	-1.0602749E-14	4.3685222E-07	3.2076204E-07	1.2154953E-07
9	-1.9789080E-07	-9.2321582E-07	-1.0420676E-06	-1.0118484E-06
10	1.9789173E-07	8.1080058E-07	9.0244026E-07	8.5907925E-07
11	5.2967222E-06	1.0942535E-05	1.1525669E-05	1.5062112E-05
12	-2.4075900E-06	-1.1232460E-05	-1.2678508E-05	-1.2310961E-05
13	1.5073097E-13	1.1983113E-11	9.6404024E-12	-1.1304823E-13
14	7.4991357E-13	-2.7710162E-07	6.7066443E-06	4.9777113E-06
15	-6.0352426E-07	2.5526490E-06	4.2738703E-06	7.9110800E-06
16	-3.5052036E-05	-2.9108590E-05	-2.5226812E-05	-1.4237244E-05
17	-5.7451805E-05	-5.3987272E-05	-4.5735001E-05	-3.8303112E-05
18	-3.5875435E-07	2.9008996E-07	4.2516012E-07	9.9941641E-07
19	5.2593144E-07	3.7594968E-07	3.0529163E-07	1.6286189E-07
20	-4.2678061E-07	-1.5288560E-07	-1.2598448E-08	2.6129602E-07
21	5.4390586E-05	2.7212495E-05	2.0775045E-05	9.2615403E-06
22	2.7212495E-05	4.0229590E-05	2.7996215E-05	2.0005017E-05
23	2.0775045E-05	2.7996215E-05	4.3276392E-05	2.5178497E-05
24	9.2615403E-06	2.0005017E-05	2.5178497E-05	5.0668569E-05
25	-3.6516332E-05	-2.6479389E-05	-2.0181467E-05	-8.9398956E-06
26	-3.4842116E-05	-3.1976537E-05	-2.4990275E-05	-2.0893941E-05
27	-3.4812352E-05	-3.4592339E-05	-3.0201541E-05	-2.6425179E-05
28	-2.9415875E-05	-3.5595540E-05	-2.9124365E-05	-3.2635663E-05
29	-1.7931636E-05	-2.0221787E-05	-9.1943879E-06	-8.3913201E-06
30	6.4225167E-06	4.5201623E-06	-4.2984282E-07	5.9055402E-06
31	-2.2013050E-05	-1.6930423E-05	-1.1829535E-05	-1.1497259E-05
32	-3.3054400E-05	-3.2622306E-05	-2.3531435E-05	-1.6396953E-05
33	-1.5834749E-06	8.5952712E-07	-3.3867760E-06	-3.4766294E-07

TRIPLE

25

26

27

28

1	1.4132278E-05	3.2807133E-05	4.5211586E-05	5.4375385E-05
2	-1.2425124E-13	9.1761911E-06	1.2514224E-05	2.1482167E-05
3	2.4046221E-05	3.1666172E-05	3.7751998E-05	3.9935022E-05
4	6.4476176E-16	1.5659509E-07	2.3514505E-07	-8.0881758E-08
5	-1.7992562E-13	8.8433083E-06	1.1413568E-05	1.9378265E-05
6	1.0115384E-05	2.9634928E-05	3.6271964E-05	5.4732322E-05
7	2.5812453E-06	1.4800417E-05	2.1203443E-05	2.4641581E-05
8	2.1205498E-14	-5.4009761E-07	-5.0686826E-07	-3.8605734E-07
9	2.1216393E-07	1.4859820E-06	2.1476375E-06	2.5422531E-06
10	-2.1216498E-07	-1.2608573E-06	-1.7843956E-06	-2.0570378E-06
11	-5.6787640E-06	-1.6944278E-05	-2.3311191E-05	-2.9864905E-05
12	2.5812452E-06	1.8079535E-05	2.6129750E-05	3.0931082E-05
13	1.0115384E-05	1.0115390E-05	1.0115395E-05	1.0115384E-05
14	1.0115384E-05	3.2403921E-05	4.0146987E-05	6.1376332E-05
15	5.9235808E-07	-1.8141327E-06	-2.7481280E-06	-4.7794738E-06
16	3.3525883E-05	5.0506280E-05	6.4414443E-05	6.8093283E-05
17	6.5932023E-05	9.0454820E-05	1.0293486E-04	1.1508342E-04
18	3.6394242E-07	-8.8909811E-07	-1.4646935E-06	-2.4563914E-06
19	-4.9093548E-07	-4.9506591E-07	-5.2778351E-07	-4.7839309E-07
20	3.9706438E-07	2.7619151E-07	2.4940971E-07	1.2853645E-07
21	-3.6516332E-05	-3.4842116E-05	-3.4812352E-05	-2.9415875E-05
22	-2.6479389E-05	-3.1976537E-05	-3.4592339E-05	-3.5595540E-05
23	-2.0181467E-05	-2.4990275E-05	-3.0201541E-05	-2.9124365E-05
24	-8.9398956E-06	-2.0893941E-05	-2.6425179E-05	-3.2635663E-05
25	5.4393120E-05	4.3967721E-05	4.3851672E-05	3.8509673E-05
26	4.3967721E-05	7.1116958E-05	7.3060645E-05	7.8603276E-05
27	4.3851672E-05	7.3060645E-05	9.4012818E-05	9.6662037E-05
28	3.8509673E-05	7.8603276E-05	9.6662037E-05	1.3435986E-04
29	1.7411673E-05	2.8089083E-05	3.2072669E-05	3.4017446E-05
30	-5.7942559E-06	-1.6375664E-05	-1.6360036E-05	-2.2780962E-05
31	3.1489370E-05	5.1307479E-05	5.2994420E-05	5.5856354E-05
32	4.2511369E-05	6.6290196E-05	7.1334474E-05	7.5778676E-05
33	-1.3784513E-06	1.3060548E-05	1.3410262E-05	2.7373151E-05

TRIPLE	29	30	31	32
1	3.7505095E-05	-4.0381281E-05	1.9857583E-05	-2.7424020E-06
2	5.5463880E-06	3.5118024E-06	6.8087998E-06	1.3994317E-05
3	1.3983434E-05	-1.4317934E-05	2.0383138E-05	2.7239776E-05
4	1.6411325E-07	-2.3553890E-07	2.0146700E-07	1.8131116E-07
5	5.1914430E-06	-4.5783144E-06	6.5248287E-06	8.5021873E-06
6	1.2494447E-05	-5.8071632E-06	2.5635882E-05	3.3191314E-05
7	6.7163765E-06	1.1143779E-05	9.5079396E-06	2.4752296E-05
8	-2.7399020E-07	-6.8093370E-08	-3.3635305E-07	-6.1904806E-07
9	7.0718005E-07	1.7240639E-07	9.7193511E-07	1.8486801E-06
10	-5.7454814E-07	-9.2153778E-07	-8.0911512E-07	-2.0853159E-06
11	-6.1046430E-06	1.1144441E-05	-1.0272387E-05	-1.1887382E-05
12	8.6040536E-06	2.0974879E-06	1.1825271E-05	2.2492311E-05
13	-1.0930786E-12	-5.9392285E-12	1.0114630E-05	1.0112332E-05
14	1.4443678E-05	-5.8972089E-06	2.8028740E-05	3.7201371E-05
15	-7.6568010E-07	2.6923498E-06	-8.2578168E-07	5.2524338E-07
16	1.9078620E-05	-4.0085550E-05	3.1280045E-05	3.1741794E-05
17	3.9154310E-05	-2.1661736E-05	6.1489250E-05	8.5377589E-05
18	-3.6682098E-07	5.3681065E-07	-5.9441302E-07	-7.6136558E-07
19	-2.5065116E-07	2.5646948E-07	-3.1371099E-07	-3.6239111E-07
20	1.5875846E-07	-2.9235628E-08	1.9489343E-07	3.1159256E-07
21	-1.7931636E-05	6.4225167E-06	-2.2013050E-05	-3.3054400E-05
22	-2.0221787E-05	4.5201623E-06	-1.6930423E-05	-3.2622306E-05
23	-9.1943879E-06	-4.2984282E-07	-1.1829535E-05	-2.3531435E-05
24	-8.3913201E-06	5.9055402E-06	-1.1497259E-05	-1.6396953E-05
25	1.7411673E-05	-5.7942559E-06	3.1489370E-05	4.2511369E-05
26	2.8089083E-05	-1.6375664E-05	5.1307479E-05	6.6290196E-05
27	3.2072669E-05	-1.6360036E-05	5.2994420E-05	7.1334474E-05
28	3.4017446E-05	-2.2780962E-05	5.5856354E-05	7.5778676E-05
29	6.0935218E-05	-2.0480084E-07	1.3984862E-05	2.3987924E-05
30	-2.0480084E-07	6.0132744E-05	-1.3986933E-05	6.5218689E-06
31	1.3984862E-05	-1.3986933E-05	5.4703586E-05	5.1078534E-05
32	2.3987924E-05	6.5218689E-06	5.1078534E-05	9.3668399E-05
33	-7.9724005E-06	-1.0676137E-05	1.2370964E-05	1.5323470E-05

TRIPLE

33

1	2.2856915E-07
2	2.2897052E-06
3	2.1300907E-06
4	-8.6208885E-09
5	1.4304973E-05
6	2.1187189E-05
7	3.2317171E-06
8	-4.1148431E-08
9	3.2071076E-07
10	-2.6899350E-07
11	-4.5147494E-06
12	3.9020917E-06
13	-7.0655144E-14
14	2.2419556E-05
15	-9.6304655E-07
16	1.0435022E-05
17	1.4153349E-05
18	-6.4496981E-07
19	2.1888576E-08
20	-6.9668951E-08
21	-1.5834749E-06
22	8.5952712E-07
23	-3.3867760E-06
24	-3.4766294E-07
25	-1.3784513E-06
26	1.3060548E-05
27	1.3410262E-05
28	2.7373151E-05
29	-7.9724005E-06
30	-1.0676137E-05
31	1.2370964E-05
32	1.5323470E-05
33	5.3954265E-05

PEDUNDANT SOLUTIONS

(GRN)	1	2	3	4
1	7.9822624E-02	3.4522318E-02	-2.5957911E-01	-2.6356777E-02
2	-3.5597928E-01	5.3749359E-01	-1.1738178E 00	-2.8946115E-01
3	-2.6863395E-01	4.3764024E-02	-1.0020532E 00	-3.2833715E-02
4	1.0589437E-02	1.1632181E-02	-5.3729092E-03	-6.2005342E-03
5	4.5612935E-03	-1.8689686E-03	1.3738336E-02	1.4116524E-03
6	7.9024198E-04	-6.0057606E-04	-1.9202553E-02	-4.7243680E-04
7	4.5207036E-02	-1.2714068E-01	6.4644560E-01	7.7072074E-02
8	1.3801449E-01	-1.6549744E-02	3.0278817E-01	-5.4410678E-02
9	1.9498319E-01	6.3303834E-03	7.4814459E-02	-1.7019385E-01
10	3.0142499E-01	1.2508343E-01	-2.7164844E-01	-7.6104709E-02
11	-3.2674669E-02	1.3021961E-01	-6.1893529E-01	-7.7316137E-02
12	-1.6107766E-01	2.0221769E-02	-5.8265756E-01	-8.0561893E-02
13	-2.6243995E-01	-9.1384965E-03	-6.0489793E-01	-9.5212528E-02
14	-2.8982175E-01	-1.2830558E-01	-5.6469330E-01	7.6416120E-02
15	-4.0553783E-01	-1.2022215E-01	-1.4882963E-01	-1.1160708E-02
16	2.7707222E-01	-1.7053891E-01	1.8048853E-01	1.6517957E-01
17	-7.9140390E-02	2.2159703E-03	-4.0243010E-01	-8.4141202E-02
18	2.1385089E-01	-4.3767050E-02	-6.6283060E-01	-6.2546778E-02
19	1.3373496E-01	4.7407807E-02	-5.9933752E-02	-1.7200848E-02

(GRN)

	5	6	7	8
1	-3.3613502E-02	-4.6566129E-10	5.2879665E-02	1.7901816E-03
2	-2.1139228E-01	-1.4901161E-08	-1.8712524E-01	-3.1421588E-01
3	1.1296669E-01	-2.9802322E-08	-1.7099687E-01	6.9549483E-02
4	6.1817191E-03	0.	6.5120280E-03	-6.0451356E-03
5	-1.9207715E-03	2.9103830E-11	3.0216950E-03	-7.4243737E-04
6	4.7791353E-04	-5.2988359E-11	3.3878157E-04	-3.7040491E-04
7	-1.5046003E-01	2.2011814E-09	5.9894385E-02	4.7226548E-02
8	-1.8471343E-01	2.3283064E-10	1.0876749E-01	-1.7650272E-01
9	-2.8276943E-02	-7.4505806E-09	1.3969097E-01	-1.8780772E-01
10	4.4924330E-03	7.4505806E-09	1.6973701E-01	-7.2869121E-02
11	1.4565925E-01	2.9802322E-08	-5.1700735E-02	-4.8337040E-02
12	4.1067694E-02	2.9802322E-08	-1.2525770E-01	1.8380119E-01
13	8.7027957E-02	-2.9802322E-08	-1.8425598E-01	2.0047102E-01
14	-9.8551381E-03	-5.9604645E-08	-1.6194162E-01	7.2194121E-02
15	8.8042492E-02	1.4901161E-08	-2.5322410E-01	1.5089231E-01
16	5.8597981E-02	7.4505806E-09	-3.8871305E-01	1.9984229E-01
17	4.5105001E-02	2.9802322E-08	-6.1354430E-02	1.0719978E-01
18	7.4845808E-02	5.9604645E-08	-2.7881066E-01	2.8598639E-01
19	-6.8707241E-01	0.	8.1755084E-02	-2.1443353E-02

(GRN)

	9	10	11	12
1	8.0445756E-03	-8.0445935E-03	-2.5653389E-01	-4.4504499E-02
2	8.8077404E-02	-8.8077383E-02	-1.1796698E-01	-2.0062988E-01
3	-5.2610244E-01	-4.7389731E-01	-1.2328483E-02	1.4382177E-01
4	-1.4065582E-02	1.4065580E-02	-1.0859516E-02	6.2417711E-03
5	4.5968876E-04	-4.5968963E-04	1.3912350E-02	-2.5431146E-03
6	7.3191203E-04	-7.3191222E-04	-1.8710639E-02	4.2321416E-04
7	-1.0118529E-01	1.0118520E-01	1.8362094E-01	-1.6523988E-01
8	6.1369502E-02	-6.1369605E-02	6.6603295E-02	-4.4876320E-02
9	1.2756381E-01	-1.2756391E-01	3.1323778E-02	-6.8843801E-03
10	1.3611895E-01	-1.3611906E-01	-1.6737942E-01	-2.8022189E-02
11	1.0283176E-01	-1.0283167E-01	-1.4925148E-01	1.5876038E-01
12	-6.3660064E-02	6.3660183E-02	-6.4880786E-02	5.8981838E-02
13	-1.4046135E-01	1.4046145E-01	-4.0494666E-02	3.8021872E-02
14	-1.3533300E-01	1.3533312E-01	1.3414083E-01	2.1045100E-02
15	-1.4805813E-01	1.4805815E-01	-2.7792352E-01	9.9082950E-02
16	-3.1395878E-01	3.1395880E-01	-2.9530020E-01	6.1852151E-02
17	-4.1150791E-02	4.1150863E-02	-5.2943552E-02	1.8512816E-02
18	-2.2387906E-01	2.2387920E-01	-1.6107505E-01	4.5731022E-02
19	3.7629718E-02	-3.7629707E-02	2.1065185E-01	-4.2579636E-02

(GRN)

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14

1	-3.6958617E-04	3.6958791E-04
2	4.8424217E-02	-4.8424221E-02
3	-4.9890742E-01	-5.0109237E-01
4	-1.2440019E-02	1.2440016E-02
5	-2.1119067E-05	2.1119020E-05
6	7.8381546E-04	-7.8381531E-04
7	-1.2786956E-01	1.2786955E-01
8	-9.7596891E-02	9.7595717E-02
9	9.4498028E-02	-9.4498924E-02
10	1.2626461E-01	-1.2626458E-01
11	-8.7172538E-01	-1.2827445E-01
12	-5.6445374E-01	-4.3554661E-01
13	-4.3196554E-01	-5.6803527E-01
14	-1.2678125E-01	-8.7321842E-01
15	1.8655551E-01	-1.8655540E-01
16	-9.2295709E-02	9.2296250E-02
17	-6.5404139E-01	-3.4588391E-01
18	-4.2026933E-01	-5.7942879E-01
19	1.8694684E-01	-1.8694678E-01

INFLUENCE FLEXIBILITY COEFFICIENT MATRIX

(AMN)	1	2	3	4
1	2.0144605E-06	-1.4820533E-08	-4.4164112E-06	-3.0207714E-10
2	-1.4820414E-08	3.0369953E-05	4.9429047E-08	-7.6175777E-08
3	-4.4164109E-06	4.9429047E-08	5.1140758E-05	5.7262816E-10
4	-3.0207956E-10	-7.6175777E-08	5.7262816E-10	3.9643049E-08
5	5.4977477E-08	-0.4680097E-10	-3.1910827E-07	-1.7260930E-11
6	9.3085427E-11	7.8393136E-08	-2.7518682E-10	1.3765803E-09
7	3.2683102E-06	-1.2946683E-07	-2.8398295E-05	-4.6841953E-07
8	3.0664830E-06	6.2481407E-07	-2.9402719E-05	-8.7736968E-08
9	3.1958954E-06	-1.0454431E-06	-2.9916996E-05	1.0214255E-07
10	3.2984957E-06	6.5106270E-08	-2.8487522E-05	4.6710789E-07
11	-3.0396360E-06	-2.4407758E-08	2.7913427E-05	4.7301794E-07
12	-3.0456866E-06	-3.9090823E-07	3.0078444E-05	8.3740857E-08
13	-2.9164049E-06	8.4277610E-07	2.9725481E-05	-9.8428369E-08
14	-3.0699308E-06	8.4297042E-08	2.8002988E-05	-4.7179816E-07
15	1.6436083E-07	-1.1613534E-05	8.6986281E-06	3.7783872E-07
16	1.1104873E-06	-9.3978961E-06	4.7326498E-06	7.6433893E-08
17	-1.8892503E-06	-1.0376557E-06	1.7717295E-05	7.1750836E-08
18	-3.1740385E-06	-2.0972709E-06	3.5820551E-05	-6.4774905E-09
19	-7.3092177E-07	4.1867525E-06	2.4598275E-06	-1.7359429E-07

(AMN)

	5	6	7	8
1	5.9977479E-08	9.3089980E-11	3.2683103E-06	3.0664829E-06
2	-8.4680097E-10	7.8393136E-08	-1.2946683E-07	6.2481407E-07
3	-3.1910827E-07	-2.7518682E-10	-2.8398295E-05	-2.9402719E-05
4	-1.7260930E-11	1.3765803E-09	-4.6841953E-07	-8.7736968E-08
5	6.3291039E-09	5.3196617E-12	1.8676059E-07	1.8014978E-07
6	5.3196617E-12	3.9009090E-09	-6.1651721E-08	-7.4355720E-09
7	1.8676059E-07	-6.1651721E-08	3.8866313E-05	1.7747862E-05
8	1.8014978E-07	-7.4355720E-09	1.7747862E-05	3.1683407E-05
9	1.8754476E-07	8.2159163E-09	1.5745215E-05	2.1545970E-05
10	1.8848542E-07	6.2056030E-08	1.0168422E-05	1.5590721E-05
11	-1.7369349E-07	5.5014223E-08	-2.1690478E-05	-1.7435295E-05
12	-1.7915367E-07	7.1313921E-09	-1.8039453E-05	-1.7545331E-05
13	-1.7176615E-07	-8.0335542E-09	-1.5563895E-05	-1.6407023E-05
14	-1.7542462E-07	-5.5390370E-08	-9.8429275E-06	-1.5273393E-05
15	7.0052429E-09	2.8808390E-08	-9.1063687E-06	-1.0396702E-05
16	6.1285147E-08	1.1200016E-08	-2.9353256E-06	-3.2241444E-06
17	-1.1088725E-07	5.9268196E-09	-1.0946823E-05	-7.6105852E-06
18	-1.8784848E-07	4.1261930E-09	-1.9994164E-05	-2.2679267E-05
19	-4.1766956E-08	-3.4831867E-08	-1.1153158E-06	9.6348901E-07

(AMN)

	9	10	11	12
1	3.1958954E-06	3.2984957E-06	-3.0396361E-06	-3.0456868E-06
2	-1.0454431E-06	6.5106270E-08	-2.4407758E-08	-3.9090823E-07
3	-2.9916996E-05	-2.8487522E-05	2.7913427E-05	3.0078444E-05
4	1.0214255E-07	4.6710789E-07	4.7301794E-07	8.3740857E-08
5	1.8754476E-07	1.8848542E-07	-1.7369349E-07	-1.7915367E-07
6	8.2159163E-09	6.2056030E-08	5.5014223E-08	7.1313921E-09
7	1.5745215E-05	1.0168422E-05	-2.1690478E-05	-1.8039453E-05
8	2.1545970E-05	1.5590721E-05	-1.7435295E-05	-1.7545331E-05
9	3.6290910E-05	1.8155359E-05	-1.5407859E-05	-1.6685132E-05
10	1.8155359E-05	3.8997391E-05	-9.8381238E-06	-1.5990842E-05
11	-1.5407859E-05	-9.8381238E-06	3.0100461E-05	1.7735583E-05
12	-1.6685132E-05	-1.5990842E-05	1.7735583E-05	2.8132680E-05
13	-1.9034523E-05	-1.7905004E-05	1.5274788E-05	2.1343129E-05
14	-1.7823687E-05	-2.1817232E-05	9.5368431E-06	1.5682732E-05
15	-1.4371666E-06	1.1108512E-07	9.2192713E-06	7.8518764E-06
16	-6.5819769E-06	-1.0744548E-06	3.1614885E-06	-1.1355539E-06
17	-7.0858877E-06	-9.1761945E-06	1.0751992E-05	1.8702638E-05
18	-2.1222241E-05	-2.0127355E-05	1.9700742E-05	2.8200411E-05
19	-5.3238986E-06	-2.0587326E-06	-2.0088038E-06	2.7254956E-06

(AMN)

	13	14	15	16
1	-2.9164048E-06	-3.0699311E-06	1.6436101E-07	1.1104873E-06
2	8.4277610E-07	8.4297042E-08	-1.1613534E-05	-9.3978961E-06
3	2.9725481E-05	2.8002988E-05	8.6986281E-06	4.7326498E-06
4	-9.8428369E-08	-4.7179816E-07	3.7783872E-07	7.6433893E-08
5	-1.7176615E-07	-1.7542462E-07	7.0052429E-09	6.1285147E-08
6	-8.0335542E-09	-5.5390370E-08	2.8808390E-08	1.1200016E-08
7	-1.5563895E-05	-9.8429275E-06	-9.1063687E-06	-2.9353256E-06
8	-1.6407023E-05	-1.5273393E-05	-1.0396702E-05	-3.2241444E-06
9	-1.9034523E-05	-1.7823687E-05	-1.4371666E-06	-6.5819769E-06
10	-1.7905004E-05	-2.1817232E-05	1.1108512E-07	-1.0744548E-06
11	1.5274788E-05	9.5368431E-06	9.2192713E-06	3.1614885E-06
12	2.1343129E-05	1.5682732E-05	7.8518764E-06	-1.1355539E-06
13	3.0370238E-05	1.7621222E-05	5.0541259E-06	3.2480769E-06
14	1.7621222E-05	3.0222870E-05	-3.0122180E-08	1.3152045E-06
15	5.0541259E-06	-3.0122180E-08	4.1355510E-05	1.2696178E-05
16	3.2480769E-06	1.3152045E-06	1.2696178E-05	3.7059602E-05
17	1.4445335E-05	8.9767690E-06	6.1444808E-07	-4.4555581E-06
18	2.6770953E-05	1.9852154E-05	1.3645124E-05	5.2414783E-06
19	1.9616257E-07	4.9618512E-06	-1.0850817E-05	-7.5877916E-06

(AMN)

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18

19

1	-1.8892503E-06	-3.1740386E-06	-7.3092171E-07
2	-1.0376557E-06	-2.0972709E-06	4.1867525E-06
3	1.7717295E-05	3.5820551E-05	2.4598275E-06
4	7.1750836E-08	-6.4774905E-09	-1.7359429E-07
5	-1.1088725E-07	-1.8784848E-07	-4.1766956E-08
6	5.9268196E-09	4.1261930E-09	-3.4831867E-08
7	-1.0946823E-05	-1.9994164E-05	-1.1153158E-06
8	-7.6105852E-06	-2.2679267E-05	9.6348901E-07
9	-7.0858877E-06	-2.1222241E-05	-5.3238986E-06
10	-9.1761945E-06	-2.0127355E-05	-2.0587326E-06
11	1.0751992E-05	1.9700742E-05	-2.0088038E-06
12	1.8702638E-05	2.8200411E-05	2.7254956E-06
13	1.4445335E-05	2.6770953E-05	1.9616257E-07
14	8.9767690E-06	1.9852154E-05	4.9618512E-06
15	6.1444808E-07	1.3645124E-05	-1.0850817E-05
16	-4.4555581E-06	5.2414783E-06	-7.5877916E-06
17	2.8981697E-05	2.0550316E-05	4.4764315E-06
18	2.0550316E-05	4.4218031E-05	1.8017506E-06
19	4.4764315E-06	1.8017506E-06	3.9116143E-05

V-F INTERNAL LOADS ON REDUNDANT STRUCTURE FOR UNIT APPLIED LOADS
ASYMMETRICAL LOADING CONDITIONS

(GIM)	1	2	3	4
1	9.4951246E-10	3.7252903E-09	-1.5646219E-07	7.2177500E-09
2	1.7458847E-01	-7.7871880E-02	-7.8101898E-01	-6.7107863E-03
3	7.2477394E-02	-4.5819641E-01	-2.4397262E-01	1.3590286E-02
4	1.6734702E-10	2.5145710E-08	-1.5640219E-07	4.0745363E-09
5	-1.7540856E-07	-1.6505624E-04	5.1867834E-07	4.8610384E-06
6	7.3451210E-02	4.6218197E-01	-2.4685111E-01	-1.3515583E-02
7	1.7511246E-01	7.4444749E-02	-7.8256791E-01	6.6409330E-03
8	6.7957444E-09	-1.4994293E-07	9.6857548E-08	-5.8207661E-09
9	-5.4023985E-09	6.9849193E-08	-8.1956387E-08	3.9581209E-09
10	0.	-0.	-0.	0.
11	1.7458847E-01	-7.7871880E-02	-7.8101898E-01	-6.7107863E-03
12	-4.4667879E-10	-3.4444765E-09	-2.1600831E-09	-8.2808139E-11
13	-3.9560685E-10	-3.0506452E-09	-1.9131055E-09	-7.3340101E-11
14	0.	-0.	-0.	0.
15	1.4112318E-05	8.8799871E-05	-4.7427958E-05	-2.5967737E-06
16	7.2470900E-02	-4.5828730E-01	-2.4395081E-01	1.3592954E-02
17	0.	-0.	-0.	0.
18	0.	-0.	-0.	0.
19	0.	-0.	-0.	0.
20	1.1589534E-14	-1.4882269E-12	-3.9624774E-14	4.3846827E-14
21	7.3444764E-02	4.6214139E-01	-2.4682947E-01	-1.3514397E-02
22	0.	-0.	-0.	0.
23	0.	-0.	-0.	0.
24	0.	-0.	-0.	0.
25	1.7511246E-01	7.4444749E-02	-7.8256791E-01	6.6409330E-03
26	0.	-0.	-0.	0.
27	0.	-0.	-0.	0.
28	0.	-0.	-0.	0.
29	3.1016359E-05	-4.0637902E-03	4.1868706E-02	1.0439760E-03
30	1.7532137E-01	-1.7389949E-01	2.0834047E-01	1.7958414E-02
31	-1.5401333E-09	-7.1764667E-09	-6.6374562E-09	4.4120514E-11
32	6.2682561E-04	-8.2128851E-02	8.4616247E-01	2.1098652E-02
33	-4.3789646E-04	5.7374516E-02	-5.9112197E-01	-1.4739341E-02
34	8.3854393E-06	4.3838961E-03	4.7217795E-02	-1.1700915E-03
35	7.5650338E-02	3.4103805E-01	-2.4447337E-01	-1.0609970E-02
36	7.1442872E-03	2.6308820E-02	-2.3074920E-02	5.2428007E-04
37	8.0580395E-02	3.6021608E-01	-2.7087386E-01	-1.0503080E-02
38	9.9571049E-03	4.6924606E-02	-3.2181777E-02	-1.9234965E-03
39	-1.1368050E-02	-5.3573940E-02	3.6741983E-02	2.1960601E-03
40	8.1751930E-10	-1.6537754E-09	-1.1060909E-08	-2.5705170E-10
41	-3.1015883E-05	4.0637916E-03	4.2052068E-02	-1.0439761E-03
42	7.9840343E-02	-3.5507801E-01	-2.5821829E-01	1.0332111E-02
43	-7.5597938E-10	-1.0898184E-08	-1.2537436E-08	-3.0068979E-10
44	3.5928845E-10	-1.1777593E-09	-1.3009382E-08	-1.1828540E-10
45	0.	-0.	-0.	0.
46	0.	-0.	-0.	0.
47	1.7437955E-01	1.7047236E-01	2.1112437E-01	-1.8028269E-02
48	0.	-0.	-0.	0.
49	-6.2682759E-04	8.2128818E-02	8.4986813E-01	-2.1098654E-02
50	4.3789471E-04	-5.7374514E-02	-5.9371073E-01	1.4739341E-02

(GIM)

	1	2	3	4
51	5.5879354E-09	-7.0780516E-08	-3.2596290E-08	-5.8207661E-11
52	5.5879354E-09	6.8917871E-08	-2.4214387E-08	-1.3230601E-07
53	-2.3748726E-08	-4.8428774E-08	2.5797635E-07	1.3015233E-07
54	0.	-0.	-0.	0.
55	0.	-0.	-0.	0.
56	0.	-0.	-0.	0.
57	0.	-0.	-0.	0.
58	0.	-0.	-0.	0.
59	0.	-0.	-0.	0.
60	0.	-0.	-0.	0.
61	0.	-0.	-0.	0.
62	0.	-0.	-0.	0.
63	-8.3673512E-11	-7.9307938E-09	1.6370905E-09	-1.7644197E-10
64	3.5469793E-02	-5.3749345E-01	4.0963375E-02	-1.1632185E-02
65	2.2973030E-01	-6.3938500E-01	2.7903041E-01	-1.2282338E-02
66	2.3017963E-01	6.3938490E-01	2.7710229E-01	1.2282342E-02
67	-6.7520887E-09	1.1641532E-07	3.5390258E-08	-8.4401108E-10
68	0.	-0.	-0.	0.
69	6.0909930E-18	-1.2321588E-17	-8.2410194E-17	-1.9151843E-18
70	-2.6096882E-01	1.1738177E 00	-9.9794526E-01	5.3729094E-03
71	2.6802305E-02	-2.8946122E-01	3.1516835E-02	-6.2005413E-03
72	-2.3649595E-01	-1.0188057E-01	-1.0647326E-02	-9.3786727E-03
73	-2.4295610E-01	1.0188057E-01	1.0647326E-02	9.3786725E-03
74	-2.6401404E-01	1.1796698E-01	1.2328483E-02	1.0859516E-02
75	-6.0535967E-09	-7.6368451E-08	1.3969839E-08	1.3114186E-07
76	2.3748726E-08	5.5879354E-08	-2.6170164E-07	-1.2910459E-07
77	-1.0165348E-02	-2.9802899E-01	-4.2374378E-02	-6.7086635E-03
78	-2.4042087E-01	-4.8527355E-01	1.0020533E 00	5.3729066E-03
79	3.3167975E-02	-2.0968534E-01	-1.1164983E-01	6.2193570E-03
80	-2.3903116E-01	4.8527354E-01	9.9794534E-01	-5.3729072E-03
81	1.6734702E-10	2.5145710E-08	-1.5646219E-07	4.0745363E-09
82	7.9822624E-02	-3.5597928E-01	-2.6863395E-01	1.0589437E-02
83	3.4522318E-02	5.3749359E-01	4.3764024E-02	1.1632181E-02
84	-2.5957911E-01	-1.1738178E 00	-1.0020532E 00	-5.3729092E-03
85	-2.6356777E-02	-2.8946115E-01	-3.2833715E-02	-6.2005342E-03
86	-3.3613502E-02	-2.1139228E-01	1.1296669E-01	6.1817191E-03
87	-4.6566129E-10	-1.4901161E-08	-2.9802322E-08	0.
88	5.2879665E-02	-1.8712524E-01	-1.7099687E-01	6.5120280E-03
89	1.7901816E-03	-3.1421588E-01	6.9549483E-02	-6.0451356E-03
90	8.0445756E-03	8.8077404E-02	-5.2610244E-01	-1.4065582E-02
91	-8.0445935E-03	-8.8077383E-02	-4.7389731E-01	1.405580E-02
92	-2.5653389E-01	-1.1796698E-01	-1.2328483E-02	-1.0859516E-02
93	-4.4504499E-02	-2.0062988E-01	1.4382177E-01	6.2417711E-03
94	-3.6958617E-04	4.8424217E-02	-4.9890742E-01	-1.2440019E-02
95	3.6958791E-04	-4.8424221E-02	-5.0109237E-01	1.2440016E-02

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1	-1.3574208E-10	-5.8207661E-11	5.5879354E-09	-0.
2	9.9764838E-03	-4.4320009E-03	7.3249221E-01	4.9278163E-01
3	4.1415662E-03	1.0203831E-03	-8.0503877E-03	1.4654496E-01
4	-5.4797056E-11	-3.6379788E-11	-1.8626451E-09	-3.7252903E-09
5	-1.0023299E-08	3.7037637E-07	-6.0423875E-05	9.5643578E-02
6	4.1972116E-03	-1.0448918E-03	3.2887300E-01	2.5565870E-01
7	1.0006427E-02	4.4535303E-03	3.5407322E-01	4.5383646E-01
8	4.1472958E-10	4.8021320E-10	-1.4901161E-08	7.4505806E-09
9	-2.5033841E-10	-3.8562575E-10	9.3132257E-09	-5.5879354E-09
10	0.	-0.	0.	0.
11	9.9764838E-03	-4.4320009E-03	5.7447600E-01	4.9278163E-01
12	2.7458145E-11	-3.2231498E-11	9.3186754E-01	-5.8492041E-10
13	2.4318662E-11	-2.8546244E-11	8.2532053E-01	-5.1804232E-10
14	0.	-0.	0.	0.
15	8.0641795E-07	-2.0075686E-07	6.3186973E-05	-1.5544468E-01
16	4.1411949E-03	1.0205878E-03	-8.0976676E-03	1.1078478E-01
17	0.	-0.	0.	5.4475409E-01
18	0.	-0.	0.	6.4510971E-01
19	0.	-0.	0.	0.
20	6.6226063E-16	3.3380854E-15	-5.1598489E-13	1.8766112E-09
21	4.1968434E-03	-1.0448004E-03	3.2884415E-01	2.1185329E-01
22	0.	-0.	0.	2.1351497E-01
23	0.	-0.	0.	3.3259392E-01
24	0.	-0.	0.	-8.7458570E-07
25	1.0006427E-02	4.4535303E-03	3.5407322E-01	4.5383646E-01
26	0.	-0.	0.	0.
27	0.	-0.	0.	0.
28	0.	-0.	0.	0.
29	1.7723300E-06	-6.5778415E-05	1.0730917E-02	-2.5898734E-02
30	1.0018363E-02	-5.9863483E-03	-3.8571545E-01	-1.1920665E-01
31	9.0925233E-11	-1.1217423E-10	-7.2492862E-01	7.3441654E-10
32	3.5818084E-05	-1.3293754E-03	-8.7908819E-01	-5.2341090E-01
33	-2.5022167E-05	9.2869031E-04	-1.5150405E-01	3.6565046E-01
34	4.7917865E-07	7.4515591E-05	-1.2061785E-02	1.6121049E-01
35	4.3228776E-03	-7.1939444E-04	2.8088050E-01	7.6282318E-02
36	4.0824412E-04	-1.6430482E-04	4.2147960E-02	6.3550277E-02
37	4.6045942E-03	-8.1685849E-04	3.0738503E-01	2.1655698E-01
38	5.6897659E-04	-6.1416671E-05	3.1575682E-02	-2.9257803E-01
39	-6.4960163E-04	7.0119240E-05	-3.6050007E-02	-2.0635072E-01
40	-3.8517256E-11	6.8526019E-11	2.0359546E-08	-5.7338271E-01
41	-1.7722950E-06	6.5778408E-05	-1.0730913E-02	-2.1551460E-02
42	4.5623058E-03	8.0692048E-04	4.2541703E-02	9.5521479E-02
43	2.3947894E-11	-4.9165927E-11	9.0361831E-09	-1.9578276E-01
44	-1.8759400E-11	3.5057878E-11	6.3445925E-09	-3.3067028E-01
45	0.	-0.	0.	9.0236340E-14
46	0.	-0.	0.	0.
47	9.9645467E-03	6.0078776E-03	1.0050126E-01	-5.5425503E-02
48	0.	-0.	0.	0.
49	-3.5817982E-05	1.3293753E-03	-2.1687069E-01	-4.3555287E-01
50	2.5022182E-05	-9.2869029E-04	1.5150404E-01	3.0427356E-01

(GIM)	5	6	7	8
51	3.6379788E-10	6.9121597E-11	5.5879354E-09	1.4901161E-08
52	-2.9103830E-10	-4.2527972E-09	1.5757978E-06	2.9709190E-07
53	-5.8207661E-10	4.0672603E-09	-1.6689301E-06	-4.0046871E-07
54	0.	-0.	0.	-4.2743610E-07
55	0.	-0.	0.	0.
56	0.	-0.	0.	8.1592182E-01
57	0.	-0.	0.	-7.0051960E-01
58	0.	-0.	0.	8.8157263E-07
59	0.	-0.	0.	-7.8723335E-07
60	0.	-0.	0.	7.9040781E-14
61	0.	-0.	0.	0.
62	0.	-0.	0.	0.
63	9.0267348E-11	-3.3224978E-11	2.6047928E-09	-3.5688572E-09
64	-1.8148279E-03	6.0057626E-04	1.2714066E-01	1.0301106E-02
65	-1.2115730E-02	-1.8668210E-02	3.6073286E-01	2.2059605E-02
66	-1.2090055E-02	1.8668209E-02	-3.6073286E-01	-6.3118305E-02
67	-1.4551915E-11	-4.2928150E-10	-6.5192580E-09	-1.1641532E-08
68	0.	-0.	0.	-3.3560031E-07
69	-2.8697591E-19	5.1055861E-19	1.5169043E-15	-3.8063301E-09
70	1.3658924E-02	1.9202552E-02	-2.7466595E-01	6.8990141E-02
71	-1.3861939E-03	-4.7243662E-04	7.7072065E-02	1.7206095E-01
72	-1.3514053E-02	6.5680851E-03	1.5858172E-01	5.7521028E-02
73	-1.3883207E-02	-6.5680842E-03	-1.5858172E-01	-5.7521026E-02
74	1.3484909E-02	1.8710638E-02	-1.8362094E-01	-6.6603295E-02
75	2.9103830E-10	4.2527972E-09	-1.5720725E-06	-2.9476359E-07
76	5.8207661E-10	-4.0599843E-09	1.6670674E-06	3.9767474E-07
77	2.6385696E-04	-3.9159082E-04	5.8118948E-02	1.1261155E-01
78	-1.3738337E-02	-3.5247341E-03	-6.4644538E-01	-7.4869731E-01
79	1.8953129E-03	4.6695997E-04	-3.6841147E-03	6.7063665E-02
80	-1.3658924E-02	3.5247357E-03	-7.2533426E-01	-6.2308095E-01
81	-5.4797056E-11	-3.6379788E-11	-1.8620451E-09	-3.7252903E-09
82	4.5612935E-03	7.9024198E-04	4.5207036E-02	1.3801449E-01
83	-1.8689686E-03	-6.0057606E-04	-1.2714068E-01	-1.6549744E-02
84	1.3738336E-02	-1.9202553E-02	6.4644560E-01	3.0278817E-01
85	1.4116524E-03	-4.7243680E-04	7.7072074E-02	-5.4410678E-02
86	-1.9207715E-03	4.7791353E-04	-1.5046003E-01	-1.8471393E-01
87	2.9103830E-11	-5.2988359E-11	2.2011814E-09	2.3283064E-10
88	3.0216950E-03	3.3878157E-04	5.9894385E-02	1.0876749E-01
89	-7.4243737E-04	-3.7040491E-04	4.7226548E-02	-1.7650272E-01
90	4.5968876E-04	7.3191203E-04	-1.0118529E-01	6.1369502E-02
91	-4.5968963E-04	-7.3191222E-04	1.0118520E-01	-6.1369605E-02
92	1.3912350E-02	-1.8710639E-02	1.8362094E-01	6.6603295E-02
93	-2.5431146E-03	4.2321416E-04	-1.6525988E-01	-4.4876320E-02
94	-2.1119067E-05	7.8381546E-04	-1.2786956E-01	-9.7596891E-02
95	2.1119020E-05	-7.8381531E-04	1.2786955E-01	9.7595717E-02

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	9	10	11	12
1	-6.1467290E-08	-3.7252903E-08	-1.1362135E-07	-2.6077032E-07
2	4.6660391E-01	3.5642563E-01	-7.7932009E-01	-4.7410211E-01
3	3.1071463E-01	3.2278554E-01	1.9607582E-01	-1.1703654E-01
4	-4.6566129E-08	-2.7939677E-08	-1.7508864E-07	-2.7194619E-07
5	-9.5645038E-02	5.9662158E-05	6.0615097E-05	6.8545548E-02
6	2.0976303E-01	-9.9090619E-03	-3.1838274E-01	-1.9578688E-01
7	5.0994119E-01	7.3712019E-01	-3.3589040E-01	-4.5698249E-01
8	1.2107193E-07	9.6857548E-08	1.0430813E-07	2.6077032E-07
9	-7.7299774E-08	-4.8428774E-08	-3.7252903E-08	-1.3038516E-07
10	-0.	-0.	-0.	-0.
11	4.6660391E-01	3.5642563E-01	-6.5966738E-01	-4.9410211E-01
12	1.5774053E-10	6.4514772E-10	4.7383136E-01	7.5391329E-10
13	1.3970492E-10	5.7138342E-10	4.1965488E-01	6.6771302E-10
14	-0.	-0.	-0.	-0.
15	8.1751212E-02	-1.9038441E-06	-6.1171462E-05	-1.0557839E-01
16	1.9094464E-01	3.2280461E-01	1.9654001E-02	-1.3027965E-01
17	2.1351509E-01	-0.	-0.	3.3010817E-01
18	2.5284924E-01	-0.	-0.	3.9092131E-01
19	-0.	-0.	-0.	-0.
20	-1.8782287E-09	5.6631281E-13	5.1969945E-13	1.2771293E-09
21	9.8038702E-02	-9.9081949E-03	-3.1835482E-01	-2.4151544E-01
22	5.4475421E-01	-0.	-0.	2.2308679E-01
23	-3.3259392E-01	-0.	-0.	2.0696957E-01
24	8.9795983E-01	-0.	-0.	1.0683847E-01
25	5.0994119E-01	5.7910398E-01	-3.3589040E-01	-4.5698249E-01
26	-0.	9.3186754E-01	-0.	-0.
27	-0.	8.2532053E-01	-0.	-0.
28	-0.	-0.	-0.	-0.
29	-2.1291512E-02	-1.0596227E-02	-1.0764897E-02	2.6712186E-02
30	-3.6515419E-02	1.0603632E-01	3.4712619E-01	1.3710802E-01
31	2.4914840E-09	-1.3477962E-09	7.5324160E-01	-1.4402014E-09
32	-4.3029932E-01	-2.1414870E-01	9.2120543E-01	5.3985066E-01
33	3.0060349E-01	1.4960248E-01	1.5193382E-01	-3.7713515E-01
34	-5.9546800E-02	1.2098192E-02	1.2106860E-02	-1.6729345E-01
35	1.1702316E-02	4.7633299E-02	-2.6986641E-01	-1.0025934E-01
36	9.8678350E-02	-1.1123765E-02	-4.1164463E-02	-6.8294153E-02
37	1.2269210E-01	.2537623E-02	-2.9568291E-01	-2.4763141E-01
38	-1.4927750E-01	.1663252E-02	-3.0106442E-02	3.0133801E-01
39	-5.3095418E-02	-1.3315963E-02	5.4372585E-02	2.1745560E-01
40	-2.3717392E-01	2.3149929E-09	-1.3018218E-08	5.9577758E-01
41	-2.6158721E-02	1.0596228E-02	1.0764894E-02	2.2591293E-02
42	9.8688546E-02	3.0416726E-01	-2.9996853E-02	-1.1688115E-01
43	-4.7331781E-01	2.1721041E-09	-1.2718942E-08	2.0342954E-01
44	3.3067029E-01	2.2366475E-09	-6.3974309E-09	3.4358543E-01
45	-8.1055663E-01	-0.	-0.	-1.1129776E-08
46	-0.	-0.	-0.	-0.
47	-1.0819053E-01	-3.8427006E-01	-8.1515461E-02	7.6850768E-02
48	-0.	-7.2492862E-01	-0.	-0.
49	-5.2866514E-01	-8.8181014E-01	7.1755745E-01	4.5656778E-01
50	3.6932102E-01	-1.4960248E-01	-1.5158380E-01	-3.1895441E-01

(GIM)	9	10	11	12
51	2.4912879E-08	1.8626451E-08	-5.5879354E-09	-3.7718564E-08
52	-3.6519486E-07	-1.6165432E-06	-1.5962869E-06	-3.0407682E-07
53	2.6181806E-07	1.5012920E-06	1.6856939E-06	4.2235479E-07
54	-0.	-0.	-0.	5.2333919E-02
55	-0.	-0.	-0.	-0.
56	-0.	-0.	-0.	5.9525551E-01
57	-0.	-0.	-0.	7.2788013E-01
58	-8.7171792E-07	-0.	-0.	-1.0860215E-01
59	8.1592262E-01	-0.	-0.	9.7077760E-02
60	-7.0051960E-01	-0.	-0.	-9.7097881E-09
61	-0.	-0.	-0.	-0.
62	-0.	-0.	-0.	-0.
63	-1.2698365E-08	-4.4892658E-09	-3.9290171E-09	-3.5652192E-09
64	-1.2579007E-02	-1.2508348E-01	-1.3021960E-01	-1.3729033E-02
65	-6.5001335E-02	-3.6170832E-01	-3.2995742E-01	-2.1486443E-02
66	2.3942637E-02	3.6170835E-01	3.2995741E-01	6.4148766E-02
67	-1.1932570E-08	-1.4901161E-08	8.3819032E-09	2.4214387E-08
68	3.4654357E-01	-0.	-0.	4.1231453E-02
69	-3.7924925E-01	1.7248041E-17	-9.6993279E-17	-1.2865619E-09
70	2.9696425E-01	6.4342806E-01	-5.6188594E-01	-5.9816436E-01
71	5.6277921E-02	-7.6104667E-02	-7.7316061E-02	9.3054116E-02
72	2.7052354E-02	-1.4455495E-01	-1.2889900E-01	-5.6033406E-02
73	-2.7052353E-02	1.4455495E-01	1.2889900E-01	5.6033404E-02
74	-3.1323778E-02	1.6737942E-01	1.4925148E-01	6.4880786E-02
75	3.6542769E-07	1.6111881E-06	1.5925616E-06	3.0174851E-07
76	-2.6286580E-07	-1.4996622E-06	-1.6819686E-06	-4.2002648E-07
77	5.5001125E-02	-6.8845698E-02	-5.8722607E-02	-1.1752533E-01
78	-6.2890533E-01	-7.2835176E-01	6.1893510E-01	5.8265762E-01
79	1.4219288E-01	1.4771695E-01	8.9729465E-03	-5.3559921E-02
80	-7.4287335E-01	-6.4342782E-01	5.6188614E-01	5.9816425E-01
81	-4.6566129E-08	-2.7939677E-08	-1.7508864E-07	-2.7194619E-07
82	1.9498319E-01	3.0142499E-01	-3.2674669E-02	-1.6107766E-01
83	6.3303834E-03	1.2508343E-01	1.3021961E-01	2.0221769E-02
84	7.4814459E-02	-2.7164844E-01	-6.1893529E-01	-5.8265756E-01
85	-1.7019385E-01	-7.6104709E-02	-7.7316137E-02	-8.0561893E-02
86	-2.8276943E-02	4.4924330E-03	1.4565925E-01	4.1067694E-02
87	-7.4505806E-09	7.4505806E-09	2.9802322E-08	2.9802322E-08
88	1.3969097E-01	1.6973701E-01	-5.1700735E-02	-1.2525770E-01
89	-1.8780772E-01	-7.2869121E-02	-4.8337040E-02	1.8380119E-01
90	1.2756381E-01	1.3611895E-01	1.0283176E-01	-6.3660064E-02
91	-1.2756391E-01	-1.3611906E-01	-1.0283167E-01	6.3660183E-02
92	3.1323778E-02	-1.6737942E-01	-1.4925148E-01	-6.4880786E-02
93	-6.8843801E-03	-2.8022189E-02	1.5876038E-01	5.8981838E-02
94	9.4498028E-02	1.2626461E-01	-8.7172538E-01	-5.6445374E-01
95	-9.4498924E-02	-1.2626458E-01	-1.2827445E-01	-4.3554661E-01

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	13	14	15	16
1	-2.5331974E-07	-3.1292439E-07	-5.0291419E-08	6.0535967E-08
2	-4.3949534E-01	-3.3833478E-01	-1.1894502E-01	5.4642164E-02
3	-1.5343923E-01	-3.1242810E-01	1.0960273E 00	6.5310273E-01
4	-2.7567148E-07	-2.5331974E-07	-2.2351742E-08	3.6321580E-08
5	-6.8543853E-02	-5.9906428E-05	2.5951021E-02	-3.8868245E-02
6	-8.4125118E-02	2.1627973E-02	-2.3253617E-01	-6.7912689E-02
7	-4.8169272E-01	-5.8388153E-01	4.1793324E-02	9.7400904E-02
8	2.1606684E-07	2.5331974E-07	5.2154064E-08	-4.4703484E-08
9	-1.6391277E-07	-2.0861626E-07	-2.0489097E-08	3.6321580E-08
10	-0.	-0.	-0.	0.
11	-4.3949534E-01	-3.3833478E-01	-1.1894502E-01	5.4642164E-02
12	-9.9750253E-11	-1.7738693E-10	-7.4489033E-10	-8.4716718E-10
13	-8.8345153E-11	-1.5710500E-10	-6.5972177E-10	-7.5030456E-10
14	-0.	-0.	-0.	0.
15	5.1696331E-02	4.1554233E-06	-3.9802335E-02	4.8503416E-02
16	-2.5360793E-01	-3.1244827E-01	9.2798710E-02	6.3637472E-01
17	2.2308687E-01	-0.	-5.8505130E-01	-6.9238362E-02
18	2.6418436E-01	-0.	6.7191061E-02	-8.1993582E-02
19	-0.	-0.	7.5779399E-01	0.
20	-1.2783948E-09	-5.6652320E-13	3.9911142E-10	-5.9175989E-10
21	-1.5180890E-01	2.1626078E-02	-2.7708694E-01	-1.3516317E-02
22	3.3010823E-01	-0.	2.1735911E-01	-2.6524438E-01
23	-2.0696957E-01	-0.	4.5938956E-02	-5.6059533E-02
24	5.4826719E-01	-0.	2.2247695E-01	-2.7148971E-01
25	-4.8169272E-01	-6.6422880E-01	4.1793324E-02	9.7400904E-02
26	-0.	4.7383136E-01	-0.	0.
27	-0.	4.1965486E-01	-0.	0.
28	-0.	-0.	-0.	0.
29	2.2290767E-02	1.0639589E-02	2.0954940E-02	1.2078267E-02
30	8.7236378E-02	-8.6920791E-02	3.7622120E-01	3.4005208E-01
31	-4.6232597E-09	-2.9867101E-09	-2.3324116E-09	-1.9723191E-09
32	4.5049414E-01	2.1502504E-01	4.2349732E-01	2.4410053E-01
33	-3.1471142E-01	-1.5021468E-01	-2.9585166E-01	-1.7052657E-01
34	6.1651232E-02	-1.2140732E-02	-8.7813363E-02	8.9283592E-02
35	-6.4630899E-02	-3.5773360E-02	-1.6842454E-01	-1.0513847E-01
36	-1.0720938E-01	1.2300539E-02	-3.0793484E-02	4.7465088E-02
37	-1.8322904E-01	-2.9874969E-02	-2.3853214E-01	-2.2018482E-02
38	1.4810551E-01	-1.0121686E-02	1.2028101E-01	-2.0121406E-01
39	6.3163832E-02	1.1555932E-02	1.2471473E-01	-9.0041947E-02
40	2.4643733E-01	-8.5158343E-09	2.7803946E-01	-3.329291E-01
41	2.7012752E-02	-1.0639591E-02	2.0541688E-03	8.8526539E-03
42	-1.6244523E-01	-2.9257115E-01	-3.8713730E-01	-7.2749467E-01
43	4.9180441E-01	-1.2201371E-09	9.4937162E-02	5.7522959E-01
44	-3.4358543E-01	-6.2675377E-09	1.6034560E-01	-1.9567052E-01
45	8.4221493E-01	-0.	-2.3176283E-08	2.8282131E-08
46	-0.	-0.	-0.	-8.3699428E-01
47	1.5661982E-01	3.4552570E-01	9.0333432E-02	3.0658951E-01
48	-0.	7.5324160E-01	-0.	0.
49	5.4592504E-01	9.2373784E-01	4.1514543E-02	1.7891126E-01
50	-3.8137864E-01	1.5021468E-01	-2.9001712E-02	-1.2498590E-01

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16

51	-5.7276338E-08	-3.8184226E-08	-2.6677032E-08	=1.9557774E-08
52	3.1618401E-07	1.5730038E-06	-1.2982637E-06	-2.5611371E-07
53	-2.1513551E-07	-1.4526304E-06	1.3224781E-06	2.7148053E-07
54	-0.	-0.	1.0897845E-01	-1.3298693E-01
55	-0.	-0.	-4.8602386E-01	5.9309730E-01
56	-0.	-0.	2.9493788E-01	-3.5991414E-01
57	-0.	-0.	3.3968952E-01	-4.1452478E-01
58	1.0860216E-01	-0.	-2.2614956E-01	2.7597142E-01
59	4.9817774E-01	-0.	2.0215155E-01	-2.4668653E-01
60	7.2788013E-01	-0.	-2.0219347E-08	2.4673768E-08
61	-0.	-0.	-6.3181229E-01	0.
62	-0.	-0.	-0.	7.0831991E-01
63	-4.0745363E-09	1.5788828E-09	-1.6007107E-09	7.4505806E-09
64	1.5631240E-02	1.2830576E-01	1.2325220E-01	1.7329523E-01
65	6.6325723E-02	3.3086489E-01	-7.1512707E-02	3.7284600E-02
66	-2.3663416E-02	-3.3086503E-01	9.1422501E-02	-1.9173093E-02
67	1.6298145E-08	2.9802322E-08	2.7939677E-09	5.5879354E-09
68	2.1158905E-01	-0.	8.5859028E-02	-1.0477419E-01
69	3.9406177E-01	-6.3447910E-17	-9.0283638E-09	1.1070674E-08
70	-5.7592465E-01	-6.1612789E-01	-3.1450069E-02	-3.4448479E-01
71	7.8403495E-02	7.6416299E-02	-1.2097900E-01	6.5279837E-02
72	-3.4972665E-02	1.1584890E-01	-2.4002485E-01	-2.5503199E-01
73	3.4972664E-02	-1.1584889E-01	2.4002485E-01	2.5503198E-01
74	4.0494666E-02	-1.3414083E-01	2.7792352E-01	2.9530020E-01
75	-3.1711534E-07	-1.5699770E-06	1.2936071E-06	2.5471672E-07
76	2.1606684E-07	1.4496036E-06	-1.3178214E-06	-2.6589260E-07
77	-5.4236910E-02	6.8702396E-02	3.2488415E-03	1.2701861E-01
78	6.0489792E-01	5.6469350E-01	1.4663761E-01	-9.5679213E-03
79	-7.0218936E-02	-1.4297739E-01	5.0157714E-01	2.9888078E-01
80	5.7592467E-01	6.1612768E-01	-8.5557891E-01	-6.3534324E-01
81	-2.7567148E-07	-2.5331974E-07	-2.2351742E-08	3.6321580E-08
82	-2.6243995E-01	-2.8982175E-01	-4.0553783E-01	2.7707222E-01
83	-9.1384965E-03	-1.2830558E-01	-1.2022215E-01	-1.7053891E-01
84	-6.0489793E-01	-5.6469330E-01	-1.4882963E-01	1.8048853E-01
85	-9.5212528E-02	7.6416120E-02	-1.1160708E-02	1.6517957E-01
86	8.7027957E-02	-9.8551381E-03	8.8042492E-02	5.8597981E-02
87	-2.9802322E-08	-5.9604645E-08	1.4901161E-08	7.4505806E-09
88	-1.8425598E-01	-1.6194162E-01	-2.5322410E-01	-3.8871305E-01
89	2.0047102E-01	7.2194121E-02	1.5089231E-01	1.9984229E-01
90	-1.4046135E-01	-1.3533300E-01	-1.4805813E-01	-3.1395878E-01
91	1.4046145E-01	1.3533312E-01	1.4805815E-01	3.1395880E-01
92	-4.0494666E-02	1.3414083E-01	-2.7792352E-01	-2.9530020E-01
93	3.8021872E-02	2.1045100E-02	9.9082950E-03	6.1852151E-02
94	-4.3196554E-01	-1.2678125E-01	1.8655551E-01	-9.2295709E-02
95	-5.6803527E-01	-8.7321842E-01	-1.8655540E-01	9.2296250E-02

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1	-1.3783574E-07	-1.7136335E-07	-1.4156103E-07
2	-3.0494705E-01	-5.2638916E-01	1.4745063E-01
3	-3.5361952E-01	-8.9045452E-02	-6.0862393E-01
4	-1.6018748E-07	-2.1606684E-07	-6.1467290E-08
5	4.4579244E-02	4.0040240E-02	9.3329916E-01
6	-1.6753061E-01	-2.2549682E-01	5.7448238E-02
7	-2.7331785E-01	-5.2001502E-01	-3.1647767E-01
8	1.1920929E-07	2.3096800E-07	1.0058284E-07
9	-4.4703484E-08	-6.7055225E-08	-6.3329935E-08
10	-0.	-0.	5.0000000E-01
11	-3.0494705E-01	-5.2638916E-01	-1.8386340E-01
12	3.4448181E-10	5.4127113E-10	5.5958040E-10
13	3.0509475E-10	4.7938375E-10	-2.0232157E-01
14	-0.	-0.	-5.6329839E-01
15	-4.8839073E-02	-4.9826545E-02	-4.9998893E-01
16	5.3979215E-01	-7.1806839E-02	1.3264144E-01
17	6.2276313E-01	7.1046159E-02	-0.
18	8.2484398E-02	8.4134417E-02	-0.
19	-6.5308551E-01	-0.	-0.
20	6.7483237E-10	6.0865371E-10	-4.9999996E-01
21	-2.2223190E-01	-2.8128757E-01	5.7443202E-02
22	2.6683214E-01	2.7216988E-01	-0.
23	5.6395108E-02	5.7523236E-02	-0.
24	2.7311485E-01	2.7857827E-01	-0.
25	-2.7331785E-01	-5.2001502E-01	1.4836329E-02
26	-0.	-0.	-0.
27	-0.	-0.	2.0232156E-01
28	-0.	-0.	5.6329839E-01
29	1.5916946E-02	3.0823471E-02	-2.3949107E-03
30	7.1171105E-02	2.0197082E-01	-2.4045525E-01
31	-1.2807294E-09	-2.7879154E-09	7.2044566E-10
32	3.2167991E-01	6.2293929E-01	-4.8400916E-02
33	-2.2472288E-01	-4.3518015E-01	3.3812475E-02
34	-9.6527002E-02	-9.7827135E-02	2.7699831E-03
35	-3.1468681E-02	-7.7735285E-02	7.2378318E-02
36	-3.5786451E-02	-3.0539200E-02	3.2673776E-03
37	-1.1374083E-01	-1.6113889E-01	7.5222407E-02
38	1.7575001E-01	1.6971192E-01	1.0758518E-02
39	1.2102845E-01	1.3435709E-01	-1.2283020E-02
40	3.4132395E-01	3.4815179E-01	-1.3284145E-09
41	1.2329262E-02	3.1594514E-02	2.3949111E-03
42	-5.3968978E-02	-4.3098774E-01	1.3437568E-01
43	1.1654578E-01	5.9276940E-01	-3.5233608E-10
44	1.9684182E-01	2.0077944E-01	-6.2334160E-10
45	-2.8451429E-08	-2.9020573E-08	-0.
46	-0.	-5.7394803E-01	-0.
47	1.8023173E-02	2.2656475E-01	7.1428189E-02
48	-0.	-0.	-0.
49	2.4917317E-01	6.3852199E-01	4.8400916E-02
50	-1.7407028E-01	-4.4606610E-01	-3.3812475E-02

(GIM)	17	18	19
51	-2.1536835E-08	1.2572855E-08	1.8626451E-09
52	-2.5087502E-07	5.9138983E-08	5.8207661E-07
53	3.2281969E-07	8.3353370E-08	-5.7136640E-07
54	1.3378300E-01	1.3645920E-01	-0.
55	-5.9664760E-01	-6.0858299E-01	-0.
56	3.6206861E-01	3.6931145E-01	-0.
57	4.1700615E-01	4.2534795E-01	-0.
58	-2.7762339E-01	-2.8317700E-01	-0.
59	2.4816321E-01	2.5312749E-01	-0.
60	-2.4821466E-08	-2.5317996E-08	-0.
61	-7.7561889E-01	-0.	-0.
62	-0.	-7.2681405E-01	-0.
63	-4.5392880E-09	-2.3974280E-09	-9.4587449E-11
64	1.5037466E-03	5.1986760E-02	-4.7407799E-02
65	-1.6752634E-02	2.9972181E-02	1.4647648E-01
66	4.1194100E-02	2.4038119E-02	-1.4647648E-01
67	8.9639797E-09	-8.6147338E-09	7.9162419E-09
68	1.0540137E-01	1.0750983E-01	-0.
69	-1.1083307E-08	-1.1353649E-08	-9.8974590E-18
70	-6.1334528E-01	-6.2050512E-01	5.9933759E-02
71	1.8994648E-01	4.8352398E-02	-1.7200768E-02
72	-4.5723976E-02	-1.3911027E-01	1.8192660E-01
73	4.5723975E-02	1.3911026E-01	-1.8192659E-01
74	5.2943552E-02	1.6107505E-01	-2.1065185E-01
75	2.4971086E-07	-6.3795596E-08	-5.7974830E-07
76	-3.2153912E-07	-7.8231096E-08	5.6810677E-07
77	-6.4358166E-02	-5.2906755E-02	-1.7732096E-02
78	3.9079427E-01	6.9223711E-01	-3.9370249E-01
79	-1.6182772E-01	-4.0750213E-02	-2.7852593E-01
80	6.1936499E-01	6.0556326E-01	3.9370247E-01
81	-1.6018748E-07	-2.1606684E-07	-6.1467290E-08
82	-7.9140390E-02	2.1385089E-01	1.3373496E-01
83	2.2159703E-03	-4.3767050E-02	4.7407807E-02
84	-4.0243010E-01	-6.6283060E-01	-5.9933752E-02
85	-8.4141202E-02	-6.2546778E-02	-1.7200848E-02
86	4.5105001E-02	7.4845808E-02	-6.8707241E-01
87	2.9802322E-08	5.9604645E-08	-0.
88	-6.1354430E-02	-2.7881066E-01	8.1755084E-02
89	1.0719978E-01	2.8598639E-01	-2.1443353E-02
90	-4.1150791E-02	-2.2387906E-01	3.7629718E-02
91	4.1150863E-02	2.2387920E-01	-3.7629707E-02
92	-5.2943552E-02	-1.6107505E-01	2.1065185E-01
93	1.8512816E-02	4.5731022E-02	-4.2579636E-02
94	-6.5404139E-01	-4.2026933E-01	1.8694684E-01
95	-3.4588391E-01	-5.7942879E-01	-1.8694678E-01

VI. APPLIED LOAD CONDITIONS

Based on a survey of the XV-5A fuselage loads, Loads Report No. 143, and preliminary internal loads analysis of the space frame, a number of loading conditions were selected to be run on the IBM redundant loads program. The selected conditions, listed on the following pages, which apparently produced critical loads in one or more of the space frame members, include three landing conditions, four fan powered and nine conventionally powered flight conditions.

Because the space frame is not a symmetrical structure, the same loading conditions were investigated for reversed asymmetric loading. Also, because some space frame members are loaded by engine loads as well as by fuselage loads, these conditions were investigated both with maximum power on and with power off.

Engine mount and inboard wing fan mount loads were developed for the various loading conditions utilizing the General Electric Company Generated Unit Loads for these components. The unit load tables and the applied engine mount load tables are shown in the following pages.

The upper plane and lower plane X diagonal members, members 3, 6, 64 and 83, were designed to carry load primarily in the tension loaded member, allowing the compression loaded member to bow as a column. For this reason the three loading conditions which produced critical compression loading in these members were rerun as revised conditions. The only change from the original redundant loads solution is an increase in the flexibility coefficient of the compression loaded member which limits the compression load in that member to its column allowable load, the excess load being shifted to other members of the space frame. The revised condition load solutions are shown in Section IX.

15 OCTOBER 1963

JOB 1054

REDUNDANT STRESS ANALYSIS

LOAD CONDITIONS

F-1 FLIGHT CONDITION F-1, HIGH SPEED SYMMETRIC PULLOUT COND.
M=0.8 POWER OFF FWD C.G.

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
0.000	0.000	4.000	-0.152	0.000

F-1P SAME AS CONDITION F-1 EXCEPT MAX POWER AND RAM DRAG

F-8 FLIGHT CONDITION F-8, HIGH SPEED NEGATIVE LOAD FACTOR COND.
M=0.8 POWER OFF AFT C.G.

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
0.000	0.000	-1.000	0.098	0.000

F-8P SAME AS CONDITION F-8 EXCEPT MAX POWER AND RAM DRAG

HSC-1 FLIGHT CONDITION HSC-1, HIGH SPEED DRAG CHUTE COND., FWD C.G.
POWER OFF

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
1.804	0.000	1.000	0.000	0.000

HSC-1P SAME AS CONDITION HSC-1 EXCEPT MAX POWER ON

L-16 LANDING CONDITION L-16, TWO POINT TAILDOWN DYNAMIC
SPRINGBACK COND., AFT C.G.

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
-1.820	0.000	3.778	0.000	0.000

L-10 LANDING CONDITION L-10, TWO POINT SIDE DRIFT COND., FWD C.G.

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
-0.075	0.924	2.317	0.000	0.000

L-10R SAME AS CONDITION L-10 EXCEPT: ASSYM. LOADS REVERSED AND

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
-0.075	-0.924	2.317	0.000	0.000

L-20 LANDING CONDITION L-20, TWO POINT SIDE DRIFT COND., AFT C.G.

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
-0.075	0.924	2.317	0.000	0.000

L-20R SAME AS CONDITION L-20 EXCEPT: ASSYM. LOADS REVERSED AND

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
-0.075	-0.924	2.317	0.000	0.000

LG-1 FLIGHT CONDITION LG-1, LATERAL GUST COND., M=0.756, FWD C.G.
GUST VELOCITY = 24.0 FPS POWER OFF

NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
0.000	0.598	1.000	0.000	0.000

LG-1R SAME AS CONDITION LG-1 EXCEPT: ASSYM. LOADS REVERSED AND

	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	-0.598	1.000	0.000	0.000
LG-1P	SAME AS CONDITION LG-1 EXCEPT MAX POWER ON				
LG-1PR	SAME AS CONDITION LG-1R EXCEPT MAX POWER ON				
LG-3	FLIGHT CONDITION LG-3, LATERAL GUST COND. M=0.638, FWD C.G. GUST VELOCITY = 40.0 FPS POWER OFF				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	0.896	1.000	0.000	0.000
LG-3R	SAME AS CONDITION LG-3 EXCEPT: ASSYM. LOADS REVERSED AND				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	-0.896	1.000	0.000	0.000
LG-3P	SAME AS CONDITION LG-3 EXCEPT MAX POWER ON				
LG-3PR	SAME AS CONDITION LG-3R EXCEPT MAX POWER ON				
AF-6	FLIGHT CONDITION AF-6, DYNAMIC OVERSWING COND. M=0.756 AFT C.G. POWER OFF				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	0.855	1.000	0.000	0.000
AF-6R	SAME AS CONDITION AF-6 EXCEPT: ASSYM. LOADS REVERSED AND				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	-0.855	1.000	0.000	0.000
AF-6P	SAME AS CONDITION AF-6 EXCEPT MAX POWER ON				
AF-6PR	SAME AS CONDITION AF-6R EXCEPT MAX POWER ON				
SPC-1	FLIGHT CONDITION SPC-1, SPIN CONDITION WITH SPIN CHUTE FWD C.G. POWER OFF				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.064	0.011	2.087	1.000	3.500
SPC-1R	SAME AS CONDITION SPC-1 EXCEPT: ASSYM. LOADS REVERSED AND				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.064	-0.011	2.087	1.000	-3.500
ROLL 4	FLIGHT CONDITION ROLL 4, ROLLING PULLOUT MANEUVER, S.L. M=0.5 POWER OFF AFT C.G.				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	0.339	2.500	0.144	-0.098
ROLL 4R	SAME AS CONDITION ROLL 4 EXCEPT: ASSYM. LOADS REVERSED AND				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	-0.339	2.500	0.144	0.098
ROLL 4P	SAME AS CONDITION ROLL 4 EXCEPT MAX POWER ON				
ROLL 4PR	SAME AS CONDITION ROLL 4R EXCEPT MAX POWER ON				
ROLL 5	FLIGHT CONDITION ROLL 5, ROLLING PULLOUT MANEUVER, S.L. M=0.5 POWER OFF AFT C.G.				
	NX	NY	NZ	PITCH VELOCITY	YAW VELOCITY
	0.000	0.732	1.100	0.044	-0.047

ROLL 5R SAME AS CONDITION ROLL 5 EXCEPT: ASSYM. LOADS REVERSED AND
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 -0.732 1.100 0.044 0.047

ROLL 5P SAME AS CONDITION ROLL 5 EXCEPT MAX POWER ON

ROLL 5PR SAME AS CONDITION ROLL 5R EXCEPT MAX POWER ON

HOVER 1 HOVERING FLIGHT CONDITION HOVER 1, S.L. AFT C.G.
 MAX POWER ON DIVERTED THRUST
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.000 1.300 1.000 1.050

HOVER 4 SAME AS CONDITION HOVER 1 EXCEPT
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.000 1.300 -1.000 1.050

HOVER 1R SAME AS CONDITION HOVER 1 EXCEPT ASSYM. LOADS REVERSED

HOVER 4R SAME AS CONDITION HOVER 4 EXCEPT ASSYM. LOADS REVERSED

TRANSITION 1 TRANSITION FLIGHT CONDITION 1, S.L. AFT C.G.
 MAX POWER ON V=125 KNOTS DIVERTED THRUST
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.000 2.000 0.610 1.310

TRANSITION 2 SAME AS CONDITION TRANS.1 EXCEPT
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.000 2.000 0.610 -1.310

TRANSITION 1R SAME AS CONDITION TRANS.1 EXCEPT ASSYM. LOADS REVERSED

TRANSITION 2R SAME AS CONDITION TRANS.2 EXCEPT ASSYM. LOADS REVERSED

ROLL 4PEO FLIGHT CONDITION ROLL 4, ROLLING PULLOUT MANEUVER, ONE
 ENGINE OUT S.L. M=0.5 AFT C.G. MAX POWER ON R.H.
 ENGINE L.H. ENGINE POWER OFF
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.339 2.500 0.144 -0.098

ROLL 4PEORH SAME AS CONDITION ROLL 4PEO EXCEPT MAX POWER ON L.H.
 ENGINE R.H. ENGINE POWER OFF

ROLL 4PREO SAME AS COND. ROLL 4PEO EXCEPT ASSYM. LOADS REVERSED AND
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 -0.339 2.500 0.144 0.098

ROLL 4PREORH SAME AS CONDITION ROLL 4PREO EXCEPT MAX POWER ON L.H.
 ENGINE R.H. ENGINE POWER OFF

ROLL 5PEO FLIGHT CONDITION ROLL 5, ROLLING PULLOUT MANEUVER, ONE
 ENGINE OUT S.L. M=0.5 AFT C.G. MAX POWER ON R.H.
 ENGINE L.H. ENGINE POWER OFF
 NX NY NZ PITCH VELOCITY YAW VELOCITY
 0.000 0.732 1.100 0.044 -0.047

ROLL 5PEORH SAME AS CONDITION ROLL 5PEO EXCEPT MAX POWER ON L.H.
 ENGINE R.H. ENGINE POWER OFF

ROLL 5PREO SAME AS COND. ROLL 5PEO EXCEPT ASSYM. LOADS REVERSED AND

有
0.000

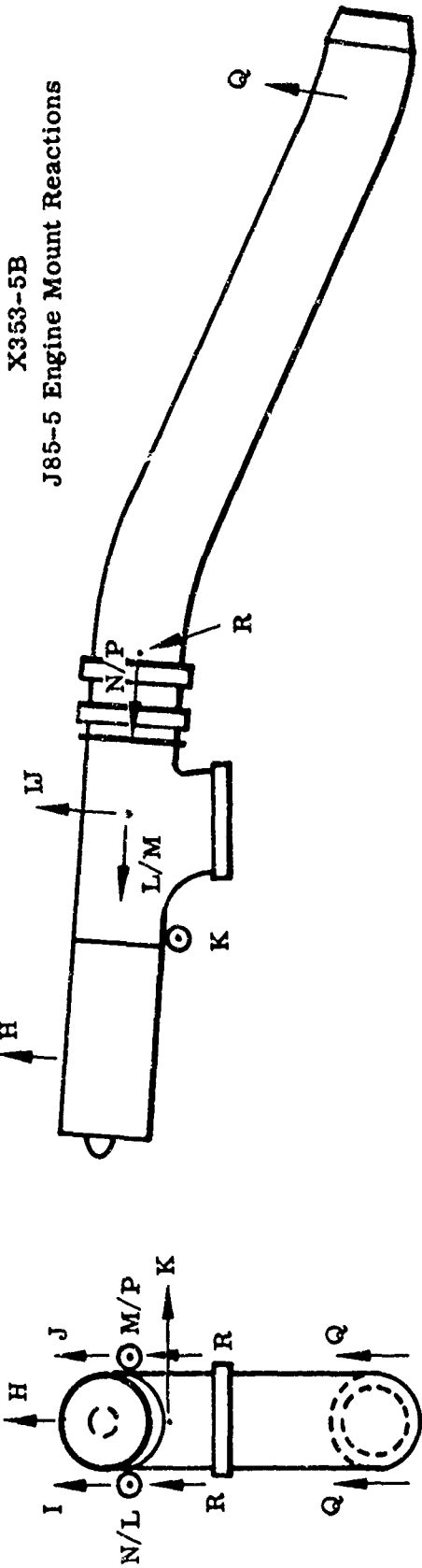
2.0
1.0

0.1

0.0

0.0

ROLL SPIRORH NAME A' CONITONR HOLL 2.000 1.0 0.1 0.0 0.0
ENGINE ROME 1.0 1.0 0.0 0.0 0.0



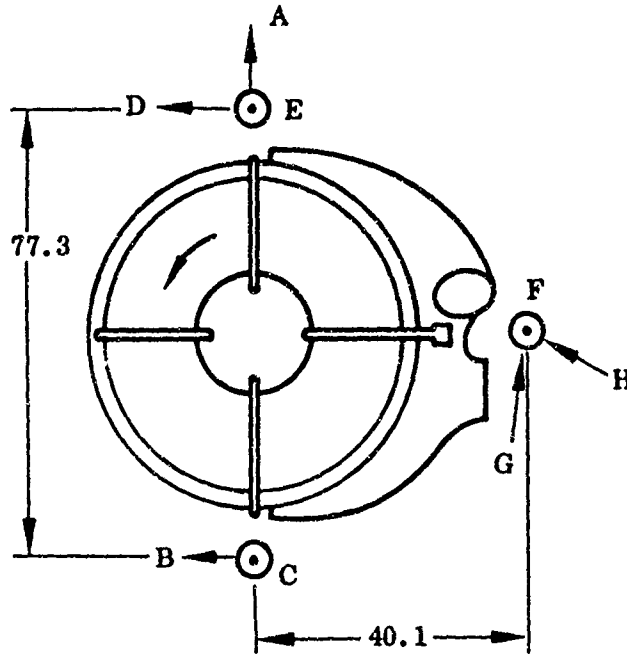
MANEUVER	H	I	J	K	L	M	N	P	Q	R
1 g vertical	±357	±56	±56		±262	±262				
1 g side		±193	±193	±468	±262	±234				
1 g axial					±560	±560				
1 rad/sec. pitch					±560	±560				
1 rad/sec. yaw	±276	±138	±138		-2000	-2000	-1695	-1695	+1300	-1560
Axial thrust *										
Diverted thrust **	-161	-3080	-3080		-277	-277				

*Tied Bellows, Sea Level, Std. Day, $V_p = 530$ K

**Free Bellows, Sea Level, Std. Day, $V_p = 130$ K; Gas Load = 6350 lbs.

Note: Forces are positive (+) in the directions indicated and are forces acting on the engine.

X353 - 5B
Engine Mount Reactions



LEFT HAND FAN

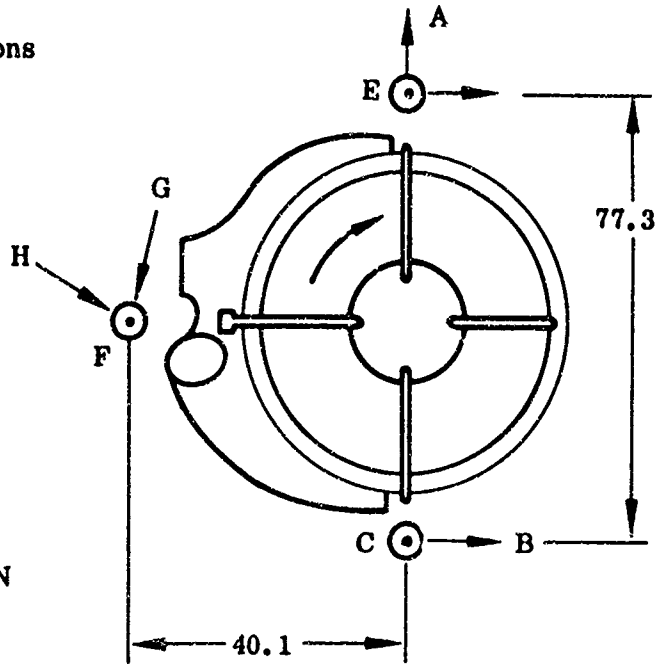
	A	B	C	D	E	F	G	H
Thrust ($\beta = 0^\circ$)			-2815		-2815	-330		
Thrust ($\beta = 40^\circ$)	-3670	+166	-1318	-166	-2322	-340		
Scroll Piston Forces								
Left Engine Only	+30	-230	-485	-260	+85	+2879	-1810	---
Right Engine Only	-448	-477	---	-29	---	-155	+2420	-3430
Fan Torque								
Left Engine Only	-1009	+927		-123		+200	+1030	
Right Engine Only	-1009	+167		-883		+200	+1030	
1 g vertical			± 383		± 383	± 93		
1 g side		± 429	± 37	± 429	± 37	± 74		
1 g axial	± 770		± 37		± 37	± 20	± 91	
Cross Flow (130 K)	+308		-257		-257	+514		
1 rad/sec. pitch			± 1195		± 1195	± 2390		
1 rad/sec. roll			± 1240		± 1240			
Inlet Closure								
Open								
Open (Yaw)								
Closed								

Thrust reactions are for SLS, Std. day, and exclude lift developed on the wing.

Reactions are positive (+) in the directions indicated and are reactions acting on the fan.

X353 - 5B
Engine Mount Reactions

RIGHT HAND FAN



	A	B	C	D	E	F	G	H
Thrust ($\beta = 0^\circ$)			-2815		-2815	-330		
Thrust ($\beta = 40^\circ$)	-3670	+166	-1318	-166	-2322	-340		
Scroll Piston Forces								
Left Engine Only	+448	-29	---	-477	---	-155	+2420	-3430
Right Engine Only	-30	-260	+85	-230	-485	+2879	-1810	---
Fan Torque								
Left Engine Only	-1009	+383		-167		-200	-1030	
Right Engine Only	-1009	+123		-927		-200	-1030	
1 g vertical			± 383		± 383	± 93		
1 g side		± 429	± 37	± 429	± 37	± 74		
1 g axial	± 770		± 37		± 37	± 20	± 91	
Cross Flow (130 K)	+308		+257		+257	-514		
1 rad/sec. pitch			± 1195		± 1195	± 2390		
1 rad/sec. roll			± 1240		± 1240			
Inlet Closure								
Open								
Open (Yaw)								
Closed								

AIRCRAFT LOADING CONDITION	LOAD ACTING ON ENGINE	ENGINE MOUNT LOAD	LOAD ACTING ON ENGINE DUE TO:					Σ Power Ref.
			1 T _x	2 T _y	3 T _z	4 θ	5 ψ	
F-1	I	107/109	0	0	4.000	-152	0	
			—	0	+224	—	0	+224
			—	0	+224	—	0	+224
			0	0	—	-85	—	-85
			0	0	—	+85	—	+85
F-8	I		0	0	-1.000	+098	0	
			—	0	-56	—	0	-56
			—	0	-56	—	0	-56
			0	0	—	+55	—	+55
			0	0	—	-55	—	-55
HSC-1	I		1.804	0	1.000	0	0	
			—	0	+56	—	0	+56
			—	0	+56	—	0	+56
			-422	0	—	0	—	-422
			-422	0	—	0	—	-422
L-16	I		-1.820	0	3.778	0	0	
			—	0	+212	—	0	+212
			—	0	+212	—	0	+212
			+426	0	—	0	—	+426
			+426	0	—	0	—	+426
L-10 L-20 (L-10R) (L-20R)	I		-0.075	(-924)	2.317	0	0	
			—	+178	+130	—	0	+308
			—	(-178)	—	—	0	(-98)
			—	-178	+130	—	0	-48
			—	(+178)	—	—	—	(+308)
			+18	-242	—	0	—	-224
			+18	(+242)	—	0	—	(+260)
K	114		—	(-242)	—	—	—	(-224)
			—	+432	—	—	—	+432
			—	(-432)	—	—	—	(-432)

A

5	6	7	8	9	10	11	12	13	14
ψ	Σ POWER OFF	LOAD X SIN 5° (.0872)	LOAD X COS 5° (.9962)	LOAD AS APPLIED TO ENGINE MT. POWER OFF	THRUST LOAD ACTING ON ENGINE	T SIN 5°	T COS 5°	THRUST AS APPLIED TO ENGINE MT.	LOAD AS APPLIED TO ENGINE MT.
0									
0	+224	20	+223	-216	-			+174	
0	+224	20	+223	-230	-			+174	
-	-85	-7	-85	-105	-2000	-174	-1992	-1992	74
-	+85	+7	85	+65	-2000	-174	-1992	-1992	74
0									
0	-56	-5	-56	+51	-			+174	
0	-56	-5	-56	+61	-			+174	
-	+55	5	+55	+60	-2000	-174	-1992	-1992	74
-	-55	-5	-55	-50	-2000	-174	-1992	-1992	74
0									
0	+56	5	56	-19	-			+174	
0	+56	5	56	-19	-			+174	
-	-422	-37	-420	-425	-2000	-174	-1992	-1992	74
-	-422	-37	-420	-425	-2000	-174	-1992	-1992	74
C									
C	+212	18	211	-248					
C	+212	18	211	-248					
-	+426	37	424	+406					
-	+426	37	424	+406					
C									
0	+308	27	+307	-287					
0	(-48)	4	-48	(+25)					
0	(+308)	27	+307	(-287)					
-	-224	20	223	-250					
-	(+260)	23	259	(+263)					
-	+260	23	259	+263					
-	(-224)	20	223	(-250)					
-	+432			-432	[PER ENGINE]				VE]
-	(-432)			(+432)					

SPACE FRAME ENGINE MOUNT LOADS
LIMIT LOADS

5°	12 TCOS 5°	15 THRUST AS APPLIED TO ENGINE MT.	10 LOAD AS APPLIED TO ENGINE MT. POWER ON (9)+(13)	SCROLL MT. INCREMENT OUTBD MTS.		
		+ 174	- 42	- 372		
		+ 174	- 56	- 372		
	- 1992	- 1992	- 2097	—		
	- 1992	- 1992	- 1927	—		
		+ 174	+ 225	+ 93		
		+ 174	+ 235	+ 93		
7	- 1992	- 1992	- 1932	—		
4	- 1992	- 1992	- 2042	—		
		+ 174	+ 155	- 57		
		+ 174	+ 155	- 57		
7	- 1992	- 1992	- 2417	—		
4	- 1992	- 1992	- 2417	—		
				- 388		
				- 388		
				—		
				—		
				- 285 (- 148)		
				- 285 (- 148)		
7						

AIRCRAFT LOADING CONDITION	LOAD ACTING ON ENGINE	ENGINE MOUNT LOAD	LOAD ACTING ON ENGINE DUE TO:					Σ POWER	DUE TO Ψ	
			η _x	η _y	η _z	θ	ψ			
LG-1 (LG-1R)	I 107/109		0	598 (-598)	1.000	0	0		0	
			-	115 (-115)	+56	-	0	+17	0	
			J 106/108	-	-115 (+115)	+56	-	0	-5	0
			L 103/105	0	-157 (+157)	-	0	-	-1	-
			M 102/104	0	157 (-157)	-	0	-	+1	-
			K 114	-	+280 (-280)	-	-	-	+2	-
LG-3 (LG-3R)	I		0	896 (-896)	1.000	0	0		0	
			-	173 (-173)	+56	-	0	+22	0	
			J	-	-173 (+173)	+56	-	0	-11	0
			L	0	-235 (+235)	-	0	-	-22	-
			M	0	+235 (-235)	-	0	-	+22	-
			K	-	+419 (-419)	-	-	-	+4	-
AF-6 (AF-6R)	I		0	855 (-855)	1.000	0	0		0	
			-	165 (-165)	+56	-	0	+22	0	
			J	-	-165 (+165)	+56	-	0	-1	0
			L	0	-224 (+224)	-	0	-	-2	-
			M	0	224 (-224)	-	0	-	+2	-
			K	-	+400 (-400)	-	-	-	+4	-
SPC-1 (SPC-1 R)	I		.064	.011 (-.011)	2.087	1.000	3.500 (-3.500)		3.500 (-3.500)	
			-	+2 (-2)	+117	-	-483 (+483)	-3	-483 (+483)	
			J	-	-2 (+2)	+117	-	-483 (+483)	-3	-483 (+483)
			L	-15	-3 (+3)	-	+560	-	+5	-
			M	-15	+3 (-3)	-	-560	-	-5	-
			K	-	+5 (-5)	-	-	-	+5	-

A

TO: ψ	Σ POWER OFF	LOAD x $\sin 5^\circ$ (.0872)	LOAD x $\cos 5^\circ$ (.9962)	LOAD AS APPLIED TO ENGINE MT. POWER OFF	THRUST LOAD ACTING ON ENGINE	$T \sin 5^\circ$	$T \cos 5^\circ$	THRUST AS APPLIED TO ENGINE MOUNT	$T \sin 5^\circ$
0									
0	+171	15	170	-156				+174	
	(-59)	5	59	(+45)					
0	-59	5	59	+45				+174	
	(+171)	15	170	(-156)					
-	-157	14	156	-171	-2000	-174	-1992	-1992	-174
	(+157)	14	156	(+161)					
-	+157	14	156	+161	-2000	-174	-1992	-1992	-174
	(-157)	14	156	(-171)					
-	+280			-280					
	(-280)			(+280)					
0									
0	+229	20	228	-208				+174	
	(-117)	10	116	(+96)					
0	-117	10	116	+96				+174	
	(+229)	20	228	(-208)					
-	-235	20	234	-254	-2000			-1992	
	(+235)	20	234	(+244)					
-	+235	20	234	+244	-2000			-1992	
	(-235)	20	234	(-254)					
-	+419			-419					
	(-419)			(+419)					
0									
0	+221	19	220	-200				+174	
	(-109)			(+89)					
0	-109	10	109	+89				+174	
	(+221)			(-200)					
-	-224	20	223	-242	-2000			-1992	
	(+224)			(+233)					
-	+224	20	223	+233	-2000			-1992	
	(-224)			(-242)					
-	+400			-400					
	(-400)			(+400)					
100									
500)									
83	-364	32	363	+316				+174	
(+483)	(+598)	(52)	(596)	(-644)					
83	-368	32	367	+417				+174	
(+483)	(+602)	(52)	(600)	(-550)					
-	+542	47	540	+572	-2000			-1992	
	(+548)	(48)	(546)	(+494)					
-	-572	50	570	-538	-2000			-1992	
	(-578)	(50)	(570)	(-628)					
-	+5			+5					
	(-5)			(-5)					

B

SPACE FRAME ENGINE MOUNT LOADS (Cont.)

LIMIT LOADS

5°	TORS 5°	THrust AS APPLIED TO ENGINE MOUNT	LOAD AS APPLIED TO ENGINE MT. FUEL ON	ROLL MT. INCREMENT OUTBD MTS.		
		+174	+18 (+219)	-137 (-49)		
		+174	+219 (+18)	-137 (-49)		
	-1992	-1992	-2163 (-1831)			
	-1992	-1992	-1831 (-2163)			
			-280 (+280)	[PER ENGINE]		
		+174	-34 (+270)	-159 (-27)		
		+174	+270 (-34)	-159 (-27)		
	-1992	-1992	-2246 (-1748)			
	-1992	-1992	-1748 (-2246)			
			-419 (+419)	[PER ENGINE]		
		+174	-26 (+263)	-156 (-30)		
		+174	+263 (-26)	-156 (-30)		
	-1992	-1992	-2234 (-1759)			
	-1992	-1992	-1759 (-2234)			
			-400 (+400)	[PER ENGINE]		
		+174	+490 (-470)	-194 (-192)	} NEGLECTS δ & ψ BECAUSE FANS NOT OPERATING.	
		+174	+591 (-376)	-194 (-192)		
	-1992	-1992	-1420 (-1498)			
	-1992	-1992	-2530 (-2620)			
			+5 (-5)	[PER ENGINE]		

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AIRCRAFT LOADING (CONDITION)	LOAD ARTIC ENGINE	ENGINE G ON MOUNT LOAD	1	2	3	4	5	6	To:	Power
			η_x	LOAD	ACTING ON	ENGINE	DUE TO:	Power off		
ROLL 4					2500	144				
(ROLL & R)	I - 107/109		-	65 (-65)	140	-	14 (-14)	219 (61)	-10	21
	J - 106/105		-	-65 (65)	140	-	14 (-14)	89 (191)	-14	8
	L - 103/105		0	-89 (89)	-	81	-	-8 (170)		-
	M - 102/109		0	89 (-89)	-	-81	-	+8 (-170)		-
	K - 114		-	159 (-159)	-	-	-	159 (-159)		15
ROLL 5					1100	140				
(ROLL SR)	I - 107/109		-	141 (-141)	62	-	6 (-6)	209 (-85)	-7	20
	J - 106/105		-	-141 (141)	62	-	6 (-6)	-73 (197)	-6	-
	L - 103/105		0	-192 (192)	-	25	-	-167 (217)		-
	M - 102/109		0	192 (-192)	-	-25	-	167 (-217)		-
	K - 114		-	343 (-343)	-	-	-	343 (-343)		3

A

6 Z SER OFF	7 LOAD(SIN 5°)	8 LOAD(COS 5°)	9 LOAD AS APPLIED TO ENGINE MT. POWER OFF	10 THRUST LOAD X-FIN ON ENGINE	11 T SIN 5°	12 T COS 5°	13 THRUST AS APPLIED TO ENGINE MT.	14 LOAD AS APPLIED TO ENGINE	11 T SIN 5°	12 T COS 5°
219 (61)	1	218	-217 (-76)				174	-4	SIN 5°	T COS 5°
89 (191)	3	89	-90 (-175)				174	89		
-8 (170)	5	3	-27 (164)	-2000	174	1992	-1992	-20		
+8 (-170)	7	2	0 (-186)	-2000	174	1992	-1992	-19	74	1992
159 (-159)			-159 (+159)	[PER ENGINE]				-15	74	1992
209 (-85)	7	209	-193 (66)				174	-19		
-73 (197)	9	73	58 (-177)				174	23		
-167 (217)	11	167	-184 (223)	-2000	174	1992	-1992	-21		
167 (-217)	13	167	172 (-233)	-2000	174	1992	-1992	-18	74	1992
343 (-343)			-343 (+343)	[PER ENGINE]				-3	74	1992

.B

AIRCRAFT LOADING CONDITION	LOAD ACTING ON ENGINE	ENGINE MOUNT LOAD	LOAD ACTING ON ENGINE DUE TO:					POWER OF ENGINE TO	
			1 η_x	2 η_y	3 η_z	4 $\dot{\theta}$	5 $\dot{\psi}$		6 Z
Roll 9 (Roll 9.R)	I	107/109	-	-321 (158)	1.100 +62	.045 -	.077 (11)	-107 (231)	-
	J	06/106	-	+158 (-158)	+62	-	-11 (11)	209 (-85)	-
	L	103/105	-	+215 (-215)	-	+25	-	240 (-190)	-1
	M	102/109	-	-215 (215)	-	-25	-	-240 (190)	-
	K	114	-	-384 (384)	-	-	-	-384 (384)	-
Roll 10 (Roll 10.R)	I		-	-484 (84)	2.500 +140	.103 -	.120 (17)	39 (241)	-
	J		-	+84 (-84)	+140	-	-17 (17)	207 (73)	-
	L		-	+114 (-114)	-	58	-	172 (56)	-
	M		-	-114 (114)	-	-58	-	-172 (56)	-
	K		-	-203 (203)	-	-	-	-203 (203)	-
HOVER (HOVER.R)	I		0	0	1.300 +73	±1.00 -	±1.5 (207)	-134 (280)	±1
	J		-	0	+73	-	-207 (207)	-134 (280)	-2
	L		0	0		560 (-560)	-	560 (-560)	-2
	M		0	0		-560 (560)	-	-560 (560)	-
TRANSITION (TRANS.R)	I		0	0	2.00 +112	+610	±1.31 (181)	-69 (293)	±1
	J		-	0	+112		-181 (181)	-69 (293)	-18
	L		0	0		+342		342	-18
	M		0	0		-342		-342	-

A

5	6	7	8	9	10	11	12	13	LOAD
TO:	Z	LOAD(SIN 5°)	LOAD(COS 5°)	LOAD AS APPLIED TO ENGINE MT. POWER OFF	THRUST LOAD ACTING ON ENGINE	T SIN 5°	T COS 5°	THRUST APPLIED TO ENGINE MT.	TO ENGINE
ψ	POWER OFF	(.577)	(.962)						
^{.077} (-.077)									
-11 (11)	-1.07 (231)	7 20	17 230	+ 86 (-213)				+174	-174
-11 (11)	2.09 (-85)	15 7	215 25	-187 (+68)				+174	-174
-	240 (-190)	21 17	229 189	+248 (-209)	-2000	-174	-1992	-1992	(-2) ENGINE
-	-240 (190)	21 17	229 189	-257 (+196)	-2000	-174	-1992	-1992	(-2) ENGINE
-	-384 (384)			+384 (-384)	[PER ENGINE]				
^{.120} (-.120)									
-17 (17)	39 (241)	3 21	39 210	-54 (-235)				+174	-174
-17 (17)	207 (73)	15 6	206 73	-191 (-78)				+174	-174
-	172 (56)	15 5	171 56	168 (-77)	-2000	-174	-1992	-1992	(-2) ENGINE
-	-172 (56)	15 5	171 56	-189 (50)	-2000	-174	-1992	-1992	(-2) ENGINE
-	-203 (203)			203 (-203)	[PER ENGINE]				
± 1.5									
-207 (207)	-134 (280)	12 22	133 279	84 (-250)	-3080	269	3068	3092	(-2) ENGINE
-207 (207)	-134 (280)	12 22	133 279	182 (-328)	-3080	269	3068	3092	(-2) ENGINE
-	560 (-560)	29 19	552 555	570 (-582)	-277	24	276	-7	
-	-560 (560)	29 19	552 555	-546 (534)	-277	24	276	-7	
± 1.31									
-181 (181)	-69 (293)	6 16	69 292	39 (-322)	-3080	269	3068	3092	(-2) ENGINE
-181 (181)	-69 (293)	6 16	69 292	99 (-263)	-3080	269	3068	3092	(-2) ENGINE
-	342 (-342)	30 30	341 341	347 (315)	-277	24	276	-7	
-	-342 (342)	30 30	341 341	-335 (367)	-277	24	276	-7	

SPACE FRAME ENGINE MOUNT LOADS (Cont.)

LIMIT LOADS

11 INS°	12 Tcos 5°	13 THRUST APPLIED TO ENGINE MOUNT	14 LOAD AS APPLIED TO ENGINE MOUNT POWER ON	15 SCROLL MT INCREMENT OUTBD MTS.		LOAD AS APPLIED TO ENGINE MTS REVERSED PTS	SCROLL MT INCREMENT OUTBD MTS
			+6+15(-6-4)	→		-6+15(+6-4)	→
		+174	260 (-39)	-42 (-163)			
		+174	-13 (242)	-42 (-163)			
174	-1992	-1992	-1744 (-2201)				
174	-1992	-1992	-2249 (-1796)				
[384 (-384)	[PER ENGINE]			
		+174	120 (-61)	-200 (-265)			
		+174	-17 (96)	-200 (-265)			
174	-1992	-1992	-1824 (-2069)				
174	-1992	-1992	-2181 (-1942)				
[203 (-203)	[PER ENGINE]			
269	3068	3092	3176 (2862)	+799 (-399)	1 = 6 - =	3274 (2764)	-3991 (799)
269	3068	3092	3274 (2764)	-5819 (-1029)	+ 6 - 6	3176 (2862)	-1029 (-5819)
24	276	-7	563 (-589)			-553 (527)	
24	276	-7	-553 (527)			563 (-589)	
269	3068	3092	3131 (2770)	-198			
269	3068	3092	3191 (2829)	-4952			
24	276	-7	340 (308)				
24	276	-7	-342 (-374)				

AIRCRAFT LOADING COND.	IBM No. LOAD LOAD No. REF. FIG. I.	1 P ₁ 96	2 P ₂ 97	3 P ₃ 98	4 M _x 99	5 M _y 100	6 M _z 101	5 M _y 100
✓ F-1				2299		982,066		82,066
✓ F-1P		1113		4953		1,145,069		145,069
✓ F-8		-53		3282		1,120,048		120,048
✓ F-8P		1059		5876		1,278,239		278,239
✓ HSC-1		13,627		2298		918,073		118,073
HSC-1P		SAME AS HSC-1						
✓ L-16		-13,260		18,583		2,104,874		104,874
✓ L-10		-519	4187	6542	371,258	633,683	-147,124	33,683
L-10R		-519	-4187	6542	-371,258	633,683	147,124	33,683
✓ L-20		-488	4047	6739	370,962	653,772	-152,030	53,772
L-20R		-488	-4047	6739	-370,962	653,772	152,030	53,772
✓ LG-1			241	2532	-54,183	977,600	316,872	77,600
LG-1R			-241	2532	54,183	977,600	-316,872	77,600
LG-1P		SAME AS LG-1						
LG-1PR		SAME AS LG-1R						
✓ LG-3			169	-1525	-94,222	672,041	443,850	72,041
LG-3R			-169	-1525	94,222	672,041	-443,850	72,041
LG-3P		SAME AS LG-3						
LG-3PR		SAME AS LG-3R						
✓ AF-6			325	2315	-63,965	952,492	386,070	52,492
AF-6R			-325	2315	63,965	952,492	-386,070	52,492
AF-6P		SAME AS AF-6						
AF-6PR		SAME AS AF-6R						
✓ SPC-1		-1450	64	2695	-9734	-266,127	-62,879	66,127
SPC-1R		-1450	-64	2695	9734	-266,127	62,879	66,127
FWD FMP	} OMITTED 9/4/69	SAME AS FWD FM						
FWD FMPR		SAME AS FWD FMR						

A

5	6	7	8	9	10	11	12	13	11
	M ₂	P ₁₇	P _{18A}	P _{18B}	P ₁₉	P ₁₇	P _{18A}	P _{18B}	P ₂
	101	102	103	104	105	106	107	108	106
006		65	-105	65	-105	-602	-216	-230	-60
009		-1927	-2097	-1927	-2097	-428	-42	-56	-42
048		-50	60	-50	60	154	51	61	15
239		-2042	-1932	-2042	-1932	328	225	235	32
073		-425	-425	-425	-425	-76	-19	-19	-76
		-2417	-2417	-2417	-2417	98	155	155	98
874		406	406	406	406	-636	-248	-248	-636
683	-147,124	263	-250	263	-250	-260	-287	25	-26
683	147,124	-250	263	-250	263	-435	25	-287	-43
772	-152,038	263	-250	263	-250	-260	-287	25	-26
772	152,038	-250	263	-250	263	-435	25	-287	-43
600	316,872	161	-171	161	-171	-92	-156	45	-92
600	-316,872	-171	161	-171	161	-205	45	-156	-205
		-1831	-2163	-1831	-2163	82	18	219	82
		-2163	-1831	-2163	-1831	-31	219	18	-31
041	443,850	244	-254	244	-254	-63	-208	96	-63
041	-443,850	-254	244	-254	244	-235	96	-208	-235
		-1748	-2246	-1748	-2246	111	-34	270	111
		-2246	-1748	-2246	-1748	-61	270	-34	-61
492	386,079	233	-242	233	-242	-67	-200	89	-67
492	-386,079	-242	233	-242	233	-230	89	-200	-230
		-1759	-2234	-1759	-2234	107	-26	263	107
		-2234	-1759	-2234	-1759	-56	263	-26	-56
127	-62,879	-538	572	-538	572	223	316	417	223
127	62,879	-628	494	-628	494	-742	-644	-550	-742
		-2530	-1420	-2530	-1420	397	490	591	397
		-2620	-1498	-2620	-1498	-568	-470	-376	-568

6

FUSELAGE LOADS APPLIED @ STATION 287.00

LIMIT LOADS

11 P ₂₁₇ 06	12 P _{215A} 107	13 P _{218B} 108	14 P ₂₁₉ 109	15 P _{24K} 110	16 P _{24N} 111	17 P _{2K} 112	18 P _{2N} 113	19 P ₄₂₂ 114
602	-216	-230	-588					0
428	-42	-56	-414					0
154	51	61	144					0
328	225	235	318	U				0
-76	-19	-19	-76	E				0
98	155	155	98	G				0
636	-248	-248	-636	L				0
260	-287	25	-572					-864
435	25	-287	-123					864
260	-287	25	-572					-864
435	25	-287	-123					864
-92	-156	45	-293					-560
205	45	-156	-4					560
82	18	219	-119					-560
31	219	18	170					560
63	-208	96	-367					-838
235	96	-208	69					838
11	-34	270	-193					-838
61	270	-34	243					838
27	-200	89	-356					-800
30	89	-200	59					800
27	-26	263	-182					-800
56	263	-26	233					800
23	316	417	122					10
142	-644	-550	-836					-10
77	490	591	296					10
68	-470	-376	-662					-10

C

A

AIRCRAFT LOADING COND.	IBM No. LOAD LOAD NO. REF. FIG I	1	2	3	4	5	6	7	8
		Px 96	Py 97	Pz 98	Mx 99	My 100	Mz 101	ix 99	iy 100
ROLL 9		0	675	-805	-13,700	893,361	-484,77	700	893,
ROLL 9R		0	-675	-805	13,700	893,361	484,77	700	893,
ROLL 9P			SAME AS ROLL 9						
ROLL 9PR			SAME AS ROLL 9R						
ROLL 10		0	-70	-686	81,717	902,393	-197,176	717	902,
ROLL 10R		0	70	-686	-81,717	902,393	197,176	717	902,
ROLL 10P			SAME AS ROLL 10						
ROLL 10PR			SAME AS ROLL 10R						
ROLL 4		0	76	-1541	-364,669	330,677	186,05	669	330,
ROLL 4R		0	-76	-1541	364,669	330,677	-186,05	669	330,
ROLL 4P			SAME AS ROLL 4						
ROLL 4PR			SAME AS ROLL 4R						
ROLL 5		0	446	1812	53,294	581,790	278,35	294	581,
ROLL 5R		0	-446	1812	-53,294	581,790	-278,35	294	581,
ROLL 5P			SAME AS ROLL 5						
ROLL 5PR			SAME AS ROLL 5R						
HOVER 1 (+ψ)		0	-811	849	32,230	188,376	-88,40	2,230	188,
HOVER 2 (+ψ)		1	↑ OMITTED ↓						
HOVER 3 (-ψ)		1	↓ OMITTED ↑						
HOVER 4 (-ψ)		0	-811	849	32,230	188,376	-88,40	2,230	188,
HOVER 1R (+ψ)		0	811	849	-32,230	188,376	88,40	2,230	188,
HOVER 2R (+ψ)			↑ OMITTED ↓						
HOVER 3R (-ψ)			↓ OMITTED ↑						
HOVER 4R (-ψ)		0	811	849	-32,230	188,376	88,40	2,230	188,
TRANSITION 1 (+ψ)		0	-668	2573	76,720	205,900	-84,750	6,720	205,
TRANSITION 2 (-ψ)		0	-668	2573	76,720	205,900	-84,750	6,720	205,
TRANSITION 1R (+ψ)		0	668	2573	-76,720	205,900	84,750	6,720	205,
TRANSITION 2R (-ψ)			668	2573	-76,720	205,900	84,750	6,720	205,

5 m _y 100	6 M _z 101	7 P _{x,17} 102	8 P _{x,18A} 103	9 P _{x,18B} 104	10 P _{x,19} 105	11 P _{z,17} 106	12 P _{z,18A} 107	13 P _{z,18B} 108	11 P _{z,17} 106
93,361	-484,777	-257	248	-257	248	-229	86	-187	-229
93,361	484,777	196	-209	196	-209	-95	-213	68	-95
		-2249	-1744	-2249	-1744	-55	260	-13	-55
		-1796	-2201	-1796	-2201	79	-39	242	79
902,393	-197,176	-189	168	-189	168	-391	-54	-191	-391
902,393	197,176	50	-77	50	-77	-343	-235	-78	-343
		-2181	-1824	-2181	-1824	-217	120	-17	-217
		-1942	-2069	-1942	-2069	-169	-61	96	-169
330,677	186,057	0	-27	0	-27	-348	-217	-90	-348
330,677	-186,057	-186	164	-186	164	-382	-76	-175	-382
		-1992	-2019	-1992	-2019	-74	-43	84	-74
		-2178	-1828	-2178	-1828	-208	78	-1	-208
581,790	278,353	172	-184	172	-184	-98	-193	58	-98
581,790	-278,353	-233	223	-233	223	-225	66	-177	-225
		-1820	-2176	-1820	-2176	76	-19	232	76
		-2225	-1769	-2225	-1769	-51	240	-3	-51
188,376	-88,400	-553	563	-553	563	-2545	3176	3274	-2545
↑	↑	-589	527	-589	527	-2957	2764	2862	-2957
↓	↓	527	-589	527	-589	1735	2862	2764	1735
188,376	-88,400	563	-553	563	-553	2147	3274	3176	2147
188,376	88,400	SAME AS CONDITIONS ABOVE							
188,376	88,400	SAME AS TRANS 1 ABOVE							
205,900	-84,750	-342	340	-342	340	-1761	3131	3191	-1761
205,900	-84,750	-374	308	-374	308	-2123	2770	2829	-2123
205,900	84,750	SAME AS TRANS 1 ABOVE							
205,900	84,750	SAME AS TRANS 2 ABOVE							

B

FUSELAGE LOADS APPLIED @ STATION 287.00 (Cont.)

LIMIT LOADS

17	12	13	14	15	16	17	18	19
P_{17}	P_{12A}	P_{12B}	P_{14}	P_{15K}	P_{16N}	P_{17K}	P_{18N}	P_{19}
26	107	108	109	110	111	112	113	114
29	86	-187	44					768
25	-213	68	-376					-768
55	260	-13	212					768
79	-39	242	-202					-768
71	-54	-191	-254					406
43	-235	-78	-500					-406
7	120	-17	-80					406
69	-61	96	-326					-406
28	-217	-90	-475					-318
22	-76	-175	-283					+318
74	-43	84	-301					-318
28	78	-1	-109					+318
98	-193	58	-349					-686
25	66	-177	18					+686
16	-19	232	-175					-686
1	240	-3	192					+686
25	3176	3274	3975	3030	-3030	-4425	-4425	0
57	2764	2862	3563	↑	↑	↑	↑	0
55	2862	2764	-1129					0
7	3274	3176	-717					0
1	3131	3191	2933					0
3	2770	2829	2572	↓	↓	↓	↓	
				3030	-3030	+4425	+4425	

SIGNS CHECKED &
REVERSED IN DIRECTION
10/11/63 ODP

C

A

AIRCRAFT LOADING (CON. INTXN)	IBM NO. LOAD	1		2		3		4		5		6	
		Px	Py	Px	Py	Px	Py	Mx	My	Mx	My	Mx	My
	LOAD NO. REF. PAGE	96	97	98	99	100	101	102	103	104	105	106	107
ROLL 5 PFC L.H. ENG POWER OFF		0	046	1812	53,294	581,790	278,						53,2
ROLL 5 PFC R.H. ENG POWER OFF		0	446	1812	53,294	581,790	278,						53,2
ROLL 5 PFC L.H. ENG POWER ON		0	-446	1812	-53,294	581,790	-278,						-53,2
ROLL 5 PFC R.H. ENG POWER ON		0	-446	1812	-53,294	581,790	-278,						-53,2
ROLL 4 PFC L.H. ENG POWER OFF		0	76	-1541	-364,669	330,677	186,						-364,6
ROLL 4 PFC R.H. ENG POWER OFF		0	76	-1541	-364,669	330,677	186,						-364,6
ROLL 4 PFC L.H.		0	-76	-1541	364,669	330,677	-186,						364,6
ROLL 4 PFC R.H.		0	-76	-1541	364,669	330,677	-186,						364,6

4	5	6	7	8	9	10	11	12	11
m_x	m_y	m_z	P_{x17}	P_{x18A}	P_{x18B}	P_{x19}	P_{z17}	P_{z18}	P_{z17}
99	100	101	102	103	104	105	106	107	106
3,294	581,790	278,353	172	-184	-1820	-2176	-98	-193	-98
3,214	581,790	278,353	-1820	-2176	172	-184	76	-19	76
3,294	581,790	-278,353	-233	223	-2225	-1769	-225	66	-225
3,294	581,790	-278,353	-2225	-1769	-233	223	-51	240	-51
4,669	330,677	186,057	0	-27	-1992	-2019	-348	-217	-348
4,669	330,677	186,057	-1992	-2019	0	-27	-174	-43	-174
4,669	330,677	-186,057	-186	164	-2178	-1828	-382	-76	-382
4,669	330,677	-186,057	-2178	-1828	-186	164	-208	98	-208

FUSELAGE LOADS APPLIED @ STATION 287.00 (Cont.)

LIMIT LOADS

12 P_{z18A} 107	13 P_{z18B} 108	14 P_{z19} 109	15 P_{xyK} 110	16 P_{xyN} 111	17 P_{zK} 112	18 P_{zN} 113	19 P_{y32} 114
-193	232	-175					-686
-19	58	-349					-686
66	-3	192					+686
240	-177	18					+686
-217	84	-301					-318
-43	-90	-475					-318
-76	-1	-109					+318
98	-175	-283					+318

C

SYMMETRIC

APPLIED-LOAD CONDITIONS
(29. AUGUST, 1963)

PAGE 2

S PMC	F-1	F-1P	F-8	F-8P
96	0.	1.1130000F 03	-5.3000000E 01	1.0590000E 03
97	0.	0.	0.	0.
98	2.7970000E 04	4.9529999F 03	3.2870000E 03	5.8760000F 03
99	0.	0.	0.	0.
100	9.8204600E 05	1.1450690E 06	1.1200480E 06	1.2782390E 06
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

UNSYMMETRIC

APPLIED-LOAD CONDITIONS
(29. AUGUST, 1963)

AS FMC	F-1	F-1P	F-8	F-8P
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	0.	0.	0.	0.
99	0.	0.	0.	0.
100	0.	0.	0.	0.
101	0.	0.	0.	0.
102	6.500000E 01	-1.927000E 03	-5.000000E 01	-2.042000E 03
103	-1.050000E 02	-2.097000E 03	6.000000E 01	-1.932000E 03
104	6.500000E 01	-1.927000E 03	-5.000000E 01	-2.042000E 03
105	-1.050000E 02	-2.097000E 03	6.000000E 01	-1.932000E 03
106	-6.020000E 02	-4.280000E 02	1.540000E 02	3.280000E 02
107	-2.160000E 02	-4.200000E 01	5.100000E 01	2.250000E 02
108	-2.300000E 02	-5.600000E 01	6.100000E 01	2.350000E 02
109	-5.880000E 02	-4.140000E 02	1.440000E 02	3.180000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

S PMC	HSC-1	HSC-1P	L-16	L-10
96	1.3627000E 04	1.3627000E 04	-1.3260000E 04	-5.1900000E 02
97	0.	0.	0.	0.
98	2.2980000E 03	2.2980000E 03	1.8583000E 04	6.5420000E 03
99	0.	0.	0.	0.
100	9.1807299E 05	9.1807299E 05	2.1048740E 06	6.3368300E 05
101	0.	0.	0.	0.
102	-4.2500000E 02	-2.4170000E 03	4.0599999E 02	0.
103	-4.2500000E 02	-2.4170000E 03	4.0599999E 02	0.
104	-4.2500000E 02	-2.4170000E 03	4.0599999E 02	0.
105	-4.2500000E 02	-2.4170000E 03	4.0599999E 02	0.
106	-7.6000000E 01	9.8000000E 01	-6.3600000E 02	0.
107	-1.9000000E 01	1.5500000E 02	-2.4800000E 02	0.
108	-1.9000000E 01	1.5500000E 02	-2.4800000E 02	0.
109	-7.6000000E 01	9.8000000E 01	-6.3600000E 02	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	HSC-1	HSC-1P	L-16	L-10
96	0.	0.	0.	0.
97	0.	0.	0.	4.1870000E 03
98	0.	0.	0.	0.
99	0.	0.	0.	3.7125800E 05
100	0.	0.	0.	0.
101	0.	0.	0.	-1.4712400E 05
102	0.	0.	0.	2.6300000E 02
103	0.	0.	0.	-2.5000000E 02
104	0.	0.	0.	2.6300000E 02
105	0.	0.	0.	-2.5000000E 02
106	0.	0.	0.	-2.6000000E 02
107	0.	0.	0.	-2.8700000E 02
108	0.	0.	0.	2.5000000E 01
109	0.	0.	0.	-5.7200000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	-8.6400000E 02

S PMC	L-10R	L-20	L-20R	LG-1
96	-5.1900000E 02	-4.8800000E 02	-4.8800000E 02	0.
97	0.	0.	0.	0.
98	6.5420000E 03	6.7390000E 03	6.7390000E 03	2.5320000E 03
99	0.	0.	0.	0.
100	6.3368300E 05	6.5377200E 05	6.5377200E 05	9.7759999E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	L-10R	L-20	L-20R	LG-1
96	0.	0.	0.	0.
97	-4.1870000E 03	4.0470000E 03	-4.0470000E 03	2.4100000E 02
98	0.	0.	0.	0.
99	-3.7125800E 05	3.7096200E 05	-3.7096200E 05	-5.4183000E 04
100	0.	0.	0.	0.
101	1.4712400E 05	-1.5203800E 05	1.5203800E 05	3.1687200E 05
102	-2.5000000E 02	2.6300000E 02	-2.5000000E 02	1.6100000E 02
103	2.6300000E 02	-2.5000000E 02	2.6300000E 02	-1.7100000E 02
104	-2.5000000E 02	2.5300000E 02	-2.5000000E 02	1.6100000E 02
105	2.6300000E 02	-2.5000000E 02	2.6300000E 02	-1.7100000E 02
106	-4.3500000E 02	-2.6000000E 02	-4.3500000E 02	-9.1999999E 01
107	2.5000000E 01	-2.8700000E 02	2.5000000E 01	-1.5600000E 02
108	-2.8700000E 02	2.5000000E 01	-2.8700000E 02	4.5000000E 01
109	-1.2300000E 02	-5.7200000E 02	-1.2300000E 02	-2.9300000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	8.6400000E 02	-8.6400000E 02	8.6400000E 02	-5.6000000E 02

S PMC	LG-1R	LG-1P	LG-1PR	LG-3
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	2.5320000E 03	2.5320000E 03	2.5320000E 03	-1.5250000E 03
99	0.	0.	0.	0.
100	9.7759999E 05	9.7759999E 05	9.7759999E 05	6.7204099E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	LG-1R	LG-1P	LG-1PR	LG-3
96	0.	0.	0.	0.
97	-2.410000E 02	2.410000E 02	-2.410000E 02	1.690000E 02
98	0.	0.	0.	0.
99	5.418300E 04	-5.418300E 04	5.418300E 04	-9.422200E 04
100	0.	0.	0.	0.
101	-3.168720E 05	3.168720E 05	-3.168720E 05	4.438500E 05
102	-1.710000E 02	-1.831000E 03	-2.163000E 03	2.440000E 02
103	1.610000E 02	-2.163000E 03	-1.831000E 03	-2.540000E 02
104	-1.710000E 02	-1.831000E 03	-2.163000E 03	2.440000E 02
105	1.610000E 02	-2.163000E 03	-1.831000E 03	-2.540000E 02
106	-2.050000E 02	8.199999E 01	-3.100000E 01	-6.300000E 01
107	4.500000E 01	1.800000E 01	2.190000E 02	-2.080000E 02
108	-1.560000E 02	2.190000E 02	1.800000E 01	9.599999E 01
109	-4.000000E 00	-1.190000E 02	1.700000E 02	-3.670000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	5.600000E 02	-5.600000E 02	5.600000E 02	-8.380000E 02

S PMC	LG-3R	LG-3P	LG-3PR	AF-6
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	-1.5250000E 03	-1.5250000E 03	-1.5250000E 03	2.3150000E 03
99	0.	0.	0.	0.
100	6.7204099E 05	6.7204099E 05	6.7204099E 05	9.5249200E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	LG-3R	LG-3P	LG-3PR	AF-6
96	0.	0.	0.	0.
97	-1.6900000E 02	1.6900000E 02	-1.6900000E 02	3.2500000E 02
98	0.	0.	0.	0.
99	9.4222000E 04	-9.4222000E 04	9.4222000E 04	-6.3965000E 04
100	0.	0.	0.	0.
101	-4.4385000E 05	4.4385000E 05	-4.4385000E 05	3.8607900E 05
102	-2.5400000E 02	-1.7480000E 03	-2.2460000E 03	2.3300000E 02
103	2.4400000E 02	-2.2460000E 03	-1.7480000E 03	-2.4200000E 02
104	-2.5400000E 02	-1.7480000E 03	-2.2460000E 03	2.3300000E 02
105	2.4400000E 02	-2.2460000E 03	-1.7480000E 03	-2.4200000E 02
106	-2.3500000E 02	1.1100000E 02	-6.1000000E 01	-6.7000000E 01
107	9.5999999E 01	-3.4000000E 01	2.7000000E 02	-2.0000000E 02
108	-2.0800000E 02	2.7000000E 02	-3.4000000E 01	8.9000000E 01
109	6.9000000E 01	-1.9300000E 02	2.4300000E 02	-3.5600000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	8.3800000E 02	-8.3800000E 02	8.3800000E 02	-8.0000000E 02

S PMC	AF-6R	AF-6P	AF-6PR	SPC-1	AS
96	0.	0.	0.	-1.450000E 03	9
97	0.	0.	0.	0.	9
98	2.315000E 03	2.315000E 03	2.315000E 03	2.695000E 03	9
99	0.	0.	0.	0.	9
100	9.524920E 05	9.524920E 05	9.524920E 05	-2.661269E 05	10
101	0.	0.	0.	0.	10
102	0.	0.	0.	0.	10
103	0.	0.	0.	0.	10
104	0.	0.	0.	0.	10
105	0.	0.	0.	0.	10
106	0.	0.	0.	0.	10
107	0.	0.	0.	0.	10
108	0.	0.	0.	0.	10
109	0.	0.	0.	0.	10
110	0.	0.	0.	0.	11
111	0.	0.	0.	0.	11
112	0.	0.	0.	0.	11
113	0.	0.	0.	0.	11
114	0.	0.	0.	0.	11

AS PMC	AF-6R	AF-6P	AF-6PR	SPC-1
96	0.	0.	0.	0.
97	-3.2500000E 02	3.2500000E 02	-3.2500000E 02	6.4000000E 01
98	0.	0.	0.	0.
99	6.3965000E 04	-6.3965000E 04	6.3965000E 04	-7.7340000E 03
100	0.	0.	0.	0.
101	-3.8607900E 05	3.8607900E 05	-3.8607900E 05	-6.2879000E 04
102	-2.4200000E 02	-1.7590000E 03	-2.2340000E 03	-5.3800000E 02
103	2.3300000E 02	-2.2340000E 03	-1.7590000E 03	5.7200000E 02
104	-2.4200000E 02	-1.7590000E 03	-2.2340000E 03	-5.3800000E 02
105	2.3300000E 02	-2.2340000E 03	-1.7590000E 03	5.7200000E 02
106	-2.3000000E 02	1.0700000E 02	-5.6000000E 01	2.2300000E 02
107	8.9000000E 01	-2.6000000E 01	2.6300000E 02	3.1600000E 02
108	-2.0000000E 02	2.6300000E 02	-2.6000000E 01	4.1700000E 02
109	5.9000000E 01	-1.8200000E 02	2.3300000E 02	1.2200000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	-8.0000000E 02	-8.0000000E 02	8.0000000E 02	1.0000000E 01

S PMC

SPC-1R

96	-1.450000E 03
97	0.
98	2.695000E 03
99	0.
100	-2.661269E 05
101	0.
102	0.
103	0.
104	0.
105	0.
106	0.
107	0.
108	0.
109	0.
110	0.
111	0.
112	0.
113	0.
114	0.

AS PMC

SPC-1R

96	0.	
97	-6.400000E	01
98	0.	
99	9.734000E	03
100	0.	
101	6.287900E	04
102	-6.280000E	02
103	4.940000E	02
104	-6.280000E	02
105	4.940000E	02
106	-7.420000E	02
107	-6.440000E	02
108	-5.500000E	02
109	-8.359999E	02
110	0.	
111	0.	
112	0.	
113	0.	
114	-1.000000E	01

SYMMETRICAL

APPLIED-LOAD CONDITIONS
19. SEPTEMBER, 1963

S PMC	ROLL 4	ROLL4R	ROLL4P	ROL4PR
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	-1.5410000E 03	-1.5410000E 03	-1.5410000E 03	-1.5410000E 03
99	0.	0.	0.	0.
100	3.3067699E 05	3.3067699E 05	3.3067699E 05	3.3067699E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

APPLIED LOAD CONDITIONS

Applied engine side load, Load No. 114, is in error in the IBM input in the following conditions:

ROLL 4, ROLL 4R, ROLL 4P, ROLL 4PR

ROLL 5, ROLL 5R, ROLL 5P, ROLL 5PR

This error, which is one of direction of the applied load only, is not corrected in the original IBM solution because the more critical of the two sets of conditions, ROLL 4, is rerun as a revised condition. The direction of the load is corrected in the revised ROLL 4 IBM redundant loads solutions.

ASYMM.

APPLIED-LOAD CONDITIONS
19. SEPTEMBER, 1963

AS PMC	ROLL 4	ROLL4R	ROLL4P	ROL4PR
96	0.	0.	0.	0.
97	7.600000E 01	-7.600000E 01	7.600000E 01	-7.600000E 01
98	0.	0.	0.	0.
99	-3.6466900E 05	3.6466900E 05	-3.6466900E 05	3.6466900E 05
100	0.	0.	0.	0.
101	1.8605700E 05	-1.8605700E 05	1.8605700E 05	-1.8605700E 05
102	0.	-1.8600000E 02	-1.9920000E 03	-2.1780000E 03
103	-2.7000000E 01	1.6400000E 02	-2.0190000E 03	-1.8280000E 03
104	0.	-1.8600000E 02	-1.9920000E 03	-2.1780000E 03
105	-2.7000000E 01	1.6400000E 02	-2.0190000E 03	-1.8280000E 03
106	-3.4800000E 02	-3.8200000E 02	-1.7400000E 02	-2.0800000E 02
107	-2.1700000E 02	-7.6000000E 01	-4.3000000E 01	9.8000000E 01
108	-9.0000000E 01	-1.7500000E 02	8.4000000E 01	-1.0000000E 00
109	-4.7500000E 02	-2.8300000E 02	-3.0100000E 02	-1.0900000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	3.1800000E 02	-3.1800000E 02	3.1800000E 02	-3.1800000E 02

S PMC	ROLL 5	ROLL5R	ROLL5P	ROL5PR
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	1.8120000E 03	1.8120000E 03	1.8120000E 03	1.8120000E 03
99	0.	0.	0.	0.
100	5.8178999E 05	5.8178999E 05	5.8178999E 05	5.8178999E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	ROLL 5	ROLL5R	ROLL 5P	ROL5PR
96	0.	0.	0.	0.
97	4.4600000E 02	-4.4600000E 02	4.4600000E 02	-4.4600000E 02
98	0.	0.	0.	0.
99	5.3293999E 04	-5.3293999E 04	5.3293999E 04	-5.3293999E 04
100	0.	0.	0.	0.
101	2.7835300E 05	-2.7835300E 05	2.7835300E 05	-2.7835300E 05
102	1.7200000E 02	-2.3300000E 02	-1.8200000E 03	-2.2250000E 03
103	-1.8400000E 02	2.2300000E 02	-2.1760000E 03	-1.7690000E 03
104	1.7200000E 02	-2.3300000E 02	-1.8200000E 03	-2.2250000E 03
105	-1.8400000E 02	2.2300000E 02	-2.1760000E 03	-1.7690000E 03
106	-9.8000000E 01	-2.2500000E 02	7.6000000E 01	-5.1000000E 01
107	-1.9300000E 02	6.6000000E 01	-1.9000000E 01	2.4000000E 02
108	5.8000000E 01	-1.7700000E 02	2.3200000E 02	-3.0000000E 00
109	-3.4900000E 02	1.8000000F 01	-1.7500000E 02	1.9200000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	6.8600000E 02	-6.8600000E 02	6.8600000E 02	-6.8600000E 02

S PMC	HOV 1	HOV 4	HOV 1R	HOV 4R
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	8.4899999E 02	8.4899999E 02	8.4899999E 02	8.4899999E 02
99	0.	0.	0.	0.
100	1.8837600E 05	1.8837600E 05	1.8837600E 05	1.8837600E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	HOV 1	HOV 4	HOV 1R	HOV 4R
96	0.	0.	0.	0.
97	-8.1099999E 02	-8.1099999E 02	8.1099999E 02	8.1099999E 02
98	0.	0.	0.	0.
99	3.2230000E 04	3.2230000E 04	-3.2230000E 04	-3.2230000E 04
100	0.	0.	0.	0.
101	-8.8399999E 04	-8.8399999E 04	8.8399999E 04	8.8399999E 04
102	-5.5300000E 02	5.6300000E 02	-5.5300000E 02	5.6300000E 02
103	5.6300000E 02	-5.5300000E 02	5.6300000E 02	-5.5300000E 02
104	-5.5300000E 02	5.6300000E 02	-5.5300000E 02	5.6300000E 02
105	5.6300000E 02	-5.5300000E 02	5.6300000E 02	-5.5300000E 02
106	-2.5450000E 03	2.1470000E 03	-2.5450000E 03	2.1470000E 03
107	3.1760000E 03	3.2740000E 03	3.1760000E 03	3.2740000E 03
108	3.2740000E 03	3.1760000E 03	3.2740000E 03	3.1760000E 03
109	3.9750000E 03	-7.1700000E 02	3.9750000E 03	-7.1700000E 02
110	3.0300000E 03	3.0300000E 03	3.0300000E 03	3.0300000E 03
111	-3.0300000E 03	-3.0300000E 03	-3.0300000E 03	-3.0300000E 03
112	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03
113	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03
114	0.	0.	0.	0.

S PMC	TRAN 1	TRAN 2	TRAN1R	TRAN2R
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	2.5730000E 03	2.5730000E 03	2.5730000E 03	2.5730000E 03
99	0.	0.	0.	0.
100	2.0590000E 05	2.0590000E 05	2.0590000E 05	2.0590000E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

AS PMC	TRAN 1	TRAN 2	TRAN1R	TRAN2R
96	0.	0.	0.	0.
97	-6.6799999E 02	-6.6799999E 02	6.6799999E 02	6.6799999E 02
98	0.	0.	0.	0.
99	7.6720000E 04	7.6720000E 04	-7.6720000E 04	-7.6720000E 04
100	0.	0.	0.	0.
101	-8.4749999E 04	-8.4749999E 04	8.4749999E 04	8.4749999E 04
102	-3.4200000E 02	-3.7400000E 02	-3.4200000E 02	-3.7400000E 02
103	3.4000000E 02	3.0800000E 02	3.4000000E 02	3.0800000E 02
104	-3.4200000E 02	-3.7400000E 02	-3.4200000E 02	-3.7400000E 02
105	3.4000000E 02	3.0800000E 02	3.4000000E 02	3.0800000E 02
106	-1.7610000E 03	-2.1230000E 03	-1.7610000E 03	-2.1230000E 03
107	3.1310000E 03	2.7700000E 03	3.1310000E 03	2.7700000E 03
108	3.1910000E 03	2.8290000E 03	3.1910000E 03	2.8290000E 03
109	2.9330000E 03	2.5720000E 03	2.9330000E 03	2.5720000E 03
110	3.0300000E 03	3.0300000E 03	3.0300000E 03	3.0300000E 03
111	-3.0300000E 03	-3.0300000E 03	-3.0300000E 03	-3.0300000E 03
112	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03
113	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03	-4.4250000E 03
114	0.	0.	0.	0.

(4. OCTOBER, 1963)

APPLIED-LOAD CONDITIONS

S PMC	ROL4PEO	ROL4PEORH	ROL4PREO	ROL4PREORH
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	-1.5410000E 03	-1.5410000E 03	-1.5410000E 03	-1.5410000E 03
99	0.	0.	0.	0.
100	3.3067699E 05	3.3067699E 05	3.3067699E 05	3.3067699E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

APPLIED-LOAD CONDITIONS

(4. OCTOBER, 1963)

AS PMC	ROL4PEO	ROL4PEORH	ROL4PREO	ROL4PREORH
96	0.	0.	0.	0.
97	7.6000000E 01	7.6000000E 01	-7.6000000E 01	-7.6000000E 01
98	0.	0.	0.	0.
99	-3.6466900E 05	-3.6466900E 05	3.6466900E 05	3.6466900E 05
100	0.	0.	0.	0.
101	1.8605700E 05	1.8605700E 05	-1.8605700E 05	-1.8605700E 05
102	0.	-1.9920000E 03	-1.8600000E 02	-2.1780000E 03
103	-2.7000000E 01	-2.0190000E 03	1.6400000E 02	-1.8280000E 03
104	-1.9920000E 03	0.	-2.1780000E 03	-1.8600000E 02
105	-2.0190000E 03	-2.7000000E 01	-1.8280000E 03	1.6400000E 02
106	-3.4800000E 02	-1.7400000E 02	-3.8200000E 02	-2.0800000E 02
107	-2.1700000E 02	-4.3000000E 01	-7.6000000E 01	9.8000000E 01
108	8.4000000E 01	-9.0000000E 01	-1.0000000E 00	-1.7500000E 02
109	-3.0100000E 02	-4.7500000E 02	-1.0900000E 02	-2.8300000E 02
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	-3.1800000E 02	-3.1800000E 02	3.1800000E 02	3.1800000E 02

S PMC	ROL5PEO	ROL 5PEORH	ROL5PREO	ROL5PREORH
96	0.	0.	0.	0.
97	0.	0.	0.	0.
98	1.8120000E 03	1.8120000E 03	1.8120000E 03	1.8120000E 03
99	0.	0.	0.	0.
100	5.8178999E 05	5.8178999E 05	5.8178999E 05	5.8178999E 05
101	0.	0.	0.	0.
102	0.	0.	0.	0.
103	0.	0.	0.	0.
104	0.	0.	0.	0.
105	0.	0.	0.	0.
106	0.	0.	0.	0.
107	0.	0.	0.	0.
108	0.	0.	0.	0.
109	0.	0.	0.	0.
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	0.	0.	0.	0.

PMC	ROL5PEO	ROL5PEORH	ROL5PREO	ROL5PREORH
96	0.	0.	0.	0.
97	4.4600000E 02	4.4600000E 02	-4.4600000E 02	-4.4600000E 02
98	0.	0.	0.	0.
99	5.3293999E 04	5.3293999E 04	-5.3293999E 04	-5.3293999E 04
100	0.	0.	0.	0.
101	2.7835300E 05	2.7835300E 05	-2.7835300E 05	-2.7835300E 05
102	1.7200000E 02	-1.8200000E 03	-2.3300000E 02	-2.2250000E 03
103	-1.8400000E 02	-2.1760000E 03	2.2300000E 02	-1.7690000E 03
104	-1.8200000E 03	1.7200000E 02	-2.2250000E 03	-2.3300000E 02
105	-2.1760000E 03	-1.8400000E 02	-1.7690000E 03	2.2300000E 02
106	-9.8000000E 01	7.6000000E 01	-2.2500000E 02	-5.1000000E 01
107	-1.9300000E 02	-1.9000000E 01	6.6000000E 01	2.4000000E 02
108	2.3200000E 02	5.8000000E 01	-3.0000000E 00	-1.7700000E 02
109	-1.7500000E 02	-3.4900000E 02	1.9200000E 02	1.8000000E 01
110	0.	0.	0.	0.
111	0.	0.	0.	0.
112	0.	0.	0.	0.
113	0.	0.	0.	0.
114	-6.8600000E 02	-6.8600000E 02	6.8600000E 02	6.8600000E 02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	F-1 SYMMETRIC	F-1 ANTI-SYM	S + AS
96	5.1221528E-02	4.7154725E-03	5.5937001E-02
97	3.1929989E-03	-2.9308629E-04	2.8999126E-03
98	-2.0430456E-01	-4.4315462E-02	-2.4862002E-01
99	-9.8713068E-05	-6.6430926E-05	-1.6514399E-04
100	5.6328258E-03	2.7153971E-04	5.9043655E-03
101	2.1406103E-07	-9.4501624E-06	-9.2361014E-06
102	1.2439152E-01	2.6940066E-02	1.5133158E-01
103	1.1216733E-01	2.4630524E-02	1.3679786E-01
104	1.1887404E-01	2.6951496E-02	1.4582553E-01
105	1.2446099E-01	2.2432549E-02	1.4689354E-01
106	-1.1228894E-01	-3.0619911E-02	-1.4290885E-01
107	-1.1073567E-01	-2.9619645E-02	-1.4035531E-01
108	-1.0379001E-01	-2.9798105E-02	-1.3558812E-01
109	-1.1235753E-01	-2.8856392E-02	-1.4121392E-01
110	3.5205669E-02	-7.9960637E-03	2.7209585E-02
111	7.5497626E-02	-3.3456061E-03	7.2152020E-02
112	-7.3366653E-02	-1.8527750E-02	-9.1889402E-02
113	-1.0508284E-01	-3.3965891E-02	-1.3904873E-01
114	-4.0213484E-02	-2.6456414E-03	-4.2899125E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	F-1P SYMMETRIC	F-1P ANTI-SYM	S + AS
96	5.1607252E-02	-2.2940731E-02	2.8660521E-02
97	3.4798597E-03	7.6205871E-04	4.2419184E-03
98	-1.2581412E-01	2.0730129E-01	8.1487176E-02
99	-1.0217374E-04	-9.4857448E-05	-1.9703119E-04
100	5.8900601E-03	-1.3302044E-03	4.5598556E-03
101	3.0421203E-07	-1.2032418E-05	-1.1608205E-05
102	8.3322469E-02	-1.4878913E-01	-6.5466661E-02
103	6.6956114E-02	-1.5941187E-01	-9.2455755E-02
104	7.3689278E-02	-1.6778702E-01	-9.4097741E-02
105	8.3440627E-02	-1.5413385E-01	-7.0693222E-02
106	-7.0107903E-02	1.1024932E-01	4.0141417E-02
107	-6.3631065E-02	1.2077936E-01	5.7146296E-02
108	-5.6264222E-02	1.2219553E-01	6.5929309E-02
109	-7.0224029E-02	1.1285311E-01	4.2629079E-02
110	5.9857587E-02	3.7340144E-02	9.7197731E-02
111	9.9355872E-02	2.5322194E-02	1.2467806E-01
112	-4.6707737E-02	6.0038226E-02	1.3330489E-02
113	-4.4271920E-02	1.4985520E-01	1.0558328E-01
114	-4.1432457E-02	1.3385198E-02	-2.8047260E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	F-8 SYMMETRIC	F-8 ANTI-SYM	S + AS
96	5.5283503E-02	-1.1847163E-03	5.4098787E-02
97	3.5572093E-03	1.3999372E-04	3.6972030E-03
98	-1.9864455E-01	1.1120703E-02	-1.8752385E-01
99	-1.0787231E-04	4.4248584E-05	-6.3623725E-05
100	6.2038609E-03	-6.8221669E-05	6.1356393E-03
101	2.9334961E-07	6.3186468E-06	6.0119904E-06
102	1.7266641E-01	-7.6827240E-03	1.1493369E-01
103	1.0820903E-01	-5.9002881E-03	1.0230074E-01
104	1.1549382E-01	-7.1711952E-03	1.0832263E-01
105	1.2276160E-01	-4.7023929E-03	1.1805620E-01
106	-1.0921265E-01	8.0635647E-03	-1.0114909E-01
107	-1.0610790E-01	7.4503495E-03	-9.8657554E-02
108	-9.8449638E-02	7.7020565E-03	-9.0947503E-02
109	-1.0930656E-01	6.8533741E-03	-1.0245319E-01
110	4.5493905E-02	2.0342173E-03	4.7528122E-02
111	8.8941867E-02	1.0344273E-03	8.9976294E-02
112	-7.1658244E-02	4.6778901E-03	-6.6978354E-02
113	-9.5908965E-02	8.4562962E-03	-8.7452669E-02
114	-4.3966150E-02	8.1236306E-04	-4.3153787E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	F-8P SYMMETRIC	F-8P ANTI-SYM	S + AS
96	5.5638399E-02	-2.8840919E-02	2.6797480E-02
97	3.8344117E-03	1.1951387E-03	5.0295504E-03
98	-1.2166207E-01	2.6273745E-01	1.4107539E-01
99	-1.1118244E-04	1.5822059E-05	-9.5360380E-05
100	6.4493402E-03	-1.6699658E-03	4.7793744E-03
101	4.3902552E-07	3.7363913E-06	4.1754168E-06
102	8.2385505E-02	-1.8341191E-01	-1.0102640E-01
103	6.3885407E-02	-1.8995068E-01	-1.2606527E-01
104	7.1189906E-02	-2.0190971E-01	-1.3071980E-01
105	8.2527922E-02	-1.8127179E-01	-9.8743863E-02
106	-6.7854683E-02	1.4893279E-01	8.1078107E-02
107	-5.9932651E-02	1.5784935E-01	9.7916696E-02
108	-5.1868603E-02	1.5949569E-01	1.0762508E-01
109	-6.7994699E-02	1.4856286E-01	8.0568166E-02
110	6.9576977E-02	4.7370443E-02	1.1694742E-01
111	1.1221356E-01	2.9702226E-02	1.4191578E-01
112	-4.5513492E-02	8.3238862E-02	3.7725370E-02
113	-3.6331435E-02	1.9227738E-01	1.5594594E-01
114	-4.5123220E-02	1.6843202E-02	-2.8280018E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HSC-1 SYMMETRIC	HSC-1 ANTI-SYM	S + AS
96	7.0381401E-02	-0.	7.0381401E-02
97	3.9077172E-03	0.	3.9077172E-03
98	-2.0133007E-01	0.	-2.0133007E-01
99	-1.3172661E-04	-0.	-1.3172661E-04
100	5.7837423E-03	-0.	5.7837423E-03
101	-9.4228886E-07	-0.	-9.4228886E-07
102	1.2607714E-01	-0.	1.2607714E-01
103	1.0935981E-01	0.	1.0935981E-01
104	1.1513239E-01	-0.	1.1513239E-01
105	1.2577175E-01	-0.	1.2577175E-01
106	-1.1995708E-01	-0.	-1.1995708E-01
107	-1.1566168E-01	0.	-1.1566168E-01
106	-1.0711519E-01	0.	-1.0711519E-01
109	-1.1964956E-01	0.	-1.1964956E-01
110	4.5553503E-02	-0.	4.5553503E-02
111	9.2607565E-02	-0.	9.2607565E-02
112	-7.9739937E-02	0.	-7.9739937E-02
113	-1.0503542E-01	0.	-1.0503542E-01
114	-4.5090954E-02	0.	-4.5090954E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HSC-1P SYMMETRIC	HSC-1P ANTI-SYM	S + AS
96	4.1900628E-02	-0.	4.1900628E-02
97	5.9940113E-03	0.	5.9940113E-03
98	5.2944316E-02	0.	5.2944316E-02
99	-1.5776218E-04	-0.	-1.5776218E-04
100	4.1372399E-03	-0.	4.1372399E-03
101	-3.8779359E-06	-0.	-3.8779359E-06
102	-5.1338431E-02	-0.	-5.1338431E-02
103	-7.6164235E-02	0.	-7.6164235E-02
104	-8.1396824E-02	-0.	-8.1396824E-02
105	-5.2595619E-02	-0.	-5.2595619E-02
106	2.2476944E-02	-0.	2.2476944E-02
107	3.5921308E-02	0.	3.5921308E-02
108	4.6005134E-02	0.	4.6005134E-02
109	2.3740011E-02	0.	2.3740011E-02
110	8.6280247E-02	-0.	8.6280247E-02
111	1.1829321E-01	-0.	1.1829321E-01
112	6.9060395E-04	0.	6.9060395E-04
113	7.9685332E-02	0.	7.9685332E-02
114	-2.6275238E-02	0.	-2.6275238E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	L-16 SYMMETRIC	L-16 ANTI-SYM	S + AS
96	3.0622801E-02	-0.	3.0622801E-02
97	4.2350987E-03	0.	4.2350987E-03
98	2.3042862E-01	0.	2.3042862E-01
99	-8.0141777E-05	-0.	-8.0141777E-05
100	7.3741537E-03	-0.	7.3741537E-03
101	2.7655510E-06	-0.	2.7655510E-06
102	-1.0957821E-01	-0.	-1.0957821E-01
103	-1.4101125E-01	0.	-1.4101125E-01
104	-1.3278249E-01	-0.	-1.3278249E-01
105	-1.0868158E-01	-0.	-1.0868158E-01
106	1.2782064E-01	-0.	1.2782064E-01
107	1.5651902E-01	0.	1.5651902E-01
108	1.6386316E-01	0.	1.6386316E-01
109	1.2692917E-01	0.	1.2692917E-01
110	1.6607061E-01	-0.	1.6607061E-01
111	1.9775647E-01	-0.	1.9775647E-01
112	7.9821254E-02	0.	7.9821254E-02
113	2.3613403E-01	0.	2.3613403E-01
114	-4.3342780E-02	0.	-4.3342780E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	L-10 SYMMETRIC	L-10 ANTI-SYM	S + AS
96	8.7807446E-04	3.8999678E-03	1.2680712E-02
97	1.4085863E-04	8.3337170E-02	3.4745755E-02
98	1.3213850E-01	-3.3694189E-02	9.8444307E-02
99	-2.7287541E-02	1.4275524E-02	1.4248237E-02
100	1.9372770E-03	2.2425983E-04	2.1415368E-03
101	5.2008487E-07	2.8289921E-04	2.8341930E-04
102	-6.7330176E-02	-1.4097083E-01	-2.0830100E-01
103	-7.9139205E-02	-1.3284820E-02	-9.2424026E-02
104	-7.7619161E-02	5.9209188E-02	-1.8409973E-02
105	-6.7161549E-02	1.7932019E-01	1.1215864E-01
106	7.2433611E-02	1.4822325E-01	2.2065686E-01
107	8.3648707E-02	4.1779053E-03	8.7826612E-02
108	8.6096019E-02	-5.1939554E-02	3.4156465E-02
109	7.2267632E-02	-1.9277481E-01	-1.2050717E-01
110	6.3620409E-02	9.2078019E-02	1.5569843E-01
111	7.0310537E-02	-8.6598147E-03	6.1650723E-02
112	4.5018728E-02	4.0711319E-03	4.9089860E-02
113	1.1606732E-01	-3.7389995E-02	7.8677325E-02
114	-1.1303363E-02	-8.0102984E-02	-9.1406345E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	L-10R SYMMETRIC	L-10R ANTI-SYM	S + AS
96	8.7807446E-03	2.0750787E-03	1.0855773E-02
97	1.4085863E-03	-8.3503488E-02	-8.2094902E-02
98	1.3213850E-01	-2.2347016E-02	1.0979148E-01
99	-2.7287541E-05	-1.4272354E-02	-1.4299641E-02
100	1.9372770E-03	1.1997647E-04	2.0572534E-03
101	5.2008487E-07	-2.8238603E-04	-2.8186595E-04
102	-6.7330176E-07	1.7276348E-01	1.0543330E-01
103	-7.9139205E-02	4.6038257E-02	-3.3100948E-02
104	-7.7619161E-02	-2.5502128E-02	-1.0318129E-01
105	-6.7101549E-02	-1.4736115E-01	-2.1452770E-01
106	7.2433611E-02	-1.8525672E-01	-1.1282311E-01
107	8.3648707E-02	-4.1253685E-02	4.2395023E-02
108	8.6096019E-02	1.4632091E-02	1.0072811E-01
109	7.2267632E-02	1.5557433E-01	2.2784197E-01
110	6.3620409E-02	-1.0211663E-01	-3.8496220E-02
111	7.0310537E-02	4.8154755E-03	7.5125962E-02
112	4.5018728E-02	-2.6920043E-02	1.8098686E-02
113	1.1606732E-01	-5.5940635E-03	1.1047326E-01
114	-1.1303363E-02	7.7187193E-02	6.5883831E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT.	L-20 SYMMETRIC	L-20 ANTI-SYM	S + AS
96	9.2049720E-03	3.9016747E-03	1.3106647E-02
97	1.4562893E-03	7.8722700E-02	8.0178988E-02
98	1.3557242E-01	-3.3699926E-02	1.0187250E-01
99	-2.8345594E-05	1.4267690E-02	1.4239345E-02
100	2.0050977E-03	2.2435735E-04	2.2294551E-03
101	5.3382481E-07	2.5234763E-04	2.5288146E-04
102	-6.9003446E-02	-1.4051110E-01	-2.0951454E-01
103	-8.1190900E-02	-1.3309785E-02	-9.4500685E-02
104	-7.9610890E-02	5.9284943E-02	-2.0325947E-02
105	-6.8830365E-02	1.7886787E-01	1.1003751E-01
106	7.4285206E-02	1.4781631E-01	2.2210151E-01
107	8.5837543E-02	4.1728016E-03	9.0010345E-02
108	8.8372895E-02	-5.1988931E-02	3.6383964E-02
109	7.4114853E-02	-1.9237477E-01	-1.1825991E-01
110	6.5568185E-02	9.3450509E-02	1.5901870E-01
111	7.2551141E-02	-7.4217705E-03	6.5129371E-02
112	4.6164768E-02	4.1660414E-03	5.0330809E-02
113	1.1921938E-01	-3.7114736E-02	8.2104647E-02
114	-1.1730465E-02	-8.0466580E-02	-9.2197045E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	L-20R SYMMETRIC	L-20R ANTI-SYM	S + AS
96	9.2049720E-03	2.0733218E-03	1.1278294E-02
97	1.4562893E-03	-7.8889018E-02	-7.7432730E-02
98	1.3557242E-01	-2.2341281E-02	1.1323114E-01
99	-2.8345594E-05	-1.4264520E-02	-1.4292865E-02
100	2.0050977E-03	1.1987895E-04	2.1249767E-03
101	5.3382481E-07	-2.5183445E-04	-2.5130062E-04
102	-6.9003446E-02	1.7230375E-01	1.0330030E-01
103	-8.1190900E-02	4.6063223E-02	-3.5127677E-02
104	-7.9610890E-02	-2.5637883E-02	-1.0524877E-01
105	-6.8830365E-02	-1.4690883E-01	-2.1573920E-01
106	7.4285206E-02	-1.8484979E-01	-1.1056458E-01
107	8.5837543E-02	-4.1248581E-02	4.4588962E-02
108	8.8372895E-02	1.4681467E-02	1.0305436E-01
109	7.4114853E-02	1.5517429E-01	2.2978915E-01
110	6.5568185E-02	-1.0348912E-01	-3.7920934E-02
111	7.2551141E-02	3.5773813E-03	7.6128522E-02
112	4.6164768E-02	-2.7014952E-02	1.9149816E-02
113	1.1921938E-01	-5.8693224E-03	1.1335006E-01
114	-1.1730465E-02	7.7550791E-02	6.5820327E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-1 SYMMETRIC	LG-1 ANTI-SYM	S + AS
96	4.9873437E-02	1.9269605E-03	5.1800397E-02
97	3.1481019E-03	3.3711916E-02	3.6860017E-02
98	-1.9079234E-01	-1.5100848E-02	-2.0589319E-01
99	-9.6577849E-05	-1.6795418E-03	-1.7761196E-03
100	5.5272186E-03	1.1063057E-04	5.6378492E-03
101	2.3041434E-07	1.1916510E-03	1.1918814E-03
102	1.1681131E-01	1.7450099E-02	1.3426141E-01
103	1.0444727E-01	8.3290915E-03	1.1277636E-01
104	1.1099175E-01	9.7735145E-03	1.2076526E-01
105	1.1688609E-01	-2.6494347E-04	1.1662115E-01
106	-1.0488782E-01	-1.6030017E-02	-1.2091784E-01
107	-1.0284872E-01	-1.3409022E-02	-1.1625774E-01
108	-9.6029024E-02	-5.3533605E-03	-1.0138238E-01
109	-1.0496162E-01	-4.2446086E-03	-1.0920622E-01
110	3.7022524E-02	-9.8417401E-03	2.7180783E-02
111	7.6225056E-02	2.4169701E-04	7.6466753E-02
112	-6.8639478E-02	-1.0686184E-02	-7.9325662E-02
113	-9.5839967E-02	-9.9956070E-03	-1.0583557E-01
114	-3.9347545E-02	-2.5062205E-02	-6.4409750E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-1R SYMMETRIC	LG-1R ANTI-SYM	S + AS
96	4.9873437E-02	4.2108129E-04	5.0294518E-02
97	3.1481019E-03	-3.3775010E-02	-3.0626908E-02
98	-1.9079234E-01	-6.9825067E-03	-1.9777485E-01
99	-9.6577849E-05	1.6806789E-03	1.5841010E-03
100	5.5272186E-03	2.4580204E-05	5.5517988E-03
101	2.3041434E-07	-1.1914510E-03	-1.1912206E-03
102	1.1681131E-01	-5.1799845E-03	1.1163133E-01
103	1.0444727E-01	4.2884201E-03	1.0873569E-01
104	1.1099175E-01	3.1437615E-03	1.1413551E-01
105	1.1688609E-01	1.2599904E-02	1.2948599E-01
106	-1.0488782E-01	1.2373041E-03	-1.0365052E-01
107	-1.0284872E-01	-1.3254240E-03	-1.0417414E-01
108	-9.6029024E-02	-9.4678333E-03	-1.0549686E-01
109	-1.0496162E-01	-1.0613192E-02	-1.1557481E-01
110	3.7022524E-02	5.8882879E-03	4.2910811E-02
111	7.6225056E-02	-1.6676058E-03	7.4557450E-02
112	-6.8639478E-02	1.4955119E-03	-6.7143967E-02
113	-9.5839967E-02	-7.0131938E-03	-1.0285316E-01
114	-3.9347545E-02	2.3936191E-02	-1.5411354E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-1P SYMMETRIC	LG-1P ANTI-SYM	S + AS
96	4.9873437E-02	-2.5729243E-02	2.4144194E-02
97	3.1481019E-03	3.4767060E-02	3.7915162E-02
98	-1.9079234E-01	2.3651590E-01	4.5723565E-02
99	-9.6577849E-05	-1.7079683E-03	-1.8045461E-03
100	5.5272186E-03	-1.4911136E-03	4.0361050E-03
101	2.3041434E-07	1.1890687E-03	1.1892991E-03
102	1.1681131E-01	-1.5827909E-01	-4.1467779E-02
103	1.0444727E-01	-1.7571330E-01	-7.1266028E-02
104	1.1099175E-01	-1.8496500E-01	-7.3973246E-02
105	1.1688609E-01	-1.7683134E-01	-5.9945248E-02
106	-1.0488782E-01	1.2483921E-01	1.9951389E-02
107	-1.0284872E-01	1.3698998E-01	3.4141263E-02
108	-9.6029024E-02	1.4663827E-01	5.0609249E-02
109	-1.0496162E-01	1.3746489E-01	3.2503270E-02
110	3.7022524E-02	3.5494486E-02	7.2517009E-02
111	7.6225056E-02	2.8909496E-02	1.0513455E-01
112	-6.8639478E-02	6.7874790E-02	-7.6468847E-04
113	-9.5839967E-02	1.7382547E-01	7.7985507E-02
114	-3.9347545E-02	-9.0313665E-03	-4.8378912E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-1PR SYMMETRIC	LG-1PR ANTI-SYM	S + AS
96	4.9873437E-02	-2.7235121E-02	2.2638315E-02
97	3.1481019E-03	-3.2719865E-02	-2.9571763E-02
98	-1.9079234E-01	2.4463424E-01	5.3841904E-02
99	-9.6577849E-05	1.6522524E-03	1.5556745E-03
100	5.5272186E-03	-1.5771639E-03	3.9500547E-03
101	2.3041434E-07	-1.1940332E-03	-1.1938028E-03
102	1.1681131E-01	-1.8090917E-01	-6.4077860E-02
103	1.0444727E-01	-1.7975397E-01	-7.5306701E-02
104	1.1099175E-01	-1.9159475E-01	-8.0602998E-02
105	1.1688609E-01	-1.6396649E-01	-4.7080401E-02
106	-1.0488782E-01	1.4210653E-01	3.7218709E-02
107	-1.0284872E-01	1.4907358E-01	4.6224862E-02
108	-9.6029024E-02	1.4252380E-01	4.6494772E-02
109	-1.0496162E-01	1.3109630E-01	2.6134685E-02
110	3.7022524E-02	5.1224515E-02	8.8247038E-02
111	7.6225056E-02	2.7000193E-02	1.0322525E-01
112	-6.8639478E-02	8.0056486E-02	1.1417008E-02
113	-9.5839967E-02	1.7680789E-01	8.0967922E-02
114	-3.9347545E-02	3.9967030E-02	6.1948457E-04

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-3 SYMMETRIC	LG-3 ANTI-SYM	S + AS
96	4.9260035E-02	2.3120394E-03	5.1572074E-02
97	2.5725358E-03	4.3267150E-02	4.5839685E-02
98	-3.0003079E-01	-1.7192200E-02	-3.1722299E-01
99	-8.9042104E-05	-3.0609030E-03	-3.1499451E-03
100	4.8743388E-03	1.3264019E-04	5.0069790E-03
101	-7.4003998E-08	1.6318477E-03	1.6317737E-03
102	1.7444239E-01	3.1155466E-02	2.0559785E-01
103	1.6856169E-01	1.0622843E-02	1.7918453E-01
104	1.7482970E-01	1.0075165E-02	1.8490486E-01
105	1.7441847E-01	-1.1452487E-02	1.6296598E-01
106	-1.6457810E-01	-2.8214898E-02	-1.9279300E-01
107	-1.6978877E-01	-1.7705163E-02	-1.8749393E-01
108	-1.6383257E-01	-2.9934175E-03	-1.6682598E-01
109	-1.6455487E-01	5.1323445E-03	-1.5942252E-01
110	-1.0627586E-03	-1.7361647E-02	-1.8424406E-02
111	3.8055201E-02	1.1754770E-03	3.9230678E-02
112	-1.0614971E-01	-1.4667887E-02	-1.2081760E-01
113	-1.8350524E-01	-1.0429055E-02	-1.9393430E-01
114	-3.6224099E-02	-3.4710981E-02	-7.0935079E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-3R SYMMETRIC	LG-3R ANTI-SYM	S + AS
96	4.9260035E-02	4.8074012E-05	4.9308108E-02
97	2.5725358E-03	-4.3330756E-02	-4.0758221E-02
98	-3.0003079E-01	-5.0068756E-03	-3.0503766E-01
99	-8.9042104E-05	3.0620537E-03	2.9730116E-03
100	4.8743388E-03	3.2706166E-06	4.8776094E-03
101	-7.4003998E-08	-1.6316464E-03	-1.6317204E-03
102	1.7444239E-01	-1.8820215E-02	1.5562217E-01
103	1.6856169E-01	2.0613295E-03	1.7062301E-01
104	1.7482970E-01	2.9110628E-03	1.7774076E-01
105	1.7441847E-01	2.3852998E-02	1.9827147E-01
106	-1.6457810E-01	1.3349538E-02	-1.5122856E-01
107	-1.6978877E-01	2.8878227E-03	-1.6690094E-01
108	-1.6383257E-01	-1.1912386E-02	-1.7574495E-01
109	-1.6455487E-01	-2.0063209E-02	-1.8461807E-01
110	-1.0627586E-03	1.3386101E-02	1.2323342E-02
111	3.8055201E-02	-2.6079752E-03	3.5447226E-02
112	-1.0614971E-01	5.4243384E-03	-1.0072538E-01
113	-1.8350524E-01	-6.6742704E-03	-1.9017951E-01
114	-3.6224099E-02	3.3579092E-02	-2.6450069E-03

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-3P SYMMETRIC	LG-3P ANTI-SYM	S + AS
96	4.9260035E-02	-2.5344164E-02	2.3915870E-02
97	2.5725358E-03	4.4322292E-02	4.6894828E-02
98	-3.0003079E-01	2.3442455E-01	-6.5606236E-02
99	-8.9042104E-05	-3.0893296E-03	-3.1783717E-03
100	4.8743388E-03	-1.4691040E-03	3.4052349E-03
101	-7.4003998E-08	1.6292655E-03	1.6291915E-03
102	1.7444239E-01	-1.4457373E-01	2.9868662E-02
103	1.6656169E-01	-1.7341955E-01	-4.8578605E-03
104	1.7482970E-01	-1.8466335E-01	-9.8336488E-03
105	1.7441847E-01	-1.8801888E-01	-1.3600411E-02
106	-1.6457810E-01	1.1265433E-01	-5.1923770E-02
107	-1.6978877E-01	1.3269384E-01	-3.7094924E-02
108	-1.6383257E-01	1.4899822E-01	-1.4834352E-02
109	-1.6455487E-01	1.4684184E-01	-1.7713027E-02
110	-1.0627586E-03	2.7974579E-02	2.6911820E-02
111	3.8055201E-02	2.9843276E-02	6.7898477E-02
112	-1.0614971E-01	6.3893088E-02	-4.2256625E-02
113	-1.8350524E-01	1.7339203E-01	-1.0113213E-02
114	-3.6224099E-02	-1.8680143E-02	-5.4904242E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	LG-3PR SYMMETRIC	LG-3PR ANTI-SYM	S + AS
96	4.9260035E-02	-2.7608129E-02	2.1651905E-02
97	2.5725358E-03	-4.2275609E-02	-3.9703074E-02
98	-3.0003079E-01	2.4660988E-01	-5.3420914E-02
99	-8.9042104E-05	3.0336271E-03	2.9445850E-03
100	4.8743388E-03	-1.5984735E-03	3.2758653E-03
101	-7.4003998E-08	-1.6342287E-03	-1.6343027E-03
102	1.7444239E-01	-1.9454941E-01	-2.0107018E-02
103	1.6856169E-01	-1.8198106E-01	-1.3419377E-02
104	1.7482970E-01	-1.9182745E-01	-1.6997747E-02
105	1.7441847E-01	-1.5271340E-01	2.1705072E-02
106	-1.6457810E-01	1.5421877E-01	-1.0359336E-02
107	-1.6978877E-01	1.5328683E-01	-1.6501941E-02
108	-1.6383257E-01	1.4007925E-01	-2.3753317E-02
109	-1.6455487E-01	1.2164629E-01	-4.2908578E-02
110	-1.0627586E-03	5.8722327E-02	5.7659569E-02
111	3.8055201E-02	2.6059825E-02	6.4115026E-02
112	-1.0614971E-01	8.3985312E-02	-2.2164401E-02
113	-1.8350574E-01	1.7714681E-01	-6.3584298E-03
114	-3.6224099E-02	4.9609931E-02	1.3385832E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	AF-6 SYMMETRIC	AF-6 ANTI-SYM	S + AS
96	4.9289410E-02	2.2471466E-03	5.1536556E-02
97	3.0862541E-03	4.1343458E-02	4.4429712E-02
98	-1.9375092E-01	-1.6882078E-02	-2.1063299E-01
99	-9.5151497E-05	-1.9565712E-03	-2.0517226E-03
100	5.4352747E-03	1.2893186E-04	5.5642065E-03
101	2.1368143E-07	1.4595724E-03	1.4597861E-03
102	1.1819225E-01	2.0158989E-02	1.3835123E-01
103	1.0626763E-01	8.5431079E-03	1.1481073E-01
104	1.1272635E-01	1.2095003E-02	1.2482135E-01
105	1.1826160E-01	-8.3205073E-04	1.1742955E-01
106	-1.0649739E-01	-1.7060898E-02	-1.2355829E-01
107	-1.0481837E-01	-1.5384053E-02	-1.2020242E-01
108	-9.8114820E-02	-5.3088049E-03	-1.0342362E-01
109	-1.0656584E-01	-5.5855314E-03	-1.1215137E-01
110	3.4837813E-02	-9.8349338E-03	2.5002880E-02
111	7.3599780E-02	1.1098008E-03	7.4709580E-02
112	-6.9620585E-02	-1.2729932E-02	-8.2350516E-02
113	-9.6852166E-02	-1.1004648E-02	-1.0985681E-01
114	-3.6763945E-02	-3.5670870E-02	-7.4434816E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	AF-6R SYMMETRIC	AF-6R ANTI-SYM	S + AS
96	4.9289410E-02	1.1372430E-04	4.9403135E-02
97	3.0862541E-03	-4.1407039E-02	-3.8320785E-02
98	-1.9375092E-01	-5.3174828E-03	-1.9906840E-01
99	-9.5151497E-05	1.9577214E-03	1.8625699E-03
100	5.4352747E-03	7.0218507E-06	5.4422965E-03
101	2.1368143E-07	-1.4593712E-03	-1.4591575E-03
102	1.1819225E-01	-7.8063472E-03	1.1038590E-01
103	1.0626763E-01	4.1609719E-03	1.1042860E-01
104	1.1272635E-01	9.1401097E-04	1.1364036E-01
105	1.1826160E-01	1.3249923E-02	1.3151152E-01
106	-1.0649739E-01	2.2038136E-03	-1.0429358E-01
107	-1.0481837E-01	5.8134581E-04	-1.0423703E-01
108	-9.8114820E-02	-9.5812995E-03	-1.0769612E-01
109	-1.0656584E-01	-9.3370267E-03	-1.1590287E-01
110	3.4837813E-02	5.8606529E-03	4.0698466E-02
111	7.3599780E-02	-2.5495254E-03	7.1050254E-02
112	-6.9620585E-02	3.5044402E-03	-6.6116145E-02
113	-9.3852166E-02	-6.0881760E-03	-1.0494034E-01
114	-3.8763945E-02	3.4537321E-02	-4.2266240E-03

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	AF-6P SYMMETRIC	AF-6P ANTI-SYM	S + AS
96	4.9289410E-02	-2.5409057E-02	2.3880353E-02
97	3.0862541E-03	4.2398604E-02	4.5484858E-02
98	-1.9375092E-01	2.3473468E-01	4.0983759E-02
99	-9.5151497E-02	-1.9849977E-03	-2.0801492E-03
100	5.4352747E-03	-1.4728123E-03	3.9624625E-03
101	2.1368143E-07	1.4569902E-03	1.4572038E-03
102	1.1819225E-01	-1.5557020E-01	-3.7377956E-02
103	1.0626763E-01	-1.7549928E-01	-6.9231657E-02
104	1.1272635E-01	-1.8264351E-01	-6.9917163E-02
105	1.1826160E-01	-1.7739845E-01	-5.9136850E-02
106	-1.0649739E-01	1.2380833E-01	1.7310942E-02
107	-1.0481837E-01	1.3501495E-01	3.0196577E-02
108	-9.8114820E-02	1.4668283E-01	4.8568008E-02
109	-1.0656584E-01	1.3612397E-01	2.9558122E-02
110	3.4837813E-02	3.5501293E-02	7.0339106E-02
111	7.3599780E-02	2.9777600E-02	1.0337738E-01
112	-6.9620585E-02	6.5831044E-02	-3.7895404E-03
113	-9.8852166E-02	1.7281644E-01	7.3964273E-02
114	-3.8763945E-02	-1.9640031E-02	-5.8403977E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	AF-6PR SYMMETRIC	AF-6PR ANTI-SYM	S + AS
96	4.9289410E-02	-2.7542479E-02	2.1746931E-02
97	3.0862541E-03	-4.0351893E-02	-3.7265639E-02
98	-1.9375092E-01	2.4629927E-01	5.2548351E-02
99	-9.5151497E-05	1.9292949E-03	1.8341434E-03
100	5.4352747E-03	-1.5947223E-03	3.8405524E-03
101	2.1368143E-07	-1.4619535E-03	-1.4617398E-03
102	1.1819225E-01	-1.8353554E-01	-6.5343289E-02
103	1.0626763E-01	-1.7988142E-01	-7.3613794E-02
104	1.1272635E-01	-1.9382450E-01	-8.1098154E-02
105	1.1826160E-01	-1.6331647E-01	-4.5054873E-02
106	-1.0649739E-01	1.4307304E-01	3.6575654E-02
107	-1.0481837E-01	1.5098035E-01	4.6161975E-02
108	-9.8114820E-02	1.4241033E-01	4.4295514E-02
109	-1.0656584E-01	1.3237247E-01	2.5806623E-02
110	3.4837813E-02	5.1196880E-02	8.6034694E-02
111	7.3599780E-02	2.6118274E-02	9.9718053E-02
112	-6.9620585E-02	8.2065414E-02	1.2444829E-02
113	-9.6852166E-02	1.7773291E-01	7.8880742E-02
114	-3.8763945E-02	5.0568160E-02	1.1804215E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	SPC-1 SYMMETRIC	SPC-1 ANTI-SYM	S + AS
96	-3.2096547E-02	-3.0790938E-03	-3.5175641E-02
97	-1.3336539E-03	-9.4275457E-04	-2.2764085E-03
98	2.3359730E-01	2.9841271E-02	2.6343857E-01
99	5.3458593E-05	-3.1656330E-05	2.1802263E-05
100	-2.7096075E-03	-1.7952978E-04	-2.8891373E-03
101	2.3947979E-07	-1.8961060E-04	-1.8937112E-04
102	-1.3429912E-01	-2.3224557E-02	-1.5752367E-01
103	-1.3326872E-01	-1.0865562E-02	-1.4413429E-01
104	-1.3707144E-01	-2.5737626E-02	-1.6280906E-01
105	-1.3422153E-01	-9.8541600E-03	-1.4407569E-01
106	1.2898199E-01	1.6123192E-02	1.4510518E-01
107	1.3519562E-01	2.1896164E-02	1.5709178E-01
108	1.3182882E-01	2.5471496E-02	1.5730031E-01
109	1.2890546E-01	1.9916887E-02	1.4882235E-01
110	1.6931814E-02	8.8935978E-05	1.7020750E-02
111	-7.6344081E-03	2.3969933E-03	-5.2374147E-03
112	8.2648231E-02	1.4433417E-02	9.7081648E-02
113	1.5266427E-01	2.4266476E-02	1.7693074E-01
114	2.1428606E-02	8.4773301E-03	2.9905936E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	SPC-1R SYMMETRIC	SPC-1R ANTI-SYM	S + AS
96	-3.2096547E-02	7.4832662E-03	-2.4613281E-02
97	-1.3336539E-03	3.0167627E-03	1.6831088E-03
98	2.3359730E-01	-7.1857059E-02	1.6174024E-01
99	5.3458593E-05	9.4013622E-04	9.9359481E-04
100	-2.7096075E-03	4.3306226E-04	-2.2765453E-03
101	2.3947979E-07	3.1986787E-04	3.2010734E-04
102	-1.3429912E-01	1.5578422E-02	-1.1872070E-01
103	-1.3326872E-01	4.3334297E-02	-8.9934428E-02
104	-1.3707144E-01	3.6112227E-02	-1.0095921E-01
105	-1.3422153E-01	6.3329409E-02	-7.0892119E-02
106	1.2898199E-01	-3.2220258E-02	9.6761730E-02
107	1.3519562E-01	-4.9625250E-02	8.5570369E-02
108	1.3182882E-01	-5.3255316E-02	7.8573502E-02
109	1.2890546E-01	-6.1212529E-02	6.7692936E-02
110	1.6931814E-02	-6.7705503E-03	1.0161263E-02
111	-7.6344081E-03	1.4784735E-03	-6.1559346E-03
112	8.2648231E-02	-3.1347375E-02	5.1300856E-02
113	1.5256427E-01	-5.9049401E-02	9.3614869E-02
114	2.1428606E-02	-5.5569807E-03	1.5871625E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL 4 SYMMETRIC	ROLL 4 ANTI-SYM	S + AS
96	2.7863916E-02	3.1614654E-03	3.1025382E-02
97	1.3646914E-03	4.5962841E-02	4.7327532E-02
98	-1.8851512E-01	-3.0128609E-02	-2.1864372E-01
99	-4.9296960E-05	-1.4221523E-02	-1.4270820E-02
100	2.6586081E-03	1.8209221E-04	2.8407003E-03
101	-9.2679349E-08	2.2354284E-04	2.2345016E-04
102	1.0862658E-01	1.7576809E-01	2.8439466E-01
103	1.0636702E-01	4.8295298E-02	1.5466232E-01
104	1.0987950E-01	-1.9402015E-02	9.0477484E-02
105	1.0859657E-01	-1.4204910E-01	-3.3452531E-02
106	-1.0336913E-01	-1.8239178E-01	-2.8576090E-01
107	-1.0753395E-01	-4.9115326E-02	-1.5664927E-01
108	-1.0429620E-01	1.4401444E-02	-8.9894753E-02
109	-1.0333979E-01	1.4166637E-01	3.8326587E-02
110	-6.9420481E-03	-1.4183427E-01	-1.4877631E-01
111	1.5252004E-02	-3.0571156E-02	-1.5319152E-02
112	-6.6506522E-02	-3.6628903E-02	-1.0313542E-01
113	-1.1877048E-01	-2.0115316E-02	-1.3888580E-01
114	-2.0045371E-02	6.7343537E-02	4.7298166E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL4R SYMMETRIC	ROLL4R ANTI-SYM	S + AS
96	2.7863916E-02	2.7193699E-03	3.0583287E-02
97	1.3646914E-03	-4.5804669E-02	-4.4439977E-02
98	-1.8851512E-01	-2.5249012E-02	-2.1376413E-01
99	-4.9296960E-05	1.4355492E-02	1.4306195E-02
100	2.6586081E-03	1.5656817E-04	2.8151762E-03
101	-9.2679349E-08	-2.0425586E-04	-2.0434854E-04
102	1.0862658E-01	-1.4939632E-01	-4.0769747E-02
103	1.0636702E-01	-1.5333756E-02	9.1033269E-02
104	1.0987950E-01	4.9853361E-02	1.5973286E-01
105	1.0859657E-01	1.7740888E-01	2.8600545E-01
106	-1.0336913E-01	1.4710900E-01	4.3739879E-02
107	-1.0753395E-01	1.2246353E-02	-9.5287592E-02
108	-1.0429620E-01	-5.1476016E-02	-1.5577221E-01
109	-1.0333979E-01	-1.8073729E-01	-2.8407707E-01
110	-6.9420481E-03	1.3203906E-01	1.2509701E-01
111	1.5252004E-02	2.7919632E-02	4.3171636E-02
112	-6.6506522E-02	1.3721968E-02	-5.2784554E-02
113	-1.1877048E-01	-2.2869436E-02	-1.4163992E-01
114	-2.0045371E-02	-6.9441100E-02	-8.9486470E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL4P SYMMETRIC	ROLL4P ANTI-SYM	S + AS
96	2.7863916E-02	-2.4494738E-02	3.3691786E-03
97	1.3646914E-03	4.7017986E-02	4.8382677E-02
98	-1.8851512E-01	2.2148814E-01	3.2973029E-02
99	-4.9296960E-05	-1.4249949E-02	-1.4299246E-02
100	2.6586081E-03	-1.4196519E-03	1.2389562E-03
101	-9.2679349E-08	2.2096058E-04	2.2086791E-04
102	1.0862658E-01	3.8892878E-05	1.0866547E-01
103	1.0636702E-01	-1.3574710E-01	-2.9380074E-02
104	1.0987950E-01	-2.1414053E-01	-1.0426103E-01
105	1.0859657E-01	-3.1861550E-01	-2.1001892E-01
106	-1.0336913E-01	-4.1522549E-02	-1.4489167E-01
107	-1.0753395E-01	1.0128368E-01	5.2502688E-03
108	-1.0429620E-01	1.6639308E-01	6.2096884E-02
109	-1.0333979E-01	2.8337586E-01	1.8003608E-01
110	-6.9420481E-03	-9.6498040E-02	-1.0344009E-01
111	1.5252004E-02	-1.9033576E-03	1.3348647E-02
112	-6.6506522E-02	4.1932073E-02	-2.4574449E-02
113	-1.1877048E-01	1.6370577E-01	4.4935287E-02
114	-2.0045371E-02	8.3374374E-02	6.3329003E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL4PR SYMMETRIC	ROL4PR ANTI-SYM	S + AS
96	2.7863916E-02	-2.4936834E-02	2.9270826E-03
97	1.3646914E-03	-4.4749522E-02	-4.3384830E-02
98	-1.8851512E-01	2.2636774E-01	3.7852628E-02
99	-4.9296960E-05	1.4327065E-02	1.4277768E-02
100	2.6586081E-03	-1.4451760E-03	1.2134321E-03
101	-9.2679349E-08	-2.0683812E-04	-2.0693080E-04
102	1.0862658E-01	-3.2512552E-01	-2.1649894E-01
103	1.0636702E-01	-1.9937615E-01	-9.3009123E-02
104	1.0987950E-01	-1.4488515E-01	-3.5005652E-02
105	1.0859657E-01	8.4248724E-04	1.0943906E-01
106	-1.0336913E-01	2.8797823E-01	1.8460911E-01
107	-1.0753395E-01	1.6264536E-01	5.5111412E-02
108	-1.0429620E-01	1.0051562E-01	-3.7805773E-03
109	-1.0333979E-01	-3.9027795E-02	-1.4236758E-01
110	-6.9420481E-03	1.7737528E-01	1.7043323E-01
111	1.5252004E-02	5.6587431E-02	7.1839436E-02
112	-6.6506522E-02	9.2282941E-02	2.5776421E-02
113	-1.1877048E-01	1.6095165E-01	4.2181172E-02
114	-2.0045371E-02	-5.3410263E-02	-7.3455634E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL 5 SYMMETRIC	ROLL 5 ANTI-SYM	S + AS
96	2.8281367E-02	1.2304344E-03	2.9511802E-02
97	1.8353371E-03	3.3946633E-02	3.5781970E-02
98	-9.7764139E-02	-1.4304640E-02	-1.1206878E-01
99	-5.5358882E-05	2.3064789E-03	2.2511201E-03
100	3.1889358E-03	7.0942053E-05	3.2598778E-03
101	1.5884100E-07	1.1631183E-03	1.1632771E-03
102	6.0719744E-02	-3.0551396E-02	3.0168348E-02
103	5.3116930E-02	1.7278670E-03	5.4844797E-02
104	5.6846372E-02	1.5103882E-02	7.1950254E-02
105	6.0771284E-02	4.6237845E-02	1.0700913E-01
106	-5.3779658E-02	2.8955628E-02	-2.4824030E-02
107	-5.1948245E-02	-3.0617646E-03	-5.5010009E-02
108	-4.8008199E-02	-1.6613360E-02	-6.4621559E-02
109	-5.3830487E-02	-4.8541771E-02	-1.0237226E-01
110	2.4510430E-02	1.3495959E-02	3.8006389E-02
111	4.6703573E-02	-3.4129764E-03	4.3290597E-02
112	-3.5338851E-02	1.1104485E-03	-3.4228402E-02
113	-4.6045225E-02	-1.0857897E-02	-5.6903121E-02
114	-2.2559175E-02	6.7983905E-03	-1.5760785E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL5R SYMMETRIC	ROLL5R ANTI-SYM	S + AS
96	2.8281367E-02	1.3552872E-03	2.9636654E-02
97	1.8353371E-03	-3.3918720E-02	-3.2083383E-02
98	-9.7764139E-02	-1.0038166E-02	-1.0780231E-01
99	-5.5358882E-05	-2.2648822E-03	-2.3202411E-03
100	3.1889358E-03	7.7963325E-05	3.2668991E-03
101	1.5884100E-07	-1.1571136E-03	-1.1569547E-03
102	6.0719744E-02	4.2715975E-02	1.0343572E-01
103	5.3116930E-02	1.2586686E-02	6.5703616E-02
104	5.6846372E-02	-1.4692348E-03	5.5377138E-02
105	6.0771284E-02	-3.1275911E-02	2.9495373E-02
106	-5.3779658E-02	-4.4705555E-02	-9.8485214E-02
107	-5.1948245E-02	-1.3160206E-02	-6.5108451E-02
108	-4.8008199E-02	2.9467825E-04	-4.7713521E-02
109	-5.3830487E-02	3.1610098E-02	-2.2220389E-02
110	2.4510430E-02	-1.7820425E-02	6.6900048E-03
111	4.6703573E-02	2.1270873E-03	4.8830660E-02
112	-3.5338851E-02	-1.1203571E-02	-4.6542422E-02
113	-4.6045225E-02	-7.9989588E-03	-5.4044183E-02
114	-2.2559175E-02	-7.8113235E-03	-3.0370499E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLL5P SYMMETRIC	ROLL5P ANTI-SYM	S + AS
96	2.8281367E-02	-2.6425769E-02	1.8555983E-03
97	1.8353371E-03	3.5001777E-02	3.6837114E-02
98	-9.7764139E-02	2.3731211E-01	1.3954797E-01
99	-5.5358882E-05	2.2780524E-03	2.2226935E-03
100	3.1889358E-03	-1.5308021E-03	1.6581337E-03
101	1.5884100E-07	1.1605360E-03	1.1606948E-03
102	6.0719744E-02	-2.0628059E-01	-1.4556084E-01
103	5.3116930E-02	-1.8231453E-01	-1.2919760E-01
104	5.6846372E-02	-1.7963463E-01	-1.2278825E-01
105	6.0771284E-02	-1.3032855E-01	-6.9557263E-02
106	-5.3779658E-02	1.6982486E-01	1.1604520E-01
107	-5.1948245E-02	1.4733724E-01	9.5388994E-02
108	-4.8008199E-02	1.3537827E-01	8.7370074E-02
109	-5.3830487E-02	9.3167726E-02	3.9337240E-02
110	2.4510430E-02	5.8832185E-02	8.3342614E-02
111	4.6703573E-02	2.5254823E-02	7.1958395E-02
112	-3.5338851E-02	7.9671422E-02	4.4332570E-02
113	-4.6045225E-02	1.7296319E-01	1.2691796E-01
114	-2.2559175E-02	2.2829229E-02	2.7005374E-04

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL5PR SYMMETRIC	ROL5PR ANTI-SYM	S + AS
96	2.8281367E-02	-2.6300916E-02	1.9804512E-03
97	1.8353371E-03	-3.2863574E-02	-3.1028238E-02
98	-9.7764139E-02	2.4157858E-01	1.4381445E-01
99	-5.5358882E-05	-2.2933088E-03	-2.3486677E-03
100	3.1889358E-03	-1.5237808E-03	1.6651550E-03
101	1.5884100E-07	-1.1596958E-03	-1.1595370E-03
102	6.0719744E-02	-1.3301322E-01	-7.2293472E-02
103	5.3116930E-02	-1.7145571E-01	-1.1833878E-01
104	5.6846372E-02	-1.9620775E-01	-1.3936137E-01
105	6.0771284E-02	-2.0784231E-01	-1.4707102E-01
106	-5.3779658E-02	9.6163673E-02	4.2384015E-02
107	-5.1948245E-02	1.3723880E-01	8.5290554E-02
108	-4.8008199E-02	1.5228631E-01	1.0427811E-01
109	-5.3830487E-02	1.7331959E-01	1.1948911E-01
110	2.4510430E-02	2.7515802E-02	5.2026232E-02
111	4.6703573E-02	3.0794886E-02	7.7498459E-02
112	-3.5338851E-02	6.7357405E-02	3.2018554E-02
113	-4.6045225E-02	1.7582213E-01	1.2977690E-01
114	-2.2559175E-02	8.2195152E-03	-1.4339660E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HOV 1 SYMMETRIC	HOV 1 ANTI-SYM	S + AS
96	7.9543162E-03	-4.1473905E-03	3.8069256E-03
97	5.6145434E-04	-2.3903391E-02	-2.3341936E-02
98	-1.8090631E-02	7.8933612E-03	-1.0197270E-02
99	-1.6105144E-05	-8.7717845E-04	-8.9328361E-04
100	9.4621329E-04	-2.2896893E-04	7.1724436E-04
101	7.0097384E-08	-6.5872034E-04	-6.5865025E-04
102	1.2098648E-02	2.0172829E-03	1.4115931E-02
103	9.4266070E-03	-1.1271065E-02	-1.8444580E-03
104	1.0492057E-02	-9.1054252E-03	1.3866317E-03
105	1.2121386E-02	-1.3246589E-02	-1.1252037E-03
106	-9.9854839E-03	-3.3194768E-02	-4.3180251E-02
107	-8.8613755E-03	-1.1780746E-03	-1.0039450E-02
108	-7.6874937E-03	1.8147793E-02	1.0460299E-02
109	-1.0007883E-02	5.5760262E-02	4.5752380E-02
110	1.0065765E-02	6.0730582E-02	7.0796348E-02
111	1.6274214E-02	-6.1151203E-02	-4.4876989E-02
112	-6.7061566E-03	-8.5653328E-02	-9.2359483E-02
113	-5.4613277E-03	-5.5330455E-02	-6.0791783E-02
114	-6.5674123E-03	-6.5007480E-03	-1.3068160E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HOV 4 SYMMETRIC	HOV 4 ANTI-SYM	S + AS
96	7.9543162E-03	-3.9071788E-03	4.0471374E-03
97	5.6145434E-04	-2.6615482E-02	-2.6054028E-02
98	-1.8090631E-02	7.0333741E-03	-1.1057257E-02
99	-1.6105144E-05	2.7416081E-03	2.7255030E-03
100	9.4621329E-04	-2.1524256E-04	7.3097073E-04
101	7.0097384E-08	-2.5980663E-04	-2.5973654E-04
102	1.2098648E-02	-2.4022137E-02	-1.1923488E-02
103	9.4266070E-03	-3.0432277E-02	-2.1005670E-02
104	1.0492057E-02	1.6225512E-02	2.6717569E-02
105	1.2121386E-02	1.3835982E-02	2.5957368E-02
106	-9.9854839E-03	5.2566274E-02	4.2580790E-02
107	-8.8613755E-03	7.7930093E-03	-1.0683662E-03
108	-7.6874937E-03	5.9340577E-03	-1.7534359E-03
109	-1.0007883E-02	-3.0971352E-02	-4.0979234E-02
110	1.0065765E-02	1.0411508E-01	1.1418085E-01
111	1.6274214E-02	-5.8742107E-02	-4.2467893E-02
112	-6.7061566E-03	-7.8297225E-02	-8.5003380E-02
113	-5.4613277E-03	-5.4126109E-02	-5.9587438E-02
114	-6.5674123E-03	-4.4923056E-02	-5.1490468E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HOV 1R SYMMETRIC	HOV 1R ANTI-SYM	S + AS
96	7.9543162E-03	-4.1354992E-03	3.8188170E-03
97	5.6145434E-04	4.4126868E-02	4.4688323E-02
98	-1.8090631E-02	7.8879706E-03	-1.0202661E-02
99	-1.6105144E-05	-3.3127470E-03	-3.3288522E-03
100	9.4621329E-04	-2.2828929E-04	7.1792399E-04
101	7.0097384E-08	6.9379641E-05	6.9449737E-05
102	1.2098648E-02	2.1101585E-02	3.3200234E-02
103	9.4266070E-03	-5.9167016E-03	3.5099054E-03
104	1.0492057E-02	-1.5932670E-02	-5.4406127E-03
105	1.2121386E-02	-3.2279254E-02	-2.0157868E-02
106	-9.9854839E-03	-5.3998579E-02	-6.3984062E-02
107	-8.8613755E-03	-5.9492327E-03	-1.4810608E-02
108	-7.6874937E-03	2.4439135E-02	1.6751642E-02
109	-1.0007883E-02	7.6516084E-02	6.6508201E-02
110	1.0065765E-02	2.2631273E-02	3.2697038E-02
111	1.6274214E-02	-7.9341356E-02	-6.3067142E-02
112	-6.7061566E-03	-9.0913602E-02	-9.7619758E-02
113	-5.4613277E-03	-5.7585177E-02	-6.3046505E-02
114	-6.5674123E-03	5.3217779E-03	-1.2456345E-03

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	HOV 4R SYMMETRIC	HOV 4R ANTI-SYM	S + AS
96	7.9543162E-03	-3.8952874E-03	4.0590288E-03
97	5.6145434E-04	4.1414776E-02	4.1976231E-02
98	-1.8090631E-02	7.0279837E-03	-1.1062648E-02
99	-1.6105144E-05	3.0603955E-04	2.8993441E-04
100	9.4621329E-04	-2.1456291E-04	7.3165038E-04
101	7.0097384E-08	4.6829336E-04	4.6836346E-04
102	1.2098648E-02	-4.9378322E-03	7.1608161E-03
103	9.4266070E-03	-2.5077912E-02	-1.5651305E-02
104	1.0492057E-02	9.3982675E-03	1.9890325E-02
105	1.2121386E-02	-5.1966859E-03	6.9246997E-03
106	-9.9854839E-03	3.1762465E-02	2.1776981E-02
107	-8.8613755E-03	3.0218512E-03	-5.8395243E-03
108	-7.6874937E-03	1.2225401E-02	4.5379069E-03
109	-1.0007883E-02	-1.0215531E-02	-2.0223414E-02
110	1.0065765E-02	6.6015769E-02	7.6081533E-02
111	1.6274214E-02	-7.6932260E-02	-6.0658046E-02
112	-6.7061566E-03	-8.3557500E-02	-9.0263655E-02
113	-5.4613277E-03	-5.6380832E-02	-6.1842160E-02
114	-6.5674123E-03	-3.3100531E-02	-3.9667943E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	TRAN 1 SYMMETRIC	TRAN 1 ANTI-SYM	S + AS
96	1.1507060E-03	-3.0231413E-03	-1.8724353E-03
97	4.0795318E-04	-2.3224503E-02	-2.2816550E-02
98	6.5294760E-02	-2.5858339E-03	6.2708926E-02
99	-6.1932496E-06	1.5856490E-03	1.5794557E-03
100	4.9285933E-04	-1.6413050E-04	3.2872883E-04
101	1.9368806E-07	-4.9428928E-04	-4.9409559E-04
102	-3.4199017E-02	-1.8413969E-02	-5.2612987E-02
103	-3.8438847E-02	-1.2966480E-02	-5.1405327E-02
104	-3.8165443E-02	6.2688300E-03	-3.1896612E-02
105	-3.4136222E-02	1.8800195E-02	-1.5336026E-02
106	3.5668718E-02	-2.1032030E-03	3.3565515E-02
107	4.0228360E-02	-2.8047953E-03	3.7423564E-02
108	4.0872662E-02	4.3441765E-03	4.5216839E-02
109	3.5606976E-02	1.0829767E-02	4.6436743E-02
110	2.4358133E-02	8.2540519E-02	1.0689865E-01
111	2.5014300E-02	-5.9213568E-02	-3.4199268E-02
112	2.2372777E-02	-8.5614147E-02	-6.3241371E-02
113	5.3281355E-02	-6.3785843E-02	-1.0504488E-02
114	-2.5565005E-03	-2.1750903E-02	-2.4307404E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	TRAN 2 SYMMETRIC	TRAN 2 ANTI-SYM	S + AS
96	1.1507060E-03	9.3014981E-04	2.0808558E-03
97	4.0795318E-04	-2.3394547E-02	-2.2986594E-02
98	6.5294760E-02	-4.0699937E-02	2.4594823E-02
99	-6.1932496E-06	1.5897172E-03	1.5835239E-03
100	4.9285933E-04	6.5154556E-05	5.5801389E-04
101	1.9368806E-07	-4.9391269E-04	-4.9371901E-04
102	-3.4199017E-07	2.4967613E-03	-3.1702256E-02
103	-3.8438847E-02	8.3618238E-03	-3.0077023E-02
104	-3.8165443E-02	2.8259056E-02	-9.9063869E-03
105	-3.4136222E-02	3.9838741E-02	5.7025188E-03
106	3.5668718E-02	-2.6314494E-02	9.3542238E-03
107	4.0228360E-02	-3.0584307E-02	9.6440524E-03
108	4.0872662E-02	-2.4040317E-02	1.6832345E-02
109	3.5606976E-02	-1.3501143E-02	2.2105833E-02
110	2.4358133E-02	7.5216429E-02	9.9574561E-02
111	2.5014300E-02	-6.1156576E-02	-3.6142276E-02
112	2.2372777E-02	-1.0361362E-01	-8.1240845E-02
113	5.3281355E-02	-9.5266834E-02	-4.1985480E-02
114	-2.5565005E-03	-2.3628757E-02	-2.6185257E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	TRANIR SYMMETRIC	TRANIR ANTI-SYM	S + AS
96	1.1507060E-03	-2.9803120E-03	-1.8301060E-03
97	4.0795318E-04	4.2325799E-02	4.2733752E-02
98	6.5294760E-02	-2.6543047E-03	6.2640455E-02
99	-6.1932496E-06	-4.3656208E-03	-4.3718141E-03
100	4.9285933E-04	-1.6171163E-04	3.3114770E-04
101	1.9368806E-07	6.0425518E-05	6.0619206E-05
102	-3.4199017E-02	4.2837388E-02	8.6383708E-03
103	-3.8438847E-02	7.0301816E-05	-3.8368545E-02
104	-3.8165443E-02	-9.4080380E-03	-4.7573481E-02
105	-3.4136222E-02	-4.2267358E-02	-7.6403580E-02
106	3.5668718E-02	-6.5390774E-02	-2.9722056E-02
107	4.0228360E-02	-1.4967475E-02	2.5260885E-02
108	4.0872662E-02	1.9211287E-02	6.0083949E-02
109	3.5606976E-02	7.3946427E-02	1.0955340E-01
110	2.4358133E-02	1.3932289E-02	3.8290422E-02
111	2.5014300E-02	-8.1598769E-02	-5.6584469E-02
112	2.2372777E-02	-9.7005308E-02	-7.4632531E-02
113	5.3281355E-02	-6.4894501E-02	-1.1613146E-02
114	-2.5565005E-03	4.5749037E-03	2.0184032E-03

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	TRAN2R SYMMETRIC	TRAN2R ANTI-SYM	S + AS
96	1.1507060E-03	9.7247888E-04	2.1231848E-03
97	4.0795318E-04	4.2155756E-02	4.2563709E-02
98	6.5294760E-02	-4.0768408E-02	2.4526352E-02
99	-6.1932496E-06	-4.3615526E-03	-4.3677459E-03
100	4.9285933E-04	6.7573419E-05	5.6043275E-04
101	1.9368806E-07	6.0802103E-05	6.0995791E-05
102	-3.4199017E-02	6.3748120E-02	2.9549102E-02
103	-3.8438847E-02	2.1398606E-02	-1.7040241E-02
104	-3.8165443E-02	1.2582189E-02	-2.5583253E-02
105	-3.4136222E-02	-2.1228814E-02	-5.5365035E-02
106	3.5668718E-02	-8.9602062E-02	-5.3933344E-02
107	4.0228360E-02	-4.2746987E-02	-2.5186273E-03
108	4.0872662E-02	-9.1732069E-03	3.1699455E-02
109	3.5606976E-02	4.9615517E-02	8.5222492E-02
110	2.4358133E-02	6.6081983E-03	3.0966332E-02
111	2.5014300E-02	-8.3541777E-02	-5.8527477E-02
112	2.2372777E-02	-1.1500478E-01	-9.2632005E-02
113	5.3281355E-02	-9.6375494E-02	-4.3094139E-02
114	-2.5565005E-03	2.6970501E-03	1.4054956E-04

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL4PEO SYMMETRIC	ROL4PEO ANTI-SYM	S + AS
96	2.7863916E-02	-1.0352118E-02	1.7511799E-02
97	1.3646914E-03	4.5414208E-02	4.6778899E-02
98	-1.8851512E-01	9.4693494E-02	-9.3821623E-02
99	-4.9296960E-05	-1.5344283E-02	-1.5393580E-02
100	2.6586081E-03	-6.0080732E-04	2.0578008E-03
101	-9.2679349E-08	9.4678427E-05	9.4585748E-05
102	1.0862658E-01	1.2043668E-01	2.2906325E-01
103	1.0636702E-01	-3.1806160E-02	7.4560865E-02
104	1.0987950E-01	-2.0045371E-02	8.9834129E-02
105	1.0859657E-01	-2.6149969E-01	-1.5290312E-01
106	-1.0336913E-01	-1.2650696E-01	-2.2987609E-01
107	-1.0753395E-01	2.0684296E-02	-8.6849649E-02
108	-1.0429620E-01	9.6210735E-02	-8.0854613E-03
109	-1.0333979E-01	2.2580021E-01	1.2246043E-01
110	-6.9420481E-03	-1.3141742E-01	-1.3835946E-01
111	1.5252004E-02	-9.6996987E-03	5.5523056E-03
112	-6.6506522E-02	-3.0064006E-03	-6.9512922E-02
113	-1.1877048E-01	6.9219585E-02	-4.9550895E-02
114	-2.0045371E-02	5.8069366E-02	3.8023995E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL4PEORH SYMMETRIC	ROL4PEORH ANTI-SYM	S + AS
96	2.7863916E-02	-1.0051423E-02	1.7812494E-02
97	1.3646914E-03	4.2241071E-02	4.3605762E-02
98	-1.8851512E-01	9.3537147E-02	-9.4977970E-02
99	-4.9296960E-05	-1.2906377E-02	-1.2955674E-02
100	2.6586081E-03	-5.8362486E-04	2.0749832E-03
101	-9.2679349E-08	3.9413112E-04	3.9403845E-04
102	1.0862658E-01	5.6788983E-02	1.6541556E-01
103	1.0636702E-01	-5.6871197E-02	4.9495827E-02
104	1.0987950E-01	-9.5884236E-02	1.3995264E-02
105	1.0859657E-01	-1.9654620E-01	-8.7949628E-02
106	-1.0336913E-01	-9.4852170E-02	-1.9822130E-01
107	-1.0753395E-01	2.8017224E-02	-7.9516721E-02
108	-1.0429620E-01	8.4334271E-02	-1.9961925E-02
109	-1.0333979E-01	1.9293055E-01	8.9590766E-02
110	-6.9420481E-03	-9.3112651E-02	-1.0005470E-01
111	1.5252004E-02	-1.3123145E-02	2.1288594E-03
112	-6.6506522E-02	2.6155488E-03	-6.3890973E-02
113	-1.1877048E-01	7.2079045E-02	-4.6691435E-02
114	-2.0045371E-02	4.2892814E-02	2.2847443E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL4PREO SYMMETRIC	ROL4PREO ANTI-SYM	S + AS
96	2.7863916E-02	-1.1723946E-02	1.6139971E-02
97	1.3646914E-03	-4.1027752E-02	-3.9663061E-02
98	-1.8851512E-01	1.0270199E-01	-8.5813125E-02
99	-4.9296960E-05	1.3011920E-02	1.2962623E-02
100	2.6586081E-03	-6.7945892E-04	1.9791492E-03
101	-9.2679349E-08	-3.7742640E-04	-3.7751908E-04
102	1.0862658E-01	-2.0614641E-01	-9.7519835E-02
103	1.0636702E-01	-9.4209658E-02	1.2157367E-02
104	1.0987950E-01	-6.8402933E-02	4.1476567E-02
105	1.0859657E-01	5.5339583E-02	1.6393615E-01
106	-1.0336913E-01	2.0043863E-01	9.7069504E-02
107	-1.0753395E-01	8.5512809E-02	-2.2021136E-02
108	-1.0429620E-01	3.0582793E-02	-7.3713403E-02
109	-1.0333979E-01	-9.0291971E-02	-1.9363176E-01
110	-6.9420481E-03	1.2865367E-01	1.2171162E-01
111	1.5252004E-02	3.9139420E-02	5.4391424E-02
112	-6.6506522E-02	5.3038491E-02	-1.3468030E-02
113	-1.1877048E-01	6.8757291E-02	-5.0013189E-02
114	-2.0045371E-02	-2.8959540E-02	-4.9004911E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL4PRFORH SYMMETRIC	ROL4PREORH ANTI-SYM	S + AS
96	2.7863916E-02	-1.1423250E-02	1.6440666E-02
97	1.3646914E-03	-4.4200890E-02	-4.2836199E-02
98	-1.8851512E-01	1.0154564E-01	-8.6969476E-02
99	-4.9296960E-05	1.5449825E-02	1.5400528E-02
100	2.6586081E-03	-6.6227646E-04	1.9963316E-03
101	-9.2679349E-08	-7.7973710E-05	-7.8066389E-05
102	1.0862658E-01	-2.6979411E-01	-1.6116753E-01
103	1.0636702E-01	-1.1927469E-01	-1.2907668E-02
104	1.0987950E-01	-3.3400857E-02	7.6478643E-02
105	1.0859657E-01	1.2029308E-01	2.2888965E-01
106	-1.0336913E-01	2.3209341E-01	1.2872429E-01
107	-1.0753395E-01	9.2845736E-02	-1.4688210E-02
108	-1.0429620E-01	1.8706327E-02	-8.5589869E-02
109	-1.0333979E-01	-1.2316164E-01	-2.2650142E-01
110	-6.9420481E-03	1.6695843E-01	1.6001638E-01
111	1.5252004E-02	3.5715974E-02	5.0967978E-02
112	-6.6506522E-02	5.8660440E-02	-7.8460816E-03
113	-1.1877048E-01	7.1616751E-02	-4.7153730E-02
114	-2.0045371E-02	-4.4136092E-02	-6.4181463E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROL5PEO SYMMETRIC	ROL5PEO ANTI-SYM	S + AS
96	2.8281367E-02	-1.1745191E-02	1.6536177E-02
97	1.8353371E-03	3.0316549E-02	3.2151886E-02
98	-9.7764139E-02	1.0870703E-01	1.0942889E-02
99	-5.5358882E-05	1.3114840E-03	1.2561251E-03
100	3.1889358E-03	-6.8121700E-04	2.5077188E-03
101	1.5884100E-07	1.0598901E-03	1.0600490E-03
102	6.0719744E-02	-8.5061934E-02	-2.4342190E-02
103	5.3116930E-02	-7.9082718E-02	-2.5965789E-02
104	5.6846372E-02	-9.2462023E-02	-3.5615652E-02
105	6.0771284E-02	-7.1697520E-02	-1.0926236E-02
106	-5.3779658E-02	8.6318927E-02	3.2539269E-02
107	-5.1948245E-02	6.4731896E-02	1.2783651E-02
108	-4.8008199E-02	6.5051556E-02	1.7043357E-02
109	-5.3830487E-02	3.1940151E-02	-2.1890336E-02
110	2.4510430E-02	3.1899010E-02	5.6409440E-02
111	4.6703573E-02	2.3043096E-02	6.9746669E-02
112	-3.5338851E-02	3.1438298E-02	-3.9005531E-03
113	-4.6045225E-02	7.7150917E-02	3.1105692E-02
114	-2.2559175E-02	-3.1265261E-02	-5.3824437E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLSPEORH SYMMETRIC	ROLSPEORH ANTI-SYM	S + AS
96	2.8281367E-02	-1.1444495E-02	1.6836872E-02
97	1.8353371E-03	2.7143411E-02	2.8978748E-02
98	-9.7764139E-02	1.0755068E-01	9.7865397E-03
99	-5.5358882E-05	3.7493899E-03	3.6940311E-03
100	3.1889358E-03	-6.6403453E-04	2.5249012E-03
101	1.5884100E-07	1.3593428E-03	1.3595016E-03
102	6.0719744E-02	-1.4870962E-01	-8.7989879E-02
103	5.3116930E-02	-1.0414775E-01	-5.1030825E-02
104	5.6846372E-02	-5.7459949E-02	-6.1357626E-04
105	6.0771284E-02	-6.7440243E-03	5.4027259E-02
106	-5.3779658E-02	1.1797372E-01	6.4194059E-02
107	-5.1948245E-02	7.2064821E-02	2.0116576E-02
108	-4.8008199E-02	5.3175089E-02	5.1668906E-03
109	-5.3830487E-02	-9.2951490E-04	-5.4760001E-02
110	2.4510430E-02	7.0203773E-02	9.4714203E-02
111	4.6703573E-02	1.9619650E-02	6.6323223E-02
112	-3.5338851E-02	3.7060246E-02	1.7213952E-03
113	-4.6045225E-02	8.0010375E-02	3.3965151E-02
114	-2.2559175E-02	-4.6441813E-02	-6.9000989E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLSPREO SYMMETRIC	ROLSPREO ANTI-SYM	S + AS
96	2.8281367E-02	-1.3625987E-02	1.4655381E-02
97	1.8353371E-03	-2.6060354E-02	-2.4225017E-02
98	-9.7764139E-02	1.1972327E-01	2.1959128E-02
99	-5.5358882E-05	-3.7362199E-03	-3.7915787E-03
100	3.1889358E-03	-7.8880422E-04	2.4001316E-03
101	1.5884100E-07	-1.3559203E-03	-1.3557615E-03
102	6.0719744E-02	-1.4854988E-02	4.5864756E-02
103	5.3116930E-02	-6.5580087E-02	-1.2463157E-02
104	5.6846372E-02	-1.2364392E-01	-6.6797543E-02
105	6.0771284E-02	-1.5486043E-01	-9.4089150E-02
106	-5.3779658E-02	7.1455865E-03	-4.6634071E-02
107	-5.1948245E-02	6.2112212E-02	1.0163967E-02
108	-4.8008199E-02	8.2497861E-02	3.4489663E-02
109	-5.3830487E-02	1.2570734E-01	7.1876851E-02
110	2.4510430E-02	-2.9192015E-02	-4.6815844E-03
111	4.6703573E-02	7.7622600E-03	5.4465833E-02
112	-3.5338851E-02	3.1407606E-02	-3.9312448E-03
113	-4.6045225E-02	8.4953856E-02	3.8908632E-02
114	-2.2559175E-02	6.1459719E-02	3.8900543E-02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	ROLSPREORH SYMMETRIC	ROLSPREORH ANTI-SYM	S + AS
96	2.8281367E-02	-1.3325291E-02	1.4956076E-02
97	1.8353371E-03	-2.9233492E-02	-2.7398155E-02
98	-9.7764139E-02	1.1856692E-01	2.0802778E-02
99	-5.5358882E-05	-1.2983139E-03	-1.3536727E-03
100	3.1889358E-03	-7.7162178E-04	2.4173140E-03
101	1.5884100E-07	-1.0564677E-03	-1.0563088E-03
102	6.0719744E-02	-7.8502679E-02	-1.7782935E-02
103	5.3116930E-02	-9.0645121E-02	-3.7528192E-02
104	5.6846372E-02	-8.8641840E-02	-3.1795468E-02
105	6.0771284E-02	-8.9906943E-02	-2.9135659E-02
106	-5.3779658E-02	3.8800376E-02	-1.4979282E-02
107	-5.1948245E-02	6.9445140E-02	1.7496895E-02
108	-4.8008199E-02	7.0621397E-02	2.2613198E-02
109	-5.3830487E-02	9.2837673E-02	3.9007187E-02
110	2.4510430E-02	9.1127497E-03	3.3623180E-02
111	4.6703573E-02	4.3388141E-03	5.1042387E-02
112	-3.5338851E-02	3.7029554E-02	1.6907030E-03
113	-4.6045225E-02	8.7813314E-02	4.1768090E-02
114	-2.2559175E-02	4.6283167E-02	2.3723992E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-1 SYMMETRIC	F-1 ANTI-SYM	S + AS
1	-1.4009871E 03	3.6726891E-04	-1.4009868E 03
2	8.3103188E 03	7.4427600E 02	9.0545948E 03
3	3.1960804E 03	2.0286834E 02	3.3989487E 03
4	1.9913572E-04	3.7667713E-04	5.7581284E-04
5	-4.3595435E-04	-1.5311712E 01	-1.5312148E 01
6	3.1983208E 03	2.4979553E 02	3.4481163E 03
7	8.3115249E 03	6.8613638E 02	8.9976612E 03
8	1.4447930E 02	-3.2181851E-04	1.4447898E 02
9	-8.9880536E 01	2.1220536E-04	-8.9880323E 01
10	0.	0.	0.
11	8.3103188E 03	7.8237401E 02	9.0926977E 03
12	2.2396399E-05	-2.2467509E 02	-2.2467507E 02
13	1.9835662E-05	-1.9898640E 02	-1.9898638E 02
14	-0.	-0.	-0.
15	6.1449918E-01	3.2588985E 01	3.3203484E 01
16	3.1957997E 03	2.2471626E 02	3.4205160E 03
17	0.	-1.6593404E 02	-1.6593404E 02
18	0.	-1.9650272E 02	-1.9650272E 02
19	0.	0.	0.
20	5.7322452E-10	-3.0103090E-07	-3.0045768E-07
21	3.1980403E 03	2.7256000E 02	3.4706003E 03
22	0.	-1.1112169E 02	-1.1112169E 02
23	0.	-5.3643391E 01	-5.3643391E 01
24	0.	-9.0811081E 01	-9.0811081E 01
25	8.3115249E 03	7.4997228E 02	9.0614970E 03
26	0.	-3.7645893E 02	-3.7645893E 02
27	0.	-3.3341571E 02	-3.3341571E 02
28	0.	0.	0.
29	9.6538324E 01	-7.5267867E 00	8.9011539E 01
30	1.0591522E 04	-2.3360235E 02	1.0357920E 04
31	7.5492973E-05	-5.0057179E 02	-5.0057172E 02
32	1.9510246E 03	-9.0888620E 02	1.0421414E 03
33	-1.3629728E 03	1.0626670E 02	-1.2567061E 03
34	1.1047777E 02	-1.0459462E 00	1.0943183E 02
35	3.1830586E 03	2.2602217E 02	3.4090807E 03
36	5.1438750E 02	6.0606909E 01	5.7499440E 02
37	3.5152007E 03	2.9193823E 02	3.8071389E 03
38	7.2247787E 02	-5.3232214E 01	6.6924567E 02
39	-8.2485447E 02	-7.1714724E 01	-8.9656918E 02
40	-6.4031894E-05	-1.4057965E 02	-1.4057971E 02
41	9.6395564E 01	-1.2564565E 01	8.3830999E 01
42	3.5386501E 03	2.1991132E 02	3.7585614E 03
43	-9.2189862E-06	-1.6726425E 02	-1.6726426E 02
44	-4.8482564E-05	6.1024150E 01	6.1024102E 01
45	0.	-2.4639561E 02	-2.4639561E 02
46	0.	0.	0.
47	1.0589256E 04	-1.6105089E 02	1.0428305E 04
48	0.	-3.6678855E 02	-3.6678855E 02
49	1.9481448E 03	-8.0844553E 02	1.1396993E 03
50	-1.3609575E 03	1.7739242E 02	-1.1835651E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-1 SYMMETRIC	F-1 ANTI-SYM	S + AS
51	-1.7680853E 03	4.5599182E-05	-1.7680852E 03
52	-8.4949200E 03	2.4622832E-04	-8.4946738E 00
53	1.4695502E-04	-4.0943725E-04	-2.6248173E-04
54	0.	-1.1304082E 01	-1.1304082E 01
55	0.	0.	0.
56	0.	-2.1424698E 02	-2.1424698E 02
57	0.	-8.3667549E 01	-8.3667549E 01
58	0.	-1.5205815E 00	-1.5205815E 00
59	0.	-8.2514622E 01	-8.2514622E 01
60	0.	-2.1294620E 02	-2.1294620E 02
61	0.	0.	0.
62	0.	0.	0.
63	1.1666013E 03	3.3341365E-06	1.1666013E 03
64	-1.6814269E 03	2.1817355E 01	-1.6596095E 03
65	-1.1271385E 04	4.8357630E 01	-1.1223027E 04
66	-1.1270351E 04	-6.5742586E 01	-1.1336093E 04
67	7.2662413E 01	-2.9960937E-05	7.2662404E 01
68	0.	-3.5046108E 01	-3.5046108E 01
69	-4.7707478E-13	-1.1528541E 02	-1.1528541E 02
70	1.1152088E 04	8.8885016E 02	1.2040938E 04
71	-8.3987012E 00	-3.7928668E 01	-4.6327369E 01
72	-1.3165499E 04	5.0829747E 01	-1.3114669E 04
73	-1.3739870E 04	-5.0829753E 01	-1.3790700E 04
74	1.3120154E 04	-5.8855504E 01	1.3061299E 04
75	8.4663728E 00	-2.4447323E-04	8.4661285E 00
76	-1.6681680E-04	4.0819029E-04	2.4137349E-04
77	5.3738264E-01	3.5571351E 01	3.6108733E 01
78	-1.1155286E 04	-8.9742689E 02	-1.2052713E 04
79	6.1641474E 01	9.2839394E 01	1.5448087E 02
80	-1.1152088E 04	-9.2465475E 02	-1.2076742E 04
81	1.9913572E-04	3.7667713E-04	5.7581284E-04
82	3.5134571E 03	2.5471052E 02	3.7681676E 03
83	-1.6836068E 03	-2.4463279E 01	-1.7080701E 03
84	1.1155286E 04	1.0132315E 03	1.2168517E 04
85	1.2062273E 02	4.8563085E 01	1.6918581E 02
86	-1.7386559E 02	-1.0347375E 02	-2.7733934E 02
87	2.3639639E 00	1.6375797E-05	2.3639803E 00
88	7.3920957E 02	1.7951013E 02	9.1871970E 02
89	-6.3596039E 02	-8.2114367E 01	-7.1807476E 02
90	-5.4829473E 02	4.4706085E 01	-5.0358815E 02
91	-1.7521719E 03	-4.4706247E 01	-1.8038782E 03
92	1.3785215E 04	5.8855504E 01	1.3844070E 04
93	-1.0378656E 02	-1.3296711E 02	-2.3675366E 02
94	-1.2425952E 03	8.1542085E 02	-4.2717437E 02
95	-1.0587689E 03	8.2057912E 02	-2.3818979E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-1P SYMMETRIC	F-1P ANTI-SYM	S + AS
1	-1.4433950E 03	3.8911773E-04	-1.4433946E 03
2	8.0691912E 03	-3.6580622E 03	4.4111289E 03
3	3.2928208E 03	-1.4329587E 03	1.8598621E 03
4	4.1794130E-04	3.6639532E-04	7.8433662E-04
5	-7.1889133E-04	-1.5306868E 01	-1.5307587E 01
6	3.2966313E 03	-1.4130407E 03	1.8835905E 03
7	8.0712423E 03	-3.7307358E 03	4.3405066E 03
8	1.5713971E 02	-5.9589554E-04	1.5713912E 02
9	-9.7756414E 01	3.6124777E-04	-9.7756054E 01
10	0.	0.	0.
11	8.0691912E 03	-3.3191763E 03	4.7500148E 03
12	2.0653407E-05	-1.9985086E 03	-1.9985085E 03
13	1.8291959E-05	-1.7700049E 03	-1.7700049E 03
14	0.	0.	0.
15	6.3338774E-01	1.6987890E 02	1.7051229E 02
16	3.2925315E 03	-1.1209676E 03	2.1715639E 03
17	0.	-1.5801503E 03	-1.5801503E 03
18	0.	-1.8712485E 03	-1.8712485E 03
19	0.	0.	0.
20	5.8827581E-10	-2.9813742E-07	-2.9754914E-07
21	3.2963421E 03	-1.1001345E 03	2.1962076E 03
22	0.	-1.5253379E 03	-1.5253379E 03
23	0.	-5.3643388E 01	-5.3643388E 01
24	0.	-1.7655569E 03	-1.7655569E 03
25	8.0712423E 03	-3.3661120E 03	4.7051303E 03
26	0.	-2.1502924E 03	-2.1502924E 03
27	0.	-1.9044342E 03	-1.9044342E 03
28	0.	0.	0.
29	2.0795120E 02	9.4712591E 01	3.0266379E 02
30	1.2983086E 04	7.1802850E 02	1.3701114E 04
31	7.1030735E-05	1.0745500E 03	1.0745501E 03
32	4.2026728E 03	3.5386545E 03	7.7413273E 03
33	-2.9359517E 03	-1.3371967E 03	-4.2731484E 03
34	2.3590817E 02	-2.2202018E 02	1.3887995E 01
35	3.3057359E 03	-6.8551493E 02	2.6202210E 03
36	5.3308337E 02	-3.5991265E 02	1.7317073E 02
37	3.6230104E 03	-1.2127078E 03	2.4103026E 03
38	7.4861484E 02	8.1201551E 02	1.5606304E 03
39	-8.5469513E 02	6.0025834E 02	-2.5443680E 02
40	-9.8782640E-05	1.6205945E 03	1.6205944E 03
41	2.0770843E 02	9.1395314E 01	2.9910374E 02
42	3.6730674E 03	-9.6232895E 02	2.7107405E 03
43	-3.9555855E-05	1.2865547E 03	1.2865547E 03
44	-8.5673217E-05	6.1024117E 01	6.1024032E 01
45	0.	1.5147786E 03	1.5147786E 03
46	0.	0.	0.
47	1.2979401E 04	8.1670134E 02	1.3796103E 04
48	0.	1.2083333E 03	1.2083333E 03
49	4.1977657E 03	3.6738681E 03	7.8716347E 03
50	-2.9325244E 03	-1.2908617E 03	-4.2228861E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-1P SYMMETRIC	F-1P ANTI-SYM	S + AS
51	-1.8362325E 04	-1.0609091E-04	-1.8362326E 03
52	-8.7709077E 00	4.6110966E-04	-8.7704486E 00
53	3.3571738E-04	2.7729909E-04	6.1301647E-04
54	0.	-2.1971283E 00	-2.1971283E 00
55	0.	0.	0.
56	0.	-1.7359888E 03	-1.7359888E 03
57	0.	1.4384186E 03	1.4384186E 03
58	0.	-1.5205994E 00	-1.5205994E 00
59	0.	-1.6042564E 03	-1.6042564E 03
60	0.	1.3091400E 03	1.3091400E 03
61	0.	0.	0.
62	0.	0.	0.
63	1.2688013E 03	3.7754071E-05	1.2688013E 03
64	-1.8294575E 03	2.2255005E 01	-1.8072025E 03
65	-1.2250154E 04	1.4380060E 02	-1.2106353E 04
66	-1.2248396E 04	1.7238687E 01	-1.2231157E 04
67	-9.8077660E 00	7.3361384E-05	-9.8076926E 00
68	0.	-6.8136945E 02	-6.8136945E 02
69	-7.3598801E-13	7.0874586E 02	7.0874586E 02
70	1.0440477E 04	-9.8397098E 02	9.4565055E 03
71	-9.1335901E 00	-4.6502968E 02	-4.7416327E 02
72	-1.5656266E 04	-1.6368752E 02	-1.5819953E 04
73	-1.6249117E 04	1.6368752E 02	-1.6085430E 04
74	1.5052962E 04	1.8953290E 02	1.5242495E 04
75	8.7414278E 00	-4.6189848E-04	8.7409660E 00
76	-3.6897401E-04	-2.6974070E-04	-6.3871471E-04
77	-7.3189631E-02	-3.0509556E 02	-3.0516874E 02
78	-1.1002415E 04	4.9979394E 03	-6.0044757E 03
79	6.3505163E 01	-6.5576734E 02	-5.9226218E 02
80	-1.0996976E 04	4.9321661E 03	-6.0648098E 03
81	4.1794130E-04	3.6639532E-04	7.8433662E-04
82	3.6200450E 03	-1.2289183E 03	2.3911267E 03
83	-1.8331650E 03	2.2532611E 00	-1.8309118E 03
84	1.0445915E 04	-8.9813491E 02	9.5477804E 03
85	1.3181998E 02	4.6330695E 02	5.9512693E 02
86	-1.8619167E 02	6.5749008E 02	4.7129841E 02
87	2.5712343E 00	6.3416409E-06	2.5712406E 00
88	7.6560656E 02	-8.6387401E 02	-9.8267448E 01
89	-6.5774655E 02	7.6568653E 02	1.0793997E 02
90	-1.8540784E 03	-4.4240926E 02	-2.2964876E 03
91	-3.1076626E 03	4.4240997E 02	-2.6652526E 03
92	1.5739421E 04	-1.8953290E 02	1.5549888E 04
93	-1.0778680E 02	4.0328304E 02	2.9549625E 02
94	-2.5782744E 03	4.7767375E 02	-2.1006007E 03
95	-2.3772971E 03	4.6233023E 02	-1.9149669E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-S SYMMETRIC	F-R ANTI-SYM	S + AS
1	-1.5316986E 03	-2.0751796E-05	-1.5316986E 03
2	8.9393263E 03	-1.9974629E 02	8.7403799E 03
3	3.4942717E 03	-4.4272117E 01	3.4499996E 03
4	2.8122812E-04	-9.3605366E-05	1.8762276E-04
5	-5.8796350E-04	9.8428235E 00	9.8422356E 00
6	3.4973414E 03	-7.3220098E 01	3.4241213E 03
7	8.9409786E 03	-1.6023874E 02	8.7807400E 03
8	1.6259632E 02	7.0970804E-05	1.6259640E 02
9	-1.0115109E 02	-5.2267685E-05	-1.0115114E 02
10	0.	0.	0.
11	8.9393263E 03	-2.0341896E 02	8.7357073E 03
12	2.4122072E-05	2.6376052E 01	2.5376676E 01
13	2.1364077E-05	2.3360525E 01	2.3360846E 01
14	-0.	-0.	-0.
15	6.7195055E-01	-1.5657359E 01	-1.4985408E 01
16	3.4939647E 03	-4.7257165E 01	3.4467576E 03
17	0.	5.2453306E 01	5.2453306E 01
18	0.	6.2116352E 01	6.2116352E 01
19	0.	0.	0.
20	6.2575707E-10	1.9371784E-07	1.9434360E-07
21	3.4970346E 03	-7.6717553E 01	3.4203171E 03
22	0.	1.7087216E 01	1.7087216E 01
23	0.	3.4515635E 01	3.4515635E 01
24	0.	-6.0049839E 00	-6.0049839E 00
25	8.9409786E 03	-1.8128972E 02	8.7596890E 03
26	0.	1.2414377E 02	1.2414377E 02
27	0.	1.0994953E 02	1.0994953E 02
28	0.	0.	0.
29	1.3761180E 02	9.3469701E-01	1.3874650E 02
30	1.2195824E 04	7.3576090E 01	1.2269400E 04
31	8.1734020E-05	1.5224563E 02	1.5224572E 02
32	2.7851624E 03	2.4905756E 02	3.0342200E 03
33	-1.9456909E 03	-1.3196491E 01	-1.9588874E 03
34	1.5708286E 02	9.5239001E 00	1.6640676E 02
35	3.4879604E 03	-6.2960703E 01	3.4247997E 03
36	5.6340780E 02	-1.8486548E 01	5.4492126E 02
37	3.8437478E 03	-7.9595514E 01	3.7641523E 03
38	7.9127833E 02	7.3389641E 00	7.9861729E 02
39	-9.0340409E 02	1.3177932E 01	-8.9022617E 02
40	-8.0337318E-05	2.2873063E 01	2.2872983E 01
41	1.3761621E 02	4.1127942E 00	1.4172901E 02
42	3.8769502E 03	-4.5700045E 01	3.8312501E 03
43	-1.8566698E-05	5.2293898E 01	5.2293880E 01
44	-6.3893299E-05	-3.9809586E 01	-3.9809650E 01
45	0.	9.1902940E 01	9.1902940E 01
46	0.	0.	0.
47	1.2192855E 04	2.4678247E 01	1.2217534E 04
48	0.	6.4971073E 01	6.4971073E 01
49	2.7812100E 03	1.8134349E 02	2.9625535E 03
50	-1.9429298E 03	-5.8066350E 01	-2.0009962E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-8 SYMMETRIC	F-8 ANTI-SYM	S + AS
51	-1.9374492E 03	-1.1289958E-05	-1.9374492E 03
52	-9.2965773E 00	-1.5523355E-04	-9.2967325E 00
53	2.1544548E-04	1.9523991E-04	4.1068539E-04
54	0.	2.6690042E 00	2.6690042E 00
55	0.	0.	0.
56	0.	7.9313339E 01	7.9313339E 01
57	0.	-4.9092894E 00	-4.9092894E 00
58	0.	1.0861186E 00	1.0861186E 00
59	0.	-5.4563706E 00	-5.4563706E 00
60	0.	7.9426666E 01	7.9426666E 01
61	0.	0.	0.
62	0.	0.	0.
63	1.3128800E 03	-7.8689116E-07	1.3128800E 03
64	-1.8924028E 03	-1.3939489E 01	-1.9063423E 03
65	-1.2682986E 04	-3.5384336E 01	-1.2718370E 04
66	-1.2681569E 04	3.1751208E 01	-1.2641817E 04
67	5.261977E 01	7.1414277E-06	5.9619804E 01
68	0.	-2.3174622E 00	-2.3174622E 00
69	-5.9855965E-13	4.3000230E 01	4.3000230E 01
70	1.2072730E 04	-1.9926046E 02	1.1873469E 04
71	-9.4515549E 00	7.7155245E 00	-1.7360304E 00
72	-1.5016359E 04	-2.2662978E 01	-1.5039022E 04
73	-1.5644476E 04	2.2662979E 01	-1.5621813E 04
74	1.4993271E 04	2.6241345E 01	1.5019513E 04
75	9.2653340E 00	1.5454064E-04	9.2654885E 00
76	-2.4097026E-04	-1.9485084E-04	-4.3582110E-04
77	4.4075137E-01	-1.1482432E 01	-1.1041681E 01
78	-1.2050611E 04	2.1839077E 02	-1.1832221E 04
79	6.7391940E 01	-2.0260423E 01	4.7131517E 01
80	-1.2046229E 04	2.3831048E 02	-1.1807919E 04
81	2.8122812E-04	-9.3605366E-05	1.8762276E-04
82	3.8413588E 03	-5.6633170E 01	3.7847257E 03
83	-1.8953847E 03	1.4604214E 01	-1.8807855E 03
84	1.2077111E 04	-2.7744079E 02	1.1799671E 04
85	1.3599879E 02	-1.3994218E 01	1.2200458E 02
86	-1.9393929E 02	2.6539101E 01	-1.6740019E 02
87	2.6604283E 00	-3.5680599E-06	2.6604247E 00
88	8.0941764E 02	-4.2178261E 01	7.6723939E 02
89	-6.9613017E 02	1.6621390E 01	-6.7950879E 02
90	-9.8276877E 02	-4.9362854E 00	-9.8770505E 02
91	-2.3084962E 03	4.9363252E 00	-2.3035599E 03
92	1.5720564E 04	-2.6241345E 01	1.5694322E 04
93	-1.1372822E 02	3.7039302E 01	-7.6688916E 01
94	-1.7459770E 03	-2.0425060E 02	-1.9502276E 03
95	-1.5386836E 03	-2.0574940E 02	-1.7444330E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-8P SYMMETRIC	F-8P ANTI-SYM	S + AS
1	-1.5719517E 03	-6.8902968E-05	-1.5719517E 03
2	8.6961712E 03	-4.6012843E 03	4.0948869E 03
3	3.5860066E 03	-1.6800792E 03	1.9059974E 03
4	4.9506403E-04	-1.0388717E-04	3.9117686E-04
5	-8.6244651E-04	9.8476666E 00	9.8468043E 00
6	3.5906894E 03	-1.7360563E 03	1.8546330E 03
7	8.6986434E 03	-4.5771107E 03	4.1215328E 03
8	1.7472151E 02	-1.7410625E-04	1.7472132E 02
9	-1.0869401E 02	9.6773734E-05	-1.0869391E 02
10	0.	0.	0.
11	8.6961712E 03	-4.3049692E 03	4.3912020E 03
12	2.2375908E-05	-1.7474568E 03	-1.7474568E 03
13	1.7817514E-05	-1.5476577E 03	-1.5476577E 03
14	-0.	-0.	-0.
15	6.5988556E-01	1.2163256E 02	1.2232244E 02
16	3.5857813E 03	-1.3928910E 03	2.1928903E 03
17	0.	-1.3617629E 03	-1.3617629E 03
18	0.	-1.6126295E 03	-1.6126295E 03
19	0.	0.	0.
20	6.3999307E-10	1.9661131E-07	1.9725130E-07
21	3.5903744E 03	-1.4494120E 03	2.1409624E 03
22	0.	-1.3971290E 03	-1.3971290E 03
23	0.	3.4515631E 01	3.4515631E 01
24	0.	-1.6807508E 03	-1.6807508E 03
25	8.6986434E 03	-4.2973738E 03	4.4012697E 03
26	0.	-1.6496897E 03	-1.6496897E 03
27	0.	-1.4610690E 03	-1.4610690E 03
28	0.	0.	0.
29	2.4670556E 02	1.0317407E 02	3.4987963E 02
30	1.4525833E 04	1.0252069E 03	1.5551040E 04
31	7.7229972E-05	1.7273675E 03	1.7273675E 03
32	4.9858947E 03	4.6966001E 03	9.6824946E 03
33	-3.4831039E 03	-1.4566598E 03	-4.9397637E 03
34	2.7967638E 02	-2.1165033E 02	6.8026054E 01
35	3.6051612E 03	-9.7449776E 02	2.6306635E 03
36	5.8123822E 02	-4.3900610E 02	1.4223212E 02
37	3.9461104E 03	-1.5842415E 03	2.3618689E 03
38	8.1620328E 02	8.7258669E 02	1.6887900E 03
39	-9.3186102E 02	6.8515097E 02	-2.4671005E 02
40	-1.1423783E-04	1.7840472E 03	1.7840471E 03
41	2.4641294E 02	1.0807267E 02	3.5448561E 02
42	4.0053267E 03	-1.2279402E 03	2.7773885E 03
43	-4.8260040E-05	1.5061129E 03	1.5061128E 03
44	-1.0021284E-04	-3.9809626E 01	-3.9809726E 01
45	0.	1.8530771E 03	1.8530771E 03
46	0.	0.	0.
47	1.4521392E 04	1.0024305E 03	1.5523822E 04
48	0.	1.6400929E 03	1.6400929E 03
49	4.9799812E 03	4.6636569E 03	9.6436380E 03
50	-3.4789729E 03	-1.5258204E 03	-5.0047932E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	F-8P SYMMETRIC	F-8P ANTI-SYM	S + AS
51	-2.0025543E 03	-1.6298004E-04	-2.0025545E 03
52	-9.5588782E 00	5.9647765E-05	-9.5588186E 00
53	3.9995619E-04	8.8197628E-04	1.2819325E-03
54	0.	1.1775957E 01	1.1775957E 01
55	0.	0.	0.
56	0.	-1.4424284E 03	-1.4424284E 03
57	0.	1.5171769E 03	1.5171769E 03
58	0.	1.0861008E 00	1.0861008E 00
59	0.	-1.5271982E 03	-1.5271982E 03
60	0.	1.6015128E 03	1.6015128E 03
61	0.	0.	0.
62	0.	0.	0.
63	1.4107589E 03	3.3633045E-05	1.4107589E 03
64	-2.0341939E 03	-1.3501838E 01	-2.0476958E 03
65	-1.3670142E 04	6.0058632E 01	-1.3560084E 04
66	-1.3618023E 04	1.2273319E 02	-1.3495290E 04
67	-2.1437521E 01	1.1046381E-04	-2.1437410E 01
68	0.	-6.4864083E 02	-6.4864083E 02
69	-8.5113816E-13	8.6703148E 02	8.6703148E 02
70	1.1355220E 04	-2.0720816E 03	1.2831388E 03
71	-1.0155353E 01	-4.1938549E 02	-4.2954084E 02
72	-1.7441142E 04	-2.3718025E 02	-1.7678373E 04
73	-1.8086843E 04	2.3718024E 02	-1.7849662E 04
74	1.6860667E 04	2.7462976E 02	1.7135297E 04
75	9.5267465E 00	-6.2884580E-05	9.5265837E 00
76	-4.3856589E-04	-8.7278186E-04	-1.3113477E-03
77	-1.5935880E-01	-3.5214933E 02	-3.5210869E 02
78	-1.1891275E 04	6.1137570E 03	-5.7775183E 03
79	6.9160872E 01	-7.6886714E 02	-6.9970627E 02
80	-1.1884720E 04	6.0951312E 03	-5.7895885E 03
81	4.9506403E-04	-1.0388717E-04	3.9117686E-04
82	3.9425361E 03	-1.5402619E 03	2.4022742E 03
83	-2.0386627E 03	4.1320751E 01	-1.9973420E 03
84	1.1361775E 04	-2.1888071E 03	4.1729683E 03
85	1.4673161E 02	4.0074765E 02	5.4748127E 02
86	-2.0573725E 02	7.8750292E 02	5.8176567E 02
87	2.8589388E 00	-1.3602216E-05	2.8589253E 00
88	8.3458713E 02	-1.0855623E 03	-2.5097522E 02
89	-7.1687789E 02	8.6442226E 02	1.4754437E 02
90	-2.2595457E 03	-4.9205163E 02	-2.7515973E 03
91	-3.6259805E 03	4.9205254E 02	-3.1339280E 03
92	1.7608319E 04	-2.7462976E 02	1.7333689E 04
93	-1.1754989E 02	5.7328744E 02	4.5573955E 02
94	-3.0512967E 03	-5.4199771E 02	-3.5932944E 03
95	-2.8275625E 03	-5.6399831E 02	-5.3915608E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HSC-1 SYMMETRIC	HSC-1 ANTI-SYM	S + AS
1	-1.5676680E 03	-0.	-1.5676680E 03
2	9.3184211E 03	0.	9.3184211E 03
3	3.5763313E 03	-0.	3.5763313E 03
4	1.9221009E-04	-0.	1.9221009E-04
5	1.7247576E-03	0.	1.7247576E-03
6	3.5664780E 03	0.	3.5664780E 03
7	9.3131194E 03	-0.	9.3131194E 03
8	1.0591744E 02	0.	1.0591744E 02
9	-6.5891190E 01	-0.	-6.5891190E 01
10	0.	0.	0.
11	9.3916845E 03	-0.	9.3916845E 03
12	-4.3205487E 02	0.	-4.3205487E 02
13	-3.8265498E 02	-0.	-3.8265498E 02
14	-0.	-0.	-0.
15	3.3065698E 01	-0.	3.3065698E 01
16	3.6442570E 03	0.	3.6442570E 03
17	-3.3277510E 02	0.	-3.3277510E 02
18	-3.9407955E 02	0.	-3.9407955E 02
19	0.	0.	0.
20	1.4008942E-09	-0.	1.4008942E-09
21	3.6344032E 03	0.	3.6344032E 03
22	-3.3277510E 02	0.	-3.3277510E 02
23	0.	0.	0.
24	-3.9407956E 02	0.	-3.9407956E 02
25	9.3863827E 03	0.	9.3863827E 03
26	-4.3205488E 02	0.	-4.3205488E 02
27	-3.8265499E 02	0.	-3.8265499E 02
28	0.	0.	0.
29	1.1534076E 02	-0.	1.1534076E 02
30	1.2537191E 04	-0.	1.2537191E 04
31	2.5084834E 02	0.	2.5084834E 02
32	2.7102614E 03	-0.	2.7102614E 03
33	-1.6284343E 03	0.	-1.6284343E 03
34	6.9885397E 01	0.	6.9885397E 01
35	3.7080103E 03	0.	3.7080103E 03
36	5.3307961E 02	0.	5.3307961E 02
37	3.9968305E 03	0.	3.9968305E 03
38	1.0208887E 03	0.	1.0208887E 03
39	-8.5596876E 02	-0.	-8.5596876E 02
40	3.2848442E 02	-0.	3.2848442E 02
41	1.1596836E 02	0.	1.1596836E 02
42	4.0861947E 03	0.	4.0861947E 03
43	2.7115828E 02	-0.	2.7115828E 02
44	-4.7625408E-05	-0.	-4.7625408E-05
45	3.2848448E 02	0.	3.2848448E 02
46	0.	0.	0.
47	1.2546720E 04	0.	1.2546720E 04
48	2.5084830E 02	0.	2.5084830E 02
49	2.7229456E 03	0.	2.7229456E 03
50	-1.6372954E 03	-0.	-1.6372954E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HSC-1 SYMMETRIC	HSC-1 ANTI-SYM	S + AS
51	-2.0596879E 03	0.	-2.0596879E 03
52	-9.7539035E 00	0.	-9.7539035E 00
53	1.5149191E-04	-0.	1.5149191E-04
54	-9.9416280E-01	0.	-9.9416280E-01
55	0.	0.	0.
56	-3.5807662E 02	0.	-3.5807662E 02
57	2.8389111E 02	0.	2.8389111E 02
58	-4.3511391E-06	0.	-4.3511391E-06
59	-3.5807662E 02	0.	-3.5807662E 02
60	2.8389111E 02	0.	2.8389111E 02
61	0.	0.	0.
62	0.	0.	0.
63	8.5522763E 02	-0.	8.5522763E 02
64	-1.1034278E 03	-0.	-1.1034278E 03
65	-7.3327467E 03	0.	-7.3327467E 03
66	-7.3372920E 03	-0.	-7.3372920E 03
67	-1.5107649E 02	0.	-1.5107649E 02
68	-1.5208446E 02	0.	-1.5208446E 02
69	1.5369375E 02	-0.	1.5369375E 02
70	6.5347877E 03	0.	6.5347877E 03
71	-6.1569306E 00	-0.	-6.1569306E 00
72	-1.5535669E 04	0.	-1.5535669E 04
73	-1.6150508E 04	-0.	-1.6150508E 04
74	8.6736305E 03	-0.	8.6736305E 03
75	9.7211237E 00	-0.	9.7211237E 00
76	-1.7098466E-04	0.	-1.7098466E-04
77	-1.1182450E 00	-0.	-1.1182450E 00
78	-1.2484226E 04	-0.	-1.2484226E 04
79	6.8975552E 01	-0.	6.8975552E 01
80	-1.2498287E 04	0.	-1.2498287E 04
81	1.9221009E-04	-0.	1.9221009E-04
82	4.0044977E 03	0.	4.0044977E 03
83	-1.0938410E 03	0.	-1.0938410E 03
84	6.5207260E 03	-0.	6.5207260E 03
85	8.3168694E 01	-0.	8.3168694E 01
86	-1.4598739E 02	-0.	-1.4598739E 02
87	1.7330288E 00	0.	1.7330288E 00
88	7.8518429E 02	0.	7.8518429E 02
89	-6.6316230E 02	-0.	-6.6316230E 02
90	-5.2142962E 02	0.	-5.2142962E 02
91	-1.7862913E 03	-0.	-1.7862913E 03
92	9.3855473E 03	0.	9.3855473E 03
93	-1.2090375E 02	-0.	-1.2090375E 02
94	-1.1178846E 03	0.	-1.1178846E 03
95	-9.9184772E 02	-0.	-9.9184772E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HSC-1P SYMMETRIC	HSC-1P ANTI-SYM	S + AS
1	-8.9720018E 02	-0.	-8.9720018E 02
2	4.8242217E 03	0.	4.8242217E 03
3	2.0467862E 03	-0.	2.0467862E 03
4	2.1403098E-04	-0.	2.1403098E-04
5	7.2298729E-03	0.	7.2298729E-03
6	2.0062260E 03	0.	2.0062260E 03
7	4.8023968E 03	-0.	4.8023968E 03
8	1.5398392E 02	0.	1.5398392E 02
9	-9.5793337E 01	-0.	-9.5793337E 01
10	0.	0.	0.
11	5.1982729E 03	-0.	5.1982729E 03
12	-2.2058884E 03	0.	-2.2058884E 03
13	-1.9536735E 03	-0.	-1.9536735E 03
14	-0.	-0.	-0.
15	1.7037532E 02	-0.	1.7037532E 02
16	2.4048464E 03	0.	2.4048464E 03
17	-1.7469914E 03	0.	-1.7469914E 03
18	-2.0688254E 03	0.	-2.0688254E 03
19	0.	0.	0.
20	4.3191397E-09	-0.	4.3191397E-09
21	2.3642840E 03	0.	2.3642840E 03
22	-1.7469914E 03	0.	-1.7469914E 03
23	0.	0.	0.
24	-2.0688255E 03	0.	-2.0688255E 03
25	5.1764479E 03	0.	5.1764479E 03
26	-2.2058884E 03	0.	-2.2058884E 03
27	-1.9536735E 03	0.	-1.9536735E 03
28	0.	0.	0.
29	2.1746236E 02	-0.	2.1746236E 02
30	1.3394177E 04	-0.	1.3394177E 04
31	1.8259702E 03	0.	1.8259702E 03
32	7.1554238E 03	-0.	7.1554238E 03
33	-3.0702349E 03	0.	-3.0702349E 03
34	-1.5089311E 02	0.	-1.5089311E 02
35	2.9397477E 03	0.	2.9397477E 03
36	6.9502760E 01	0.	6.9502760E 01
37	2.6055380E 03	0.	2.6055380E 03
38	1.8259486E 03	0.	1.8259486E 03
39	-1.1527919E 02	-0.	-1.1527919E 02
40	2.0896586E 03	-0.	2.0896586E 03
41	2.2004600E 02	0.	2.2004600E 02
42	3.0202517E 03	0.	3.0202517E 03
43	1.7249773E 03	-0.	1.7249773E 03
44	-9.0258582E-05	-0.	-9.0258582E-05
45	2.0896586E 03	0.	2.0896586E 03
46	0.	0.	0.
47	1.3433404E 04	0.	1.3433404E 04
48	1.8259701E 03	0.	1.8259701E 03
49	7.2076389E 03	0.	7.2076389E 03
50	-3.1067121E 03	-0.	-3.1067121E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HSC-1P SYMMETRIC	HSC-1P ANTI-SYM	S + AS
51	-1.6329592E 03	0.	-1.6329592E 03
52	-7.5197245E 00	0.	-7.5197245E 00
53	1.7723506E-04	-0.	1.7723506E-04
54	8.1127905E 00	0.	8.1127905E 00
55	0.	0.	0.
56	-1.8798184E 03	0.	-1.8798184E 03
57	1.8059773E 03	0.	1.8059773E 03
58	-2.1934509E-05	0.	-2.1934509E-05
59	-1.8798185E 03	0.	-1.8798185E 03
60	1.8059773E 03	0.	1.8059773E 03
61	0.	0.	0.
62	0.	0.	0.
63	1.2433439E 03	-0.	1.2433439E 03
64	-1.1046970E 03	-0.	-1.1046970E 03
65	-7.2365306E 03	0.	-7.2365306E 03
66	-7.2552441E 03	-0.	-7.2552441E 03
67	-4.7385607E 02	0.	-4.7385607E 02
68	-7.9840783E 02	0.	-7.9840783E 02
69	9.7772501E 02	-0.	9.7772501E 02
70	4.6646051E 03	0.	4.6646051E 03
71	-8.9511006E 00	-0.	-8.9511006E 00
72	-1.5771401E 04	0.	-1.5771401E 04
73	-1.5914776E 04	-0.	-1.5914776E 04
74	8.9465827E 03	-0.	8.9465827E 03
75	7.4944447E 00	-0.	7.4944447E 00
76	-1.8714152E-04	0.	-1.8714152E-04
77	-3.5068628E 00	-0.	-3.5068628E 00
78	-6.5862213E 03	-0.	-6.5862213E 03
79	3.9474640E 01	-0.	3.9474640E 01
80	-6.6441047E 03	0.	-6.6441047E 03
81	2.1403098E-04	-0.	2.1403098E-04
82	2.6370998E 03	0.	2.6370998E 03
83	-1.0652337E 03	0.	-1.0652337E 03
84	4.6067215E 03	-0.	4.6067215E 03
85	1.0890876E 02	-0.	1.0890876E 02
86	-1.3943245E 02	-0.	-1.3943245E 02
87	2.5195162E 00	0.	2.5195162E 00
88	2.0132790E 02	0.	2.0132790E 02
89	-1.0196637E 02	-0.	-1.0196637E 02
90	-1.0557763E 03	0.	-1.0557763E 03
91	-1.2497179E 03	-0.	-1.2497179E 03
92	9.1125951E 03	0.	9.1125951E 03
93	-9.5854673E 01	-0.	-9.5854673E 01
94	-1.4849171E 03	0.	-1.4849171E 03
95	-1.3215976E 03	-0.	-1.3215976E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-16 SYMMETRIC	L-16 ANTI-SYM	S + AS
1	-1.5107287E 03	-0.	-1.5107287E 03
2	6.1448846E 03	0.	6.1448846E 03
3	3.4464062E 03	-0.	3.4464062F 03
4	1.5409589E-03	-0.	1.5409589E-03
5	-5.2223629E-03	0.	-5.2223629E-03
6	3.4753294E 03	0.	3.4753294F 03
7	6.1604503E 03	-0.	6.1604503E 03
8	2.9431240E 02	0.	2.9431240E 02
9	-1.8309095E 02	-0.	-1.8309095E 02
10	0.	0.	0.
11	6.1318310E 03	-0.	6.1318310E 03
12	7.6981499E 01	0.	7.6981499E 01
13	6.8179649E 01	-0.	6.8179649E 01
14	-0.	-0.	-0.
15	-1.5938720E 01	-0.	-1.5938720E 01
16	3.4111034E 03	0.	3.4111034F 03
17	1.7066492E 02	0.	1.7066492F 02
18	2.0210512E 02	0.	2.0210512E 02
19	0.	0.	0.
20	1.9779986E-10	-0.	1.9779986E-10
21	3.4400283E 03	0.	3.4400283E 03
22	1.7066492E 02	0.	1.7066492E 02
23	0.	0.	0.
24	2.0210513E 02	0.	2.0210513E 02
25	6.1473965E 03	0.	6.1473965E 03
26	7.6981475E 01	0.	7.6981475F 01
27	6.8179646E 01	0.	6.8179646E 01
28	0.	0.	0.
29	7.4917908E 02	-0.	7.4917908E 02
30	2.2540074E 04	-0.	2.2540074E 04
31	-7.7338258E 02	0.	-7.7338258E 02
32	1.3971623E 04	-0.	1.3971623E 04
33	-1.0577260E 04	0.	-1.0577260E 04
34	9.4678551E 02	0.	9.4678551E 02
35	3.4263093F 03	0.	3.4263093E 03
36	6.5438940E 02	0.	6.5438940E 02
37	3.7769299E 03	0.	3.7769299E 03
38	4.7290449E 02	0.	4.7290449E 02
39	-1.0469151E 03	-0.	-1.0469151E 03
40	-5.3795556E 02	-0.	-5.3795556E 02
41	7.4733664E 02	0.	7.4733664E 02
42	3.8579725E 03	0.	3.8579725E 03
43	-4.4407301E 02	-0.	-4.4407301E 02
44	-2.6877133E-04	-0.	-2.6877133E-04
45	-5.3795528E 02	0.	-5.3795528E 02
46	0.	0.	0.
47	2.2512103E 04	0.	2.2512103E 04
48	-7.7338266E 02	0.	-7.7338266E 02
49	1.3934387E 04	0.	1.3934387E 04
50	-1.0551247E 04	-0.	-1.0551247E 04

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-16 SYMMETRIC	L-16 ANTI-SYM	S + AS
51	-1.9032111E 03	0.	-1.9032111E 03
52	-9.0372777E 00	0.	-9.0372777E 00
53	1.3074800E-03	-0.	1.3074800E-03
54	-1.2978985E 01	0.	-1.2978985E 01
55	0.	0.	0.
56	1.8364089E 02	0.	1.8364089E 02
57	-4.6492522E 02	0.	-4.6492522E 02
58	1.1920929E-06	0.	1.1920929E-06
59	1.8364090E 02	0.	1.8364090E 02
60	-4.6492522E 02	0.	-4.6492522E 02
61	0.	0.	0.
62	0.	0.	0.
63	2.3763010E 03	-0.	2.3763010E 03
64	-3.4917139E 03	-0.	-3.4917139E 03
65	-2.3430797E 04	0.	-2.3430797E 04
66	-2.3417452E 04	-0.	-2.3417452E 04
67	-9.8648636E 01	0.	-9.8648636E 01
68	7.7997069E 01	0.	7.7997069E 01
69	-2.5170251E 02	-0.	-2.5170251E 02
70	1.5027229E 04	0.	1.5027229E 04
71	-1.7103479E 01	-0.	-1.7103479E 01
72	-2.5310754E 04	0.	-2.5310754E 04
73	-2.5999491E 04	-0.	-2.5999491E 04
74	3.1886381E 04	-0.	3.1886381E 04
75	9.0068682E 00	-0.	9.0068682E 00
76	-1.4102185E-03	0.	-1.4102185E-03
77	-7.3217521E-01	-0.	-7.3217521E-01
78	-9.2505076E 03	-0.	-9.2505076E 03
79	6.6457183E 01	-0.	6.6457183E 01
80	-9.2092279E 03	0.	-9.2092279E 03
81	1.5409589E-03	-0.	1.5409589E-03
82	3.7544223E 03	0.	3.7544223E 03
83	-3.5198552E 03	0.	-3.5198552E 03
84	1.5068508E 04	-0.	1.5068508E 04
85	2.5685453E 02	-0.	2.5685453E 02
86	-3.0620836E 02	-0.	-3.0620836E 02
87	4.8160574E 00	0.	4.8160574E 00
88	9.0775726E 02	0.	9.0775726E 02
89	-7.9530663E 02	-0.	-7.9530663E 02
90	-8.5366019E 03	0.	-8.5366019E 03
91	-1.0055403E 04	-0.	-1.0055403E 04
92	3.2683864E 04	0.	3.2683864E 04
93	-1.1171844E 02	-0.	-1.1171844E 02
94	-8.6063858E 03	0.	-8.6063858E 03
95	-8.2134320E 03	-0.	-8.2134320E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-10 SYMMETRIC	L-10 ANTI-SYM	S + AS
1	-3.9358716E 02	3.0977769E-03	-3.9358406E 02
2	1.2119510E 01	-1.7147952E 03	-5.0284417E 02
3	8.9788159E 02	3.6683747E 03	4.5662762E 03
4	5.4330122E-04	1.9332075E-03	2.4765087E-03
5	-9.8576846E-04	-8.7577535E 02	-8.7577633E 02
6	9.0332031E 02	-2.7737991E 03	-1.8704788E 03
7	1.2148782E 03	2.8653351E 03	4.0802133E 03
8	7.6802718E 01	-3.1859839E-03	7.6799533E 01
9	-4.7778609E 01	2.0313550E-03	-4.7776578E 01
10	0.	-4.3200000E 02	-4.3200000E 02
11	1.2119510E 03	-1.4492078E 03	-2.3725683E 02
12	3.6042136E-06	1.2188497E 02	1.2188497E 02
13	3.1921192E-06	2.8275482E 02	2.8275482E 02
14	-0.	4.8668981E 02	4.8668981E 02
15	1.7355655E-01	5.2341346E 02	5.2358701E 02
16	8.9780198E 02	3.0072407E 03	3.9050427E 03
17	0.	-1.6919792E 02	-1.6919792E 02
18	0.	-2.0036788E 02	-2.0036788E 02
19	0.	-0.	0.
20	1.5368051E-10	4.3199996E 02	4.3199996E 02
21	9.0324103E 02	-2.7805520E 03	-1.8773109E 03
22	0.	3.4118411E 01	3.4118411E 01
23	0.	-2.3519518E 02	-2.3519518E 02
24	0.	2.1920769E 02	2.1920769E 02
25	1.2148782E 03	2.6645425E 03	3.8794208E 03
26	0.	-5.0399842E 02	-5.0399842E 02
27	0.	-6.2117853E 02	-6.2117853E 02
28	0.	-4.8668981E 02	-4.8668981E 02
29	2.7467808E 02	3.7826633E 02	6.5294441E 02
30	7.7026060E 03	6.8421192E 03	1.4544725E 04
31	1.5404764E-05	-3.8649904E 02	-3.8649902E 02
32	5.5512170E 03	7.0604098E 03	1.2611627E 04
33	-3.8780334E 03	-5.3405406E 03	-9.2185739E 03
34	3.0951795E 02	-4.3821576E 02	-1.2869781E 02
35	9.5505762E 02	-2.3040479E 03	-1.3489903E 03
36	1.5242720E 02	3.7066609E 02	5.2309328E 02
37	9.9204677E 02	-2.1271733E 03	-1.1351265E 03
38	2.1369840E 02	-5.4779059E 02	-3.3409220E 02
39	-2.4397998E 02	5.4638101E 02	3.0240103E 02
40	-9.7420626E-05	-8.3858396E 01	-8.3858494E 01
41	2.7433164E 02	-3.9180073E 02	-1.1746910E 02
42	1.0566364E 03	2.2562042E 03	3.3128406E 03
43	-6.7576660E-05	-1.2162621E 02	-1.2162627E 02
44	-9.7227879E-05	6.2435153E 01	6.2435057E 01
45	0.	-1.9212102E 02	-1.9212102E 02
46	0.	-0.	0.
47	7.6973467E 03	-7.0116739E 03	6.8567279E 02
48	0.	-2.4962204E 02	-2.4962204E 02
49	5.5442153E 03	-8.2956368E 03	-2.7514215E 03
50	-3.8731420E 03	5.5316252E 03	1.6584832E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-10 SYMMETRIC	L-10 ANTI-SYM	S + AS
51	-5.3051038E 02	-2.9741947E-04	-2.3051067E 02
52	-2.4572487E 00	-4.8449627E-02	-2.5056983E 00
53	4.6155337E-04	4.7633344E-02	4.8094897E-02
54	0.	-1.5019728E 01	-1.5019728E 01
55	0.	-0.	0.
56	0.	-3.7481878E 02	-3.7481878E 02
57	0.	-3.3771698E 01	-3.3771698E 01
58	0.	3.3883421E 01	3.3883421E 01
59	0.	1.9918097E 02	1.9918097E 02
60	0.	-1.6603965E 02	-1.6603965E 02
61	0.	-0.	0.
62	0.	-0.	0.
63	6.2008738E 02	-9.3342113E-05	6.2008728E 02
64	-8.9481649E 02	-6.5928031E 03	-7.4876195E 03
65	-5.9782951E 03	-4.5499867E 03	-1.0528282E 04
66	-5.9757861E 03	4.5382767E 03	-1.4375094E 03
67	-1.3009779E 02	2.0641759E-04	-1.3009758E 02
68	0.	8.4597340E 01	8.4597340E 01
69	-7.2584023E-13	-8.9891008E 01	-8.9891008E 01
70	2.2697953E 03	4.5161217E 03	6.7859170E 03
71	-4.4622780E 00	-3.4668789E 03	-3.4713411E 03
72	-8.4749120E 03	-4.9789531E 03	-1.3453865E 04
73	-8.6374300E 03	4.9789528E 03	-3.6584772E 03
74	8.7215818E 03	1.8934195E 03	1.0615001E 04
75	2.4489753E 00	4.7985900E-02	2.4969612E 00
76	-4.9636952E-04	-4.7211778E-02	-4.7708147E-02
77	-9.6347338E-01	-3.6384063E 03	-3.6393698E 03
78	-2.0180573E 03	2.1944307E 02	-1.7986143E 03
79	1.7312266E 01	1.6787779E 03	1.6960901E 03
80	-2.0102947E 03	-1.5469285E 03	-3.5572231E 03
81	5.4330122E-04	1.9332075E-03	2.4765087E-03
82	9.8781443E 02	2.3763693E 03	3.3641837E 03
83	-9.0010818E 02	6.5910196E 03	5.6909115E 03
84	2.2775574E 03	-3.2146370E 03	-9.3707964E 02
85	6.6061939E 01	-3.4243325E 03	-3.3582706E 03
86	-7.8911988E 01	1.8894337E 03	1.8105217E 03
87	1.2569063E 00	-4.0849814E-05	1.2568654E 00
88	2.1719816E 02	1.6339500E 03	1.8511482E 03
89	-1.8509374E 02	-3.5380008E 03	-3.7230945E 03
90	-3.0949294E 03	-4.9703749E 03	-8.0653043E 03
91	-3.4495189E 03	4.9703742E 03	1.5208553E 03
92	8.9097602E 03	-1.8934193E 03	7.0163409E 03
93	-3.1140947E 01	1.3554572E 03	1.3243162E 03
94	-3.3221001E 03	-4.2581216E 03	-7.5802217E 03
95	-3.2211571E 03	5.3521199E 03	2.1309628E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-10R SYMMETRIC	L-10R ANTI-SYM	S + AS
1	-3.9358716E 02	-2.0670400E-03	-3.9358702E 02
2	1.2119510E 03	2.6237257E 03	3.8357467E 03
3	8.9788159E 02	-3.3035839E 03	-2.4861023E 03
4	5.4330122E-04	-1.4930291E-03	-7.472700E-04
5	-9.8576846E-04	8.7577438E 02	8.7577341E 02
6	9.0332031E 02	3.0635776E 03	3.9668979E 03
7	1.2148782E 03	-1.9534462E 03	-7.3856793E 02
8	7.6802718E 01	2.8152375E-03	7.6805532E 01
9	-4.7778609E 01	-1.7849560E-03	-4.7780395E 01
10	0.	4.3200000E 02	4.320000E 02
11	1.2119510E 03	2.4119556E 03	3.6239465E 03
12	3.6042136E-06	-4.3900548E 02	-4.3900348E 02
13	3.1921192E-05	-5.6368580E 02	-5.6368580E 02
14	0.	-4.8668981E 02	-4.8668981E 02
15	1.7355655E-01	-5.1021395E 02	-5.1004040E 02
16	8.9780198E 02	-2.6951565E 03	-1.7973545E 03
17	0.	3.4118325E 01	3.4118325E 01
18	0.	4.0403662E 01	4.0403662E 01
19	0.	0.	0.
20	1.5368051E-10	-4.3199996E 02	-4.3199996E 02
21	9.0324103E 02	3.0980042E 03	4.0012452E 03
22	0.	-1.6919800E 02	-1.6919800E 02
23	0.	2.3519518E 02	2.3519518E 02
24	0.	-3.7917190E 02	-3.7917190E 02
25	1.2148782E 03	-1.6988664E 03	-4.8398822E 02
26	0.	1.8679990E 02	1.8679990E 02
27	0.	3.4024758E 02	3.4024758E 02
28	0.	4.8668981E 02	4.8668981E 02
29	2.7467808E 02	-3.9162974E 02	-1.1695166E 02
30	7.7026760E 03	-7.0674003E 03	6.1520575E 02
31	1.5404764E-05	-1.4642794E 02	-1.4642793E 02
32	5.5512170E 03	-8.1361704E 03	-2.5847534E 03
33	-3.8780334E 03	5.5292115E 03	1.6511782E 03
34	3.0951775E 02	4.6723767E 02	7.7675761E 02
35	9.5505762E 02	2.5650832E 03	3.5201409E 03
36	1.5242720E 02	-3.0211145E 02	-1.4968425E 02
37	9.9204677E 02	2.4752019E 03	3.4673287E 03
38	2.1369840E 02	4.5231293E 02	6.6651133E 02
39	-2.4397978E 02	-6.5503816E 02	-8.9981813E 02
40	-9.7420626E-05	-1.4733713E 02	-1.4733923E 02
41	2.7433164E 02	3.7809540E 02	6.5242704E 02
42	1.0566364E 03	-1.9518041E 03	-8.9516773E 02
43	-6.7576660E-05	-6.9223388E 01	-6.9223455E 01
44	-9.7227879E-05	-6.2435149E 01	-6.2435246E 01
45	0.	-3.9076526E 01	-3.9076526E 01
46	0.	0.	0.
47	7.6973467E 03	6.7612014E 03	1.4450548E 04
48	0.	-2.8330494E 02	-2.8330494E 02
49	5.5442153E 03	7.2129660E 03	1.2757181E 04
50	-3.8731420E 03	-5.3381270E 03	-9.2112690E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-11R SYMMETRIC	L-10R ANTI-SYM	S + AS
51	-5.3051038E 02	3.5356215E-04	-2.5001003E 02
52	-2.4572487E 00	4.8461723E-02	-2.4087875E 00
53	4.6155337E-04	-4.7853577E-02	-4.7322043E-02
54	0.	1.3082356E 00	1.3082356E 00
55	0.	0.	0.
56	0.	2.2946882E 02	2.2946882E 02
57	0.	-1.6603965E 02	-1.6603965E 02
58	0.	-3.3883423E 01	-3.3883423E 01
59	0.	-3.4453093E 02	-3.4453093E 02
60	0.	-3.3771698E 01	-3.3771698E 01
61	0.	0.	0.
62	0.	0.	0.
63	6.2008738E 02	9.6741101E-05	6.2008747E 02
64	-8.9481649E 02	6.5926319E 03	5.6988155E 03
65	-5.9782951E 03	4.5370371E 03	-1.4412580E 03
66	-5.9757861E 03	-4.5487496E 03	-1.0524536E 04
67	-1.3009779E 02	-2.4415484E-04	-1.3009780E 02
68	0.	-1.4633125E 02	-1.4633125E 02
69	-7.2584023E-13	-1.8283416E 01	-1.8283416E 01
70	2.2627953E 03	-3.3802395E 03	-1.1104442E 03
71	-4.4622780E 00	3.4255633E 03	3.4211010E 03
72	-8.4749120E 03	5.0131482E 03	-3.4617638E 03
73	-8.6374300E 03	-5.0131480E 03	-1.3650578E 04
74	8.7215818E 03	-1.9330139E 03	6.7885680E 03
75	2.4489753E 00	-4.7996144E-02	2.4009792E 00
76	-4.9636952E-04	4.7430638E-02	4.6934268E-02
77	-9.6347338E-01	3.6785116E 03	3.6775481E 03
78	-2.0180573E 03	-1.3889856E 03	-3.4070430E 03
79	1.7312266E 01	-1.5486220E 03	-1.5313097E 03
80	-2.0102947E 03	3.8504626E 02	-1.6252484E 03
81	5.4330122E-04	-1.4930291E-03	-9.4972788E-04
82	9.8781443E 02	-2.0324575E 03	-1.0446231E 03
83	-9.0010818E 02	-6.5954133E 03	-7.4955214E 03
84	2.2775574E 03	4.3581795E 03	6.6557368E 03
85	6.6061939E 01	3.4681036E 03	3.5341655E 03
86	-7.8911988E 01	-2.0220451E 03	-2.1009571E 03
87	1.2569063E 00	6.1594072E-05	1.2569678E 00
88	2.1719816E 02	-1.3981608E 03	-1.1809627E 03
89	-1.8509374E 02	3.4156715E 03	3.2305778E 03
90	-3.0949294E 03	5.0493533E 03	1.9544239E 03
91	-3.4495189E 03	-5.0493528E 03	-8.4988717E 03
92	8.9097602E 03	1.9330138E 03	1.0842774E 04
93	-3.1140947E 01	-1.5090222E 03	-1.5401632E 03
94	-3.3221001E 03	5.2130843E 03	1.8909841E 03
95	-3.2211571E 03	-4.3950830E 03	-7.6142401E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-20 SYMMETRIC	L-20 ANTI-SYM	S + AS
1	-4.0846150E 02	3.0954050E-03	-4.0845871E 02
2	1.2673004E 03	-1.6801779E 03	-4.1282756E 02
3	9.3181472E 02	3.7235053E 03	4.0555202E 03
4	5.5965234E-04	1.9286598E-03	2.4883121E-03
5	-1.0119230E-03	-8.7575550E 02	-8.7575650E 02
6	9.3739730E 02	-2.3293693E 03	-1.6919720E 03
7	1.2703049E 03	2.8310625E 03	4.1013674E 03
8	7.9135315E 01	-3.1656287E-03	7.9132150E 01
9	-4.9229708E 01	2.0222995E-03	-4.9227686E 01
10	0.	-4.3200000E 02	-4.3200000E 02
11	1.2673004E 03	-1.4145405E 03	-1.4724020E 02
12	3.7205002E-06	1.2188497E 02	1.2188497E 02
13	3.2951100E-06	2.8275482E 02	2.8275482E 02
14	-0.	4.8668981E 02	4.8668981E 02
15	1.8010383E-01	5.2340279E 02	5.2358288E 02
16	9.3173236E 02	3.0623623E 03	3.9940946E 03
17	0.	-1.6919792E 02	-1.6919792E 02
18	0.	-2.0036788E 02	-2.0036788E 02
19	0.	-0.	0.
20	1.5958308E-10	4.3199996E 02	4.3199996E 02
21	9.3731505E 02	-2.3361174E 03	-1.8988023E 03
22	0.	3.4118411E 01	3.4118411E 01
23	0.	-2.3519518E 02	-2.3519518E 02
24	0.	2.1920769E 02	2.1920769E 02
25	1.2703049E 03	2.6302699E 03	3.9005749E 03
26	0.	-5.0399842E 02	-5.0399842E 02
27	0.	-6.2117853E 02	-6.2117853E 02
28	0.	-4.8668981E 02	-4.8668981E 02
29	2.8294885E 02	3.7884948E 02	6.6179833E 02
30	7.9533941E 03	6.8905663E 03	1.4843961E 04
31	1.5891556E-05	-3.8649903E 02	-3.8649902E 02
32	5.7183686E 03	7.0721952E 03	1.2790564E 04
33	-3.9948040E 03	-5.3487737E 03	-9.3435777E 03
34	3.1884333E 02	-4.3884932E 02	-1.2000599E 02
35	9.9062192E 02	-2.3451176E 03	-1.3544957E 03
36	1.5817847E 02	3.6763506E 02	5.2574353E 02
37	1.0294808E 03	-2.1704806E 03	-1.1409998E 03
38	2.2166819E 02	-5.5348888E 02	-3.3182069E 02
39	-2.5307913E 02	5.5288676E 02	2.9980763E 02
40	-1.0035652E-04	-8.3858396E 01	-8.3858496E 01
41	2.8259326E 02	-3.9238388E 02	-1.0979063E 02
42	1.0960336E 03	2.2988916E 03	3.3949253E 03
43	-6.9631018E-05	-1.2162620E 02	-1.2162627E 02
44	-1.0015814E-04	6.2435153E 01	6.2435053E 01
45	0.	-1.9212102E 02	-1.9212102E 02
46	0.	-0.	0.
47	7.9479958E 03	-7.0597264E 03	8.8826940E 02
48	0.	-2.4962204E 02	-2.4962204E 02
49	5.7111817E 03	-8.3074222E 03	-2.5962405E 03
50	-3.9897834E 03	5.5398583E 03	1.5500749E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-20 SYMMETRIC	L-20 ANTI-SYM	S + AS
51	-5.5026543E 02	-2.8783264E-04	-5.5026571E 02
52	-2.5490931E 00	-4.8399215E-02	-2.5974923E 00
53	4.7541915E-04	4.7581613E-02	4.8057032E-02
54	0.	-1.5019728E 01	-1.5019728E 01
55	0.	-0.	0.
56	0.	-3.7481878E 02	-3.7481878E 02
57	0.	-3.3771698E 01	-3.3771698E 01
58	0.	3.3883421E 01	3.3883421E 01
59	0.	1.9918097E 02	1.9918097E 02
60	0.	-1.6603965E 02	-1.6603965E 02
61	0.	-0.	0.
62	0.	-0.	0.
63	6.3892025E 02	-9.2016308E-05	6.3892016E 02
64	-9.2200086E 02	-6.5170621E 03	-7.4390630E 03
65	-6.1597732E 03	-4.3651016E 03	-1.0524875E 04
66	-6.1571978E 03	4.3533916E 03	-1.8033063E 03
67	-1.3437635E 02	1.9247877E-04	-1.3437615E 02
68	0.	8.4597340E 01	8.4597340E 01
69	-7.4771437E-13	-8.9891008E 01	-8.9891008E 01
70	2.3398162E 03	4.2558355E 03	6.5956517E 03
71	-4.5978040E 00	-3.4221974E 03	-3.4267952E 03
72	-8.7544590E 03	-4.9941892E 03	-1.3748648E 04
73	-8.9231294E 03	4.9941890E 03	-3.9289405E 03
74	8.9851433E 03	1.7817456E 03	1.0766889E 04
75	2.5405105E 00	4.7936875E-02	2.5884474E 00
76	-5.1130126E-04	-4.7161435E-02	-4.7672736E-02
77	-9.9515722E-01	-3.5927722E 03	-3.5937674E 03
78	-2.1037833E 03	3.0311153E 02	-1.8006718E 03
79	1.7966584E 01	1.7039982E 03	1.7219648E 03
80	-2.0958155E 03	-1.6305969E 03	-3.7264125E 03
81	5.5965234E-04	1.9286598E-03	2.4883121E-03
82	1.0251366E 03	2.4191887E 03	3.4443253E 03
83	-9.2745235E 02	6.5152786E 03	5.5878463E 03
84	2.3477833E 03	-2.9543508E 03	-6.0656750E 02
85	6.8058493E 01	-3.3796510E 03	-3.3115925E 03
86	-8.1427336E 01	1.9148504E 03	1.8334231E 03
87	1.2950800E 00	-3.8503267E-05	1.2950415E 00
88	2.2532010E 02	1.6565552E 03	1.8818753E 03
89	-1.9202438E 02	-3.4904010E 03	-3.6824254E 03
90	-3.1868407E 03	-4.9821389E 03	-8.1689795E 03
91	-3.5546992E 03	4.9821382E 03	1.4274390E 03
92	9.1804452E 03	-1.7817454E 03	7.3986999E 03
93	-3.2300568E 01	1.3796182E 03	1.3473176E 03
94	-3.4221440E 03	-4.2650703E 03	-7.6872143E 03
95	-3.3181514E 03	5.3590688E 03	2.0409173E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-2CR SYMMETRIC	L-2OR ANTI-SYM	S + AS
1	-4.0846180E 02	-2.6654749E-03	-4.0846447E 02
2	1.2673004E 03	2.5891285E 03	3.8564288E 03
3	9.3181492E 02	-3.4390945E 03	-2.5072796E 03
4	5.5965234E-04	-1.4884814E-03	-9.2882907E-04
5	-1.0119230E-03	8.7575454E 02	8.7575352E 02
6	9.3739730E 02	3.1191479E 03	4.0565451E 03
7	1.2703049E 03	-1.9191736E 03	-6.4886865E 02
8	7.9135315E 01	2.7948823E-03	7.9138110E 01
9	-4.9229708E 01	-1.7759005E-03	-4.9231484E 01
10	0.	4.3200000E 02	4.3200000E 02
11	1.2673004E 03	2.3773283E 03	3.6446286E 03
12	3.7205002E-06	-4.3908348E 02	-4.3908348E 02
13	3.2951100E-06	-5.6368580E 02	-5.6368580E 02
14	-0.	-4.8668981E 02	-4.8668981E 02
15	1.8010363E-01	-5.1020328E 02	-5.1002318E 02
16	9.3173236E 02	-2.7502780E 03	-1.8185456E 03
17	0.	3.4118325E 01	3.4118325E 01
18	0.	4.0403662E 01	4.0403662E 01
19	0.	0.	0.
20	1.5958308E-10	-4.3199996E 02	-4.3199996E 02
21	9.3731505E 02	3.1535696E 03	4.0908846E 03
22	0.	-1.6919800E 02	-1.6919800E 02
23	0.	2.3519518E 02	2.3519518E 02
24	0.	-3.7917190E 02	-3.7917190E 02
25	1.2703049E 03	-1.6645938E 03	-3.9428892E 02
26	0.	1.8679990E 02	1.8679990E 02
27	0.	3.4024758E 02	3.4024758E 02
28	0.	4.8668981E 02	4.8668981E 02
29	2.8294885E 02	-3.9221289E 02	-1.0926403E 02
30	7.9533941E 03	-7.1358475E 03	8.1754663E 02
31	1.5891556E-05	-1.4642795E 02	-1.4642793E 02
32	5.7183686E 03	-8.1479558E 03	-2.4295872E 03
33	-3.9948040E 03	5.5374446E 03	1.5426406E 03
34	3.1884333E 02	4.6787323E 02	7.8671656E 02
35	9.9062192E 02	2.6061529E 03	3.5967748E 03
36	1.5810847E 02	-2.9908042E 02	-1.4097196E 02
37	1.0294808E 03	2.5185892E 03	3.5480700E 03
38	2.2166819E 02	4.5851122E 02	6.8017941E 02
39	-2.5307913E 02	-6.6234391E 02	-9.1542304E 02
40	-1.0035652E-04	-1.4733913E 02	-1.4733923E 02
41	2.8259326E 02	3.7867855E 02	6.6127180E 02
42	1.0960336E 03	-1.9944915E 03	-8.9845791E 02
43	-6.9631018E-05	-6.9223390E 01	-6.9223459E 01
44	-1.0015814E-04	-6.2435149E 01	-6.2435249E 01
45	0.	-3.9076526E 01	-3.9076526E 01
46	0.	0.	0.
47	7.9479958E 03	6.8092539E 03	1.4757250E 04
48	0.	-2.8330494E 02	-2.8330494E 02
49	5.7111817E 03	7.2247514E 03	1.2935933E 04
50	-3.9897834E 03	-5.3463601E 03	-9.3361434E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L-20R SYMMETRIC	L-20R ANTI-SYM	S + AS
51	-5.5026543E 02	3.4397531E-04	-5.5026507E 02
52	-2.5490931E 00	4.8410811E-02	-2.5006823E 00
53	4.7541915E-04	-4.7801865E-02	-4.7326447E-02
54	0.	1.3082356E 00	1.3082356E 00
55	0.	0.	0.
56	0.	2.2946882E 02	2.2946882E 02
57	0.	-1.6603965E 02	-1.6603965E 02
58	0.	-3.3883423E 01	-3.3883423E 01
59	0.	-3.4453093E 02	-3.4453093E 02
60	0.	-3.3771698E 01	-3.3771698E 01
61	0.	0.	0.
62	0.	0.	0.
63	6.3892025E 02	9.5415295E-05	6.3892035E 02
64	-9.2200086E 02	6.5178910E 03	5.5958901E 03
65	-6.1597732E 03	4.3521520E 03	-1.8076211E 03
66	-6.1571978E 03	-4.3638646E 03	-1.0521062E 04
67	-1.3437655E 01	-2.3021601E-04	-1.3437658E 02
68	0.	-1.4633125E 02	-1.4633125E 02
69	-7.4771437E-13	-1.8283416E 01	-1.8283416E 01
70	2.3398162E 03	-3.1199534E 03	-7.8013718E 02
71	-4.5978040E 00	3.3808818E 03	3.3762840E 03
72	-8.7544590E 03	5.0283844E 03	-3.7260747E 03
73	-8.9231294E 03	-5.0283841E 03	-1.3951514E 04
74	8.9851433E 03	-1.8213400E 03	7.1638033E 03
75	2.5405105E 00	-4.7947119E-02	2.4925634E 00
76	-5.1130126E-04	4.7330295E-02	4.6858994E-02
77	-9.9515722E-01	3.6328775E 03	3.6318823E 03
78	-2.1037833E 03	-1.4726541E 03	-3.5764374E 03
79	1.7966584E 01	-1.5738423E 03	-1.5558757E 03
80	-2.0958155E 03	4.6871472E 02	-1.6271008E 03
81	5.5965234E-04	-1.4884814E-03	-9.2882907E-04
82	1.0251366E 03	-2.0752569E 03	-1.0501203E 03
83	-9.2743235E 02	-6.5196723E 03	-7.4471046E 03
84	2.5477813E 03	4.0978933E 03	6.4456766E 03
85	6.8058493E 01	3.4234221E 03	3.4914806E 03
86	-8.1427336E 01	-2.0474618E 03	-2.1288891E 03
87	1.2950800E 00	5.9247525E-05	1.2951393E 00
88	2.2532010E 02	-1.4207660E 03	-1.1954459E 03
89	-1.9202438E 02	3.3680717E 03	3.1760474E 03
90	-3.1868407E 03	5.0611173E 03	1.8742766E 03
91	-3.5546992E 03	-5.0611168E 03	-8.6158159E 03
92	9.1804452E 03	1.8213399E 03	1.1001785E 04
93	-3.2300568E 01	-1.5331832E 03	-1.5654838E 03
94	-3.4221440E 03	5.2200330E 03	1.7978890E 03
95	-3.3181514E 03	-4.4000319E 03	-7.7181833E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-1 SYMMETRIC	LG-1 ANTI-SYM	S + AS
1	-1.3708096E 03	-2.0055730E-04	-1.3708097E 03
2	8.0775056E 03	-8.8453370E 02	7.1929719E 03
3	3.1272356E 03	-1.1306365E 02	3.0141719E 03
4	2.1818303E-04	-7.3849635E-05	1.4433340E-04
5	-4.6591380E-04	-5.6837276E 02	-5.6837322E 02
6	3.1296469E 03	5.7484124E 02	3.7044882E 03
7	8.0788038E 03	1.4335871E 03	9.5123909E 03
8	1.4296166E 02	2.5957067E-04	1.4296191E 02
9	-8.8936393E 01	-2.0855160E-04	-8.8936601E 01
10	0.	-2.8000000E 02	-2.8000000E 02
11	8.0775056E 03	-7.1704651E 02	7.3604591E 03
12	2.1762132E-05	1.0643818E 02	1.0643820E 02
13	1.4273915E-05	2.0756842E 02	2.0756844E 02
14	-0.	3.1544710E 02	3.1544710E 02
15	6.0130475E-01	3.3864674E 02	3.3924804E 02
16	3.1269609E 03	-5.4389274E 02	2.5830682E 03
17	0.	-1.0023498E 02	-1.0023498E 02
18	0.	-1.1870046E 02	-1.1870046E 02
19	0.	-0.	0.
20	5.6054170E-10	2.7999997E 02	2.7999997E 02
21	3.1293724E 03	5.6838319E 02	3.6977556E 03
22	0.	3.1247699E 01	3.1247699E 01
23	0.	-1.5202206E 02	-1.5202206E 02
24	0.	1.5257690E 02	1.5257690E 02
25	8.0788038E 03	1.2986137E 03	9.3774174E 03
26	0.	-2.9818193E 02	-2.9818193E 02
27	0.	-3.7738875E 02	-3.7738875E 02
28	0.	-3.1544710E 02	-3.1544710E 02
29	1.0632054E 02	-7.7797976E 01	2.8522564E 01
30	1.0589864E 04	-2.8668597E 03	7.7230037E 03
31	7.3510754E-05	-1.8601177E 02	-1.8601170E 02
32	2.1487272E 03	-1.8535050E 03	2.9522220E 02
33	-1.5010826E 03	1.0983882E 03	-4.0269449E 02
34	1.2144224E 02	7.6667019E 01	1.9810926E 02
35	3.1174029E 03	4.6253998E 02	3.5799429E 03
36	5.0368045E 02	-5.6239328E 01	4.4744112E 02
37	3.4396876E 03	4.4619784E 02	3.8858855E 03
38	7.0742154E 02	8.4521543E 01	7.9194308E 02
39	-8.0766463E 02	-1.1722140E 02	-9.2488602E 02
40	-6.6421530E-05	-2.1988138E 01	-2.1988205E 01
41	1.0616689E 02	7.2799791E 01	1.7896668E 02
42	3.4654200E 03	-4.1116066E 02	3.0542594E 03
43	-1.2163508E-05	-5.2329123E 01	-5.2329135E 01
44	-5.1427258E-05	4.0721882E 01	4.0721831E 01
45	0.	-9.2599945E 01	-9.2599945E 01
46	0.	-0.	0.
47	1.0587532E 04	2.8569075E 03	1.3444439E 04
48	0.	-9.6736994E 01	-9.6736994E 01
49	2.1456223E 03	1.3250281E 03	3.4706504E 03
50	-1.4989136E 03	-1.0278214E 03	-2.5267350E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-1 SYMMETRIC	LG-1 ANTI-SYM	S + AS
51	-1.7316161E 03	2.1141517E-05	-1.7316161E 03
52	-8.3151009E 00	5.6799563E-03	-8.3094211E 00
53	1.6392965E-04	-5.6747662E-03	-5.5108366E-03
54	0.	-8.1640182E 00	-8.1640182E 00
55	0.	-0.	0.
56	0.	-2.3238249E 02	-2.3238249E 02
57	0.	6.2395515E 00	6.2395515E 00
58	0.	2.1828741E 01	2.1828741E 01
59	0.	1.3863754E 02	1.3863754E 02
60	0.	-8.0029049E 01	-8.0029049E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	1.1543442E 03	-2.8017114E-06	1.1543442E 03
64	-1.6638173E 03	7.3288888E 02	-9.3092846E 02
65	-1.1152290E 04	-5.4406158E 03	-1.6592905E 04
66	-1.1151177E 04	5.4362903E 03	-5.7148864E 03
67	6.3538450E 01	-7.7652423E-05	6.3538373E 01
68	0.	5.8882971E 01	5.8882971E 01
69	-4.9487895E-13	-4.3326349E 01	-4.3326349E 01
70	1.0858062E 04	6.2243404E 03	1.7082402E 04
71	-8.3103669E 00	1.0492991E 02	9.6619544E 01
72	-1.3110748E 04	2.4928270E 03	-1.0617921E 04
73	-1.3672813E 04	-2.4928267E 03	-1.6165640E 04
74	1.3066375E 04	5.4523054E 03	1.8518680E 04
75	8.2871571E 00	-5.6190466E-03	8.2815381E 00
76	-1.8476363E-04	5.6238763E-03	5.4391127E-03
77	4.6984054E-01	1.8941067E 02	1.8988051E 02
78	-1.0861504E 04	-1.5433147E 03	-1.2404819E 04
79	6.0313462E 01	-5.1741735E 01	8.5717268E 00
80	-1.0858062E 04	9.8506343E 02	-9.8729984E 03
81	2.1818303E-04	-7.3849635E-05	1.4433340E-04
82	3.4378110E 03	-4.1927585E 02	3.0185352E 03
83	-1.6661636E 03	-7.3354682E 02	-2.3997104E 03
84	1.0861504E 04	-5.6460891E 03	5.2154149E 03
85	1.1944454E 02	1.2646566E 02	2.4591020E 02
86	-1.7144772E 02	1.3934616E 02	-3.2101561E 01
87	2.3391451E 00	-1.3808642E-05	2.3391313E 00
88	7.2374049E 02	-2.8840782E 02	4.3533267E 02
89	-6.2256451E 02	1.3010624E 02	-4.9245827E 02
90	-6.7740310E 02	9.9847056E 02	3.2106746E 02
91	-1.8628838E 03	-9.9847056E 02	-2.8613544E 03
92	1.3717157E 04	-5.4523057E 03	8.2648809E 03
93	-1.0164582E 02	-2.7210908E 02	-3.7375490E 02
94	-1.3581911E 03	1.0050737E 03	-3.5311747E 02
95	-1.1761482E 03	-5.0907357E 02	-1.6852217E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-1R SYMMETRIC	LG-1R ANTI-SYM	S + AS
1	-1.3700096E 03	3.8523670E-04	-1.3708092E 03
2	8.0775056E 03	1.2402235E 03	9.3177291E 03
3	3.1272356E 03	2.2233421E 02	3.3495697E 03
4	2.1818303E-04	2.6267341E-04	4.8085644E-04
5	-4.6591380E-04	5.6847237E 02	5.6837191E 02
6	3.1296469E 02	-4.6347571E 02	2.6661682E 03
7	8.0788018E 03	-1.0767716E 03	7.0020323E 03
8	1.4296106E 02	-4.2081785E-04	1.4276124E 02
9	-8.0936373E 01	3.1546184E-04	-8.8936079E 01
10	0.	2.8000000E 02	2.8000000E 02
11	8.0775056E 03	1.0981796E 03	9.1756852E 03
12	2.1762152E-05	-2.5648477E 02	-2.5648475E 02
13	1.9273915E-05	-3.4045913E 02	-3.4045911E 02
14	0.	-3.1544710E 02	-3.1544710E 02
15	6.0130475E-01	-3.3191257E 02	-3.3131127E 02
16	3.1209609E 03	6.6729979E 02	3.7942607E 03
17	0.	3.1247644E 01	3.1247644E 01
18	0.	3.7004141E 01	3.7004141E 01
19	0.	0.	0.
20	5.0054170E-10	-2.7999997E 02	-2.7999997E 02
21	3.1295724E 03	-4.4288403E 02	2.6864884E 03
22	0.	-1.0023504E 02	-1.0023504E 02
23	0.	1.5202206E 02	1.5202206E 02
24	0.	-2.3427322E 02	-2.3427322E 02
25	8.0788038E 03	-9.1635495E 02	7.1624489E 03
26	0.	1.4813535E 02	1.4813535E 02
27	0.	2.4449806E 02	2.4449806E 02
28	0.	3.1544710E 02	3.1544710E 02
29	1.0632054E 02	7.2866421E 01	1.7918696E 02
30	1.0589864E 04	2.7690305E 03	1.3358894E 04
31	7.3510754E-05	-3.0451692E 01	-3.0451619E 01
32	2.1487272E 05	1.4265858E 03	3.5753129E 03
33	-1.5010826E 03	-1.0287621E 03	-2.5298448E 03
34	1.2144224E 02	-6.5947673E 01	5.5494568E 01
35	3.1174029E 03	-3.5762714E 02	2.7597758E 03
36	5.0368045E 02	8.2360277E 01	5.8604072E 02
37	3.4396876E 03	-3.0857437E 02	3.1311133E 03
38	7.0742154E 01	-1.1847585E 02	5.8894569E 02
39	-8.5766463E 01	7.5520001E 01	-7.3214464E 02
40	-6.6421530E-05	-6.3392144E 01	-6.3392210E 01
41	1.0616689E 02	-7.7864608E 01	2.8302282E 01
42	3.4654200E 03	5.5255938E 02	3.9979794E 03
43	-1.2163508E-05	-1.8150835E 01	-1.8150847E 01
44	-5.1427258E-05	-4.0721880E 01	-4.0721931E 01
45	0.	7.2196541E 00	7.2196541E 00
46	0.	0.	0.
47	1.0587532E 04	-2.9567598E 03	7.6307719E 03
48	0.	-1.1972647E 02	-1.1972647E 02
49	2.1456223E 03	-1.7546404E 03	3.9098186E 02
50	-1.4989136E 03	1.0993788E 03	-3.3958478E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-1R SYMMETRIC	LG-1R ANTI-SYM	S + AS
51	-1.7316161E 04	1.7629642E-06	-1.7316161E 03
52	-8.3151709E 00	-5.6732965E-03	-8.3207742E 00
53	1.6322965E-06	5.5856079E-05	5.7495375E-03
54	0.	2.3549575E 00	2.3549575E 00
55	0.	0.	0.
56	0.	1.5814991E 02	1.5814991E 02
57	0.	-8.0029049E 01	-8.0029049E 01
58	0.	-2.1828742E 01	-2.1828742E 01
59	0.	-2.1287012E 02	-2.1287012E 02
60	0.	6.2395515E 00	6.2395515E 00
61	0.	0.	0.
62	0.	0.	0.
63	1.1543442E 03	4.5292312E-06	1.1543442E 03
64	-1.0648173E 03	-7.3252940E 02	-2.3963467E 03
65	-1.1152270E 04	5.4358082E 03	-5.7164816E 03
66	-1.1151177E 04	-5.4401327E 03	-1.6591309E 04
67	6.3538450E 01	6.2264764E-05	6.3538512E 01
68	0.	-9.0411479E 01	-9.0411479E 01
69	-4.9487875E-13	3.3779855E 00	3.3779855E 00
70	1.0858062E 04	-5.7514738E 03	5.1065682E 03
71	-8.3103669E 00	-1.2598753E 02	-1.3429790E 02
72	-1.3110748E 04	-2.4798355E 03	-1.5590583E 04
73	-1.3672813E 04	2.4798352E 03	-1.1192978E 04
74	1.3066375E 04	-5.4673482E 03	7.5990263E 03
75	8.2871571E 00	5.6129467E-03	8.2927699E 00
76	-1.8476363E-04	-5.5352466E-03	-5.7200101E-03
77	4.6984054E-01	-1.7487792E 02	-1.7440808E 02
78	-1.0861504E 04	1.0874824E 03	-9.7740216E 03
79	6.0313462E 01	1.0174761E 02	1.6206107E 02
80	-1.0858062E 04	-1.4379102E 03	-1.2295972E 04
81	2.1818303E-04	2.6267341E-04	4.8085644E-04
82	3.4378110E 03	5.5527143E 02	3.9930824E 03
83	-1.0661656E 03	7.3187087E 02	-9.3429276E 02
84	1.0861504E 04	6.1219213E 03	1.6983425E 04
85	1.1944454E 02	-1.0445103E 02	1.4993510E 01
86	-1.7144772E 02	-1.9030902E 02	-3.6175674E 02
87	2.3391451E 00	2.2635593E-05	2.3391677E 00
88	7.2374049E 02	3.8143472E 02	1.1051752E 03
89	-6.2256451E 02	-1.7594648E 02	-7.9851098E 02
90	-6.7740310E 02	-9.6839887E 02	-1.6458020E 03
91	-1.8628838E 03	9.6839880E 02	-8.9448501E 02
92	1.3717187E 04	5.4673484E 03	1.9184535E 04
93	-1.0164582E 02	2.1038967E 02	1.0874385E 02
94	-1.3581911E 03	-5.9786767E 02	-1.9560588E 03
95	-1.1761482E 03	9.1786748E 02	-2.5828068E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	L6-1P SYMMETRIC	L6-1P ANTI-SYM	S + AS
1	-1.3708097E 03	-1.7870846E-04	-1.3708097E 03
2	8.0775006E 03	-5.2868717E 03	2.7906339E 03
3	3.1272356E 03	-1.7488707E 03	1.3783449E 03
4	2.1818303E-04	-8.4131434E-05	1.3405160E-04
5	-4.6591300E-04	-5.6836791E 02	-5.6836838E 02
6	3.1206469E 03	-1.0879749E 03	2.0416520E 03
7	8.0788738E 03	-2.9832850E 03	5.0955188E 03
8	1.4296166E 02	-1.4506387E-05	1.4296164E 02
9	-8.8936334E 01	-5.2510169E-05	-8.8936453E 01
10	0.	-2.8000000E 02	-2.8000000E 02
11	8.0775006E 03	-4.8185968E 03	3.2589089E 03
12	2.1762132E-05	-1.6673953E 03	-1.6673953E 03
13	1.9273915E-05	-1.3634501E 03	-1.3634501E 03
14	0.	3.1544710E 02	3.1544710E 02
15	6.0130475E-01	4.7593666E 02	4.7653796E 02
16	3.1269609E 03	-1.8895766E 03	1.2373843E 03
17	0.	-1.5144512E 03	-1.5144512E 03
18	0.	-1.7934463E 03	-1.7934463E 03
19	0.	-0.	0.
20	5.60094170E-10	2.7999997E 02	2.7999997E 02
21	3.1293724E 03	-8.0431129E 02	2.3250611E 03
22	0.	-1.3829686E 03	-1.3829686E 03
23	0.	-1.5202206E 02	-1.5202206E 02
24	0.	-1.5221690E 03	-1.5221690E 03
25	8.0788938E 03	-2.8174704E 03	5.2613334E 03
26	0.	-2.0720154E 03	-2.0720154E 03
27	0.	-1.9484073E 03	-1.9484073E 03
28	0.	-3.1544710E 02	-3.1544710E 02
29	1.0632054E 02	2.4441402E 01	1.3076194E 02
30	1.0589864E 04	-1.9152290E 03	8.6746345E 03
31	7.3510754E-05	1.3891101E 03	1.3891101E 03
32	2.1487272E 03	2.5940376E 03	4.7427647E 03
33	-1.5010876E 03	-3.4507525E 02	-1.8461579E 03
34	1.2144224E 02	-1.4430721E 02	-2.2864968E 01
35	3.1174029E 03	-4.4899709E 02	2.6684059E 03
36	5.0368045E 02	-4.7675887E 02	2.6921577E 01
37	3.4396876E 03	-1.0584482E 03	2.3812394E 03
38	7.0742154E 02	9.4976926E 02	1.6571908E 03
39	-8.0766463E 02	5.5475163E 02	-2.5291299E 02
40	-6.6421530E-05	1.7391960E 03	1.7391859E 03
41	1.0616689E 02	1.7675967E 02	2.8292655E 02
42	3.4654200E 03	-1.5934008E 03	1.8720192E 03
43	-1.2163508E-05	1.4014899E 03	1.4014899E 03
44	-5.1427258E-05	4.0721834E 01	4.0721782E 01
45	0.	1.6685742E 03	1.6685742E 03
46	0.	-0.	0.
47	1.0587532E 04	3.8346596E 03	1.4422191E 04
48	0.	1.4783849E 03	1.4783849E 03
49	2.1456223E 03	5.8073415E 03	7.9529638E 03
50	-1.4989136E 03	-2.4955754E 03	-3.9944890E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-1P SYMMETRIC	LG-1P ANTI-SYM	S + AS
51	-1.7316161E 03	-1.3054857E-04	-1.7316162E 03
52	-8.3151009E 00	5.8948376E-03	-8.3092061E 00
53	1.6392965E-04	-4.9880298E-03	-4.8241002E-03
54	0.	9.4293507E-01	9.4293507E-01
55	0.	-0.	0.
56	0.	-1.7541243E 03	-1.7541243E 03
57	0.	1.5283257E 03	1.5283257E 03
58	0.	2.1828724E 01	2.1828724E 01
59	0.	-1.3831043E 03	-1.3831043E 03
60	0.	1.4420571E 03	1.4420571E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	1.1543442E 03	3.1618225E-05	1.1543443E 03
64	-1.6638173E 03	7.3332654E 02	-9.3049079E 02
65	-1.1152270E 04	-5.3451726E 03	-1.6497462E 04
66	-1.1151177E 04	5.5192715E 03	-5.6319057E 03
67	6.3538450E 01	2.5669894E-05	6.3538475E 01
68	0.	-5.8744038E 02	-5.8744038E 02
69	-4.9487895E-13	7.8070490E 02	7.8070490E 02
70	1.0858062E 04	4.3515194E 03	1.5209581E 04
71	-8.3103669E 00	-3.2217111E 02	-3.3048148E 02
72	-1.3110748E 04	2.2783099E 03	-1.0832438E 04
73	-1.3672813E 04	-2.2783096E 03	-1.5951123E 04
74	1.3066375E 04	5.7006935E 03	1.8767068E 04
75	8.2871571E 00	-5.8364718E-03	8.2813207E 00
76	-1.8476363E-04	4.9459454E-03	4.7611818E-03
77	4.6984054E-01	-1.5125623E 02	-1.5078639E 02
78	-1.0861504E 04	4.3520516E 03	-6.5094524E 03
79	6.0313462E 01	-8.0034846E 02	-7.4003500E 02
80	-1.0858062E 04	6.8418841E 03	-4.0161777E 03
81	2.1818303E-04	-8.4131434E-05	1.3405160E-04
82	3.4378110E 03	-1.9029046E 03	1.5349064E 03
83	-1.6661636E 03	-7.0683030E 02	-2.3729939E 03
84	1.0861504E 04	-7.5574551E 03	3.3040489E 03
85	1.1944454E 02	5.4120955E 02	6.6065408E 02
86	-1.7144772E 02	9.0030997E 02	7.2886225E 02
87	2.3391451E 00	-2.3842799E-05	2.3391212E 00
88	7.2374049E 02	-1.3317919E 03	-6.0805142E 02
89	-6.2256451E 02	9.7790712E 02	3.5534262E 02
90	-6.7740310E 02	5.1135519E 02	-1.6604790E 02
91	-1.8628838E 03	-5.1135432E 02	-2.3742381E 03
92	1.3717187E 04	-5.7006938E 03	8.0164927E 03
93	-1.0164582E 02	2.6414106E 02	1.6249525E 02
94	-1.3581911E 03	6.6732659E 02	-6.9086455E 02
95	-1.1761482E 03	-8.6732246E 02	-2.0434706E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-IPR SYMMETRIC	LG-IPR ANTI-SYM	S + AS
1	-1.3708092E 03	4.0708552E-04	-1.3708092E 03
2	8.0775056E 03	-3.1621147E 03	4.9153910E 03
3	3.1272356E 03	-1.4134928E 03	1.7137427E 03
4	2.1818403E-04	2.5239162E-04	4.7057465E-04
5	-4.6591340E-04	5.6837723E 02	5.6837676E 02
6	3.1296409E 03	-2.1263150E 03	1.0033319E 03
7	8.0786008E 03	-5.4936435E 03	2.5851603E 03
8	1.4276106E 02	-6.9489690E-04	1.4296096E 02
9	-8.8936373E 01	4.6450425E-04	-8.8935928E 01
10	0.	2.8000000E 02	2.8000000E 02
11	8.0775056E 03	-3.0033706E 03	5.0741350E 03
12	2.1762152E-05	-2.0303182E 03	-2.0303182E 03
13	1.9273915E-05	-1.9114776E 03	-1.9114776E 03
14	0.	-3.1544710E 02	-3.1544710E 02
15	6.0130475E-01	-1.9462267E 02	-1.9402137E 02
16	3.1209609E 03	-6.7838405E 02	2.4485769E 03
17	0.	-1.3829686E 03	-1.3829686E 03
18	0.	-1.6377417E 03	-1.6377417E 03
19	0.	0.	0.
20	5.0054170E-10	-2.7999997E 02	-2.7999997E 02
21	3.1293724E 03	-1.8155786E 03	1.3137939E 03
22	0.	-1.5144513E 03	-1.5144513E 03
23	0.	1.5202206E 02	1.5202206E 02
24	0.	-1.9090191E 03	-1.9090191E 03
25	8.0788038E 03	-5.0324391E 03	3.0463647E 03
26	0.	-1.6256981E 03	-1.6256981E 03
27	0.	-1.3265205E 03	-1.3265205E 03
28	0.	3.1544710E 02	3.1544710E 02
29	1.0632054E 02	1.7510579E 02	2.8142633E 02
30	1.0589864E 04	3.7206614E 03	1.4310525E 04
31	7.4510754E-05	1.5446701E 03	1.5446702E 03
32	2.1487272E 03	5.8741283E 03	8.0228555E 03
33	-1.2010826E 03	-2.4722255E 03	-3.9733081E 03
34	1.2144274E 02	-7.8692190E 02	-1.6547966E 02
35	3.1174029E 03	-1.2691642E 03	1.8482387E 03
36	5.0368045E 02	-3.3815928E 02	1.6552117E 02
37	3.4396876E 03	-1.8132204E 03	1.6264672E 03
38	7.0742154E 02	7.4677186E 02	1.4541934E 03
39	-8.0766463E 02	7.4749305E 02	-6.0171585E 01
40	-6.6421530E-05	1.6977820E 03	1.6977819E 03
41	1.0616689E 02	2.6095272E 01	1.3226216E 02
42	3.4654200E 03	-6.4968084E 02	2.8157392E 03
43	-1.2163508E-05	1.4356681E 03	1.4356681E 03
44	-5.1427258E-05	-4.0721920E 01	-4.0721970E 01
45	0.	1.7683938E 03	1.7683938E 03
46	0.	0.	0.
47	1.0587532E 04	-1.9790077E 03	8.6085240E 03
48	0.	1.4553953E 03	1.4553953E 03
49	2.1456223E 03	2.7276730E 03	4.8732953E 03
50	-1.4989136E 03	-3.6842524E 02	-1.8673389E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-IPR SYMMETRIC	LG-IPR ANTI-SYM	S + AS
51	-1.7316161E 03	-1.4992713E-04	-1.7316162E 03
52	-8.3151009E 00	-5.4584153E-03	-8.3205593E 00
53	1.0392965E-04	6.2723444E-03	6.4362739E-03
54	0.	1.1461911E 01	1.1461911E 01
55	0.	0.	0.
56	0.	-1.3635919E 03	-1.3635919E 03
57	0.	1.4420571E 03	1.4420571E 03
58	0.	-2.1828761E 01	-2.1828761E 01
59	0.	-1.7346120E 03	-1.7346120E 03
60	0.	1.5283257E 03	1.5283257E 03
61	0.	0.	0.
62	0.	0.	0.
63	1.1543442E 03	3.8949165E-05	1.1543443E 03
64	-1.0638173E 03	-7.3209175E 02	-2.3959091E 03
65	-1.1152270E 04	5.5312511E 03	-5.6210387E 03
66	-1.1151177E 04	-5.3571513E 04	-1.6508328E 04
67	6.3538450E 01	1.6558708E-04	6.3538616E 01
68	0.	-7.3673484E 02	-7.3673484E 02
69	-4.7457875E-12	8.2740923E 02	8.2740923E 02
70	1.0858662E 04	-7.6243146E 03	3.2337474E 03
71	-8.3103669E 00	-5.5308856E 02	-5.6139892E 02
72	-1.3110748E 04	-2.6943527E 03	-1.5805101E 04
73	-1.3672813E 04	2.6943524E 03	-1.0978461E 04
74	1.3066375E 04	-5.2109598E 03	7.8474147E 03
75	8.2871571E 00	5.3955215E-03	8.2925525E 00
76	-1.8476363E-04	-6.2131774E-03	-6.3979410E-03
77	4.6984054E-01	-5.1554481E 02	-5.1507498E 02
78	-1.0801504E 04	6.9828486E 03	-3.8786554E 03
79	6.0313462E 01	-6.4685910E 02	-5.8654565E 02
80	-1.0858062E 04	4.4189105E 03	-6.4391512E 03
81	2.1818303E-04	2.5239162E-04	4.7057465E-04
82	3.4378110E 03	-9.2835735E 02	2.5094537E 03
83	-1.6661636E 03	7.5858743E 02	-9.0757619E 02
84	1.0861574E 04	4.2105550E 03	1.5072059E 04
85	1.1944454E 02	3.1029284E 02	4.2973738E 02
86	-1.7144772E 02	5.7065480E 02	3.9920708E 02
87	2.3371451E 00	1.2601437E-05	2.3391576E 00
88	7.2374049E 02	-1.194940E 02	6.1791092E 01
89	-6.2256451E 02	6.7185439E 02	4.9289886E 01
90	-6.7740310E 02	-1.4555141E 03	-2.1329172E 03
91	-1.8628838E 03	1.4555150E 03	-4.0736885E 02
92	1.3717187E 04	5.2189600E 03	1.8936147E 04
93	-1.0164582E 02	7.4663979E 02	6.4499398E 02
94	-1.3581911E 03	-9.3561475E 02	-2.2938059E 03
95	-1.1761482E 03	5.5961860E 02	-6.1652958E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3 SYMMETRIC	LG-3 ANTI-SYM	S + AS
1	-1.2621213E 03	-4.3889300E-04	-1.2621217E 03
2	8.1714915E 03	-1.1734353E 03	6.9980562E 03
3	2.8792917E 03	-3.1733580E 02	2.5619559E 03
4	-1.1764888E-04	-2.1397336E-04	-3.3162224E-04
5	1.0813165E-04	-8.5090647E 02	-8.5090637E 02
6	2.8785199E 03	9.5343224E 02	3.8319521E 03
7	8.1710764E 03	1.3213388E 03	9.9924152E 03
8	1.0936294E 02	5.1833193E-04	1.0986345E 02
9	-6.8345914E 01	-3.9180197E-04	-6.8346305E 01
10	0.	-4.1900000E 02	-4.1900000E 02
11	8.1714915E 03	-9.2928827E 02	7.2422032E 03
12	2.2109234E-05	1.9752430E 02	1.9752432E 02
13	1.9581330E-05	3.4448541E 02	3.4448543E 02
14	-0.	4.7204404E 02	4.7204404E 02
15	5.5305526E-01	5.0553291E 02	5.0608597E 02
16	2.8790393E 03	-9.6570640E 02	1.9133329E 03
17	0.	-1.3351602E 02	-1.3351602E 02
18	0.	-1.5811258E 02	-1.5811258E 02
19	0.	-0.	0.
20	5.2067616E-10	4.1899996E 02	4.1899996E 02
21	2.8782674E 03	9.4022982E 02	3.8184972E 03
22	0.	6.3975561E 01	6.3975561E 01
23	0.	-2.2855052E 02	-2.2855052E 02
24	0.	2.4951367E 02	2.4951367E 02
25	8.1710764E 03	1.6133213E 03	9.7843976E 03
26	0.	-4.1059046E 02	-4.1059046E 02
27	0.	-5.3319020E 02	-5.3319020E 02
28	0.	-4.7204404E 02	-4.7204404E 02
29	-6.4014141E 01	-1.2619092E 02	-1.9020507E 02
30	6.6588336E 03	-4.2867976E 03	2.3720360E 03
31	7.2542582E-05	-2.2433685E 02	-2.2433678E 02
32	-1.2937199E 03	-2.8894622E 03	-4.1831821E 03
33	9.0378189E 02	1.7816225E 03	2.6854043E 03
34	-7.0326848E 01	1.2465731E 02	5.4330461E 01
35	2.8305358E 03	7.6206720E 02	3.5926030E 03
36	4.5865393E 02	-9.7579851E 01	3.6107409E 02
37	3.1641626E 03	7.2751158E 02	3.8916742E 03
38	6.4442507E 02	1.5267481E 02	7.9709988E 02
39	-7.3574136E 02	-1.8608526E 02	-9.2182661E 02
40	-9.7119015E-06	-1.2494919E 01	-1.2494928E 01
41	-6.3965019E 01	1.2114344E 02	5.7178421E 01
42	3.1497942E 03	-7.3705630E 02	2.4127429E 03
43	3.1702378E-05	-6.0860839E 01	-6.0860808E 01
44	7.0980458E-06	6.0223861E 01	6.0223867E 01
45	0.	-1.1692318E 02	-1.1692318E 02
46	0.	-0.	0.
47	6.6595799E 03	4.3213935E 03	1.0980973E 04
48	0.	-9.2307794E 01	-9.2307794E 01
49	-1.2927267E 03	2.3087446E 03	1.0160179E 03
50	9.0308805E 02	-1.7103596E 03	-8.0727153E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3 SYMMETRIC	LG-3 ANTI-SYM	S & AS
51	-1.5722659E 03	3.8280028E-05	-1.5722659E 03
52	-7.6126380E 00	1.0349803E-02	-7.6022882E 00
53	-1.2396131E-04	-1.0291869E-02	-1.0415830E-02
54	0.	-1.0885347E 01	-1.0885347E 01
55	0.	-0.	0.
56	0.	-3.3105728E 02	-3.3105728E 02
57	0.	2.6532911E 01	2.6532911E 01
58	0.	3.3014617E 01	3.3014617E 01
59	0.	2.2671820E 02	2.2671820E 02
60	0.	-1.0105029E 02	-1.0105029E 02
61	0.	-0.	0.
62	0.	-0.	0.
63	8.8712630E 02	2.1918687E-07	8.8712630E 02
64	-1.2778982E 03	1.3340444E 03	5.6146179E 01
65	-8.5797107E 03	-7.2907960E 03	-1.5870507E 04
66	-8.5800660E 03	7.2864279E 03	-1.2936381E 03
67	1.6167399E 02	-1.1066969E-04	1.6167388E 02
68	0.	9.6293122E 01	9.6293122E 01
69	-7.2359294E-14	-5.4706886E 01	-5.4706886E 01
70	1.0731590E 04	8.3200908E 03	1.9051681E 04
71	-6.3878549E 00	3.1319380E 02	3.0680595E 02
72	-8.9477431E 03	3.6705525E 03	-5.2771906E 03
73	-9.4643384E 03	-3.6705521E 03	-1.3134890E 04
74	8.9069595E 03	7.4301495E 03	1.6337109E 04
75	7.5870653E 00	-1.0242071E-02	7.5768232E 00
76	1.2389541E-04	1.0200436E-02	1.0324331E-02
77	1.1965010E 00	4.3699774E 02	4.3819423E 02
78	-1.0730489E 04	-2.0681608E 03	-1.2798650E 04
79	5.5534632E 01	-1.4522344E 02	-8.9688807E 01
80	-1.0731591E 04	1.4555921E 03	-9.2759985E 03
81	-1.1764888E-04	-2.1397336E-04	-3.3162224E-04
82	3.1647631E 03	-7.5551762E 02	2.4092455E 03
83	-1.2771474E 03	-1.3347087E 03	-2.6118561E 03
84	1.0730489E 04	-7.6875219E 03	3.0429674E 03
85	9.0591192E 01	3.3490289E 02	4.2549409E 02
86	-1.3973803E 02	1.6612672E 02	2.6388683E 01
87	1.7974104E 00	-1.8332165E-05	1.7973920E 00
88	6.6016459E 02	-5.1432959E 02	1.4583500E 02
89	-5.6906912E 02	3.5665079E 02	-2.1241833E 02
90	1.2997705E 03	1.6327179E 03	2.9324884E 03
91	2.1764224E 02	-1.6327178E 03	-1.4150756E 03
92	9.5051219E 03	-7.4301500E 03	2.0749719E 03
93	-9.2291964E 01	-4.4831893E 02	-5.4061089E 02
94	6.9264946E 02	1.5335030E 03	2.2261524E 03
95	8.3055314E 02	-9.9150277E 02	-1.6094964E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3R SYMMETRIC	LG-3R ANTI-SYM	S + AS
1	-1.2621213E 03	6.2451803E-04	-1.2621207E 03
2	8.1714915E 03	1.5309764E 03	9.7024677E 03
3	2.8792917E 03	4.2716966E 02	3.3064614E 03
4	-1.1764888E-04	4.0377317E-04	2.8612429E-04
5	1.0813165E-04	8.5090609E 02	8.5090619E 02
6	2.8785199E 03	-8.4149303E 02	2.0370268E 03
7	8.1710764E 03	-1.4626649E 03	6.7084116E 03
8	1.0986274E 02	-6.8041559E-04	1.0986226E 02
9	-6.8345914E 01	4.9925237E-04	-6.8345416E 01
10	0.	4.1900000E 02	4.1900000E 02
11	8.1714915E 03	1.3123529E 03	9.4838443E 03
12	2.2109234E-05	-3.4804471E 02	-3.4804470E 02
13	1.9581330E-05	-4.7779577E 02	-4.7779575E 02
14	-0.	-4.7204404E 02	-4.7204404E 02
15	5.5305526E-01	-4.9874482E 02	-4.9819176E 02
16	2.8790393E 03	1.0897901E 03	3.9688294E 03
17	0.	6.3975480E 01	6.3975480E 01
18	0.	7.5761160E 01	7.5761160E 01
19	0.	0.	0.
20	5.2067616E-10	-4.1899996E 02	-4.1899996E 02
21	2.8782674E 03	-8.1404063E 02	2.0642268E 03
22	0.	-1.3351609E 02	-1.3351609E 02
23	0.	2.2855052E 02	2.2855052E 02
24	0.	-3.3186508E 02	-3.3186508E 02
25	8.1710764E 03	-1.2291237E 03	6.9419528E 03
26	0.	2.6007004E 02	2.6007004E 02
27	0.	3.9987985E 02	3.9987985E 02
28	0.	4.7204404E 02	4.7204404E 02
29	-6.4014141E 01	1.2121049E 02	5.7196350E 01
30	6.6588336E 03	4.1884838E 03	1.0847317E 04
31	7.2542582E-05	7.1201490E 00	7.1202215E 00
32	-1.2937199E 03	2.4604165E 03	1.1666966E 03
33	9.0378189E 02	-1.7113064E 03	-8.0752447E 02
34	-7.0326848E 01	-1.1383229E 02	-1.8415914E 02
35	2.8305358E 03	-6.5668383E 02	2.1738520E 03
36	4.5865393E 02	1.2390516E 02	5.8255910E 02
37	3.1641626E 03	-5.8913168E 02	2.5750309E 03
38	6.4442507E 02	-1.8703834E 02	4.5738673E 02
39	-7.3574136E 02	1.4405730E 02	-5.9168406E 02
40	-9.7119015E-06	-7.3727577E 01	-7.3727586E 01
41	-6.3965019E 01	-1.2625798E 02	-1.9022300E 02
42	3.1497992E 03	8.5905591E 02	4.0088561E 03
43	3.1702378E-05	-1.0314355E 01	-1.0314323E 01
44	7.0980458E-06	-6.0223860E 01	-6.0223854E 01
45	0.	3.0700678E 01	3.0700678E 01
46	0.	0.	0.
47	6.6595799E 03	-4.4217435E 03	2.2378364E 03
48	0.	-1.2490891E 02	-1.2490891E 02
49	-1.2927267E 03	-2.7405008E 03	-4.0332274E 03
50	9.0308805E 02	1.7825691E 03	2.6856571E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3R SYMMETRIC	LG-3R ANTI-SYM	S + AS
51	-1.5722659E 03	-1.5236780E-05	-1.5722659E 03
52	-7.6126380E 00	-1.0343132E-02	-7.6229811E 00
53	-1.2396131E-04	1.0202270E-02	1.0078309E-02
54	0.	5.0239519E 00	5.0239519E 00
55	0.	0.	0.
56	0.	2.5622945E 02	2.5622945E 02
57	0.	-1.0105029E 02	-1.0105029E 02
58	0.	-3.3014619E 01	-3.3014619E 01
59	0.	-3.0154604E 02	-3.0154604E 02
60	0.	2.6532911E 01	2.6532911E 01
61	0.	0.	0.
62	0.	0.	0.
63	8.8712630E 02	1.5183207E-06	8.8712630E 02
64	-1.2778982E 03	-1.3336850E 03	-2.6115832E 03
65	-8.5797107E 03	7.2859429E 03	-1.2937679E 03
66	-8.5800660E 03	-7.2903097E 03	-1.5370376E 04
67	1.6167379E 02	9.5203529E-05	1.6167409E 02
68	0.	-1.2807445E 02	-1.2807445E 02
69	-7.2359294E-14	1.4364462E 01	1.4364462E 01
70	1.0731590E 04	-7.8448921E 03	2.8866983E 03
71	-6.3878549E 00	-3.3442200E 02	-3.4080985E 02
72	-8.9477431E 03	-3.6574569E 03	-1.2605200E 04
73	-9.4643384E 03	3.6574565E 03	-5.8068820E 03
74	8.9069595E 03	-7.4453127E 03	1.4616469E 03
75	7.5870653E 00	1.0235964E-02	7.5973012E 00
76	1.2389541E-04	-1.0111370E-02	-9.9874744E-03
77	1.1965010E 00	-4.2230320E 02	-4.2110670E 02
78	-1.0730489E 04	1.6099573E 03	-9.1205320E 03
79	5.5534632E 01	1.9548711E 02	2.5102174E 02
80	-1.0731591E 04	-1.9107909E 03	-1.2642381E 04
81	-1.1764888E-04	4.0377317E-04	2.8612429E-04
82	3.1647631E 03	8.9225922E 02	4.0570223E 03
83	-1.2771474E 03	1.3330198E 03	5.5872390E 01
84	1.0730489E 04	8.1657254E 03	1.8896215E 04
85	9.0591192E 01	-3.1271160E 02	-2.2212040E 02
86	-1.3973803E 02	-2.1735346E 02	-3.5709150E 02
87	1.7974104E 00	2.7188918E-05	1.7974375E 00
88	6.6016459E 02	6.0787964E 02	1.2680442E 03
89	-5.6906912E 02	-4.0289916E 02	-9.7196827E 02
90	1.2997705E 03	-1.6024096E 03	-3.0263905E 02
91	2.1764224E 02	1.6024095E 03	1.8200517E 03
92	9.5051219E 03	7.4453132E 03	1.6950435E 04
93	-9.2291964E 01	3.8632271E 02	2.9403075E 02
94	6.9264946E 02	-1.1243020E 03	-4.3165257E 02
95	8.3055314E 02	1.4023018E 03	2.2328549E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3P SYMMETRIC	LG-3P ANTI-SYM	S + AS
1	-1.2621213E 03	-4.1704716E-04	-1.2621217E 03
2	8.1714915E 03	-5.5757734E 03	2.5957181E 03
3	2.8792917E 03	-1.9531629E 03	9.2612870E 02
4	-1.1764888E-04	-2.2425516E-04	-3.4190404E-04
5	1.0813165E-04	-8.5090163E 02	-8.5090152E 02
6	2.8785199E 03	-7.0940397E 02	2.1691159E 03
7	8.1710764E 03	-2.5955332E 03	5.5755432E 03
8	1.0986294E 02	2.4425488E-04	1.0986318E 02
9	-6.8345914E 01	-2.4276053E-04	-6.8346157E 01
10	0.	-4.1900000E 02	-4.1900000E 02
11	8.1714915E 03	-5.0308385E 03	3.1406530E 03
12	2.2109234E-05	-1.5763092E 03	-1.5763091E 03
13	1.9581330E-05	-1.2265331E 03	-1.2265331E 03
14	-0.	4.7204404E 02	4.7204404E 02
15	5.5305526E-01	6.4282283E 02	6.4337588E 02
16	2.8790393E 03	-2.3113903E 03	5.6764901E 02
17	0.	-1.5477322E 03	-1.5477322E 03
18	0.	-1.8328584E 03	-1.8328584E 03
19	0.	-0.	0.
20	5.2067616E-10	4.1899996E 02	4.1899996E 02
21	2.8782674E 03	-4.3246465E 02	2.4458028E 03
22	0.	-1.3502407E 03	-1.3502407E 03
23	0.	-2.2855051E 02	-2.2855051E 02
24	0.	-1.4252322E 03	-1.4252322E 03
25	8.1710764E 03	-2.5027629E 03	5.6683135E 03
26	0.	-2.1844239E 03	-2.1844239E 03
27	0.	-2.1042087E 03	-2.1042087E 03
28	0.	-4.7204404E 02	-4.7204404E 02
29	-6.4014141E 01	-2.3951548E 01	-8.7965689E 01
30	6.6588336E 03	-3.3351668E 03	3.3236668E 03
31	7.2542582E-05	1.3507850E 03	1.3507850E 03
32	-1.2937199E 03	1.5580804E 03	2.6436049E 02
33	9.0378189E 02	3.3815905E 02	1.2419409E 03
34	-7.0326848E 01	-9.6316922E 01	-1.6664377E 02
35	2.8305358E 03	-1.4946989E 02	2.6810659E 03
36	4.5865343E 02	-5.1809939E 02	-5.9445457E 01
37	3.1641626E 03	-7.7713449E 02	2.3870281E 03
38	6.4442507E 02	1.0179225E 03	1.6623476E 03
39	-7.3574136E 02	4.8588779E 02	-2.4985357E 02
40	-9.7119015E-06	1.7486792E 03	1.7486792E 03
41	-6.3965019E 01	2.2510331E 02	1.6115829E 02
42	3.1497992E 03	-1.9192965E 03	1.2305027E 03
43	3.1702378E-05	1.3929582E 03	1.3929582E 03
44	7.0980458E-06	6.0223818E 01	6.0223825E 01
45	0.	1.6442510E 03	1.6442510E 03
46	0.	-0.	0.
47	6.6595799E 03	5.2991458E 03	1.1958726E 04
48	0.	1.4828140E 03	1.4828140E 03
49	-1.2927267E 03	6.7910581E 03	5.4983314E 03
50	9.0308805E 02	-3.1781136E 03	-2.2750256E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3P SYMMETRIC	LG-3P ANTI-SYM	S + AS
51	-1.5722659E 03	-1.1341006E-04	-1.5722660E 03
52	-7.6126380E 00	1.0564684E-02	-7.6020734E 00
53	-1.2396131E-04	-9.6051326E-03	-9.7290938E-03
54	0.	-1.7783932E 00	-1.7783932E 00
55	0.	-0.	0.
56	0.	-1.8527990E 03	-1.8527990E 03
57	0.	1.5486191E 03	1.5486191E 03
58	0.	3.3014599E 01	3.3014599E 01
59	0.	-1.2950236E 03	-1.2950236E 03
60	0.	1.4210359E 03	1.4210359E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	8.8712630E 02	3.4639125E-05	8.8712633E 02
64	-1.2778982E 03	1.3344821E 03	5.6583862E 01
65	-8.5797107E 03	-7.1953530E 03	-1.5775064E 04
66	-8.5800660E 03	7.3694091E 03	-1.2106569E 03
67	1.6167399E 02	-7.3473688E-06	1.6167399E 02
68	0.	-5.5003023E 02	-5.5003023E 02
69	-7.2359294E-14	7.6932436E 02	7.6932436E 02
70	1.0731590E 04	6.4472697E 03	1.7178860E 04
71	-6.3878549E 00	-1.1390720E 02	-1.2029506E 02
72	-8.9477431E 03	3.4560353E 03	-5.4917078E 03
73	-9.4643384E 03	-3.4560349E 03	-1.2920373E 04
74	8.9069595E 03	7.6785376E 03	1.6585497E 04
75	7.5870653E 00	-1.0459496E-02	7.5766058E 00
76	1.2389541E-04	9.5225049E-03	9.6464003E-03
77	1.1965010E 00	9.6330835E 01	9.7527336E 01
78	-1.0730489E 04	3.8272054E 03	-6.9032839E 03
79	5.5534632E 01	-8.9383017E 02	-8.3829553E 02
80	-1.0731591E 04	7.3124129E 03	-3.4191777E 03
81	-1.1764888E-04	-2.2425516E-04	-3.4190404E-04
82	3.1647631E 03	-2.2391464E 03	9.2561673E 02
83	-1.2771474E 03	-1.3079922E 03	-2.5851396E 03
84	1.0730489E 04	-9.5988882E 03	1.1316012E 03
85	9.0591192E 01	7.4964678E 02	8.4023796E 02
86	-1.3973803E 02	9.2709051E 02	7.8735249E 02
87	1.7974104E 00	-2.8366322E-05	1.7973820E 00
88	6.6016459E 02	-1.5577137E 03	-8.9754907E 02
89	-5.6906912E 02	1.2044517E 03	6.3538256E 02
90	1.2997705E 03	1.1456025E 03	2.4453731E 03
91	2.1764224E 02	-1.1456016E 03	-9.2795935E 02
92	9.5051219E 03	-7.6785381E 03	1.8265838E 03
93	-9.2291964E 01	8.7931218E 01	-4.3607454E 00
94	6.9264946E 02	1.1957559E 03	1.8884054E 03
95	8.3055314E 02	-1.3497517E 03	-5.1919854E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3PR SYMMETRIC	LG-3PR ANTI-SYM	S + AS
1	-1.2621213E 03	6.4636685E-04	-1.2621206E 03
2	8.1714915E 03	-2.8713618E 03	5.3001297E 03
3	2.8792917E 03	-1.2086574E 03	1.6706343E 03
4	-1.1764888E-04	3.9349135E-04	2.7584248E-04
5	1.0813165E-04	8.5091094E 02	8.5091105E 02
6	2.8785199E 03	-2.5043293E 03	3.7419055E 02
7	8.1710764E 03	-5.8795370E 03	2.2915395E 03
8	1.0986294E 02	-9.5449263E-04	1.0986198E 02
9	-6.8345914E 01	6.4829376E-04	-6.8345267E 01
10	0.	4.1900000E 02	4.1900000E 02
11	8.1714915E 03	-2.7891974E 03	5.3822941E 03
12	2.2109234E-05	-2.1218781E 03	-2.1218781E 03
13	1.9581330E-05	-2.0488143E 03	-2.0488143E 03
14	-0.	-4.7204404E 02	-4.7204404E 02
15	5.5305526E-01	-3.6145491E 02	-3.6090185E 02
16	2.8790393E 03	-2.5589371E 02	2.6231456E 03
17	0.	-1.3502408E 03	-1.3502408E 03
18	0.	-1.5989846E 03	-1.5989846E 03
19	0.	0.	0.
20	5.2067616E-10	-4.1899996E 02	-4.1899996E 02
21	2.8782674E 03	-2.1867352E 03	6.9153225E 02
22	0.	-1.5477323E 03	-1.5477323E 03
23	0.	2.2855051E 02	2.2855051E 02
24	0.	-2.0066109E 03	-2.0066109E 03
25	8.1710764E 03	-5.3452080E 03	2.8258685E 03
26	0.	-1.5137634E 03	-1.5137634E 03
27	0.	-1.1711387E 03	-1.1711387E 03
28	0.	4.7204404E 02	4.7204404E 02
29	-6.4014141E 01	2.2344986E 02	1.5943572E 02
30	6.6588336E 03	5.1401147E 03	1.1798948E 04
31	7.2542582E-05	1.5822420E 03	1.5822420E 03
32	-1.2937199E 03	6.9079591E 03	5.6142392E 03
33	9.0378189E 02	-3.1547697E 03	-2.2509878E 03
34	-7.0326848E 01	-3.3480651E 02	-4.0513335E 02
35	2.8305358E 03	-1.5682209E 03	1.2623149E 03
36	4.5865393E 02	-2.9661439E 02	1.6203955E 02
37	3.1641626E 03	-2.0937777E 03	1.0703849E 03
38	6.4442507E 02	6.7820938E 02	1.3226344E 03
39	-7.3574136E 02	8.1603035E 02	8.0288986E 01
40	-9.7119015E-06	1.6874465E 03	1.6874465E 03
41	-6.3965019E 01	-2.2298105E 01	-6.6263123E 01
42	3.1497992E 03	-3.2318330E 02	2.8266159E 03
43	3.1702378E-05	1.4435046E 03	1.4435047E 03
44	7.0980458E-06	-6.0223902E 01	-6.0223895E 01
45	0.	1.7918749E 03	1.7918749E 03
46	0.	0.	0.
47	6.6595799E 03	-3.4439912E 03	3.2155886E 03
48	0.	1.4502129E 03	1.4502129E 03
49	-1.2927267E 03	1.7418128E 03	4.4908606E 02
50	9.0308805E 02	3.1481504E 02	1.2179031E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	LG-3PR SYMMETRIC	LG-3PR ANTI-SYM	S + AS
51	-1.5722659E 03	-1.6692687E-04	-1.5722661E 03
52	-7.6126360E 00	-1.0128250E-02	-7.6227662E 00
53	-1.2396131E-04	1.0889007E-02	1.0765045E-02
54	0.	1.4130905E 01	1.4130905E 01
55	0.	0.	0.
56	0.	-1.2655123E 03	-1.2655123E 03
57	0.	1.4210359E 03	1.4210359E 03
58	0.	-3.3014637E 01	-3.3014637E 01
59	0.	-1.8232879E 03	-1.8232879E 03
60	0.	1.5486191E 03	1.5486191E 03
61	0.	0.	0.
62	0.	0.	0.
63	8.8712630E 02	3.5938255E-05	8.8712633E 02
64	-1.2778982E 03	-1.3332473E 03	-2.6111455E 03
65	-8.5797107E 03	7.3813858E 03	-1.1983250E 03
66	-8.5800660E 03	-7.2073284E 03	-1.5787394E 04
67	1.6167399E 02	1.9852564E-04	1.6167419E 02
68	0.	-7.7439780E 02	-7.7439780E 02
69	-7.2359294E-14	8.3839570E 02	8.3839570E 02
70	1.0731590E 04	-9.7177129E 03	1.0138776E 03
71	-6.3878549E 00	-7.6152301E 02	-7.6791086E 02
72	-8.9477431E 03	-3.8719742E 03	-1.2819717E 04
73	-9.4643384E 03	3.8719737E 03	-5.5923648E 03
74	8.9069595E 03	-7.1969243E 03	1.7100353E 03
75	7.5870653E 00	1.0018539E-02	7.5970838E 00
76	1.2389541E-04	-1.0789301E-02	-1.0665405E-02
77	1.1965010E 00	-7.6297011E 02	-7.6177361E 02
78	-1.0730489E 04	7.5053235E 03	-3.2251654E 03
79	5.5534632E 01	-5.5311962E 02	-4.9758499E 02
80	-1.0731591E 04	3.9460299E 03	-6.7855607E 03
81	-1.1764888E-04	3.9349135E-04	2.7584248E-04
82	3.1647631E 03	-5.9136958E 02	2.5733936E 03
83	-1.2771474E 03	1.3597363E 03	8.2588882E 01
84	1.0730489E 04	6.2543590E 03	1.6984848E 04
85	9.0591192E 01	1.0203228E 02	1.9262347E 02
86	-1.3973803E 02	5.4361037E 02	4.0387234E 02
87	1.7974104E 00	1.7154763E-05	1.7974275E 00
88	6.6016459E 02	-4.3550448E 02	2.2466010E 02
89	-5.6906912E 02	4.4490173E 02	-1.2416739E 02
90	1.2997705E 03	-2.0895249E 03	-7.8975436E 02
91	2.1764224E 02	2.0895256E 03	2.3071678E 03
92	9.5051219E 03	7.1969247E 03	1.6702047E 04
93	-9.2291964E 01	9.2257284E 02	8.3028088E 02
94	6.9264946E 02	-1.4620492E 03	-7.6939970E 02
95	8.3055314E 02	1.0440529E 03	1.8746061E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6 SYMMETRIC	AF-6 ANTI-SYM	S - AS
1	-1.3504838E 03	-2.2507896E-04	-1.3504840E 03
2	7.9919139E 03	-1.1322677E 03	6.8596462E 03
3	3.0808666E 03	-6.0764141E 01	3.0201024E 03
4	2.0012447E-04	-8.9180741E-05	1.1094373E-04
5	-4.3401040E-04	-8.1211270E 02	-8.1711312E 02
6	3.0831029E 03	6.7669712E 02	3.7598000E 03
7	7.9931178E 03	1.7640000E 03	9.7571177E 03
8	1.3982907E 02	2.9792846E-04	1.3982937E 02
9	-8.6987627E 01	-2.4321498E-04	-8.6987870E 01
10	0.	-4.0000000E 02	-4.0000000E 02
11	7.9919139E 03	-8.9865094E 02	7.0932629E 03
12	2.1535903E-05	1.8537843E 02	1.8537845E 02
13	1.9073552E-05	3.2604005E 02	3.2604007E 02
14	-0.	4.5063871E 02	4.5063871E 02
15	5.9236217E-01	4.8250869E 02	4.8310105E 02
16	3.0805960E 03	-6.7942797E 02	2.4011680E 03
17	0.	-1.2824837E 02	-1.2824837E 02
18	0.	-1.5187453E 02	-1.5187453E 02
19	0.	-0.	0.
20	5.5244329E-10	3.9999996E 02	3.9999996E 02
21	3.0828325E 03	6.6433025E 02	3.7471627E 03
22	0.	6.0019382E 01	6.0019382E 01
23	0.	-2.1779631E 02	-2.1779631E 02
24	0.	2.3665293E 02	2.3665293E 02
25	7.9931178E 03	1.5657924E 03	9.5589101E 03
26	0.	-3.9419591E 02	-3.9419591E 02
27	0.	-5.1098194E 02	-5.1098194E 02
28	0.	-4.5063871E 02	-4.5063871E 02
29	9.7209561E 01	-9.1632234E 01	5.5773268E 00
30	1.0288979E 04	-3.4312302E 03	6.8577487E 03
31	7.2646950E-05	-2.1937560E 02	-2.1937553E 02
32	1.9645953E 03	-2.1835339E 03	-2.1893871E 02
33	-1.3724496E 03	1.2937067E 03	-7.8742889E 01
34	1.1116536E 02	8.6653675E 01	1.9781903E 02
35	3.0693321E 03	5.3715866E 02	3.6064908E 03
36	4.9597517E 02	-6.8412214E 01	4.2756296E 02
37	3.3885551E 03	5.1449789E 02	3.9030530E 03
38	6.9661078E 02	1.0505954E 02	8.0167031E 02
39	-7.9532196E 02	-1.3288249E 02	-9.2820444E 02
40	-6.3042665E-05	-1.3725452E 01	-1.3725515E 01
41	9.7067059E 01	8.6586601E 01	1.8365366E 02
42	3.4121349E 03	-5.2099361E 02	2.8911414E 03
43	-9.9866636E-06	-5.9818938E 01	-5.9818947E 01
44	-4.8130902E-05	5.7772219E 01	5.7772171E 01
45	0.	-1.1390256E 02	-1.1390256E 02
46	0.	-0.	0.
47	1.0286816E 04	3.4565926E 03	1.3743409E 04
48	0.	-9.2721282E 01	-9.2721282E 01
49	1.9617156E 03	1.6097292E 03	3.5714448E 03
50	-1.3704380E 03	-1.2224700E 03	-2.5929079E 03

INTERNAL LOADS IN MEMBERS

PT	AF-6 SYMMETRIC	AF-6 ANTI-SYM	S + Ax
51	-1.7049140E 03	2.1322969E-05	-1.7049140E 03
52	-8.1897986E 00	6.6150705E-03	-8.1831836E 00
53	1.4870636E-04	-6.6072354E-03	-6.4585291E-03
54	0.	-1.0466680E 01	-1.0466680E 01
55	0.	-0.	0.
56	0.	-3.1650417E 02	-3.1650417E 02
57	0.	2.3949716E 01	2.3949716E 01
58	0.	3.1385605E 01	3.1385605E 01
59	0.	2.1503242E 02	2.1503242E 02
60	0.	-9.8439732E 01	-9.8439732E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	1.1290520E 03	-4.3933582E-06	1.1290520E 03
64	-1.6273267E 03	8.6081848E 02	-7.6650822E 02
65	-1.0908359E 04	-6.6811254E 03	-1.7589484E 04
66	-1.0907326E 04	6.6767588E 03	-4.2305674E 03
67	6.7397668E 01	-9.2686918E-05	6.7397576E 01
68	0.	9.1329865E 01	9.1329865E 01
69	-4.6970445E-13	-5.3293577E 01	-5.3293577E 01
70	1.0731242E 04	7.5617213E 03	1.8292963E 04
71	-8.1283405E 00	1.0809767E 02	9.9969333E 01
72	-1.2770991E 04	2.9968571E 03	-9.7741336E 03
73	-1.5324680E 04	-2.9968567E 03	-1.6321537E 04
74	1.2727279E 04	6.6899284E 03	1.9417207E 04
75	8.1622765E 00	-6.5436801E-03	8.1557329E 00
76	-1.6834182E-04	6.5481038E-03	6.3797620E-03
77	4.9842386E-01	2.0918091E 02	2.0967934E 02
78	-1.0734434E 04	-1.7921616E 03	-1.2526595E 04
79	5.9419312E 01	-2.7807821E 01	3.1611491E 01
80	-1.0731241E 04	1.1862957E 03	-9.5449456E 03
81	2.0012447E-04	-8.9180741E-05	1.1094373E-04
82	3.3868147E 03	-5.3109464E 02	2.8557200E 03
83	-1.6295027E 03	-8.6148262E 02	-2.4909853E 03
84	1.0734434E 04	-6.9378553E 03	3.7965783E 03
85	1.1677145E 02	1.2940690E 02	2.4617835E 02
86	-1.6806251E 02	2.6530325E 02	9.7240735E 01
87	2.2878816E 00	-1.7773438E-05	2.2878639E 00
88	7.1272101E 02	-3.6309197E 02	3.4962904E 02
89	-6.1314101E 02	1.4491779E 02	-4.6822323E 02
90	-5.7784733E 02	1.1806760E 03	6.0282864E 02
91	-1.7453147E 03	-1.1806760E 03	-2.9259907E 03
92	1.3368392E 04	-6.6899288E 03	6.6784633E 03
93	-1.0007841E 02	-3.1600671E 02	-4.1608512E 02
94	-1.2476247E 03	1.1277933E 03	-1.1983142E 02
95	-1.0696633E 03	-5.9379315E 02	-1.6634565E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6R SYMMETRIC	AF-6R ANTI-SYM	S + AS
1	-1.3504838E 03	4.0966523E-04	-1.3504834E 03
2	7.9919139E 03	1.4900057E 03	9.4819195E 03
3	3.0808666E 03	1.7080670E 02	3.2516732E 03
4	2.0012447E-04	2.7792443E-04	4.7804890E-04
5	-4.3401040E-04	8.1211232E 02	8.1211189E 02
6	3.0831029E 03	-5.6455021E 02	2.5185527E 03
7	7.9931178E 03	-1.4051296E 03	6.5879883E 03
8	1.3982907E 02	-4.5896718E-04	1.3982862E 02
9	-8.6987627E 01	3.5000322E-04	-8.6987276E 01
10	0.	4.0000000E 02	4.0000000E 02
11	7.9919139E 03	1.2816743E 03	9.2735881E 03
12	2.1535903E-05	-3.3449315E 02	-3.3449313E 02
13	1.9073552E-05	-4.5810543E 02	-4.5810542E 02
14	-0.	-4.5063871E 02	-4.5063871E 02
15	5.9236217E-01	-4.7584816E 02	-4.7525579E 02
16	3.0805960E 03	8.0345148E 02	3.8840474E 03
17	0.	6.0019303E 01	6.0019303E 01
18	0.	7.1076170E 01	7.1076170E 01
19	0.	0.	0.
20	5.5244379E-10	-3.9999996E 02	-3.9999996E 02
21	3.0828325E 03	-5.3820229E 02	2.5446302E 03
22	0.	-1.2824845E 02	-1.2824845E 02
23	0.	2.1779631E 02	2.1779631E 02
24	0.	-3.1745129E 02	-3.1745129E 02
25	7.9931178E 03	-1.1816367E 03	6.8114812E 03
26	0.	2.4508118E 02	2.4508118E 02
27	0.	3.7891656E 02	3.7891656E 02
28	0.	4.5063871E 02	4.5063871E 02
29	9.7209561E 01	8.6653620E 01	1.8386318E 02
30	1.0288979E 04	3.3329655E 03	1.3621944E 04
31	7.2646950E-05	2.1872056E 00	2.1872782E 00
32	1.9645953E 03	1.7545678E 03	3.7191631E 03
33	-1.3724496E 03	-1.2234163E 03	-2.5958659E 03
34	1.1116536E 02	-7.5832629E 01	3.5332727E 01
35	3.0693321E 03	-4.3182931E 02	2.6375028E 03
36	4.9597517E 02	9.4726412E 01	5.9070158E 02
37	3.3885551E 03	-3.7618515E 02	3.0123700E 03
38	6.9661078E 02	-1.3941247E 02	5.5719831E 02
39	-7.9532196E 02	9.0872272E 01	-7.0444969E 02
40	-6.3042665E-05	-7.2465386E 01	-7.2465449E 01
41	9.7067059E 01	-9.1699258E 01	5.3678007E 00
42	3.4121349E 03	6.4293326E 02	4.0550682E 03
43	-9.9866636E-06	-1.1330122E 01	-1.1330132E 01
44	-4.8130902E-05	-5.7772218E 01	-5.7772266E 01
45	0.	2.7711719E 01	2.7711719E 01
46	0.	0.	0.
47	1.0286816E 04	-3.5568925E 03	6.7299238E 03
48	0.	-1.2446711E 02	-1.2446711E 02
49	1.9617156E 03	-2.0414045E 03	-7.9688842E 01
50	-1.3704380E 03	1.2946529E 03	-7.5785049E 01

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6R SYMMETRIC	AF-6R ANTI-SYM	S + AS
51	-1.7049140E 03	1.6455411E-06	-1.7049140E 03
52	-8.1897986E 00	-6.6085197E-03	-8.1964071E 00
53	1.4870636E-04	6.5177708E-03	6.6664771E-03
54	0.	4.6576192E 00	4.6576192E 00
55	0.	0.	0.
56	0.	2.4308752E 02	2.4308752E 02
57	0.	-9.8439734E 01	-9.8439734E 01
58	0.	-3.1385607E 01	-3.1385607E 01
59	0.	-2.8844908E 02	-2.8844908E 02
60	0.	2.3949716E 01	2.3949716E 01
61	0.	0.	0.
62	0.	0.	0.
63	1.1290520E 03	6.1027261E-06	1.1290520E 03
64	-1.6273267E 03	-8.6045924E 02	-2.4877859E 03
65	-1.0908359E 04	6.6762739E 03	-4.2320848E 03
66	-1.0907326E 04	-6.6806393E 03	-1.7587965E 04
67	6.7397668E 01	7.7254263E-05	6.7397746E 01
68	0.	-1.2251183E 02	-1.2251183E 02
69	-4.6970445E-13	1.2965964E 01	1.2965964E 01
70	1.0731242E 04	-7.0881398E 03	3.6431017E 03
71	-8.1283405E 00	-1.2892599E 02	-1.3705433E 02
72	-1.2770991E 04	-2.9837669E 03	-1.5754758E 04
73	-1.3324680E 04	2.9837666E 03	-1.0340913E 04
74	1.2727279E 04	-6.7050853E 03	6.0221934E 03
75	8.1622765E 00	6.5376902E-03	8.1688142E 00
76	-1.6834182E-04	-6.4591718E-03	-6.6275136E-03
77	4.9842386E-01	-1.9449127E 02	-1.9399285E 02
78	-1.0734434E 04	1.3335769E 03	-9.4008567E 03
79	5.9419312E 01	7.8166992E 01	1.3758630E 02
80	-1.0731241E 04	-1.6418772E 03	-1.2373118E 04
81	2.0012447E-04	2.7792443E-04	4.7804890E-04
82	3.3868147E 03	6.6776985E 02	4.0545845E 03
83	-1.6295027E 03	8.5979440E 02	-7.6970834E 02
84	1.0734434E 04	7.4144400E 03	1.8148873E 04
85	1.1677145E 02	-1.0761590E 02	9.1555452E 00
86	-1.6806251E 02	-3.1662506E 02	-4.8468757E 02
87	2.2878816E 00	2.6602822E-05	2.2879082E 00
88	7.1272101E 02	4.5659695E 02	1.1693179E 03
89	-6.1314101E 02	-1.9114798E 02	-8.0428898E 02
90	-5.7784733E 02	-1.1503804E 03	-1.7282277E 03
91	-1.7453147E 03	1.1503803E 03	-5.9493439E 02
92	1.3368392E 04	6.7050858E 03	2.0073478E 04
93	-1.0007841E 02	2.5404229E 02	1.5396388E 02
94	-1.2476247E 03	-7.2059193E 02	-1.9682166E 03
95	-1.0696633E 03	1.0025918E 03	-6.7071579E 01

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6P SYMMETRIC	AF-6P ANTI-SYM	S + AS
1	-1.3504838E 03	-2.0323012E-04	-1.3504840E 03
2	7.9919139E 03	-5.5346057E 03	2.4573081E 03
3	3.0808666E 03	-1.6965912E 03	1.3842753E 03
4	2.0012447E-04	-9.9462543E-05	1.0066193E-04
5	-4.3401040E-04	-8.1210786E 02	-8.1210829E 02
6	3.0831029E 03	-9.8613911E 02	2.0969638E 03
7	7.9931178E 03	-2.6528720E 03	5.3402458E 03
8	1.3982907E 02	2.3851397E-05	1.3982910E 02
9	-8.6987627E 01	-9.4173553E-05	-8.6987720E 01
10	0.	-4.0000000E 02	-4.0000000E 02
11	7.9919139E 03	-5.0002012E 03	2.9917127E 03
12	2.1535903E-05	-1.5884550E 03	-1.5884550E 03
13	1.9073552E-05	-1.2449785E 03	-1.2449785E 03
14	0.	4.5063871E 02	4.5063871E 02
15	5.9236217E-01	6.1979859E 02	6.2039096E 02
16	3.0805960E 03	-2.0251119E 03	1.0554841E 03
17	0.	-1.5424646E 03	-1.5424646E 03
18	0.	-1.8266203E 03	-1.8266203E 03
19	0.	-0.	0.
20	5.5244329E-10	3.9999996E 02	3.9999996E 02
21	3.0828325E 03	-7.0836422E 02	2.3744683E 03
22	0.	-1.3541969E 03	-1.3541969E 03
23	0.	-2.1779631E 02	-2.1779631E 02
24	0.	-1.4380929E 03	-1.4380929E 03
25	7.9931178E 03	-2.5502918E 03	5.4428260E 03
26	0.	-2.1680294E 03	-2.1680294E 03
27	0.	-2.0820004E 03	-2.0820004E 03
28	0.	-4.5063871E 02	-4.5063871E 02
29	9.7209561E 01	1.0607143E 01	1.0781670E 02
30	1.0288979E 04	-2.4795994E 03	7.8093795E 03
31	7.2646950E-05	1.3557462E 03	1.3557463E 03
32	1.9645953E 03	2.2640086E 03	4.2286038E 03
33	-1.3724496E 03	-1.4975671E 02	-1.5222063E 03
34	1.1116536E 02	-1.3432056E 02	-2.3155200E 01
35	3.0693321E 03	-3.7437844E 02	2.6949537E 03
36	4.9597517E 02	-4.8893176E 02	7.0434151E 00
37	3.3885551E 03	-9.9014814E 02	2.3984070E 03
38	6.9661078E 02	9.7030725E 02	1.6669180E 03
39	-7.9532196E 02	5.3909056E 02	-2.5623140E 02
40	-6.3042665E-05	1.7474487E 03	1.7474486E 03
41	9.7067059E 01	1.9054648E 02	2.8761353E 02
42	3.4121349E 03	-1.7032338E 03	1.7089011E 03
43	-9.9866636E-06	1.3940001E 03	1.3940001E 03
44	-4.8130902E-05	5.7772185E 01	5.7772137E 01
45	0.	1.6472716E 03	1.6472716E 03
46	0.	-0.	0.
47	1.0286816E 04	4.4343449E 03	1.4721161E 04
48	0.	1.4824006E 03	1.4824006E 03
49	1.9617156E 03	6.0920427E 03	8.0537583E 03
50	-1.3704380E 03	-2.6902240E 03	-4.0606620E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6P SYMMETRIC	AF-6P ANTI-SYM	S + AS
51	-1.7049140E 03	-1.3036712E-04	-1.7049142E 03
52	-8.1897986E 00	6.8299517E-03	-8.1829687E 00
53	1.4870636E-04	-5.9204991E-03	-5.7717928E-03
54	0.	-1.3597270E 00	-1.3597270E 00
55	0.	-0.	0.
56	0.	-1.8382459E 03	-1.8382459E 03
57	0.	1.5460359E 03	1.5460359E 03
58	0.	3.1385587E 01	3.1385587E 01
59	0.	-1.3067094E 03	-1.3067094E 03
60	0.	1.4236464E 03	1.4236464E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	1.1290520E 03	3.0026577E-05	1.1290520E 03
64	-1.6273267E 03	8.6125615E 02	-7.6607056E 02
65	-1.0908359E 04	-6.5856824E 03	-1.7494041E 04
66	-1.0907326E 04	6.7597401E 03	-4.1475862E 03
67	6.7397668E 01	1.0635401E-05	6.7397679E 01
68	0.	-5.5499348E 02	-5.5499348E 02
69	-4.6970445E-13	7.7073767E 02	7.7073767E 02
70	1.0731242E 04	5.6889002E 03	1.6420141E 04
71	-8.1283405E 00	-3.1900334E 02	-3.2713168E 02
72	-1.2770991E 04	2.7823399E 03	-9.9886508E 03
73	-1.3324680E 04	-2.7823395E 03	-1.6107019E 04
74	1.2727279E 04	6.9383166E 03	1.9665595E 04
75	8.1622765E 00	-6.7611052E-03	8.1555154E 00
76	-1.6834182E-04	5.8701728E-03	5.7018310E-03
77	4.9842356E-01	-1.3148599E 02	-1.3098757E 02
78	-1.0734434E 04	4.1032046E 03	-6.6312290E 03
79	5.9419312E 01	-7.7641456E 02	-7.1699525E 02
80	-1.0731241E 04	7.0431165E 03	-3.6881249E 03
81	2.0012447E-04	-9.9462543E-05	1.0066193E-04
82	3.3868147E 03	-2.0147234E 03	1.3720912E 03
83	-1.6295027E 03	-8.3476609E 02	-2.4642688E 03
84	1.0734434E 04	-8.8492215E 03	1.8852122E 03
85	1.1677145E 02	5.4415078E 02	6.6092222E 02
86	-1.6806251E 02	1.0262671E 03	8.5820454E 02
87	2.2878816E 00	-2.7807594E-05	2.2878538E 00
88	7.1272101E 02	-1.4064761E 03	-6.9375505E 02
89	-6.1314101E 02	9.9271867E 02	3.7957767E 02
90	-5.7784733E 02	6.9356060E 02	1.1571326E 02
91	-1.7453147E 03	-6.9355974E 02	-2.4388744E 03
92	1.3368392E 04	-6.9383169E 03	6.4300751E 03
93	-1.0007841E 02	2.2024343E 02	1.2016502E 02
94	-1.2476247E 03	7.9004616E 02	-4.5757853E 02
95	-1.0696633E 03	-9.5204204E 02	-2.0217054E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6PR SYMMETRIC	AF-6PR ANTI-SYM	S + AS
1	-1.3504838E 03	4.3151404E-04	-1.3504833E 03
2	7.9919139E 03	-2.9123325E 03	5.0795813E 03
3	3.0808666E 03	-1.4650203E 03	1.6158462E 03
4	2.0012447E-04	2.6764263E-04	4.6776709E-04
5	-4.3401040E-04	8.1211717E 02	8.1211674E 02
6	3.0831029E 03	-2.2273865E 03	8.5571642E 02
7	7.9931178E 03	-5.8220016E 03	2.1711162E 03
8	1.3982907E 02	-7.3304421E-04	1.3982834E 02
9	-8.6987627E 01	4.9904461E-04	-8.6987128E 01
10	0.	4.0000000E 02	4.0000000E 02
11	7.9919139E 03	-2.8198760E 03	5.1720379E 03
12	2.1535903E-05	-2.1083266E 03	-2.1083266E 03
13	1.9073552E-05	-2.0291240E 03	-2.0291240E 03
14	-0.	-4.5063871E 02	-4.5063871E 02
15	5.9236217E-01	-3.3855825E 02	-3.3796589E 02
16	3.0805960E 03	-5.4223237E 02	2.5383636E 03
17	0.	-1.3541969E 03	-1.3541969E 03
18	0.	-1.6036696E 03	-1.6036696E 03
19	0.	0.	0.
20	5.5244329E-10	-3.9999996E 02	-3.9999996E 02
21	3.0828325E 03	-1.9108968E 03	1.1719357E 03
22	0.	-1.5424647E 03	-1.5424647E 03
23	0.	2.1779631E 02	2.1779631E 02
24	0.	-1.9921972E 03	-1.9921972E 03
25	7.9931178E 03	-5.2977208E 03	2.6953970E 03
26	0.	-1.5287523E 03	-1.5287523E 03
27	0.	-1.1921020E 03	-1.1921020E 03
28	0.	4.5063871E 02	4.5063871E 02
29	9.7209561E 01	1.8889299E 02	2.8610255E 02
30	1.0288979E 04	4.2845963E 03	1.4573575E 04
31	7.2646950E-05	1.5773090E 03	1.5773091E 03
32	1.9645953E 03	6.2021104E 03	8.1667056E 03
33	-1.3724496E 03	-2.6668797E 03	-4.0393292E 03
34	1.1116536E 02	-2.9680685E 02	-1.8564150E 02
35	3.0693321E 03	-1.3433664E 03	1.7259657E 03
36	4.9597517E 02	-3.2579315E 02	1.7018203E 02
37	3.3885551E 03	-1.8808312E 03	1.5077239E 03
38	6.9661078E 02	7.2583526E 02	1.4224460E 03
39	-7.9532196E 02	7.6284532E 02	-3.2476639E 01
40	-6.3042665E-05	1.6887088E 03	1.6887087E 03
41	9.7067059E 01	1.2260619E 01	1.0932768E 02
42	3.4121349E 03	-5.3930696E 02	2.8728280E 03
43	-9.9866636E-06	1.4424889E 03	1.4424889E 03
44	-4.8130902E-05	-5.7772253E 01	-5.7772300E 01
45	0.	1.7888859E 03	1.7888859E 03
46	0.	0.	0.
47	1.0286816E 04	-2.5791402E 03	7.7076760E 03
48	0.	1.4506547E 03	1.4506547E 03
49	1.9617156E 03	2.4409090E 03	4.4026247E 03
50	-1.3704380E 03	-1.7310117E 02	-1.5435391E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	AF-6PR SYMMETRIC	AF-6PR ANTI-SYM	S + AS
51	-1.7049140E 03	-1.5004455E-04	-1.7049142E 03
52	-8.1897986E 00	-6.3936383E-03	-8.1961921E 00
53	1.4870636E-04	7.2045072E-03	7.3532135E-03
54	0.	1.3764572E 01	1.3764572E 01
55	0.	0.	0.
56	0.	-1.2786543E 03	-1.2786543E 03
57	0.	1.4236464E 03	1.4236464E 03
58	0.	-3.1385624E 01	-3.1385624E 01
59	0.	-1.8101909E 03	-1.8101909E 03
60	0.	1.5460359E 03	1.5460359E 03
61	0.	0.	0.
62	0.	0.	0.
63	1.1290520E 03	4.0522660E-05	1.1290520E 03
64	-1.6273267E 03	-8.6002159E 02	-2.4873483E 03
65	-1.0908359E 04	6.7717170E 03	-4.1366417E 03
66	-1.0907326E 04	-6.5976579E 03	-1.7504984E 04
67	6.7397668E 01	1.8057658E-04	6.7397849E 01
68	0.	-7.6883518E 02	-7.6883518E 02
69	-4.6970445E-13	8.3699721E 02	8.3699721E 02
70	1.0731242E 04	-8.9609607E 03	1.7702807E 03
71	-8.1283405E 00	-5.5602702E 02	-5.6415535E 02
72	-1.277099E 04	-3.1982842E 03	-1.5969275E 04
73	-1.3324680E 04	3.1982839E 03	-1.0126396E 04
74	1.2727279E 04	-6.4566969E 03	6.2705819E 03
75	8.1622765E 00	6.3202649E-03	8.1685967E 00
76	-1.6834162E-04	-7.1371027E-03	-7.3054445E-03
77	4.9842386E-01	-5.3515819E 02	-5.3465977E 02
78	-1.0734434E 04	7.2289432E 03	-3.5054905E 03
79	5.9419312E 01	-6.7043973E 02	-6.1102042E 02
80	-1.0731241E 04	4.2149436E 03	-6.5162977E 03
81	2.0012447E-04	2.6764263E-04	4.6776709E-04
82	3.3868147E 03	-8.1585894E 02	2.5709557E 03
83	-1.6295027E 03	8.8651093E 02	-7.4299181E 02
84	1.0734434E 04	5.5030736E 03	1.6237507E 04
85	1.1677145E 02	3.0712796E 02	4.2389941E 02
86	-1.6806251E 02	4.4433876E 02	2.7627625E 02
87	2.2878816E 00	1.6568666E-05	2.2878982E 00
88	7.1272101E 02	-5.8678718E 02	1.2593383E 02
89	-6.1314101E 02	6.5665290E 02	4.3511887E 01
90	-5.7784733E 02	-1.6374957E 03	-2.2153430E 03
91	-1.7453147E 03	1.6374965E 03	-1.0781822E 02
92	1.3368392E 04	6.4566972E 03	1.9825089E 04
93	-1.0007841E 02	7.9029242E 02	6.9021401E 02
94	-1.2476247E 03	-1.0583390E 03	-2.3059637E 03
95	-1.0696633E 03	6.4434289E 02	-4.2532047E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	SPC-1 SYMMETRIC	SPC-1 ANTI-SYM	S + AS
1	7.4670973E 02	-3.1057238E-04	7.4670943E 02
2	-5.1753257E 03	-3.2874492E 02	-5.5040706E 03
3	-1.7034808E 03	-2.6094707E 02	-1.9644279E 03
4	2.1860098E-04	-2.9927680E-04	-8.0675828E-05
5	-4.3121085E-04	1.0856743E 02	1.0856699E 02
6	-1.7009778E 03	-8.7110395E 01	-1.7850882E 03
7	-5.1739789E 03	-6.1809863E 02	-5.7920775E 03
8	-4.6674539E 01	2.4708687E-04	-4.6674292E 01
9	2.9036440E 01	-1.4807624E-04	2.9036292E 01
10	0.	5.0000000E 00	5.0000000E 00
11	-5.1753257E 03	-2.6496278E 02	-5.4402885E 03
12	-1.2699609E-05	-3.9568034E 02	-3.9568035E 02
13	-1.1247626E-05	-3.5246262E 02	-3.5246263E 02
14	0.	-5.6329839E 00	-5.6329839E 00
15	-3.2681198E-01	-1.4970643E 02	-1.5003324E 02
16	-1.7033318E 03	-2.5550858E 02	-1.9588404E 03
17	0.	3.9406962E 02	3.9406962E 02
18	0.	4.6666586E 02	4.6666586E 02
19	0.	0.	0.
20	-3.1117739E-10	-4.9999977E 00	-4.9999977E 00
21	-1.7008287E 03	-9.4731690E 01	-1.7955604E 03
22	0.	3.7203355E 01	3.7203355E 01
23	0.	3.4827532E 02	3.4827532E 02
24	0.	-2.2071452E 02	-2.2071452E 02
25	-5.1739789E 03	-7.1497314E 02	-5.8889520E 03
26	0.	5.9083564E 02	5.9083564E 02
27	0.	5.2530443E 02	5.2530443E 02
28	0.	5.6329839E 00	5.6329839E 00
29	1.1316295E 02	-4.8697718E 00	1.0829317E 02
30	-2.5012798E 03	5.5420955E 02	-1.9470703E 03
31	-4.0631155E-05	5.5798447E 02	5.5798442E 02
32	2.2870122E 03	7.4515237E 02	3.0321646E 03
33	-1.5976875E 03	6.8753732E 01	-1.5289338E 03
34	1.2626084E 02	1.1873295E 02	2.4499379E 02
35	-1.6558162E 03	-3.8644949E 01	-1.6944612E 03
36	-2.6861379E 02	-1.1279844E 02	-3.8141223E 02
37	-1.8700989E 03	-1.2995597E 02	-2.0000548E 03
38	-3.7758016E 02	7.7370448E 01	-3.0020972E 02
39	4.3108398E 02	-2.8959455E 00	4.2818804E 02
40	-2.0338056E-05	9.0654726E 01	9.0654707E 01
41	1.1300353E 02	3.9395952E 01	1.5239948E 02
42	-1.8444242E 03	-1.6710935E 02	-2.0115335E 03
43	-3.6999835E-05	4.1202341E 02	4.1202337E 02
44	-3.0511568E-05	-4.0174614E 02	-4.0174617E 02
45	0.	7.8728308E 02	7.8728308E 02
46	0.	0.	0.
47	-2.5037002E 03	-3.2445519E 02	-2.8281554E 03
48	0.	-3.2276369E 02	-3.2276369E 02
49	2.2837902E 03	3.0822887E 02	2.5920191E 03
50	-1.5954366E 03	-5.5621042E 02	-2.1516470E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	SPC-1 SYMMETRIC	SPC-1 ANTI-SYM	S + AS
51	9.1974802E 02	-4.7230558E-05	9.1974798E 02
52	4.4706530E 00	3.1174222E-05	4.4706842E 00
53	2.0102851E-04	9.7677553E-05	2.9870606E-04
54	0.	1.6537274E 01	1.6537274E 01
55	0.	0.	0.
56	0.	6.5480801E 02	6.5480801E 02
57	0.	-1.7068709E 02	-1.7068709E 02
58	0.	1.0969795E 01	1.0969795E 01
59	0.	-2.0055013E 02	-2.0055013E 02
60	0.	6.8040555E 02	6.8040555E 02
61	0.	0.	0.
62	0.	0.	0.
63	-3.7691190E 02	6.0998035E-07	-3.7691190E 02
64	5.4273525E 02	-9.7905103E 01	4.4483015E 02
65	3.6476345E 03	8.8820925E 02	4.5358487E 03
66	3.6487938E 03	-8.5833378E 02	2.7904600E 03
67	-1.2339188E 02	5.7435920E-05	-1.2339182E 02
68	0.	-8.5178857E 01	-8.5178857E 01
69	-1.5153034E-13	3.6835985E 02	3.6835985E 02
70	-5.9649619E 03	-1.4181554E 03	-7.3831173E 03
71	2.7147352E 00	1.0869025E 02	1.1140499E 02
72	3.8402538E 03	-5.2295931E 02	3.3172945E 03
73	4.1461020E 03	5.2295926E 02	4.6690612E 03
74	-3.0911081E 03	-1.0491787E 03	-4.1402867E 03
75	-4.4556397E 00	-2.5742301E-05	-4.4556654E 00
76	-2.0989918E-04	-1.0540402E-04	-3.1530320E-04
77	-9.1337366E-01	-2.9618983E 01	-3.0532357E 01
78	6.6863900E 03	6.1888133E 02	7.3052713E 03
79	-3.2857521E 01	-1.1941803E 02	-1.5227555E 02
80	6.6899621E 03	5.6076389E 02	7.2507260E 03
81	2.1860098E-04	-2.9927680E-04	-8.0675828E-05
82	-1.8720465E 03	-2.5505819E 02	-2.1271047E 03
83	5.4030002E 02	1.0245186E 02	6.4275187E 02
84	-5.9613901E 03	1.7051021E 02	-5.7908799E 03
85	-3.7492883E 01	-2.6270368E 01	-6.3763251E 01
86	6.7635694E 01	-3.7001877E 01	3.0633816E 01
87	-7.6351628E-01	5.9613852E-06	-7.6351032E-01
88	-3.8752704E 02	-1.9162345E 02	-5.7915048E 02
89	3.3445123E 02	1.3450708E 02	4.6895911E 02
90	-1.6630644E 03	1.2340937E 02	-1.5396551E 03
91	-1.0274796E 03	-1.2340924E 02	-1.1508889E 03
92	-3.4452479E 03	1.0491787E 03	-2.3960692E 03
93	5.3989183E 01	2.2734562E 01	7.6723745E 01
94	-1.3186500E 03	-4.5723302E 02	-1.7758830E 03
95	-1.3755865E 03	-6.2076746E 02	-1.9963540E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	SPC-1R SYMMETRIC	SPC-1R ANTI-SYM	S + AS
1	7.4670973E 02	7.3763778E-04	7.4671047E 02
2	-5.1753257E 03	5.9861031E 02	-4.5767154E 03
3	-1.7034808E 03	6.8003960E 02	-1.0234412E 03
4	2.1860098E-04	7.1959384E-04	9.3819481E-04
5	-4.3121085E-04	9.1689498E 01	9.1689067E 01
6	-1.7009778E 03	-5.3765090E 01	-1.7547429E 03
7	-5.1739749E 03	1.6853915E 03	-3.4885873E 03
8	-4.6674539E 01	-6.0896528E-04	-4.6675148E 01
9	2.9036440E 01	4.0261974E-04	2.9036842E 01
10	0.	-5.0000000E 00	-5.0000000E 00
11	-5.1753257E 03	7.6077531E 02	-4.4145504E 03
12	-1.2699609E-05	-9.3679568E 02	-9.3679568E 02
13	-1.1247626E-05	-8.2766199E 02	-8.2766199E 02
14	0.	5.6329839E 00	5.6329839E 00
15	-3.2681198E-01	-8.3612331E 01	-8.3939142E 01
16	-1.7033318E 03	7.9386451E 02	-9.0946729E 02
17	0.	-2.0026639E 02	-2.0026639E 02
18	0.	-2.3715985E 02	-2.3715985E 02
19	0.	0.	0.
20	-3.1117739E-10	5.0000015E 00	5.0000015E 00
21	-1.7008287E 03	6.1452544E 01	-1.6393761E 03
22	0.	-5.6185666E 02	-5.6185666E 02
23	0.	3.5371523E 02	3.5371523E 02
24	0.	-9.3427011E 02	-9.3427011E 02
25	-5.1739749E 03	1.6711387E 03	-3.5027902E 03
26	0.	6.4219547E 01	6.4219547E 01
27	0.	5.4853665E 01	5.4853665E 01
28	0.	-5.6329839E 00	-5.6329839E 00
29	1.1316295E 02	-3.5456157E 01	7.7706789E 01
30	-2.5012798E 03	-2.5059886E 02	-2.7518786E 03
31	-4.0631155E-05	-1.0365010E 02	-1.0365014E 02
32	2.2870122E 03	-8.7326530E 02	1.4137470E 03
33	-1.5976875E 03	5.0058657E 02	-1.0971009E 03
34	1.2626084E 02	1.9856737E 02	3.2482821E 02
35	-1.6558162E 03	3.6671252E 01	-1.6191450E 03
36	-2.6861379E 02	5.3722730E 01	-2.1489106E 02
37	-1.8710989E 03	1.8517021E 02	-1.6849287E 03
38	-3.7758016E 02	-3.3527004E 02	-7.1285020E 02
39	4.3108398E 02	-2.3314170E 02	1.9794228E 02
40	-2.0338056E-05	-6.5352711E 02	-6.5352713E 02
41	1.1300353E 02	-1.7053868E 01	9.5949663E 01
42	-1.8444242E 03	7.1290947E 02	-1.1315147E 03
43	-3.6999835E-05	-2.0097415E 02	-2.0097418E 02
44	-3.0511568E-05	-4.0330908E 02	-4.0330910E 02
45	0.	4.5811355E 01	4.5811355E 01
46	0.	0.	0.
47	-2.5037002E 03	-3.8573089E 02	-2.8894311E 03
48	0.	-9.8782470E 02	-9.8782470E 02
49	2.2837902E 03	-1.8380664E 03	4.4572377E 02
50	-1.5954366E 03	2.4077449E 02	-1.3546621E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	SPC-1R SYMMETRIC	SPC-1R ANTI-SYM	S + AS
51	9.1974802E 02	9.7560159E-05	9.1974812E 02
52	4.4706530E 00	-3.0862394E-03	4.4675668E 00
53	2.5102851E-04	2.7688763E-03	2.9699048E-03
54	0.	-3.3703254E 01	-3.3703254E 01
55	0.	-0.	0.
56	0.	1.9720825E 01	1.9720825E 01
57	0.	-8.1481147E 02	-8.1481147E 02
58	0.	1.0209579E 01	1.0209579E 01
59	0.	-8.4891560E 02	-8.4891560E 02
60	0.	3.9592243E 01	3.9592243E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	-3.7691190E 02	5.1923084E-06	-3.7691190E 02
64	5.4273525E 02	-1.7963396E 02	3.6310129E 02
65	3.6476395E 03	-1.6618611E 03	1.9857784E 03
66	3.6487938E 03	1.6164243E 03	5.2652180E 03
67	-1.2339188E 02	-9.9954636E-05	-1.2339198E 02
68	0.	-3.6055655E 02	-3.6055655E 02
69	-1.515304E-13	2.1434557E 01	2.1434557E 01
70	-5.9649619E 03	3.1559233E 03	-2.8090386E 03
71	2.7147352E 00	-2.1727055E 02	-2.1455581E 02
72	3.8402538E 03	2.2094460E 02	4.0611984E 03
73	4.1461020E 03	-2.2094456E 02	3.9251575E 03
74	-3.0911031E 03	1.3988799E 03	-1.6922282E 03
75	-4.4556397E 00	3.0736256E-03	-4.4525661E 00
76	-2.0989918E-04	-2.7596571E-03	-2.9695563E-03
77	-9.1357366E-01	-2.8439282E 01	-2.9352656E 01
78	6.6863900E 03	-1.7023383E 03	4.9840518E 03
79	-3.2857521E 01	3.1120860E 02	2.7835108E 02
80	6.6899621E 03	-1.2032621E 03	5.4867001E 03
81	2.1860098E-04	7.1959384E-04	9.3819481E-04
82	-1.8720465E 03	7.5506772E 02	-1.1169788E 03
83	5.4030002E 02	1.7271873E 02	7.1301875E 02
84	-5.9613901E 03	1.7677062E 01	-5.9437131E 03
85	-3.7492883E 01	2.0374488E 01	-1.7118395E 01
86	6.7635644E 01	-4.0312436E 01	2.7323257E 01
87	-7.6351628E-01	2.9628789E-05	-7.6348666E-01
88	-3.8752704E 02	4.6384229E 02	7.6315254E 01
89	3.3445123E 02	-3.4982972E 02	-1.5378498E 01
90	-1.6630644E 03	1.3917590E 02	-1.5238886E 03
91	-1.0274796E 03	-1.3917622E 02	-1.1666559E 03
92	-3.4452479E 03	-1.3988799E 03	-4.8441278E 03
93	5.3989183E 01	-2.1573277E 01	3.2415906E 01
94	-1.3186500E 03	1.3122435E 03	-6.4064941E 00
95	-1.3755865E 03	1.4597567E 03	8.4170135E 01

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL 4 SYMMETRIC	ROLL 4 ANTI-SYM	S + AS
1	-6.9844463E 02	-2.4190819E-03	-6.9844705E 02
2	4.6547784E 03	2.1497405E 03	6.8045188E 03
3	1.5933710E 03	-4.8263572E 03	-3.2329862E 03
4	-1.2268580E-04	-1.2443259E-03	-1.3670117E-03
5	1.5692956E-04	2.8379076E 02	2.8379092E 02
6	1.5924031E 03	4.9316445E 03	6.5240475E 03
7	4.6542575E 03	-1.1835187E 03	3.4707389E 03
8	5.6862849E 01	1.9971142E-03	5.6864846E 01
9	-3.5374522E 01	-1.3734219E-03	-3.5375895E 01
10	0.	1.5900000E 02	1.5900000E 02
11	4.6547784E 03	2.0723435E 03	6.7271218E 03
12	1.2609669E-05	-1.6489329E 02	-1.6489328E 02
13	1.1167917E-05	-2.1037813E 02	-2.1037813E 02
14	0.	-1.7912889E 02	-1.7912889E 02
15	3.0595130E-01	-1.3560591E 02	-1.3529996E 02
16	1.5932314E 03	-4.5787295E 03	-2.9854980E 03
17	0.	-1.0641965E 02	-1.0641965E 02
18	0.	-1.2602448E 02	-1.2602448E 02
19	0.	0.	0.
20	2.8896434E-10	-1.5899999E 02	-1.5899999E 02
21	1.5922634E 03	4.9484131E 03	6.5406764E 03
22	0.	-8.3884476E 01	-8.3884476E 01
23	0.	-3.5265170E 01	-3.5265170E 01
24	0.	-7.2527970E 01	-7.2527970E 01
25	4.6542575E 03	-1.0357295E 03	3.6185281E 03
26	0.	-2.5023032E 02	-2.5023032E 02
27	0.	-1.5728145E 02	-1.5728145E 02
28	0.	1.7912889E 02	1.7912889E 02
29	-6.4691769E 01	-4.0213961E 02	-4.6683138E 02
30	3.1261085E 03	-7.8691203E 03	-4.7430118E 03
31	4.1022886E-05	-2.6212811E 02	-2.6212807E 02
32	-1.3074145E 03	-8.5234913E 03	-9.8309057E 03
33	9.1334879E 02	5.6775948E 03	6.5909436E 03
34	-7.1843053E 01	4.6940266E 02	3.9755961E 02
35	1.5592131E 03	3.9193471E 03	5.4785601E 03
36	2.5289400E 02	-1.8718462E 02	6.5709383E 01
37	1.7505081E 03	3.9097791E 03	5.6602871E 03
38	3.5536955E 02	6.4114972E 02	9.9651926E 02
39	-4.0572610E 02	-8.6015879E 02	-1.2658849E 03
40	3.9247657E-06	-1.3598164E 02	-1.3598164E 02
41	-6.4630134E 01	3.8828463E 02	3.2365450E 02
42	1.7356803E 03	-3.4233199E 03	-1.6876396E 03
43	2.5298926E-05	-8.3120368E 01	-8.3120342E 01
44	1.3770334E-05	-3.4707198E 01	-3.4707185E 01
45	0.	-7.5799341E 01	-7.5799341E 01
46	0.	0.	0.
47	3.1270445E 03	7.5731704E 03	1.0700215E 04
48	0.	-3.3821669E 02	-3.3821669E 02
49	-1.3061686E 03	7.3358726E 03	6.0297040E 03
50	9.1247840E 02	-5.4819833E 03	-4.5695049E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL 4 SYMMETRIC	ROLL 4 ANTI-SYM	S + AS
51	-8.6608869E 02	6.1816748E-05	-8.6608863E 02
52	-4.2049485E 00	4.7528459E-02	-4.1574200E 00
53	-1.1829049E-04	-4.6889785E-02	-4.7008075E-02
54	0.	-1.1356449E 01	-1.1356449E 01
55	0.	0.	0.
56	0.	-1.5120033E 02	-1.5120033E 02
57	0.	-1.3903596E 02	-1.3903596E 02
58	0.	1.3792448E 01	1.3792448E 01
59	0.	-6.5901849E 01	-6.5901849E 01
60	0.	-6.5509208E 01	-6.5509208E 01
61	0.	0.	0.
62	0.	0.	0.
63	4.5916694E 02	5.9503616E-05	4.5916699E 02
64	-6.6126084E 02	4.2867562E 03	3.6254954E 03
65	-4.4427256E 03	9.6915118E 02	-3.4735745E 03
66	-4.4431717E 03	-9.8114146E 02	-5.4243131E 03
67	1.0811901E 02	2.1620107E-04	1.0811923E 02
68	0.	-2.7990230E 01	-2.7990230E 01
69	2.9241790E-14	-3.5465558E 01	-3.5465558E 01
70	6.0715113E 03	2.3723013E 03	8.4438126E 03
71	-3.3065542E 00	2.1065446E 03	2.1032380E 03
72	-4.3869644E 03	4.6997443E 03	3.1277991E 02
73	-4.6726791E 03	-4.6997440E 03	-9.3724232E 03
74	4.3644081E 03	-5.4557268E 02	3.8188354E 03
75	4.1908250E 00	-4.7103226E-02	4.1437218E 00
76	1.2170960E-04	4.6508173E-02	4.6629882E-02
77	8.0022118E-01	2.3622989E 03	2.3630991E 03
78	-6.0701302E 03	-3.4018280E 03	-9.4719580E 03
79	3.0732874E 01	-2.2086979E 03	-2.1779651E 03
80	-6.0715114E 03	2.1415764E 03	-3.9299350E 03
81	-1.2268580E-04	-1.2443259E-03	-1.3670117E-03
82	1.7512613E 03	-3.5033914E 03	-1.7521301E 03
83	-6.6031910E 02	-4.2885792E 03	-4.9488984E 03
84	6.0701301E 03	-1.0580495E 03	5.0120806E 03
85	4.6628432E 01	2.1659568E 03	2.2125852E 03
86	-7.4054782E 01	-2.4578034E 03	-2.5318581E 03
87	9.3026627E-01	2.9573082E-06	9.3026922E-01
88	3.6420878E 02	-2.1687670E 03	-1.8045582E 03
89	-3.1416962E 02	2.0361925E 03	1.7220229E 03
90	1.0669779E 03	5.3337404E 03	6.4007182E 03
91	4.6983115E 02	-5.3337397E 03	-4.8639086E 03
92	4.6952354E 03	5.4557250E 02	5.2408079E 03
93	-5.0839381E 01	-2.3057244E 03	-2.3565637E 03
94	7.3456255E 02	5.2696236E 03	6.0041862E 03
95	8.0550721E 02	-4.1396226E 03	-3.3341155E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL4R SYMMETRIC	ROLL4R ANTI-SYM	S + AS
1	-6.9844463E 02	2.8880473E-03	-6.9844174E 02
2	4.6547784E 03	-1.3158314E 03	3.3389469E 03
3	1.5933710E 03	5.1318199E 03	6.7251909E 03
4	-1.2268580E-04	1.7215597E-03	1.5988739E-03
5	1.5692956E-04	-2.5479677E 02	-2.5479661E 02
6	1.5924031E 03	-4.7024791E 03	-3.1100760E 03
7	4.6542575E 03	2.1352997E 03	6.7895572E 03
8	5.6862849E 01	-2.4043963E-03	5.6860445E 01
9	-3.5374522E 01	1.6456325E-03	-3.5372876E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.6547784E 03	-1.1503899E 03	3.5043885E 03
12	1.2609669E-05	-3.5433096E 02	-3.5433095E 02
13	1.1167917E-05	-2.4947954E 02	-2.4947953E 02
14	-0.	1.7912889E 02	1.7912889E 02
15	3.0595130E-01	1.1636869E 02	1.1667465E 02
16	1.5932314E 03	4.9319881E 03	6.5252195E 03
17	0.	-1.4502559E 01	-1.4502559E 01
18	0.	-1.7174249E 01	-1.7174249E 01
19	0.	-0.	0.
20	2.8896434E-10	1.5899999E 02	1.5899999E 02
21	1.5922634E 03	-4.6731470E 03	-3.0808836E 03
22	0.	-1.4103136E 02	-1.4103136E 02
23	0.	1.3689786E 02	1.3689786E 02
24	0.	-2.7108715E 02	-2.7108715E 02
25	4.6542575E 03	2.0267655E 03	6.6810230E 03
26	0.	1.8732000E 01	1.8732000E 01
27	0.	-4.7748013E 01	-4.7748013E 01
28	0.	-1.7912889E 02	-1.7912889E 02
29	-6.4691769E 01	3.8516392E 02	3.2047215E 02
30	3.1261085E 03	7.6950445E 03	1.0821153E 04
31	4.1022886E-05	-1.5290153E 02	-1.5290149E 02
32	-1.3074145E 03	7.5529658E 03	6.2455513E 03
33	9.1334879E 02	-5.4379241E 03	-4.5245754E 03
34	-7.1843053E 01	-3.9929611E 02	-4.7113916E 02
35	1.5592131E 03	-3.6861692E 03	-2.1269562E 03
36	2.5289400E 02	2.3732028E 02	4.9021428E 02
37	1.7505081E 03	-3.5946584E 03	-1.8441503E 03
38	3.5536955E 02	-7.5563255E 02	-4.0026300E 02
39	-4.0572610E 02	7.3234124E 02	3.2661515E 02
40	3.9247657E-06	-1.3832614E 02	-1.3832614E 02
41	-6.4630134E 01	-3.9649522E 02	-4.6112535E 02
42	1.7356803E 03	3.7727692E 03	5.5084494E 03
43	2.5298926E-05	-4.5597772E 01	-4.5597746E 01
44	1.3770334E-05	-8.1719689E 01	-8.1719675E 01
45	0.	3.3759212E 00	3.3759212E 00
46	0.	-0.	0.
47	3.1270445E 03	-7.8984021E 03	-4.7713576E 03
48	0.	-3.3205566E 02	-3.3205566E 02
49	-1.3061686E 03	-8.5151361E 03	-9.8213048E 03
50	9.1247840E 02	5.5979041E 03	6.5103825E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL4R SYMMETRIC	ROLL4R ANTI-SYM	S + AS
51	-8.6608869E 02	-3.6440151E-06	-8.6608869E 02
52	-4.2049485E 00	-4.7956138E-02	-4.2529046E 00
53	-1.1829049E-04	4.7106118E-02	4.6987827E-02
54	0.	-3.9774479E 00	-3.9774479E 00
55	0.	-0.	0.
56	0.	8.8571758E 01	8.8571758E 01
57	0.	-1.7020410E 02	-1.7020410E 02
58	0.	-1.0751308E 01	-1.0751308E 01
59	0.	-2.4632075E 02	-2.4632075E 02
60	0.	2.9176226E 00	2.9176226E 00
61	0.	-0.	0.
62	0.	-0.	0.
63	4.5916694E 02	-5.4934425E-05	4.5916688E 02
64	-6.6126084E 02	-4.3261049E 03	-4.9873658E 03
65	-4.4427256E 03	-1.0918965E 03	-5.5346222E 03
66	-4.4431717E 03	1.0820933E 03	-3.3610785E 03
67	1.0811901E 02	-2.5652814E-04	1.0811875E 02
68	0.	-1.0461883E 02	-1.0461883E 02
69	2.9241790E-14	1.5795507E 00	1.5795507E 00
70	6.0715113E 03	-1.0737638E 03	4.9977475E 03
71	-3.3065542E 00	-2.1677262E 03	-2.1710327E 03
72	-4.3869644E 03	-4.7142276E 03	-9.1011920E 03
73	-4.6726791E 03	4.7142273E 03	4.1548218E 01
74	4.3644081E 03	5.6234275E 02	4.9267508E 03
75	4.1908250E 00	4.7531108E-02	4.2383561E 00
76	1.2170960E-04	-4.6725479E-02	-4.6603770E-02
77	8.0022118E-01	-2.3377445E 03	-2.3369443E 03
78	-6.0701302E 03	2.2258107E 03	-3.8443194E 03
79	3.0732874E 01	2.3484879E 03	2.3792208E 03
80	-6.0715114E 03	-3.2470852E 03	-9.3185966E 03
81	-1.2268580E-04	1.7215597E-03	1.5988739E-03
82	1.7512613E 03	3.8791988E 03	5.6304601E 03
83	-6.6031910E 02	4.3246112E 03	3.6642921E 03
84	6.0701301E 03	2.1390381E 03	8.2091682E 03
85	4.6628432E 01	-2.1191635E 03	-2.0725351E 03
86	-7.4054782E 01	2.3324019E 03	2.2583471E 03
87	9.3026627E-01	2.1661868E-05	9.3028793E-01
88	3.6420878E 02	2.4158207E 03	2.7800295E 03
89	-3.1416962E 02	-2.1706241E 03	-2.4847937E 03
90	1.0669779E 03	-5.2282011E 03	-4.1612232E 03
91	4.6983115E 02	5.2282002E 03	5.6980314E 03
92	4.6952354E 03	-5.6234257E 02	4.1328929E 03
93	-5.0839381E 01	2.1685477E 03	2.1177084E 03
94	7.3456255E 02	-4.2471737E 03	-3.5126112E 03
95	8.0550721E 02	5.1631723E 03	5.9686795E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL4P SYMMETRIC	ROLL4P ANTI-SYM	S + AS
1	-6.9844463E 02	-2.3972330E-03	-6.9844702E 02
2	4.6547784E 03	-2.2525977E 03	2.4021806E 03
3	1.5933710E 03	-6.4621844E 03	-4.8688133E 03
4	-1.2268580E-04	-1.2546077E-03	-1.3772935E-03
5	1.5692956E-04	2.8379561E 02	2.8379576E 02
6	1.5924031E 03	3.2688084E 03	4.8612114E 03
7	4.6542575E 03	-5.6003909E 03	-9.4613329E 02
8	5.6862849E 01	1.7230370E-03	5.6864572E 01
9	-3.5374522E 01	-1.2243804E-03	-3.5375746E 01
10	0.	1.5900000E 02	1.5900000E 02
11	4.6547784E 03	-2.0292068E 03	2.6255716E 03
12	1.2609669E-05	-1.9387268E 03	-1.9387268E 03
13	1.1167917E-05	-1.7813967E 03	-1.7813967E 03
14	-0.	-1.7912889E 02	-1.7912889E 02
15	3.0595130E-01	1.6840038E 00	1.9899551E 00
16	1.5932314E 03	-5.9244134E 03	-4.3311819E 03
17	0.	-1.5206359E 03	-1.5206359E 03
18	0.	-1.8007703E 03	-1.8007703E 03
19	0.	0.	0.
20	2.8896434E-10	-1.5899999E 02	-1.5899999E 02
21	1.5922634E 03	3.5757187E 03	5.1679821E 03
22	0.	-1.4981007E 03	-1.4981007E 03
23	0.	-3.5265169E 01	-3.5265169E 01
24	0.	-1.7472738E 03	-1.7472738E 03
25	4.6542575E 03	-5.1518137E 03	-4.9755621E 02
26	0.	-2.0240638E 03	-2.0240638E 03
27	0.	-1.7283000E 03	-1.7283000E 03
28	0.	1.7912889E 02	1.7912889E 02
29	-6.4691769E 01	-2.9990024E 02	-3.6459200E 02
30	3.1261085E 03	-6.9174895E 03	-3.7913810E 03
31	4.1022886E-05	1.3129937E 03	1.3129938E 03
32	-1.3074145E 03	-4.0759488E 03	-5.3833633E 03
33	9.1334879E 02	4.2341316E 03	5.1474803E 03
34	-7.1843053E 01	2.4842843E 02	1.7658537E 02
35	1.5592131E 03	3.0078100E 03	4.5670230E 03
36	2.5289400E 02	-6.0770417E 02	-3.5481018E 02
37	1.7505081E 03	2.4051331E 03	4.1556411E 03
38	3.5536955E 02	1.5063974E 03	1.8617670E 03
39	-4.0572610E 02	-1.8818576E 02	-5.9391186E 02
40	3.9247657E-06	1.6251925E 03	1.6251925E 03
41	-6.4630134E 01	4.9224450E 02	4.2761437E 02
42	1.7356803E 03	-4.6055600E 03	-2.8698797E 03
43	2.5298926E-05	1.3706986E 03	1.3706986E 03
44	1.3770334E-05	-3.4707242E 01	-3.4707229E 01
45	0.	1.6853748E 03	1.6853748E 03
46	0.	0.	0.
47	3.1270445E 03	8.5509224E 03	1.1677967E 04
48	0.	1.2369052E 03	1.2369052E 03
49	-1.3061686E 03	1.1818186E 04	1.0512017E 04
50	9.1247840E 02	-6.9497373E 03	-6.0372589E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL4P SYMMETRIC	ROLL4P ANTI-SYM	S + AS
51	-8.6608869E 02	-8.9873343E-05	-8.6608877E 02
52	-4.2049485E 00	4.7743340E-02	-4.1572052E 00
53	-1.1829049E-04	-4.6203048E-02	-4.6321338E-02
54	0.	-2.2494955E 00	-2.2494955E 00
55	0.	0.	0.
56	0.	-1.6729421E 03	-1.6729421E 03
57	0.	1.3830502E 03	1.3830502E 03
58	0.	1.3792430E 01	1.3792430E 01
59	0.	-1.5876437E 03	-1.5876437E 03
60	0.	1.4565769E 03	1.4565769E 03
61	0.	0.	0.
62	0.	0.	0.
63	4.5916644E 02	9.3923551E-05	4.5916703E 02
64	-6.6126084E 02	4.2871938E 03	3.6259329E 03
65	-4.4427256E 03	1.0645941E 03	-3.3781315E 03
66	-4.4431717E 03	-8.9816017E 02	-5.3413319E 03
67	1.0811901E 02	3.1952338E-04	1.0811933E 02
68	0.	-6.7431359E 02	-6.7431359E 02
69	2.9241790E-14	7.8856568E 02	7.8856568E 02
70	6.0715113E 03	4.9948028E 02	6.5709916E 03
71	-3.3065542E 00	1.6794436E 03	1.6761370E 03
72	-4.3869644E 03	4.4852271E 03	9.8262695E 01
73	-4.6726791E 03	-4.4852268E 03	-9.1579059E 03
74	4.3644081E 03	-2.9718428E 02	4.0672238E 03
75	4.1908250E 00	-4.7320650E-02	4.1435044E 00
76	1.2170960E-04	4.5830242E-02	4.5951952E-02
77	8.0022118E-01	2.0216320E 03	2.0224322E 03
78	-6.0701302E 03	2.4935383E 03	-3.5765919E 03
79	3.0732874E 01	-2.9573047E 03	-2.9265718E 03
80	-6.0715114E 03	7.9983972E 03	1.9268857E 03
81	-1.2268580E-04	-1.2546077E-03	-1.3772935E-03
82	1.7512613E 03	-4.9870201E 03	-3.2357588E 03
83	-6.6031910E 02	-4.2618627E 03	-4.9221818E 03
84	6.0701301E 03	-2.9694159E 03	3.1007142E 03
85	4.6628432E 01	2.5807007E 03	2.6273291E 03
86	-7.4054782E 01	-1.6968396E 03	-1.7708944E 03
87	9.3026627E-01	-7.0768471E-06	9.3025920E-01
88	3.6420878E 02	-3.2121511E 03	-2.8479423E 03
89	-3.1416962E 02	2.8839934E 03	2.5698238E 03
90	1.0669779E 03	4.8466251E 03	5.9136030E 03
91	4.6983115E 02	-4.8466235E 03	-4.3767924E 03
92	4.6952354E 03	2.9718409E 02	4.9924195E 03
93	-5.0839381E 01	-1.7694743E 03	-1.8203136E 03
94	7.3456255E 02	4.9318765E 03	5.6664390E 03
95	8.0550721E 02	-4.4978716E 03	-3.6923644E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PR SYMMETRIC	ROL4PR ANTI-SYM	S + AS
1	-6.9844463E 02	2.9098962E-03	-6.9844173E 02
2	4.6547784E 03	-5.7181696E 03	-1.0633912E 03
3	1.5933710E 03	3.4959931E 03	5.0893641E 03
4	-1.2268580E-04	1.7112779E-03	1.5885921E-03
5	1.5692956E-04	-2.5479192E 02	-2.5479177E 02
6	1.5924031E 03	-6.3653152E 03	-4.7729122E 03
7	4.6542575E 03	-2.2815724E 03	2.3726851E 03
8	5.6862849E 01	-2.6784734E-03	5.6860170E 01
9	-3.5374522E 01	1.7946739E-03	-3.5372727E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.6547784E 03	-5.2519403E 03	-5.9716192E 02
12	1.2609669E-05	-2.1281644E 03	-2.1281644E 03
13	1.1167917E-05	-1.8204980E 03	-1.8204980E 03
14	-0.	1.7912889E 02	1.7912889E 02
15	3.0595130E-01	2.5365861E 02	2.5396456E 02
16	1.5932314E 03	3.5863044E 03	5.1795358E 03
17	0.	-1.4287188E 03	-1.4287188E 03
18	0.	-1.6919201E 03	-1.6919201E 03
19	0.	-0.	0.
20	2.8896434E-10	1.5899999E 02	1.5899999E 02
21	1.5922634E 03	-6.0458414E 03	-4.4535781E 03
22	0.	-1.5552476E 03	-1.5552476E 03
23	0.	1.3689785E 02	1.3689785E 02
24	0.	-1.9458330E 03	-1.9458330E 03
25	4.6542575E 03	-2.0893188E 03	2.5649388E 03
26	0.	-1.7551015E 03	-1.7551015E 03
27	0.	-1.6187665E 03	-1.6187665E 03
28	0.	-1.7912889E 02	-1.7912889E 02
29	-6.4691769E 01	4.8740329E 02	4.2271152E 02
30	3.1261085E 03	8.6466752E 03	1.1772784E 04
31	4.1022886E-05	1.4222203E 03	1.4222203E 03
32	-1.3074145E 03	1.2000508E 04	1.0693094E 04
33	9.1334879E 02	-6.8813874E 03	-5.9680387E 03
34	-7.1843053E 01	-6.2027033E 02	-6.9211338E 02
35	1.5592131E 03	-4.5977062E 03	-3.0384932E 03
36	2.5289400E 02	-1.8319927E 02	6.9694726E 01
37	1.7505081E 03	-5.0993044E 03	-3.3487963E 03
38	3.5536955E 02	1.0961517E 02	4.6498471E 02
39	-4.0572610E 02	1.4043143E 03	9.9858818E 02
40	3.9247657E-06	1.6228480E 03	1.6228480E 03
41	-6.4630134E 01	-2.9253535E 02	-3.5716548E 02
42	1.7356803E 03	2.5905290E 03	4.3262093E 03
43	2.5298926E-05	1.4082212E 03	1.4082212E 03
44	1.3770334E-05	-8.1719733E 01	-8.1719720E 01
45	0.	1.7645501E 03	1.7645501E 03
46	0.	-0.	0.
47	3.1270445E 03	-6.9206501E 03	-3.7936056E 03
48	0.	1.2430662E 03	1.2430662E 03
49	-1.3061686E 03	-4.0328228E 03	-5.3389914E 03
50	9.1247840E 02	4.1301502E 03	5.0426286E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PR SYMMETRIC	ROL4PR ANTI-SYM	S + AS
51	-8.6608869E 02	-1.5533411E-04	-8.6608884E 02
52	-4.2049485E 00	-4.7741255E-02	-4.2526897E 00
53	-1.1829049E-04	4.7792854E-02	4.7674564E-02
54	0.	5.1295053E 00	5.1295053E 00
55	0.	-0.	0.
56	0.	-1.4331700E 03	-1.4331700E 03
57	0.	1.3518821E 03	1.3518821E 03
58	0.	-1.0751325E 01	-1.0751325E 01
59	0.	-1.7680626E 03	-1.7680626E 03
60	0.	1.5250038E 03	1.5250038E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	4.5916694E 02	-2.0514490E-05	4.5916691E 02
64	-6.6126084E 02	-4.3256673E 03	-4.9869280E 03
65	-4.4427256E 03	-9.9645358E 02	-5.4391792E 03
66	-4.4431717E 03	1.1650746E 03	-3.2780972E 03
67	1.0811901E 02	-1.5320583E-04	1.0811886E 02
68	0.	-7.5094218E 02	-7.5094218E 02
69	2.9241790E-14	8.2561079E 02	8.2561079E 02
70	6.0715113E 03	-2.9465849E 03	3.1249264E 03
71	-3.3065542E 00	-2.5948273E 03	-2.5981338E 03
72	-4.3869644E 03	-4.9287449E 03	-9.3157091E 03
73	-4.6726791E 03	4.9287446E 03	2.5606543E 02
74	4.3644081E 03	8.1073114E 02	5.1751392E 03
75	4.1908250E 00	4.7313681E-02	4.2381386E 00
76	1.2170960E-04	-4.7403409E-02	-4.7281699E-02
77	8.0022118E-01	-2.6784114E 03	-2.6776112E 03
78	-6.0701302E 03	8.1211770E 03	2.0510468E 03
79	3.0732874E 01	1.5998813E 03	1.6306141E 03
80	-6.0715114E 03	2.6097355E 03	-3.4617759E 03
81	-1.2268580E-04	1.7112779E-03	1.5885921E-03
82	1.7512613E 03	2.3955702E 03	4.1468314E 03
83	-6.6031910E 02	4.3513277E 03	3.6910086E 03
84	6.0701301E 03	2.2767179E 02	6.2978019E 03
85	4.6628432E 01	-1.7044197E 03	-1.6577913E 03
86	-7.4054782E 01	3.0933656E 03	3.0193109E 03
87	9.3026627E-01	1.1627712E-05	9.3027790E-01
88	3.6420878E 02	1.3724367E 03	1.7366455E 03
89	-3.1416962E 02	-1.3228232E 03	-1.6369929E 03
90	1.0669779E 03	-5.7153161E 03	-4.6483383E 03
91	4.6983115E 02	5.7153162E 03	6.1851473E 03
92	4.6952354E 03	-8.1073096E 02	3.8845045E 03
93	-5.0839381E 01	2.7047978E 03	2.6539585E 03
94	7.3456255E 02	-4.5849206E 03	-3.8503581E 03
95	8.0550721E 02	4.8049234E 03	5.6104307E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL 5 SYMMETRIC	ROLL 5 ANTI-SYM	S + AS
1	-7.8591595E 02	4.2623601E-04	-7.8591552E 02
2	4.5623865E 03	-1.2301715E 03	3.3322150E 03
3	1.7929138E 03	4.7294165E 02	2.2658554E 03
4	1.5485459E-04	3.1563089E-04	4.7048547E-04
5	-3.1730867E-04	5.8927116E 02	5.8927085E 02
6	1.7945759E 03	-6.6161716E 02	1.1329587E 03
7	4.5632812E 03	1.6360998E 03	6.1993811E 03
8	8.3996840E 01	-3.1177674E-04	8.3996528E 01
9	-5.2254382E 01	1.8167305E-04	-5.2254201E 01
10	0.	3.4300000E 02	3.4300000E 02
11	4.5623865E 03	-1.4767577E 03	3.0856288E 03
12	1.2283048E-05	1.1384573E 02	1.1384574E 02
13	1.0878641E-05	-3.7963654E 01	-3.7963644E 01
14	-0.	-3.8642269E 02	-3.8642269E 02
15	3.4479512E-01	-2.7709326E 02	-2.7674847E 02
16	1.7927563E 03	9.6432475E 02	2.7570810E 03
17	0.	-1.1428199E 02	-1.1428199E 02
18	0.	-1.3533524E 02	-1.3533524E 02
19	0.	0.	0.
20	3.2094333E-10	-3.4299997E 02	-3.4299997E 02
21	1.7944184E 03	-6.6781372E 02	1.1266047E 03
22	0.	3.0501496E 01	3.0501496E 01
23	0.	-1.7035279E 02	-1.7035279E 02
24	0.	1.6562892E 02	1.6562892E 02
25	4.5632812E 03	1.9204974E 03	6.4837786E 03
26	0.	-3.3683077E 02	-3.3683077E 02
27	0.	-1.5952593E 02	-1.5952593E 02
28	0.	3.8642269E 02	3.8642269E 02
29	7.6085180E 01	3.2250485E 01	1.0833566E 02
30	6.3602820E 03	-1.0470393E 03	5.3132428E 03
31	4.1691194E-05	-1.9850543E 02	-1.9850539E 02
32	1.5376738E 03	3.5167538E 02	1.8893491E 03
33	-1.0742059E 03	-4.5532742E 02	-1.5295333E 03
34	8.6645697E 01	-4.3053214E 01	4.3592483E 01
35	1.7909866E 03	-4.8188181E 02	1.3091048E 03
36	2.8924704E 02	1.7460901E 01	3.0670794E 02
37	1.9723119E 03	-4.7201689E 02	1.5002951E 03
38	4.0622607E 02	-1.0293923E 02	3.0328684E 02
39	-4.6378915E 02	8.3613293E 01	-3.8017586E 02
40	-4.2888079E-05	-3.5983192E 01	-3.5983235E 01
41	7.5979280E 01	-3.8337062E 01	3.7642218E 01
42	1.9906210E 03	7.7799730E 02	2.7686183E 03
43	-1.0982549E-05	-5.6123912E 01	-5.6123924E 01
44	-3.4572285E-05	3.1478684E 01	3.1478650E 01
45	0.	-9.0567272E 01	-9.0567272E 01
46	0.	0.	0.
47	6.3586747E 03	7.9777582E 02	7.1564505E 03
48	0.	-1.2949445E 02	-1.2949445E 02
49	1.5355337E 03	-9.7055999E 02	5.6497372E 02
50	-1.0727109E 03	5.4126048E 02	-5.3145039E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL 5 SYMMETRIC	ROLL 5 ANTI-SYM	S + AS
51	-9.9483531E 02	2.7563764E-06	-9.9483531E 02
52	-4.7712691E 00	-7.6693670E-03	-4.7789385E 00
53	1.1967202E-04	7.4581186E-03	7.5777906E-03
54	0.	-1.0100368E 01	-1.0100368E 01
55	0.	0.	0.
56	0.	-2.6501392E 02	-2.6501392E 02
57	0.	-1.1585258E 01	-1.1585258E 01
58	0.	2.7258828E 01	2.7258828E 01
59	0.	1.5049713E 02	1.5049713E 02
60	0.	-7.8272322E 01	-7.8272322E 01
61	0.	0.	0.
62	0.	0.	0.
63	6.7822915E 02	-2.2221214E-05	6.7822913E 02
64	-9.7763886E 02	-7.1263360E 02	-1.6902725E 03
65	-6.5516259E 03	-5.9973910E 03	-1.2549017E 04
66	-6.5508587E 03	5.9921243E 03	-5.5873449E 02
67	2.6786968E 01	-1.2036112E-04	2.6786848E 01
68	0.	6.3920050E 01	6.3920050E 01
69	-3.1954108E-13	-4.2375288E 01	-4.2375288E 01
70	6.1565413E 03	6.4209548E 03	1.2577496E 04
71	-4.8825978E 00	-6.3007931E 02	-6.3496190E 02
72	-7.8085612E 03	1.4367122E 03	-6.3718489E 03
73	-8.1308906E 03	-1.4367120E 03	-9.5676025E 03
74	7.7831144E 03	5.6615173E 03	1.3444632E 04
75	4.7552338E 00	7.6065410E-03	4.7628403E 00
76	-1.3340292E-04	-7.3991588E-03	-7.5325617E-03
77	1.9798614E-01	-5.9889907E 02	-5.9870108E 02
78	-6.1589137E 03	-1.4639743E 03	-7.6228880E 03
79	3.4578758E 01	2.1643367E 02	2.5101242E 02
80	-6.1565412E 03	8.0965936E 02	-5.3468818E 03
81	1.5485459E-04	3.1563089E-04	4.7048547E-04
82	1.9710184E 03	7.9796730E 02	2.7689857E 03
83	-9.7925608E 02	7.1183192E 02	-2.6742417E 02
84	6.1589137E 03	-5.7426398E 03	4.1627386E 02
85	7.0291475E 01	-6.0392315E 02	-5.3363167E 02
86	-9.9987690E 01	-1.1443103E 02	-2.1441872E 02
87	1.3743761E 00	-1.3311019E-05	1.3743628E 00
88	4.1551533E 02	4.7213504E 02	8.8765037E 02
89	-3.5731651E 02	-6.0272378E 02	-9.6004028E 02
90	-5.6810890E 02	-4.7129212E 02	-1.0394010E 03
91	-1.2486462E 03	4.7129192E 02	-7.7735424E 02
92	8.1563373E 03	-5.6615176E 03	2.4948198E 03
93	-5.8396806E 01	2.8348779E 02	2.2509099E 02
94	-9.6025983E 02	-9.2411703E 01	-1.0526715E 03
95	-8.5311465E 02	6.7441157E 02	-1.7870309E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLLSR SYMMETRIC	ROLLSR ANTI-SYM	S + AS
1	-7.8591595E 02	-2.2073969E-04	-7.8591616E 02
2	4.5623865E 03	1.6043058E 03	6.1666924E 03
3	1.7929138E 03	-3.4289693E 02	1.4500169E 03
4	1.5485459E-04	-1.0616713E-04	4.8687460E-05
5	-3.1730867E-04	-5.8024902E 02	-5.8024933E 02
6	1.7945759E 03	7.6889920E 02	2.5634750E 03
7	4.5632812E 03	-1.2252419E 03	3.3380394E 03
8	8.3996840E 01	1.3299820E-04	8.3996972E 01
9	-5.2254382E 01	-6.2483320E-05	-5.2254444E 01
10	0.	-3.4300000E 02	-3.4300000E 02
11	4.5623865E 03	1.8864831E 03	6.4488696E 03
12	1.2283048E-05	-3.2373717E 02	-3.2373716E 02
13	1.0878641E-05	-1.4792942E 02	-1.4792941E 02
14	-0.	3.8642269E 02	3.8642269E 02
15	3.4479512E-01	2.7331514E 02	2.7365993E 02
16	1.7927563E 03	-8.1477141E 02	9.7798485E 02
17	0.	5.4031908E 01	5.4031908E 01
18	0.	6.3985764E 01	6.3985764E 01
19	0.	-0.	0.
20	3.2094333E-10	3.4299997E 02	3.4299997E 02
21	1.7944184E 03	7.9405781E 02	2.5884762E 03
22	0.	-1.2301932E 02	-1.2301932E 02
23	0.	2.0195643E 02	2.0195643E 02
24	0.	-2.9921678E 02	-2.9921678E 02
25	4.5632812E 03	-1.4892071E 03	3.0740741E 03
26	0.	2.1633542E 02	2.1633542E 02
27	0.	5.2807674E 01	5.2807674E 01
28	0.	-3.8642269E 02	-3.8642269E 02
29	7.6085180E 01	-3.9119283E 01	3.6965897E 01
30	6.3602820E 03	9.6113690E 02	7.3214189E 03
31	4.1691194E-05	-5.7096082E-01	-5.7091913E-01
32	1.5376738E 03	-7.9146004E 02	7.4621373E 02
33	-1.0742059E 03	5.5230433E 02	-5.2190153E 02
34	8.6645697E 01	6.8198216E 01	1.5484391E 02
35	1.7909866E 03	5.8829882E 02	2.3792854E 03
36	2.8924704E 02	6.6492450E 00	2.9589629E 02
37	1.9723119E 03	6.1453840E 02	2.5868503E 03
38	4.0622607E 02	5.6343541E 01	4.6256961E 02
39	-4.6378915E 02	-1.3680314E 02	-6.0059229E 02
40	-4.2888079E-05	-7.6900913E 01	-7.6900955E 01
41	7.5979280E 01	3.4121107E 01	1.1010039E 02
42	1.9906210E 03	-6.3031957E 02	1.3603014E 03
43	-1.0982549E-05	-6.9995010E 00	-6.9995120E 00
44	-3.4572285E-05	-6.7294394E 01	-6.7294428E 01
45	0.	3.9787653E 01	3.9787653E 01
46	0.	-0.	0.
47	6.3586747E 03	-9.3089222E 02	5.4277825E 03
48	0.	-1.4810073E 02	-1.4810073E 02
49	1.5355337E 03	4.6568306E 02	2.0012168E 03
50	-1.0727109E 03	-4.8173766E 02	-1.5544485E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL5R SYMMETRIC	ROLL5R ANTI-SYM	S + AS
51	-9.9483531E 02	2.2740674E-05	-9.9483529E 02
52	-4.7712691E 00	7.5399900E-03	-4.7637292E 00
53	1.1967202E-04	-7.4210491E-03	-7.3013771E-03
54	0.	3.4539433E 00	3.4539433E 00
55	0.	-0.	0.
56	0.	2.2123742E 02	2.2123742E 02
57	0.	-1.0817578E 02	-1.0817578E 02
58	0.	-2.6389924E 01	-2.6389924E 01
59	0.	-2.7188047E 02	-2.7188047E 02
60	0.	3.4386284E 01	3.4386284E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	6.7822915E 02	2.4206770E-05	6.7822917E 02
64	-9.7763886E 02	7.0064402E 02	-2.7699484E 02
65	-6.5516259E 03	5.9580010E 03	-5.9362488E 02
66	-6.5508587E 03	-5.9623259E 03	-1.2513185E 04
67	2.6786968E 01	1.0286489E-04	2.6787071E 01
68	0.	-1.1547471E 02	-1.1547471E 02
69	-3.1954108E-13	1.8616142E 01	1.8616142E 01
70	6.1565413E 03	-5.8646013E 03	2.9194006E 02
71	-4.8825978E 00	6.0421868E 02	5.9933609E 02
72	-7.8085612E 03	-1.4368639E 03	-9.2454250E 03
73	-8.1308906E 03	1.4368637E 03	-6.6940269E 03
74	7.7831144E 03	-5.6613417E 03	2.1217727E 03
75	4.7552338E 00	-7.4769154E-03	4.7477569E 00
76	-1.3340292E-04	7.3616134E-03	7.2282106E-03
77	1.9798614E-01	6.1131243E 02	6.1151041E 02
78	-6.1589137E 03	9.5135586E 02	-5.2075579E 03
79	3.4578758E 01	-1.5692084E 02	-1.2234208E 02
80	-6.1565412E 03	-1.2994219E 03	-7.4559630E 03
81	1.5485459E-04	-1.0616713E-04	4.8687460E-05
82	1.9710184E 03	-6.3730865E 02	1.3337098E 03
83	-9.7925608E 02	-7.0130215E 02	-1.6805582E 03
84	6.1589137E 03	6.2326673E 03	1.2391581E 04
85	7.0291475E 01	6.2575451E 02	6.9604599E 02
86	-9.9987690E 01	5.8947544E 01	-4.1040146E 01
87	1.3743761E 00	2.3795455E-05	1.3743999E 00
88	4.1551533E 02	-3.6531187E 02	5.0203457E 01
89	-3.5731651E 02	5.4609151E 02	1.8877500E 02
90	-5.6810890E 02	5.1376540E 02	-5.4343498E 01
91	-1.2486462E 03	-5.1376529E 02	-1.7624114E 03
92	8.1563373E 03	5.6613419E 03	1.3817679E 04
93	-5.8396806E 01	-3.4609208E 02	-4.0448888E 02
94	-9.6025983E 02	5.4218681E 02	-4.1807302E 02
95	-8.5311465E 02	-2.2418670E 02	-1.0773014E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLL5P SYMMETRIC	ROLL5P ANTI-SYM	S + AS
1	-7.8591595E 02	4.4808484E-04	-7.8591550E 02
2	4.5623865E 03	-5.6325096E 03	-1.0701231E 03
3	1.7929138E 03	-1.1628854E 03	6.3002838E 02
4	1.5485459E-04	3.0534908E-04	4.6020367E-04
5	-3.1730867E-04	5.8927600E 02	5.8927569E 02
6	1.7945759E 03	-2.3244534E 03	-5.2987750E 02
7	4.5632812E 03	-2.7807722E 03	1.7825090E 03
8	8.3996840E 01	-5.8585377E-04	8.3996253E 01
9	-5.2254382E 01	3.3071447E-04	-5.2254052E 01
10	0.	3.4300000E 02	3.4300000E 02
11	4.5623865E 03	-5.5783079E 03	-1.0159214E 03
12	1.2283048E-05	-1.6599877E 03	-1.6599877E 03
13	1.0878641E-05	-1.6089822E 03	-1.6089822E 03
14	-0.	-3.8642269E 02	-3.8642269E 02
15	3.4479512E-01	-1.3980335E 02	-1.3945856E 02
16	1.7927563E 03	-3.8135911E 02	1.4113972E 03
17	0.	-1.5284982E 03	-1.5284982E 03
18	0.	-1.8100810E 03	-1.8100810E 03
19	0.	0.	0.
20	3.2094333E-10	-3.4299997E 02	-3.4299997E 02
21	1.7944184E 03	-2.0405082E 03	-2.4608972E 02
22	0.	-1.3837148E 03	-1.3837148E 03
23	0.	-1.7035279E 02	-1.7035279E 02
24	0.	-1.5091169E 03	-1.5091169E 03
25	4.5632812E 03	-2.1955868E 03	2.3676944E 03
26	0.	-2.1106642E 03	-2.1106642E 03
27	0.	-1.7305445E 03	-1.7305445E 03
28	0.	3.8642269E 02	3.8642269E 02
29	7.6085180E 01	1.3448986E 02	2.1057504E 02
30	6.3602820E 03	-9.5408435E 01	6.2648736E 03
31	4.1691194E-05	1.3766164E 03	1.3766164E 03
32	1.5376738E 03	4.7992180E 03	6.3368918E 03
33	-1.0742059E 03	-1.8987908E 03	-2.9729967E 03
34	8.6645697E 01	-2.6402745E 02	-1.7738175E 02
35	1.7909866E 03	-1.3934189E 03	3.9756770E 02
36	2.8924704E 02	-4.0305864E 02	-1.1381160E 02
37	1.9723119E 03	-1.9766629E 03	-4.3509521E 00
38	4.0622607E 02	7.6230849E 02	1.1685345E 03
39	-4.6378915E 02	7.5558634E 02	2.9179719E 02
40	-4.2888079E-05	1.7251909E 03	1.7251909E 03
41	7.5979280E 01	6.5622815E 01	1.4160209E 02
42	1.9906210E 03	-4.0424290E 02	1.5863781E 03
43	-1.0982549E-05	1.3976951E 03	1.3976951E 03
44	-3.4572285E-05	3.1478644E 01	3.1478609E 01
45	0.	1.6706069E 03	1.6706069E 03
46	0.	0.	0.
47	6.3586747E 03	1.7755280E 03	8.1342027E 03
48	0.	1.4456274E 03	1.4456274E 03
49	1.5355337E 03	3.5117535E 03	5.0472872E 03
50	-1.0727109E 03	-9.2649359E 02	-1.9992045E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLLSP SYMMETRIC	ROLLSP ANTI-SYM	S + AS
51	-9.9483531E 02	-1.4893371E-04	-9.9483545E 02
52	-4.7712691E 00	-7.4544860E-03	-4.7787236E 00
53	1.1967202E-04	8.1448551E-03	8.2645270E-03
54	0.	-9.9341435E-01	-9.9341435E-01
55	0.	0.	0.
56	0.	-1.7867557E 03	-1.7867557E 03
57	0.	1.5105009E 03	1.5105009E 03
58	0.	2.7258810E 01	2.7258810E 01
59	0.	-1.3712447E 03	-1.3712447E 03
60	0.	1.4438138E 03	1.4438138E 03
61	0.	0.	0.
62	0.	0.	0.
63	6.7822915E 02	1.2198722E-05	6.7822915E 02
64	-9.7763886E 02	-7.1219593E 02	-1.6898348E 03
65	-6.5516259E 03	-5.9019479E 03	-1.2453574E 04
66	-6.5508587E 03	6.0751055E 03	-4.7575323E 02
67	2.6786968E 01	-1.7038807E-05	2.6786951E 01
68	0.	-5.8240330E 02	-5.8240330E 02
69	-3.1954108E-13	7.8165596E 02	7.8165596E 02
70	6.1565413E 03	4.5481336E 03	1.0704675E 04
71	-4.8825978E 00	-1.0571803E 03	-1.0620629E 03
72	-7.8085612E 03	1.2221950E 03	-6.5863662E 03
73	-8.1308906E 03	-1.2221948E 03	-9.3530853E 03
74	7.7831144E 03	5.9099054E 03	1.3693020E 04
75	4.7552338E 00	7.3891159E-03	4.7626228E 00
76	-1.3340292E-04	-8.0770898E-03	-8.2104926E-03
77	1.9798614E-01	-9.3956594E 02	-9.3936796E 02
78	-6.1589137E 03	4.4313920E 03	-1.7275217E 03
79	3.4578758E 01	-5.3217306E 02	-4.9759431E 02
80	-6.1565412E 03	6.6664800E 03	5.0993884E 02
81	1.5485459E-04	3.0534908E-04	4.6020367E-04
82	1.9710184E 03	-6.8566146E 02	1.2853570E 03
83	-9.7925608E 02	7.3854845E 02	-2.4070763E 02
84	6.1589137E 03	-7.6540061E 03	-1.4950923E 03
85	7.0291475E 01	-1.8917928E 02	-1.1888780E 02
86	-9.9987690E 01	6.4653277E 02	5.4654509E 02
87	1.3743761E 00	-2.3345175E-05	1.3743528E 00
88	4.1551533E 02	-5.7124907E 02	-1.5573374E 02
89	-3.5731651E 02	2.4507713E 02	-1.1223937E 02
90	-5.6810890E 02	-9.5840750E 02	-1.5265164E 03
91	-1.2486462E 03	9.5840816E 02	-2.9023799E 02
92	8.1563373E 03	-5.9099056E 03	2.2464317E 03
93	-5.8396806E 01	8.1973794E 02	7.6134113E 02
94	-9.6025983E 02	-4.3015881E 02	-1.3904186E 03
95	-8.5311465E 02	3.1616266E 02	-5.3695200E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PR SYMMETRIC	ROL5PR ANTI-SYM	S + AS
1	-7.8591595E 02	-1.9889087E-04	-7.8591614E 02
2	4.5623865E 03	-2.7980323E 03	1.7643542E 03
3	1.7929138E 03	-1.9767239E 03	-1.8581017E 02
4	1.5485459E-04	-1.1644893E-04	3.8405657E-05
5	-3.1730867E-04	-5.8024417E 02	-5.8024448E 02
6	1.7945759E 03	-8.9393705E 02	9.0063881E 02
7	4.5632812E 03	-5.6421139E 03	-1.0788326E 03
8	8.3996840E 01	-1.4107884E-04	8.3996699E 01
9	-5.2254382E 01	8.6558088E-05	-5.2254295E 01
10	0.	-3.4300000E 02	-3.4300000E 02
11	4.5623865E 03	-2.2150671E 03	2.3473194E 03
12	1.2283048E-05	-2.0975706E 03	-2.0975706E 03
13	1.0878641E-05	-1.7189480E 03	-1.7189480E 03
14	-0.	3.8642269E 02	3.8642269E 02
15	3.4479512E-01	4.1060505E 02	4.1094984E 02
16	1.7927563E 03	-2.1604552E 03	-3.6769896E 02
17	0.	-1.3601843E 03	-1.3601843E 03
18	0.	-1.6107600E 03	-1.6107600E 03
19	0.	-0.	0.
20	3.2094333E-10	3.4299997E 02	3.4299997E 02
21	1.7944184E 03	-5.7863668E 02	1.2157818E 03
22	0.	-1.5372356E 03	-1.5372356E 03
23	0.	2.0195643E 02	2.0195643E 02
24	0.	-1.9739626E 03	-1.9739626E 03
25	4.5632812E 03	-5.6052912E 03	-1.0420099E 03
26	0.	-1.5574980E 03	-1.5574980E 03
27	0.	-1.5182109E 03	-1.5182109E 03
28	0.	-3.8642269E 02	-3.8642269E 02
29	7.6085180E 01	6.3120092E 01	1.3920527E 02
30	6.3602820E 03	1.9127677E 03	8.2730496E 03
31	4.1691194E-05	1.5745509E 03	1.5745509E 03
32	1.5376738E 03	3.6560826E 03	5.1937563E 03
33	-1.0742059E 03	-8.9115903E 02	-1.9653649E 03
34	8.6645697E 01	-1.5277601E 02	-6.6130313E 01
35	1.7909866E 03	-3.2323828E 02	1.4677483E 03
36	2.8924704E 02	-4.1387031E 02	-1.2462327E 02
37	1.9723119E 03	-8.9010766E 02	1.0822043E 03
38	4.0622607E 02	9.2159127E 02	1.3278173E 03
39	-4.6378915E 02	5.3516991E 02	7.1380752E 01
40	-4.2888079E-05	1.6842732E 03	1.6842732E 03
41	7.5979280E 01	1.3808099E 02	2.1406027E 02
42	1.9906210E 03	-1.8125598E 03	1.7806122E 02
43	-1.0982549E-05	1.4468195E 03	1.4468195E 03
44	-3.4572285E-05	-6.7294436E 01	-6.7294471E 01
45	0.	1.8009619E 03	1.8009619E 03
46	0.	-0.	0.
47	6.3586747E 03	4.6860017E 01	6.4055347E 03
48	0.	1.4270211E 03	1.4270211E 03
49	1.5355337E 03	4.9479966E 03	6.4835302E 03
50	-1.0727109E 03	-1.9494918E 03	-3.0222026E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PR SYMMETRIC	ROL5PR ANTI-SYM	S + AS
51	-9.9483531E 02	-1.2894942E-04	-9.9483542E 02
52	-4.7712691E 00	7.7548715E-03	-4.7635143E 00
53	1.1967202E-04	-6.7343128E-03	-6.6146408E-03
54	0.	1.2560896E 01	1.2560896E 01
55	0.	-0.	0.
56	0.	-1.3005044E 03	-1.3005044E 03
57	0.	1.4139104E 03	1.4139104E 03
58	0.	-2.6389942E 01	-2.6389942E 01
59	0.	-1.7936223E 03	-1.7936223E 03
60	0.	1.5564725E 03	1.5564725E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	6.7822915E 02	5.8626704E-05	6.7822920E 02
64	-9.7763886E 02	7.0108166E 02	-2.7655720E 02
65	-6.5516259E 03	6.0534440E 03	-4.9818195E 02
66	-6.5508587E 03	-5.8793446E 03	-1.2430203E 04
67	2.6786968E 01	2.0618721E-04	2.6787174E 01
68	0.	-7.6179807E 02	-7.6179807E 02
69	-3.1954108E-13	8.4264739E 02	8.4264739E 02
70	6.1565413E 03	-7.7374223E 03	-1.5808810E 03
71	-4.8825978E 00	1.7711766E 02	1.7223506E 02
72	-7.8085612E 03	-1.6513812E 03	-9.4599423E 03
73	-8.1308906E 03	1.6513809E 03	-6.4795097E 03
74	7.7831144E 03	-5.4129532E 03	2.3701611E 03
75	4.7552338E 00	-7.6943408E-03	4.7475395E 00
76	-1.3340292E-04	6.6836824E-03	6.5502795E-03
77	1.9798614E-01	2.7064551E 02	2.7084350E 02
78	-6.1589137E 03	6.8467221E 03	6.8780835E 02
79	3.4578758E 01	-9.0552753E 02	-8.7094879E 02
80	-6.1565412E 03	4.5573990E 03	-1.5991422E 03
81	1.5485459E-04	-1.1644893E-04	3.8405657E-05
82	1.9710184E 03	-2.1209374E 03	-1.4991899E 02
83	-9.7925608E 02	-6.7458560E 02	-1.6538417E 03
84	6.1589137E 03	4.3213009E 03	1.0480215E 04
85	7.0291475E 01	1.0404983E 03	1.1107898E 03
86	-9.9987690E 01	8.1991136E 02	7.1992368E 02
87	1.3743761E 00	1.3761299E-05	1.3743899E 00
88	4.1551533E 02	-1.4086960E 03	-9.9318067E 02
89	-3.5731651E 02	1.3938924E 03	1.0365759E 03
90	-5.6810890E 02	2.6650051E 01	-5.4145885E 02
91	-1.2486462E 03	-2.6649062E 01	-1.2752952E 03
92	8.1563373E 03	5.4129534E 03	1.3569291E 04
93	-5.8396806E 01	1.9015807E 02	1.3176127E 02
94	-9.6025983E 02	2.0443970E 02	-7.5582013E 02
95	-8.5311465E 02	-5.8243563E 02	-1.4355503E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 1 SYMMETRIC	HOV 1 ANTI-SYM	S + AS
1	-2.2878467E 02	-1.3352041E-03	-2.2878600E 02
2	1.2669034E 03	3.2766430E 02	1.5945677E 03
3	5.2192695E 02	1.9512530E 03	2.4731799E 03
4	7.1636895E-05	-7.1735082E-04	-6.4571394E-04
5	-1.3715173E-04	-7.8079317E 01	-7.8079453E 01
6	5.2266024E 02	3.6177067E 02	8.8443091E 02
7	1.2672981E 03	-1.1998402E 03	6.7457870E 01
8	2.6266519E 01	9.1259757E-04	2.6267431E 01
9	-1.6340367E 01	-1.2506017E-03	-1.6341618E 01
10	0.	0.	0.
11	1.2669034E 03	6.1953110E 02	1.8864345E 03
12	3.4028645E-06	-1.7212235E 03	-1.7212235E 03
13	3.0137913E-06	-1.5244239E 03	-1.5244239E 03
14	-0.	-0.	-0.
15	1.0041966E-01	-1.2975979E 02	-1.2965937E 02
16	5.2188106E 02	-5.3914037E 03	-4.8695226E 03
17	0.	-2.6655866E 03	-2.6655866E 03
18	0.	2.0446180E 03	2.0446180E 03
19	0.	5.1860191E 03	5.1860191E 03
20	9.3046719E-11	-7.1184070E-07	-7.1174765E-07
21	5.2261440E 02	2.2117952E 02	7.4379392E 02
22	0.	6.8546247E 02	6.8546247E 02
23	0.	1.5585853E 02	1.5585853E 02
24	0.	6.9325038E 02	6.9325038E 02
25	1.2672981E 03	-1.6081837E 03	-3.4088563E 02
26	0.	2.4081210E 03	2.4081210E 03
27	0.	2.1327835E 03	2.1327835E 03
28	0.	0.	0.
29	3.5647731E 01	7.5628114E 01	1.1127584E 02
30	2.1092606E 03	-1.3183584E 02	1.9774248E 03
31	1.1731315E-05	-1.5161143E 03	-1.5161143E 03
32	7.2043706E 02	-7.6364938E 02	-4.3212326E 01
33	-5.0329124E 02	-1.0677532E 03	-1.5710444E 03
34	4.0409099E 01	4.1818314E 00	4.4590930E 01
35	5.2467617E 02	-3.4092408E 02	1.8375210E 02
36	8.4625938E 01	-3.9615518E 02	-3.1152924E 02
37	5.7438487E 02	-8.4264816E 02	-2.6826329E 02
38	1.1883060E 02	7.3610831E 02	8.5493891E 02
39	-1.3566915E 02	4.1017967E 02	2.7451053E 02
40	-1.6774073E-05	1.3269549E 03	1.3269549E 03
41	3.5601012E 01	-1.5298717E 02	-1.1738616E 02
42	5.8288764E 02	1.8840926E 03	2.4669802E 03
43	-6.7740162E-06	-2.1862268E 03	-2.1862268E 03
44	-1.4603802E-05	-1.0834447E 03	-1.0834447E 03
45	0.	3.2056495E 03	3.2056495E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.1085515E 03	-8.9348164E 02	1.2150699E 03
48	0.	2.5860005E 03	2.5860005E 03
49	7.1949293E 02	8.1770202E 02	1.5371950E 03
50	-5.0263169E 02	2.1599442E 03	1.6573126E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 1 SYMMETRIC	HOV 1 ANTI-SYM	S + AS
51	-2.9144110E 02	-3.7353991E-04	-2.9144147E 02
52	-1.3925440E 00	2.7189139E-03	-1.3898251E 00
53	5.7756594E-05	-2.7676088E-03	-2.7098522E-03
54	0.	-2.9645434E 02	-2.9645434E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	1.0977403E 03	1.0977403E 03
57	0.	4.7520717E 02	4.7520717E 02
58	0.	9.7075917E 02	9.7075917E 02
59	0.	6.2991527E 02	6.2991527E 02
60	0.	2.7704669E 03	2.7704669E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	2.1208489E 02	-3.9094596E-07	2.1208489E 02
64	-3.0577362E 02	3.4060751E 02	3.4833896E 01
65	-2.0479824E 03	3.3338762E 03	1.2858938E 03
66	-2.0476440E 03	-3.4008152E 03	-5.4484591E 03
67	-8.0429196E-01	1.2897968E-04	-8.0416298E-01
68	0.	2.6754144E 02	2.6754144E 02
69	-1.2497658E-13	1.4998831E 03	1.4998831E 03
70	1.7309705E 03	-4.8371515E 02	1.2472554E 03
71	-1.5267059E 00	-5.0912588E 02	-5.1065258E 02
72	-2.5335394E 03	4.0752397E 02	-2.1260154E 03
73	-2.6274468E 03	-4.0752394E 02	-3.0349708E 03
74	2.5261257E 03	-2.7981855E 03	-2.7205984E 02
75	1.3878631E 00	-2.7273361E-03	1.3851357E 00
76	-6.3347564E-05	2.7534232E-03	2.6900756E-03
77	-6.0567353E-03	3.7766533E 01	3.7760476E 01
78	-1.7320172E 03	9.3331451E 02	-7.9870265E 02
79	1.0065802E 01	8.9295449E 02	9.0302029E 02
80	-1.7309704E 03	-2.0626051E 03	-3.7935755E 03
81	7.1636895E-05	-7.1735082E-04	-6.4571394E-04
82	5.7381421E 02	-4.4293792E 03	-3.8555650E 03
83	-3.0648711E 02	-3.5079397E 02	-6.5728108E 02
84	1.7320172E 03	1.3105008E 03	3.0425180E 03
85	2.2078311E 01	1.0240589E 02	1.2448420E 02
86	-3.0617425E 01	-1.1027668E 02	-1.4089410E 02
87	4.2979297E-01	-6.6474887E-04	4.2912822E-01
88	1.2147519E 02	7.8067020E 02	9.0214539E 02
89	-1.0436155E 02	-2.0799997E 02	-3.1236152E 02
90	-3.2574959E 02	-2.7914107E 02	-6.0489067E 02
91	-5.2463818E 02	2.7914099E 02	-2.4549719E 02
92	2.6348605E 03	2.7981856E 03	5.4330461E 03
93	-1.7107585E 01	2.0056320E 02	1.8345562E 02
94	-4.4154857E 02	3.6314607E 03	3.1899121E 03
95	-4.0788127E 02	-2.6631314E 03	-3.0710127E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 4 SYMMETRIC	HOV 4 ANTI-SYM	S + AS
1	-2.2878467E 02	-4.2159154E-04	-2.2878509E 02
2	1.2669034E 03	-4.1791421E 02	8.4898916E 02
3	5.2192695E 02	3.3267322E 03	3.8486592E 03
4	7.1636895E-05	-3.6863385E-04	-2.9699696E-04
5	-1.3715173E-04	-2.7769117E 02	-2.7769130E 02
6	5.2266024E 02	-9.1764117E 02	-3.9498094E 02
7	1.2672961E 03	-3.9871179E 02	8.6858631E 02
8	2.6266519E 01	2.1989478E-04	2.6266738E 01
9	-1.6340367E 01	-4.5886947E-04	-1.6340826E 01
10	0.	0.	0.
11	1.2669034E 03	-6.7938302E 02	5.8752035E 02
12	3.4028645E-06	1.5419573E 03	1.5419573E 03
13	3.0137913E-06	1.3656545E 03	1.3656545E 03
14	-0.	-0.	-0.
15	1.0041966E-01	1.1930402E 02	1.1940444E 02
16	5.2188106E 02	-4.1009222E 03	-3.5790411E 03
17	0.	-3.0247613E 03	-3.0247613E 03
18	0.	1.6192755E 03	1.6192755E 03
19	0.	5.1860191E 03	5.1860191E 03
20	9.3046719E-11	-4.6479117E-06	-4.6478187E-06
21	5.2261440E 02	-1.1317715E 03	-6.0915716E 02
22	0.	1.0446373E 03	1.0446373E 03
23	0.	-5.4592504E 02	-5.4592504E 02
24	0.	1.6521145E 03	1.6521145E 03
25	1.2672981E 03	-2.5371985E 02	1.0135783E 03
26	0.	-8.5505983E 02	-8.5505983E 02
27	0.	-7.5729477E 02	-7.5729477E 02
28	0.	0.	0.
29	3.5647731E 01	4.5743198E 00	4.0222051E 01
30	2.1092606E 03	1.4530884E 03	3.5623491E 03
31	1.1731315E-05	1.2090749E 03	1.2090749E 03
32	7.2043706E 02	1.9203459E 03	2.6407829E 03
33	-5.0329124E 02	-6.4582657E 01	-5.6787390E 02
34	4.0409099E 01	-1.7781271E 02	-1.3740361E 02
35	5.2467617E 02	-1.2545476E 03	-7.2987147E 02
36	8.4625938E 01	-5.4454510E 02	-4.5991915E 02
37	5.7438487E 02	-1.9054256E 03	-1.3310407E 03
38	1.1883060E 02	8.3950229E 02	9.5833290E 02
39	-1.3566915E 02	6.7801774E 02	5.4234858E 02
40	-1.6774073E-05	1.7363993E 03	1.7363993E 03
41	3.5601012E 01	-8.1933430E 01	-4.6332418E 01
42	5.8288764E 02	2.8321168E 03	3.4150044E 03
43	-6.7740162E-06	-2.5242167E 03	-2.5242167E 03
44	-1.4603802E-05	-2.7804585E 02	-2.7804585E 02
45	0.	2.2185313E 03	2.2185313E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.1085515E 03	-2.4228570E 03	-3.1430554E 02
48	0.	-1.3918869E 02	-1.3918869E 02
49	7.1949293E 02	-1.8662942E 03	-1.1468013E 03
50	-5.0263169E 02	1.1567744E 03	6.5414272E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 4 SYMMETRIC	HOV 4 ANTI-SYM	S + AS
51	-2.9144110E 02	-2.2205937E-04	-2.9144132E 02
52	-1.3925440E 00	-9.3886428E-03	-1.4019326E 00
53	5.7756594E-05	9.2210271E-03	9.2787837E-03
54	0.	-2.9132515E 02	-2.9132515E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	2.4550661E 02	2.4550661E 02
57	0.	1.3283193E 03	1.3283193E 03
58	0.	9.4947120E 02	9.4947120E 02
59	0.	1.5011780E 03	1.5011780E 03
60	0.	1.9173548E 03	1.9173548E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	2.1208489E 02	-2.8455660E-05	2.1208486E 02
64	-3.0577362E 02	-6.1932282E 02	-9.2509643E 02
65	-2.0479824E 03	9.3377664E 02	-1.1142057E 03
66	-2.0476440E 03	-1.0007152E 03	-3.0483592E 03
67	-8.0429196E-01	3.8280270E-05	-8.0425369E-01
68	0.	6.3758940E 02	6.3758940E 02
69	-1.2497658E-13	1.0380229E 03	1.0380229E 03
70	1.7309705E 03	-1.0015651E 03	7.2940539E 02
71	-1.5267059E 00	-1.1872710E 03	-1.1887977E 03
72	-2.5335394E 03	-4.3859966E 02	-2.9721390E 03
73	-2.6274468E 03	4.3859960E 02	-2.1888472E 03
74	2.5261257E 03	-1.8184635E 03	7.0766223E 02
75	1.3878631E 00	9.3561981E-03	1.3972192E 00
76	-6.3347564E-05	-9.2053437E-03	-9.2683912E-03
77	-6.0567353E-03	-4.8891452E 02	-4.8892057E 02
78	-1.7320172E 03	1.4107319E 03	-3.2128526E 02
79	1.0065802E 01	1.5224186E 03	1.5324844E 03
80	-1.7309704E 03	-2.5400228E 03	-4.2709932E 03
81	7.1636895E-05	-3.6863385E-04	-2.9699696E-04
82	5.7381421E 02	-3.4352738E 03	-2.8614596E 03
83	-3.0648711E 02	6.0913560E 02	3.0264849E 02
84	1.7320172E 03	1.8283512E 03	3.5603683E 03
85	2.2073311E 01	-5.7573881E 02	-5.5366051E 02
86	-3.0617425E 01	6.1654945E 02	5.8593203E 02
87	4.2979297E-01	-2.5384315E-04	4.2953913E-01
88	1.2147519E 02	1.2156285E 03	1.3371037E 03
89	-1.0436155E 02	-6.5375541E 02	-7.5811696E 02
90	-3.2574959E 02	6.5489582E 02	3.2914622E 02
91	-5.2463818E 02	-6.5489599E 02	-1.1795342E 03
92	2.6348605E 03	1.8184635E 03	4.4533240E 03
93	-1.7107585E 01	7.3804144E 02	7.2093386E 02
94	-4.4154857E 02	5.3963196E 01	-3.8758537E 02
95	-4.0788127E 02	9.1436551E 02	5.0648423E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 1R SYMMETRIC	HOV 1R ANTI-SYM	S + AS
1	-2.2878467E 02	-1.8047089E-03	-2.2878647E 02
2	1.2669034E 03	-1.4964435E 02	1.1172590E 03
3	5.2192695E 02	5.1243230E 02	1.0343592E 03
4	7.1636895E-05	-9.4564103E-04	-8.7400415E-04
5	-1.3715173E-04	-7.8594896E 01	-7.8595033E 01
6	5.2266024E 02	1.7979074E 03	2.3205676E 03
7	1.2672981E 03	-7.1978121E 02	5.4751689E 02
8	2.6266519E 01	1.1294984E-03	2.6267648E 01
9	-1.6340367E 01	-1.4606254E-03	-1.6341828E 01
10	0.	0.	0.
11	1.2669034E 03	1.4222247E 02	1.4091258E 03
12	3.4028645E-06	-1.7212235E 03	-1.7212235E 03
13	3.0137913E-06	-1.5244239E 03	-1.5244239E 03
14	-0.	-0.	-0.
15	1.0041966E-01	-1.2948387E 02	-1.2938345E 02
16	5.2188106E 02	-6.8305075E 03	-6.3086265E 03
17	0.	-2.6655866E 03	-2.6655866E 03
18	0.	2.0446180E 03	2.0446180E 03
19	0.	5.1860191E 03	5.1860191E 03
20	9.3046719E-11	-7.1649077E-07	-7.1639773E-07
21	5.2261440E 02	1.6571901E 03	2.1798045E 03
22	0.	6.8546247E 02	6.8546247E 02
23	0.	1.5585853E 02	1.5585853E 02
24	0.	6.9325038E 02	6.9325038E 02
25	1.2672981E 03	-1.1281248E 03	1.3917332E 02
26	0.	2.4081210E 03	2.4081210E 03
27	0.	2.1327835E 03	2.1327835E 03
28	0.	0.	0.
29	3.5647731E 01	-9.8876677E 00	2.5760063E 01
30	2.1092606E 03	-2.6298864E 03	-5.2062579E 02
31	1.1731315E-05	-1.5161144E 03	-1.5161144E 03
32	7.2043706E 02	-2.4919150E 03	-1.7714779E 03
33	-5.0329124E 02	1.3959862E 02	-3.6369263E 02
34	4.0409099E 01	9.9890960E 01	1.4030006E 02
35	5.2467617E 02	7.6896935E 02	1.2936455E 03
36	8.4625938E 01	-4.1632646E 02	-3.3170052E 02
37	5.7438487E 02	2.7423026E 02	8.4861513E 02
38	1.1883060E 02	9.2535013E 02	1.0441807E 03
39	-1.3566915E 02	1.9412180E 02	5.8452652E 01
40	-1.6774073E-05	1.3269550E 03	1.3269550E 03
41	3.5601012E 01	-6.7471383E 01	-3.1870371E 01
42	5.8288764E 02	7.8481174E 02	1.3676994E 03
43	-6.7740162E-06	-2.1862268E 03	-2.1862268E 03
44	-1.4603802E-05	-1.0834446E 03	-1.0834446E 03
45	0.	3.2056495E 03	3.2056495E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.1085515E 03	1.6073195E 03	3.7158710E 03
48	0.	2.5860005E 03	2.5860005E 03
49	7.1949293E 02	2.5459677E 03	3.2654606E 03
50	-5.0263169E 02	9.5259246E 02	4.4996077E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 1R SYMMETRIC	HOV 1R ANTI-SYM	S + AS
51	-2.9144110E 02	-4.7237315E-04	-2.9144157E 02
52	-1.3925440E 00	1.0607250E-02	-1.3819367E 00
53	5.7756594E-05	-1.0516687E-02	-1.0458931E-02
54	0.	-2.9645434E 02	-2.9645434E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	1.0977403E 03	1.0977403E 03
57	0.	4.7520717E 02	4.7520717E 02
58	0.	9.7075917E 02	9.7075917E 02
59	0.	6.2991527E 02	6.2991527E 02
60	0.	2.7704669E 03	2.7704669E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	2.1208489E 02	-7.7554197E-06	2.1208488E 02
64	-3.0577362E 02	3.2478567E 02	1.9012058E 01
65	-2.0479824E 03	-2.1202626E 02	-2.2600086E 03
66	-2.0476440E 03	1.4508657E 02	-1.9025574E 03
67	-8.0429196E-01	2.9631330E-04	-8.0399565E-01
68	0.	2.6754144E 02	2.6754144E 02
69	-1.2497658E-13	1.4998831E 03	1.4998831E 03
70	1.7309705E 03	4.4688905E 03	6.1998610E 03
71	-1.5267059E 00	-6.6247187E 02	-6.6399858E 02
72	-2.5335394E 03	2.0080603E 03	-5.2547908E 02
73	-2.6274468E 03	-2.0080601E 03	-4.6355069E 03
74	2.5261257E 03	1.1932297E 00	2.5273189E 03
75	1.3878631E 00	-1.0552715E-02	1.3773104E 00
76	-6.3347564E-05	1.0448336E-02	1.0384988E-02
77	-6.0567353E-03	-8.2429290E 01	-8.2435346E 01
78	-1.7320172E 03	-8.2330972E 02	-2.5553268E 03
79	1.0065802E 01	2.3450367E 02	2.4456947E 02
80	-1.7309704E 03	-3.0598056E 02	-2.0369510E 03
81	7.1636895E-05	-9.7764103E-04	-8.7400415E-04
82	5.7381421E 02	-5.5496579E 03	-4.9758437E 03
83	-3.0648711E 02	-3.3497161E 02	-6.4145872E 02
84	1.7320172E 03	-3.6421051E 03	-1.9100879E 03
85	2.2078311E 01	-5.0940479E 01	-2.8862168E 01
86	-3.0617425E 01	-7.6713344E 02	-7.9775087E 02
87	4.2979297E-01	-6.9828690E-04	4.2909468E-01
88	1.2147519E 02	1.1728435E 02	2.3875954E 02
89	-1.0436155E 02	-3.9347626E 02	-4.9783781E 02
90	-3.2574959E 02	8.9978989E 02	5.7404029E 02
91	-5.2463818E 02	-8.9978985E 02	-1.4244280E 03
92	2.6348605E 03	-1.1933060E 00	2.6336672E 03
93	-1.7107585E 01	-4.5237876E 02	-4.6948634E 02
94	-4.4154857E 02	4.6504669E 03	4.2089184E 03
95	-4.0788127E 02	-3.6821375E 03	-4.0900187E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 4R SYMMETRIC	HOV 4R ANTI-SYM	S + AS
1	-2.2878467E 02	-8.9109634E-04	-2.2878556E 02
2	1.2669034E 03	-8.9522287E 02	3.7168051E 02
3	5.2192645E 02	1.8879116E 03	2.4098386E 03
4	7.1636845E-05	-5.9692406E-04	-5.2528718E-04
5	-1.3715173E-04	-2.7820675E 02	-2.7820688E 02
6	5.2266074E 02	5.1849552E 02	1.0411558E 03
7	1.2672981E 03	8.1347167E 01	1.3486453E 03
8	2.6766519E 01	4.3679561E-04	2.6266955E 01
9	-1.6340367E 01	-6.6889316E-04	-1.6341036E 01
10	0.	0.	0.
11	1.2669034E 03	-1.1566917E 03	1.1021170E 02
12	3.4028645E-06	1.5419573E 03	1.5419573E 03
13	3.0137913E-06	1.3656545E 03	1.3656545E 03
14	-0.	-0.	-0.
15	1.0041966E-01	1.1957994E 02	1.1968036E 02
16	5.2188106E 02	-5.5400260E 03	-5.0181450E 03
17	0.	-3.0247613E 03	-3.0247613E 03
18	0.	1.6192755E 03	1.6192755E 03
19	0.	5.1860191E 03	5.1860191E 03
20	9.3046719E-11	-4.6525618E-06	-4.6524688E-06
21	5.2261440E 02	3.0423909E 02	8.2685349E 02
22	0.	1.0446373E 03	1.0446373E 03
23	0.	-5.4592504E 02	-5.4592504E 02
24	0.	1.6521145E 03	1.6521145E 03
25	1.2672981E 03	2.2633914E 02	1.4936372E 03
26	0.	-8.5505983E 02	-8.5505983E 02
27	0.	-7.5729477E 02	-7.5729477E 02
28	0.	0.	0.
29	3.5647731E 01	-8.0941463E 01	-4.5293732E 01
30	2.1092606E 03	-1.0449622E 03	1.0642985E 03
31	1.1731315E-05	1.2090749E 03	1.2090749E 03
32	7.2043706E 02	1.9208032E 02	9.1251737E 02
33	-5.0329124E 02	1.1427692E 03	6.3947792E 02
34	4.0409099E 01	-8.2103577E 01	-4.1694477E 01
35	5.2467617E 02	-1.4465423E 02	3.8002195E 02
36	8.4625938E 01	-5.6471637E 02	-4.8009043E 02
37	5.7438487E 02	-7.8854710E 02	-2.1416223E 02
38	1.1883060E 02	1.0287441E 03	1.1475747E 03
39	-1.3566915E 02	4.6195987E 02	3.2629072E 02
40	-1.6774073E-05	1.7363994E 03	1.7363993E 03
41	3.5601012E 01	3.5823612E 00	3.9183373E 01
42	5.8288764E 02	1.7328359E 03	2.3157236E 03
43	-6.7740162E-06	-2.5242167E 03	-2.5242167E 03
44	-1.4603802E-05	-2.7804583E 02	-2.7804584E 02
45	0.	2.2185313E 03	2.2185313E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.1085515E 03	7.7944023E 01	2.1864955E 03
48	0.	-1.3918869E 02	-1.3918869E 02
49	7.1949293E 02	-1.3802853E 02	5.8146440E 02
50	-5.0263169E 02	-5.0577377E 01	-5.5320907E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	HOV 4R SYMMETRIC	HOV 4R ANTI-SYM	S + AS
51	-2.9144110E 02	-3.2089260E-04	-2.9144142E 02
52	-1.3925440E 00	-1.5003073E-03	-1.3940443E 00
53	5.7756594E-05	1.4719481E-03	1.5297047E-03
54	0.	-2.9132515E 02	-2.9132515E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	2.4550661E 02	2.4550661E 02
57	0.	1.3283193E 03	1.3283193E 03
58	0.	9.4947120E 02	9.4947120E 02
59	0.	1.5011780E 03	1.5011780E 03
60	0.	1.9173548E 03	1.9173548E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	2.1208489E 02	-3.5820134E-05	2.1208485E 02
64	-3.0577362E 02	-6.3514466E 02	-9.4091828E 02
65	-2.0479824E 03	-2.6121257E 03	-4.6601080E 03
66	-2.0476440E 03	2.5451866E 03	4.9754267E 02
67	-8.0429196E-01	2.0561390E-04	-8.0408634E-01
68	0.	6.3758940E 02	6.3758940E 02
69	-1.7497658E-13	1.0380229E 03	1.0380229E 03
70	1.7309705E 03	3.9510405E 03	5.6820110E 03
71	-1.5267059E 00	-1.3406170E 03	-1.3421437E 03
72	-2.5335394E 03	1.1619367E 03	-1.3716027E 03
73	-2.6274468E 03	-1.1619366E 03	-3.7893834E 03
74	2.5261257E 03	9.8091533E 02	3.5070410E 03
75	1.3878631E 00	1.5308189E-03	1.3893939E 00
76	-6.3347564E-05	-1.5104308E-03	-1.5737784E-03
77	-6.0567353E-03	-6.0911034E 02	-6.0911639E 02
78	-1.7320172E 03	-3.4589233E 02	-2.0779095E 03
79	1.0065802E 01	8.6396782E 02	8.7403362E 02
80	-1.7309704E 03	-7.8339828E 02	-2.5143687E 03
81	7.1636895E-05	-5.9692406E-04	-5.2528718E-04
82	5.7381421E 02	-4.5555525E 03	-3.9817383E 03
83	-3.0648711E 02	6.2495797E 02	3.1847086E 02
84	1.7320172E 03	-3.1242548E 03	-1.3922376E 03
85	2.2078311E 01	-7.2908517E 02	-7.0700687E 02
86	-3.0617425E 01	-4.0307316E 01	-7.0924740E 01
87	4.2979297E-01	-2.8738118E-04	4.2950559E-01
88	1.2147519E 02	5.5224262E 02	6.7371781E 02
89	-1.0436155E 02	-8.3923171E 02	-9.4359325E 02
90	-3.2574959E 02	1.8338268E 03	1.5080772E 03
91	-5.2463818E 02	-1.8338268E 03	-2.3584650E 03
92	2.6348605E 03	-9.8091539E 02	1.6539451E 03
93	-1.7107585E 01	8.5099473E 01	6.7991889E 01
94	-4.4154857E 02	1.0729695E 03	6.3142088E 02
95	-4.0788127E 02	-1.0464047E 02	-5.1252174E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRAN 1 SYMMETRIC	TRAN 1 ANTI-SYM	S + AS
1	-8.8984741E 01	-7.4750102E-04	-8.8985487E 01
2	6.5611603E 01	2.2495636E 01	8.8107238E 01
3	2.0299683E 02	2.8122130E 03	3.0152099E 03
4	2.1312096E-04	-3.7396087E-04	-1.6083991E-04
5	-3.6572353E-04	-1.1670644E 02	-1.1670681E 02
6	2.0502220E 02	-3.7476505E 02	-1.6974285E 02
7	6.6701691E 01	-5.5514926E 02	-4.8844757E 02
8	2.2873934E 01	4.2123414E-04	2.2874355E 01
9	-1.4229726E 01	-8.6057945E-04	-1.4230587E 01
10	0.	0.	0.
11	6.5611603E 01	2.1802875E 02	2.8364035E 02
12	1.1812506E-07	-1.1531157E 03	-1.1531157E 03
13	1.0461929E-07	-1.0212718E 03	-1.0212718E 03
14	-0.	-0.	-0.
15	3.9391276E-02	-7.7527988E 01	-7.7488598E 01
16	2.0297871E 02	-4.5386809E 03	-4.3357022E 03
17	0.	-2.7753862E 03	-2.7753862E 03
18	0.	1.9145910E 03	1.9145910E 03
19	0.	5.1860191E 03	5.1860191E 03
20	3.3527249E-11	-1.4754825E-06	-1.4754490E-06
21	2.0500419E 02	-5.2142099E 02	-3.1641679E 02
22	0.	7.1535386E 02	7.1535386E 02
23	0.	1.9377617E 01	1.9377617E 01
24	0.	8.3240620E 02	8.3240620E 02
25	6.6701691E 01	-8.4453329E 02	-7.7783160E 02
26	0.	1.7065823E 03	1.7065823E 03
27	0.	1.5114567E 03	1.5114567E 03
28	0.	0.	0.
29	1.0802859E 02	1.0458517E 02	2.1261376E 02
30	2.6183318E 03	8.8357035E 02	3.5019022E 03
31	1.7360851E-06	-1.0785328E 03	-1.0785328E 03
32	2.1832471E 03	4.8311254E 02	2.6663596E 03
33	-1.5251980E 03	-1.4765825E 03	-3.0017805E 03
34	1.2164940E 02	-7.6180320E 01	4.5469081E 01
35	2.2715729E 02	-8.9714060E 02	-6.6998331E 02
36	3.5875712E 01	-3.8476276E 02	-3.4888705E 02
37	2.2503300E 02	-1.4027892E 03	-1.1777562E 03
38	5.0235534E 01	6.5591730E 02	7.0615284E 02
39	-5.7354050E 01	5.3053197E 02	4.7317792E 02
40	-3.6443497E-05	1.3575113E 03	1.3575113E 03
41	1.0789957E 02	-1.8768568E 02	-7.9786115E 01
42	2.5047314E 02	2.5366905E 03	2.7871636E 03
43	-2.7586152E-05	-2.2924114E 03	-2.2924114E 03
44	-3.7346813E-05	-9.2687751E 02	-9.2687755E 02
45	0.	2.9647183E 03	2.9647183E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.6163733E 03	-1.9932269E 03	6.2314639E 02
48	0.	1.9627819E 03	1.9627819E 03
49	2.1806396E 03	-8.2574366E 02	1.3548960E 03
50	-1.5233765E 03	2.6498341E 03	1.1264576E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRAN 1 SYMMETRIC	TRAN 1 ANTI-SYM	S + AS
51	-1.2618148E 02	-3.4518158E-04	-1.2618183E 02
52	-5.6673591E-01	-5.5264918E-03	-5.7226239E-01
53	1.8234172E-04	5.3224792E-03	5.5048209E-03
54	0.	-2.9880928E 02	-2.9880928E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	8.8900319E 02	8.8900319E 02
57	0.	5.9866847E 02	5.9866847E 02
58	0.	9.6663190E 02	9.6663190E 02
59	0.	7.5635786E 02	7.5635786E 02
60	0.	2.5622432E 03	2.5622432E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	1.8467204E 02	-1.4055930E-05	1.8467203E 02
64	-2.6665463E 02	-4.3827522E 02	-7.0492985E 02
65	-1.7784894E 03	2.1580190E 03	3.7952955E 02
66	-1.7775551E 03	-2.2299259E 03	-4.0074810E 03
67	-6.0318291E 01	8.1610819E-05	-6.0318210E 01
68	0.	3.2124491E 02	3.2124491E 02
69	-2.7152521E-13	1.3871544E 03	1.3871544E 03
70	2.4610471E 02	1.1531238E 02	3.6141708E 02
71	-1.3287145E 00	-9.7230320E 02	-9.7363192E 02
72	-2.8020222E 03	-1.5809836E 02	-2.9601206E 03
73	-2.8390736E 03	1.5809837E 02	-2.6809752E 03
74	2.7990972E 03	-2.0472018E 03	7.5189542E 02
75	5.6482485E-01	5.4608285E-03	5.7028568E-01
76	-1.9563425E-04	-5.2834209E-03	-5.4790551E-03
77	-4.4664634E-01	-3.9847692E 02	-3.9892356E 02
78	-2.4899521E 02	9.7078698E 02	7.2179177E 02
79	3.9131389E 00	1.2869579E 03	1.2908711E 03
80	-2.4610443E 02	-2.5229521E 03	-2.7690566E 03
81	2.1312096E-04	-3.7396087E-04	-1.6083991E-04
82	2.2345688E 02	-3.7481824E 03	-3.5247255E 03
83	-2.6862523E 02	4.2733234E 02	1.5870711E 02
84	2.4899524E 02	1.1583477E 03	1.4073430E 03
85	1.9860304E 01	-3.3583049E 02	-3.1597019E 02
86	-2.2444748E 01	2.5413373E 02	2.3168899E 02
87	3.7437172E-01	-5.8328862E-04	3.7378843E-01
88	5.0848604E 01	1.1740136E 03	1.2248622E 03
89	-4.2995104E 01	-6.3531825E 02	-6.7831335E 02
90	-1.2453825E 03	-6.9196624E 02	-1.9373487E 03
91	-1.3281821E 03	6.9196600E 02	-6.3621611E 02
92	2.8419986E 03	2.0472018E 03	4.8892004E 03
93	-7.4068511E 00	5.2778155E 02	5.2037471E 02
94	-1.3018730E 03	2.5842825E 03	1.2824095E 03
95	-1.2715015E 03	-1.2299534E 03	-2.5014549E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRAN 2 SYMMETRIC	TRAN 2 ANTI-SYM	S + AS
1	-8.8984741E 01	-4.0458434E-04	-8.8985145E 01
2	6.5611603E 01	6.2627081E 02	6.9188241E 02
3	2.0299683E 02	2.9909930E 03	3.1939898E 03
4	2.1312096E-04	-1.8601699E-05	1.9451926E-04
5	-3.6572353E-04	-1.1663875E 02	-1.1663912E 02
6	2.0502220E 02	-1.9128616E 02	1.3736046E 01
7	6.6701691E 01	5.0808624E 01	1.1751031E 02
8	2.2873934E 01	1.1293658E-04	2.2874047E 01
9	-1.4229726E 01	-6.6147387E-04	-1.4230388E 01
10	0.	0.	0.
11	6.5611603E 01	8.5594616E 02	9.2155776E 02
12	1.1812506E-07	-1.3544624E 03	-1.3544624E 03
13	1.0461929E-07	-1.1995972E 03	-1.1995972E 03
14	-0.	-0.	-0.
15	3.9391276E-02	-5.5751388E 01	-5.5711997E 01
16	2.0297871E 02	-4.3138908E 03	-4.1109121E 03
17	0.	-2.9995773E 03	-2.9995773E 03
18	0.	1.6490989E 03	1.6490989E 03
19	0.	5.1860191E 03	5.1860191E 03
20	3.3527249E-11	-1.4736807E-06	-1.4736472E-06
21	2.0500419E 02	-2.9196411E 02	-8.6959915E 01
22	0.	4.9105574E 02	4.9105574E 02
23	0.	1.9584587E 01	1.9584587E 01
24	0.	5.6663011E 02	5.6663011E 02
25	6.6701691E 01	-2.0451352E 02	-1.3781183E 02
26	0.	1.5057094E 03	1.5057094E 03
27	0.	1.3335510E 03	1.3335510E 03
28	0.	0.	0.
29	1.0802859E 02	8.8434595E 01	1.9646318E 02
30	2.6183318E 03	7.2214634E 02	3.3404782E 03
31	1.7360851E-06	-1.3280086E 03	-1.3280086E 03
32	2.1832471E 03	-2.2045047E 02	1.9627966E 03
33	-1.5251980E 03	-1.2485610E 03	-2.7737590E 03
34	1.2164940E 02	-4.1359420E 01	8.0289981E 01
35	2.2715729E 02	-7.4027272E 02	-5.1311544E 02
36	3.5875712E 01	-3.1702182E 02	-2.8114611E 02
37	2.2503300E 02	-1.1513000E 03	-9.2626696E 02
38	5.0235534E 01	5.2082828E 02	5.7106382E 02
39	-5.7354050E 01	4.2243261E 02	3.6507856E 02
40	-3.6443497E-05	1.0791631E 03	1.0791631E 03
41	1.0789957E 02	-2.0414472E 02	-9.6245151E 01
42	2.5047314E 02	2.7368574E 03	2.9873305E 03
43	-2.7586152E-05	-2.5224715E 03	-2.5224715E 03
44	-3.7346813E-05	-9.2653393E 02	-9.2653395E 02
45	0.	2.6857742E 03	2.6857742E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.6163733E 03	-2.1585763E 03	4.5779703E 02
48	0.	1.7140594E 03	1.7140594E 03
49	2.1806396E 03	-1.5344019E 03	6.4623777E 02
50	-1.5233765E 03	2.8822104E 03	1.3588340E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRAN 2 SYMMETRIC	TRAN 2 ANTI-SYM	S + AS
51	-1.2618148E 02	-2.9707272E-04	-1.2618178E 02
52	-5.6673591E-01	-5.5176939E-03	-5.7225360E-01
53	1.8234172E-04	5.1718677E-03	5.3542094E-03
54	0.	-3.1770181E 02	-3.1770181E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	6.4800653E 02	6.4800653E 02
57	0.	3.5832036E 02	3.5832036E 02
58	0.	9.6652329E 02	9.6652329E 02
59	0.	5.1486296E 02	5.1486296E 02
60	0.	2.3211672E 03	2.3211672E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	1.8467204E 02	-9.8607216E-06	1.8467203E 02
64	-2.6665463E 02	-4.3814937E 02	-7.0480400E 02
65	-1.7784894E 03	2.1431734E 03	3.6468397E 02
66	-1.7775551E 03	-2.2432973E 03	-4.0208524E 03
67	-6.0318291E 01	5.4616435E-05	-6.0318236E 01
68	0.	2.1867574E 02	2.1867574E 02
69	-2.7152521E-13	1.2566400E 03	1.2566400E 03
70	2.4610471E 02	9.4204834E 02	1.1881530E 03
71	-1.3287145E 00	-1.0412135E 03	-1.0425422E 03
72	-2.8020222E 03	-1.2352542E 02	-2.9255476E 03
73	-2.8390736E 03	1.2352544E 02	-2.7155481E 03
74	2.7990972E 03	-2.0872336E 03	7.1186358E 02
75	5.6482485E-01	5.4534346E-03	5.7027828E-01
76	-1.9563425E-04	-5.1341127E-03	-5.3297468E-03
77	-4.4664634E-01	-3.4498084E 02	-3.4542749E 02
78	-2.4899521E 02	2.0164252E 02	-4.7352691E 01
79	3.9131389E 00	1.3687737E 03	1.3726868E 03
80	-2.4610443E 02	-3.2856881E 03	-3.5317925E 03
81	2.1312096E-04	-1.8601699E-05	1.9451926E-04
82	2.2345688E 02	-3.5003243E 03	-3.2768674E 03
83	-2.6862523E 02	4.2291207E 02	1.5428685E 02
84	2.4899524E 02	1.9914922E 03	2.2404875E 03
85	1.9860304E 01	-2.6472210E 02	-2.4486180E 02
86	-2.2444748E 01	1.7011991E 02	1.4767516E 02
87	3.7437172E-01	-5.7260787E-04	3.7379911E-01
88	5.0848604E 01	1.3478100E 03	1.3986586E 03
89	-4.2995104E 01	-7.7032657E 02	-8.1332167E 02
90	-1.2453825E 03	-6.1367156E 02	-1.8590540E 03
91	-1.3281821E 03	6.1367120E 02	-7.1451091E 02
92	2.8419986E 03	2.0872337E 03	4.9292323E 03
93	-7.4068511E 00	4.3549739E 02	4.2809054E 02
94	-1.3018730E 03	3.3059050E 03	2.0040320E 03
95	-1.2715015E 03	-5.0557565E 02	-1.7770772E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRANIR SYMMETRIC	TRANIR ANTI-SYM	S + AS
1	-8.8984741E 01	-1.8578818E-03	-8.8986601E 01
2	6.5611603E 01	1.9693768E 02	2.6294928E 02
3	2.0299683E 02	2.8772416E 02	4.9072100E 02
4	2.1312076E-04	-9.7172739E-04	-7.5860844E-04
5	-3.6572353E-04	-1.1761005E 02	-1.1761042E 02
6	2.0502220E 02	2.1394319E 03	2.3444541E 03
7	6.6701691E 01	-7.1980246E 02	-6.5310076E 02
8	2.2873934E 01	1.1954448E-03	2.2875130E 01
9	-1.4229726E 01	-1.4399586E-03	-1.4231166E 01
10	0.	0.	0.
11	6.5611603E 01	3.9247076E 02	4.5808237E 02
12	1.1612506E-07	-1.1531157E 03	-1.1531157E 03
13	1.0461929E-07	-1.0212718E 03	-1.0212718E 03
14	-0.	-0.	-0.
15	3.9391276E-02	-7.7044933E 01	-7.7005543E 01
16	2.0297871E 02	-7.0636659E 03	-6.8606873E 03
17	0.	-2.7753862E 03	-2.7753862E 03
18	0.	1.9145910E 03	1.9145910E 03
19	0.	5.1860191E 03	5.1860191E 03
20	3.3527249E-11	-1.4836328E-06	-1.4835993E-06
21	2.0500419E 02	1.9925553E 03	2.1975594E 03
22	0.	7.1535386E 02	7.1535386E 02
23	0.	1.9377617E 01	1.9377617E 01
24	0.	8.3240620E 02	8.3240620E 02
25	6.6701691E 01	-1.0091865E 03	-9.4248480E 02
26	0.	1.7065823E 03	1.7065823E 03
27	0.	1.5114567E 03	1.5114567E 03
28	0.	0.	0.
29	1.0802859E 02	-7.2181166E 01	3.5847421E 01
30	2.6183318E 03	-3.1189843E 03	-5.0065243E 02
31	1.7360851E-06	-1.0785329E 03	-1.0785329E 03
32	2.1832471E 03	-3.0893177E 03	-9.0607061E 02
33	-1.5251980E 03	1.0190873E 03	-5.0611069E 02
34	1.2164940E 02	1.2184578E 02	2.4349518E 02
35	2.2715729E 02	1.0645426E 03	1.2916999E 03
36	3.5875712E 01	-4.5790938E 02	-4.2203367E 02
37	2.2503300E 02	5.5159453E 02	7.7662752E 02
38	5.0235534E 01	1.0033398E 03	1.0535753E 03
39	-5.7354050E 01	1.3387896E 02	7.6524910E 01
40	-3.6443497E-05	1.3575114E 03	1.3575114E 03
41	1.0789957E 02	-1.0919333E 01	9.6980238E 01
42	2.5047314E 02	6.1372024E 02	8.6419338E 02
43	-2.7586152E-05	-2.2924114E 03	-2.2924114E 03
44	-3.7346813E-05	-9.2687749E 02	-9.2687752E 02
45	0.	2.9647183E 03	2.9647183E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.6163733E 03	2.0191169E 03	4.6354901E 03
48	0.	1.9627819E 03	1.9627819E 03
49	2.1806396E 03	2.7466869E 03	4.9273266E 03
50	-1.5233765E 03	1.5416429E 02	-1.3692122E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRANIR SYMMETRIC	TRANIR ANTI-SYM	S + AS
51	-1.2618148E 02	-4.1909686E-04	-1.2618190E 02
52	-5.6673591E-01	1.4145767E-02	-5.5259014E-01
53	1.8234172E-04	-1.4023393E-02	-1.3841052E-02
54	0.	-2.9880928E 02	-2.9880928E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	8.8900319E 02	8.8900319E 02
57	0.	5.9866847E 02	5.9866847E 02
58	0.	9.6663190E 02	9.6663190E 02
59	0.	7.5635786E 02	7.5635786E 02
60	0.	2.5622432E 03	2.5622432E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	1.8467204E 02	-3.2098484E-06	1.8467204E 02
64	-2.6665463E 02	7.3027366E 02	4.6361904E 02
65	-1.7784894E 03	2.4140980E 01	-1.7543484E 03
66	-1.7775551E 03	-9.6048776E 01	-1.8736039E 03
67	-6.0318291E 01	2.9388353E-04	-6.0317997E 01
68	0.	3.2124491E 02	3.2124491E 02
69	-2.7152521E-13	1.3871544E 03	1.3871544E 03
70	2.4610471E 02	4.1139460E 03	4.3600506E 03
71	-1.3287145E 00	-4.8769037E 02	-4.8901908E 02
72	-2.8020222E 03	2.2581431E 03	-5.4387909E 02
73	-2.8390736E 03	-2.2581429E 03	-5.0972165E 03
74	2.7990972E 03	-3.8442892E 02	2.4146683E 03
75	5.6482485E-01	-1.4042757E-02	5.5078210E-01
76	-1.9563425E-04	1.3912874E-02	1.3717240E-02
77	-4.4664634E-01	1.6635903E 02	1.6591238E 02
78	-2.4899521E 02	-1.0993996E 03	-1.3483948E 03
79	3.9131389E 00	1.3166995E 02	1.3558309E 02
80	-2.4610443E 02	-4.5276517E 02	-6.9886960E 02
81	2.1312096E-04	-9.7172939E-04	-7.5860844E-04
82	2.2345688E 02	-5.7146678E 03	-5.4912110E 03
83	-2.6862523E 02	-7.4121568E 02	-1.0098409E 03
84	2.4899524E 02	-2.8402861E 03	-2.5912909E 03
85	1.9860304E 01	1.4878133E 02	1.6864164E 02
86	-2.2444748E 01	-8.9580299E 02	-9.1824774E 02
87	3.7437172E-01	-6.1217809E-04	3.7375954E-01
88	5.0848604E 01	-1.7767807E 01	3.3080797E 01
89	-4.2995104E 01	-1.9032870E 02	-2.3332381E 02
90	-1.2453825E 03	1.7079871E 03	4.6260462E 02
91	-1.3281821E 03	-1.7079870E 03	-3.0361691E 03
92	2.8419986E 03	3.8442884E 02	3.2264274E 03
93	-7.4068511E 00	-6.2626252E 02	-6.3366936E 02
94	-1.3018730E 03	4.6906304E 03	3.3887575E 03
95	-1.2715015E 03	-3.3363009E 03	-4.6078024E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRANZR SYMMETRIC	TRANZR ANTI-SYM	S + AS
1	-8.8984741E 01	-1.5169651E-03	-8.8986257E 01
2	6.5611603E 01	8.0071286E 02	8.6632446E 02
3	2.0299683E 02	4.6650410E 02	6.6950094E 02
4	2.1312096E-04	-6.1637022E-04	-4.0324926E-04
5	-3.6572353E-04	-1.1754237E 02	-1.1754273E 02
6	2.0502220E 02	2.3229108E 03	2.5279330E 03
7	6.6701691E 01	-1.1384457E 02	-4.7142883E 01
8	2.2873934E 01	8.8714726E-04	2.2874821E 01
9	-1.4229726E 01	-1.2408530E-03	-1.4230967E 01
10	0.	0.	0.
11	6.5611603E 01	1.0303882E 03	1.0959998E 03
12	1.1812506E-07	-1.3544624E 03	-1.3544624E 03
13	1.0461929E-07	-1.1995972E 03	-1.1995972E 03
14	-0.	-0.	-0.
15	3.9391276E-02	-5.5268333E 01	-5.5228942E 01
16	2.0297871E 02	-6.8388758E 03	-6.6358970E 03
17	0.	-2.9995773E 03	-2.9995773E 03
18	0.	1.6490989E 03	1.6490989E 03
19	0.	5.1860191E 03	5.1860191E 03
20	3.3527249E-11	-1.4818310E-06	-1.4817975E-06
21	2.0500419E 02	2.2220121E 03	2.4270163E 03
22	0.	4.9105574E 02	4.9105574E 02
23	0.	1.9584587E 01	1.9584587E 01
24	0.	5.6663011E 02	5.6663011E 02
25	6.6701691E 01	-3.6916672E 02	-3.0246502E 02
26	0.	1.5057094E 03	1.5057094E 03
27	0.	1.3335510E 03	1.3335510E 03
28	0.	0.	0.
29	1.0802859E 02	-8.8331745E 01	1.9696842E 01
30	2.6183318E 03	-3.2804083E 03	-6.6207644E 02
31	1.7360851E-06	-1.3280086E 03	-1.3280086E 03
32	2.1832471E 03	-3.7928807E 03	-1.6096336E 03
33	-1.5251980E 03	1.2471087E 03	-2.7808929E 02
34	1.2164940E 02	1.5666668E 02	2.7831608E 02
35	2.2715729E 02	1.2214105E 03	1.4485678E 03
36	3.5875712E 01	-3.9016844E 02	-3.5429273E 02
37	2.2503300E 02	8.0308378E 02	1.0281168E 03
38	5.0235534E 01	8.6825070E 02	9.1848624E 02
39	-5.7354050E 01	2.5779594E 01	-3.1574455E 01
40	-3.6443497E-05	1.0791632E 03	1.0791632E 03
41	1.0789957E 02	-2.7378368E 01	8.0521202E 01
42	2.5047314E 02	8.1388711E 02	1.0643602E 03
43	-2.7586152E-05	-2.5224714E 03	-2.5224714E 03
44	-3.7346813E-05	-9.2653390E 02	-9.2653393E 02
45	0.	2.6857742E 03	2.6857742E 03
46	0.	5.0758126E 03	5.0758126E 03
47	2.6163733E 03	1.8537675E 03	4.4701408E 03
48	0.	1.7140594E 03	1.7140594E 03
49	2.1806396E 03	2.0380287E 03	4.2186683E 03
50	-1.5233765E 03	3.8654063E 02	-1.1368358E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	TRAN2R SYMMETRIC	TRAN2R ANTI-SYM	S + AS
51	-1.2618148E 02	-3.7098800E-04	-1.2618185E 02
52	-5.6673591E-01	1.4154565E-02	-5.5258135E-01
53	1.8234172E-04	-1.4174005E-02	-1.3991663E-02
54	0.	-3.1770181E 02	-3.1770181E 02
55	0.	2.0634082E 03	2.0634082E 03
56	0.	6.4800653E 02	6.4800653E 02
57	0.	3.5832036E 02	3.5832036E 02
58	0.	9.6652329E 02	9.6652329E 02
59	0.	5.1486296E 02	5.1486296E 02
60	0.	2.3211672E 03	2.3211672E 03
61	0.	1.5177223E 03	1.5177223E 03
62	0.	1.0699428E 03	1.0699428E 03
63	1.8467204E 02	9.8535963E-07	1.8467204E 02
64	-2.6665463E 02	7.3039950E 02	4.6374487E 02
65	-1.7784894E 03	9.2953911E 00	-1.7691940E 03
66	-1.7775551E 03	-1.0942025E 02	-1.8869754E 03
67	-6.0318291E 01	2.6688915E-04	-6.0318024E 01
68	0.	2.1867574E 02	2.1867574E 02
69	-2.7152521E-13	1.2566400E 03	1.2566400E 03
70	2.4610471E 02	4.9406820E 03	5.1867867E 03
71	-1.3287145E 00	-5.5660063E 02	-5.5792934E 02
72	-2.8020222E 03	2.2927161E 03	-5.0930615E 02
73	-2.8390736E 03	-2.2927159E 03	-5.1317894E 03
74	2.7990972E 03	-4.2446076E 02	2.3746364E 03
75	5.6482485E-01	-1.4050151E-02	5.5077470E-01
76	-1.9563425E-04	1.4062182E-02	1.3866548E-02
77	-4.4664634E-01	2.1985510E 02	2.1940846E 02
78	-2.4899521E 02	-1.8685441E 03	-2.1175393E 03
79	3.9131389E 00	2.1348569E 02	2.1739883E 02
80	-2.4610443E 02	-1.2155012E 03	-1.4616056E 03
81	2.1312096E-04	-6.1637022E-04	-4.0324926E-04
82	2.2345688E 02	-5.4668098E 03	-5.2433529E 03
83	-2.6862523E 02	-7.4563594E 02	-1.0142612E 03
84	2.4899524E 02	-2.0071417E 03	-1.7581465E 03
85	1.9860304E 01	2.1988972E 02	2.3975003E 02
86	-2.2444748E 01	-9.7981681E 02	-1.0022615E 03
87	3.7437172E-01	-6.0149735E-04	3.7377022E-01
88	5.0848604E 01	1.5602861E 02	2.0687721E 02
89	-4.2995104E 01	-3.2533700E 02	-3.6833211E 02
90	-1.2453825E 03	1.7862817E 03	5.4089928E 02
91	-1.3281821E 03	-1.7862818E 03	-3.1144639E 03
92	2.8419986E 03	4.2446069E 02	3.2664593E 03
93	-7.4068511E 00	-7.1854668E 02	-7.2595353E 02
94	-1.3018730E 03	5.4122528E 03	4.1103799E 03
95	-1.2715015E 03	-2.6119231E 03	-3.8834246E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PEO SYMMETRIC	ROL4PEO ANTI-SYM	S + AS
1	-6.9844463E 02	-2.2309249E-03	-6.9844686E 02
2	4.6547784E 03	2.8114466E 02	4.9359230E 03
3	1.5933710E 03	-5.7822657E 03	-4.1888947E 03
4	-1.2268580E-04	-1.1488616E-03	-1.2715474E-03
5	1.5692956E-04	-1.3131848E 02	-1.3131832E 02
6	1.5924031E 03	4.4861240E 03	6.0785270E 03
7	4.6542575E 03	-3.6517950E 03	1.0024625E 03
8	5.6862849E 01	1.5807012E-03	5.6864429E 01
9	-3.5374522E 01	-1.1475128E-03	-3.5375669E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.6547784E 03	4.1446337E 02	5.0692416E 03
12	1.2609669E-05	-1.6489329E 02	-1.6489328E 02
13	1.1167917E-05	-8.1701620E 01	-8.1701609E 01
14	-0.	1.7912889E 02	1.7912889E 02
15	3.0595130E-01	2.8538313E 01	2.8844264E 01
16	1.5932314E 03	-5.7849716E 03	-4.1917402E 03
17	0.	-4.9292459E 02	-4.9292459E 02
18	0.	-5.8373207E 02	-5.8373207E 02
19	0.	-0.	0.
20	2.8896434E-10	1.5899999E 02	1.5899999E 02
21	1.5922634E 03	4.7136716E 03	6.3059349E 03
22	0.	-1.1115960E 03	-1.1115960E 03
23	0.	5.9124922E 02	5.9124922E 02
24	0.	-1.7658655E 03	-1.7658655E 03
25	4.6542575E 03	-3.4139336E 03	1.2403239E 03
26	0.	-2.0240638E 03	-2.0240638E 03
27	0.	-1.8569765E 03	-1.8569765E 03
28	0.	-1.7912889E 02	-1.7912889E 02
29	-6.4691769E 01	-3.3136620E 02	-3.9605797E 02
30	3.1261085E 03	-7.8546215E 03	-4.7285131E 03
31	4.1022886E-05	-2.6212811E 02	-2.6212807E 02
32	-1.3074145E 03	-7.0931677E 03	-8.4005821E 03
33	9.1334879E 02	4.6783829E 03	5.5917317E 03
34	-7.1843053E 01	5.7077340E 02	4.9893035E 02
35	1.5592131E 03	3.7376476E 03	5.2968607E 03
36	2.5289400E 02	-3.8018554E 02	-1.2729154E 02
37	1.7505081E 03	3.4957200E 03	5.2462280E 03
38	3.5536955E 02	9.3244405E 02	1.2878136E 03
39	-4.0572610E 02	-7.0705410E 02	-1.1127802E 03
40	3.9247657E-06	3.7934888E 02	3.7934888E 02
41	-6.4630134E 01	4.2061087E 02	3.5598074E 02
42	1.7356803E 03	-4.3904443E 03	-2.6547641E 03
43	2.5298926E-05	9.4530267E 02	9.4530269E 02
44	1.3770334E-05	-7.5318627E 02	-7.5318627E 02
45	0.	1.6853748E 03	1.6853748E 03
46	0.	-0.	0.
47	3.1270445E 03	8.5960969E 03	1.1723141E 04
48	0.	1.2369052E 03	1.2369052E 03
49	-1.3061686E 03	1.0370478E 04	9.0643090E 03
50	9.1247840E 02	-5.9383805E 03	-5.0259021E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PEO SYMMETRIC	ROL4PEO ANTI-SYM	S + AS
51	-8.6608869E 02	-4.2708374E-05	-8.6608872E 02
52	-4.2049485E 00	5.1434599E-02	-4.1535139E 00
53	-1.1829049E-04	-5.0328702E-02	-5.0446993E-02
54	0.	-1.1356449E 01	-1.1356449E 01
55	0.	-0.	0.
56	0.	-1.5120033E 02	-1.5120033E 02
57	0.	-1.3903596E 02	-1.3903596E 02
58	0.	3.2690960E 01	3.2690960E 01
59	0.	-1.6045368E 03	-1.6045368E 03
60	0.	1.4565769E 03	1.4565769E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	4.5916694E 02	9.3367288E-05	4.5916703E 02
64	-6.6126084E 02	4.6161761E 03	3.9549153E 03
65	-4.4427256E 03	1.7951089E 03	-2.6476167E 03
66	-4.4431717E 03	-1.7178871E 03	-6.1610588E 03
67	1.0811901E 02	2.7264061E-04	1.0811928E 02
68	0.	-6.8148852E 02	-6.8148852E 02
69	2.9241790E-14	7.8856568E 02	7.8856568E 02
70	6.0715113E 03	2.5350495E 02	6.3250162E 03
71	-3.3065542E 00	2.1839178E 03	2.1806112E 03
72	-4.3869644E 03	4.8321768E 03	4.4521240E 02
73	-4.6726791E 03	-4.8321766E 03	-9.5048556E 03
74	4.3644081E 03	-6.9891539E 02	3.6654927E 03
75	4.1908250E 00	-5.1000279E-02	4.1398247E 00
76	1.2170960E-04	4.9947640E-02	5.0069349E-02
77	8.0022118E-01	2.4036719E 03	2.4044721E 03
78	-6.0701302E 03	-2.4426831E 02	-6.3143985E 03
79	3.0732874E 01	-2.6461520E 03	-2.6154191E 03
80	-6.0715114E 03	4.8601107E 03	-1.2114007E 03
81	-1.2268580E-04	-1.1488616E-03	-1.2715474E-03
82	1.7512613E 03	-4.6733854E 03	-2.9221241E 03
83	-6.6031910E 02	-4.6044220E 03	-5.2647411E 03
84	6.0701301E 03	-8.3134725E 02	5.2387829E 03
85	4.6628432E 01	2.6642527E 03	2.7108811E 03
86	-7.4054782E 01	-1.9600186E 03	-2.0340734E 03
87	9.3026627E-01	-1.2599503E-05	9.3025367E-01
88	3.6420878E 02	-2.8973821E 03	-2.5331733E 03
89	-3.1416962E 02	2.6165425E 03	2.3023728E 03
90	1.0669779E 03	4.7365638E 03	5.8035417E 03
91	4.6983115E 02	-4.7365627E 03	-4.2667316E 03
92	4.6952354E 03	6.9891520E 02	5.3941506E 03
93	-5.0839381E 01	-2.1988323E 03	-2.2496716E 03
94	7.3456255E 02	4.6137445E 03	5.3483070E 03
95	8.0550721E 02	-3.8317418E 03	-3.0262346E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PEORH SYMMETRIC	ROL4PEORH ANTI-SYM	S + AS
1	-6.9844463E 02	-2.4053244E-03	-6.9844704E 02
2	4.6547784E 03	-5.7155902E 02	4.0832193E 03
3	1.5933710E 03	-4.7321064E 03	-3.1387355E 03
4	-1.2268580E-04	-1.2718856E-03	-1.3945715E-03
5	1.5692956E-04	-4.8825166E 02	-4.8825150E 02
6	1.5924031E 03	3.6412549E 03	5.2336580E 03
7	4.6542575E 03	-2.7295549E 03	1.9247027E 03
8	5.6862849E 01	2.0115086E-03	5.6864860E 01
9	-3.5374522E 01	-1.3697339E-03	-3.5375891E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.6547784E 03	-1.3745243E 02	4.5173259E 03
12	1.2609669E-05	-1.9387268E 03	-1.9387268E 03
13	1.1167917E-05	-1.6527202E 03	-1.6527202E 03
14	-0.	1.7912889E 02	1.7912889E 02
15	3.0595130E-01	4.7352569E 02	4.7383164E 02
16	1.5932314E 03	-4.8868909E 03	-3.2936595E 03
17	0.	-1.1341309E 03	-1.1341309E 03
18	0.	-1.3430627E 03	-1.3430627E 03
19	0.	-0.	0.
20	2.8896434E-10	1.5899998E 02	1.5899998E 02
21	1.5922634E 03	3.7373926E 03	5.3296559E 03
22	0.	-4.7038919E 02	-4.7038919E 02
23	0.	-6.6177955E 02	-6.6177955E 02
24	0.	-5.3936334E 01	-5.3936334E 01
25	4.6542575E 03	-2.7924813E 03	1.8617762E 03
26	0.	-2.5023032E 02	-2.5023032E 02
27	0.	-2.8595796E 02	-2.8595796E 02
28	0.	-1.7912889E 02	-1.7912889E 02
29	-6.4691769E 01	-3.6762733E 02	-4.3231909E 02
30	3.1261085E 03	-6.6261293E 03	-3.5000208E 03
31	4.1022886E-05	1.3129937E 03	1.3129938E 03
32	-1.3074145E 03	-5.4447065E 03	-6.7521210E 03
33	9.1334879E 02	5.1903342E 03	6.1036829E 03
34	-7.1843053E 01	1.4353427E 02	7.1691216E 01
35	1.5592131E 03	3.0974443E 03	4.6566573E 03
36	2.5289400E 02	-4.1885936E 02	-1.6596536E 02
37	1.7505081E 03	2.7235093E 03	4.4740174E 03
38	3.5536955E 02	1.2014183E 03	1.5567878E 03
39	-4.0572610E 02	-3.2566646E 02	-7.3139256E 02
40	3.9247657E-06	1.1098619E 03	1.1098619E 03
41	-6.4630134E 01	4.5687193E 02	3.9224180E 02
42	1.7356803E 03	-3.8093614E 03	-2.0736811E 03
43	2.5298926E-05	3.4227561E 02	3.4227563E 02
44	1.3770334E-05	6.8377183E 02	6.8377184E 02
45	0.	-7.5799343E 01	-7.5799343E 01
46	0.	-0.	0.
47	3.1270445E 03	7.4371396E 03	1.0564184E 04
48	0.	-3.3821669E 02	-3.3821669E 02
49	-1.3061686E 03	8.7220154E 03	7.4158468E 03
50	9.1247840E 02	-6.4503309E 03	-5.5378525E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PEORH SYMMETRIC	ROL4PEORH ANTI-SYM	S + AS
51	-8.6608869E 02	1.2282498E-05	-8.6608868E 02
52	-4.2049485E 00	4.3096800E-02	-4.1618517E 00
53	-1.1829049E-04	-4.2037354E-02	-4.2155644E-02
54	0.	-2.2494955E 00	-2.2494955E 00
55	0.	-0.	0.
56	0.	-1.6729421E 03	-1.6729421E 03
57	0.	1.3830502E 03	1.3830502E 03
58	0.	-5.1060818E 00	-5.1060818E 00
59	0.	-4.9008750E 01	-4.9008750E 01
60	0.	-6.5509210E 01	-6.5509210E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	4.5916694E 02	6.0180193E-05	4.5916699E 02
64	-6.6126084E 02	4.0180764E 03	3.3568156E 03
65	-4.4427256E 03	5.2318330E 01	-4.3904073E 03
66	-4.4431717E 03	2.4903546E 01	-4.4182682E 03
67	1.0811901E 02	2.5301439E-04	1.0811926E 02
68	0.	-2.0815289E 01	-2.0815289E 01
69	2.9241790E-14	-3.5465551E 01	-3.5465551E 01
70	6.0715113E 03	2.5420409E 03	8.6135522E 03
71	-3.3065542E 00	1.6239497E 03	1.6206432E 03
72	-4.3869644E 03	4.1213842E 03	-2.6558020E 02
73	-4.6726791E 03	-4.1213840E 03	-8.7940631E 03
74	4.3644081E 03	1.2410756E 02	4.4885156E 03
75	4.1908250E 00	-4.2686159E-02	4.1481389E 00
76	1.2170960E-04	4.1668144E-02	4.1789854E-02
77	8.0022118E-01	2.0028142E 03	2.0036144E 03
78	-6.0701302E 03	-1.6323196E 02	-6.2333621E 03
79	3.0732874E 01	-2.1655657E 03	-2.1348329E 03
80	-6.0715114E 03	4.7790736E 03	-1.2924379E 03
81	-1.2268580E-04	-1.2718856E-03	-1.3945715E-03
82	1.7512613E 03	-3.9871369E 03	-2.2358756E 03
83	-6.6031910E 02	-4.0063224E 03	-4.6666415E 03
84	6.0701301E 03	-3.1198825E 03	2.9502476E 03
85	4.6628432E 01	2.1042843E 03	2.1509127E 03
86	-7.4054782E 01	-1.3206684E 03	-1.3947231E 03
87	9.3026627E-01	8.4799646E-06	9.3027475E-01
88	3.6420878E 02	-2.5875284E 03	-2.2233196E 03
89	-3.1416962E 02	2.3309194E 03	2.0167498E 03
90	1.0669779E 03	5.3959367E 03	6.4629146E 03
91	4.6983115E 02	-5.3959358E 03	-4.9261047E 03
92	4.6952354E 03	-1.2410774E 02	4.5711277E 03
93	-5.0839381E 01	-1.8222052E 03	-1.8730445E 03
94	7.3456255E 02	5.3499595E 03	6.0845220E 03
95	8.0550721E 02	-4.5679563E 03	-3.7624491E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PREO SYMMETRIC	ROL4PREO ANTI-SYM	S + AS
1	-6.9844463E 02	2.8961387E-03	-6.9844174E 02
2	4.6547784E 03	-2.9968701E 03	1.6579083E 03
3	1.5933710E 03	3.4017420E 03	4.9951131E 03
4	-1.2268580E-04	1.7388376E-03	1.6161518E-03
5	1.5692956E-04	5.1725049E 02	5.1725065E 02
6	1.5924031E 03	-5.0749258E 03	-3.4825227E 03
7	4.6542575E 03	-7.3553623E 02	3.9187213E 03
8	5.6862849E 01	-2.6928678E-03	5.6860156E 01
9	-3.5374522E 01	1.7909859E-03	-3.5372731E 01
10	0.	1.5900000E 02	1.5900000E 02
11	4.6547784E 03	-3.0421442E 03	1.6126342E 03
12	1.2609669E-05	-3.5433096E 02	-3.5433095E 02
13	1.1167917E-05	-3.7815605E 02	-3.7815605E 02
14	-0.	-1.7912889E 02	-1.7912889E 02
15	3.0595130E-01	-3.5547300E 02	-3.5516705E 02
16	1.5932314E 03	3.8944658E 03	5.4876972E 03
17	0.	-4.0100749E 02	-4.0100749E 02
18	0.	-4.7488185E 02	-4.7488185E 02
19	0.	0.	0.
20	2.8896434E-10	-1.5899998E 02	-1.5899998E 02
21	1.5922634E 03	-4.8348210E 03	-3.2425576E 03
22	0.	-1.1687429E 03	-1.1687429E 03
23	0.	7.6341223E 02	7.6341223E 02
24	0.	-1.9644246E 03	-1.9644246E 03
25	4.6542575E 03	-3.3256689E 02	4.3216906E 03
26	0.	-1.7551015E 03	-1.7551015E 03
27	0.	-1.4900900E 03	-1.4900900E 03
28	0.	1.7912889E 02	1.7912889E 02
29	-6.4691769E 01	4.5289101E 02	3.8819924E 02
30	3.1261085E 03	7.4036845E 03	1.0529793E 04
31	4.1022886E-05	-1.5290153E 02	-1.5290149E 02
32	-1.3074145E 03	8.9217237E 03	7.6143093E 03
33	9.1334879E 02	-6.3941269E 03	-5.4807781E 03
34	-7.1843053E 01	-2.9440195E 02	-3.6624500E 02
35	1.5592131E 03	-3.7758035E 03	-2.2165905E 03
36	2.5289400E 02	4.8475459E 01	3.0136946E 02
37	1.7505081E 03	-3.9130347E 03	-2.1625266E 03
38	3.5536955E 02	-4.5065337E 02	-9.5283821E 01
39	-4.0572610E 02	8.6982194E 02	4.6409585E 02
40	3.9247657E-06	3.7700438E 02	3.7700439E 02
41	-6.4630134E 01	-3.6112263E 02	-4.2575276E 02
42	1.7356803E 03	2.9765705E 03	4.7122508E 03
43	2.5298926E-05	9.8282528E 02	9.8282529E 02
44	1.3770334E-05	-8.0019876E 02	-8.0019876E 02
45	0.	1.7645501E 03	1.7645501E 03
46	0.	0.	0.
47	3.1270445E 03	-6.7846192E 03	-3.6575747E 03
48	0.	1.2430662E 03	1.2430662E 03
49	-1.3061686E 03	-5.4189653E 03	-6.7251339E 03
50	9.1247840E 02	5.0984976E 03	6.0109760E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PREO SYMMETRIC	ROL4PREO ANTI-SYM	S + AS
51	-8.6608869E 02	-1.0579986E-04	-8.6608878E 02
52	-4.2049485E 00	-4.3309597E-02	-4.2482581E 00
53	-1.1829049E-04	4.2940423E-02	4.2822133E-02
54	0.	-3.9774479E 00	-3.9774479E 00
55	0.	0.	0.
56	0.	8.8571758E 01	8.8571758E 01
57	0.	-1.7020410E 02	-1.7020410E 02
58	0.	8.1472044E 00	8.1472044E 00
59	0.	-1.7849556E 03	-1.7849556E 03
60	0.	1.5250038E 03	1.5250038E 03
61	0.	0.	0.
62	0.	0.	0.
63	4.5916694E 02	-2.1191066E-05	4.5916691E 02
64	-6.6126084E 02	-4.0569876E 03	-4.7182484E 03
65	-4.4427256E 03	-7.9620743E 01	-4.5223463E 03
66	-4.4431717E 03	1.5902956E 02	-4.2841422E 03
67	1.0811901E 02	-1.9001914E-04	1.0811882E 02
68	0.	-7.5811711E 02	-7.5811711E 02
69	2.9241700E-14	8.2561079E 02	8.2561079E 02
70	6.0715113E 03	-3.1163245E 03	2.9551868E 03
71	-3.3065542E 00	-2.1122324E 03	-2.1155389E 03
72	-4.3869644E 03	-4.3503848E 03	-8.7373492E 03
73	-4.6726791E 03	4.3503846E 03	-3.2229449E 02
74	4.3644081E 03	1.4105091E 02	4.5054590E 03
75	4.1908250E 00	4.2896616E-02	4.2337216E 00
76	1.2170960E-04	-4.2563382E-02	-4.2441673E-02
77	8.0022118E-01	-2.3189268E 03	-2.3181265E 03
78	-6.0701302E 03	4.8825810E 03	-1.1875491E 03
79	3.0732874E 01	1.5567489E 03	1.5874818E 03
80	-6.0715114E 03	-2.7761542E 01	-6.0992730E 03
81	-1.2268580E-04	1.7388376E-03	1.6161518E-03
82	1.7512613E 03	2.8793156E 03	4.6305769E 03
83	-6.6031910E 02	4.0690709E 03	3.4087518E 03
84	6.0701301E 03	2.2895046E 03	8.3596348E 03
85	4.6628432E 01	-1.6427471E 03	-1.5961187E 03
86	-7.4054782E 01	1.9562307E 03	1.8821759E 03
87	9.3026627E-01	6.1050561E-06	9.3027238E-01
88	3.6420878E 02	1.7911981E 03	2.1554069E 03
89	-3.1416962E 02	-1.6175501E 03	-1.9317197E 03
90	1.0669779E 03	-5.7775127E 03	-4.7105348E 03
91	4.6983115E 02	5.7775126E 03	6.2473437E 03
92	4.6952354E 03	-1.4105072E 02	4.5541847E 03
93	-5.0839381E 01	2.2212786E 03	2.1704392E 03
94	7.3456255E 02	-4.6652566E 03	-3.9306941E 03
95	8.0550721E 02	5.2332569E 03	6.0387641E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PRFORH SYMMETRIC	ROL4PREORH ANTI-SYM	S + AS
1	-6.9844463E 02	2.7217393E-03	-6.9844192E 02
2	4.6547784E 03	-3.8495737E 03	8.0520468E 02
3	1.5933710E 03	4.4519014E 03	6.0452725E 03
4	-1.2268580E-04	1.6158136E-03	1.4931279E-03
5	1.5692956E-04	1.6031731E 02	1.6031747E 02
6	1.5924031E 03	-5.9197945E 03	-4.3273915E 03
7	4.6542575E 03	1.8670398E 02	4.8409615E 03
8	5.6862849E 01	-2.2620605E-03	5.6860588E 01
9	-3.5374522E 01	1.5687649E-03	-3.5372953E 01
10	0.	1.5900000E 02	1.5900000E 02
11	4.6547784E 03	-3.5940600E 03	1.0607183E 03
12	1.2609669E-05	-2.1281644E 03	-2.1281644E 03
13	1.1167917E-05	-1.9491746E 03	-1.9491746E 03
14	-0.	-1.7912889E 02	-1.7912889E 02
14	-0.	-1.7912889E 02	-1.7912889E 02
15	3.0595130E-01	8.9514394E 01	8.9820346E 01
16	1.5932314E 03	4.7925464E 03	6.3857779E 03
17	0.	-1.0422139E 03	-1.0422139E 03
18	0.	-1.2342124E 03	-1.2342124E 03
19	0.	0.	0.
20	2.8896434E-10	-1.5899999E 02	-1.5899999E 02
21	1.5922634E 03	-5.8110998E 03	-4.2188364E 03
22	0.	-5.2753608E 02	-5.2753608E 02
23	0.	-4.8961653E 02	-4.8961653E 02
24	0.	-2.5249552E 02	-2.5249552E 02
25	4.6542575E 03	2.8888544E 02	4.9431430E 03
26	0.	1.8732000E 01	1.8732000E 01
27	0.	8.0928496E 01	8.0928496E 01
28	0.	1.7912889E 02	1.7912889E 02
29	-6.4691769E 01	4.1662987E 02	3.5193810E 02
30	3.1261085E 03	8.6321762E 03	1.1758285E 04
31	4.1022886E-05	1.4222203E 03	1.4222203E 03
32	-1.3074145E 03	1.0570184E 04	9.2627701E 03
33	9.1334879E 02	-5.8821754E 03	-4.9688267E 03
34	-7.1843053E 01	-7.2164109E 02	-7.9348413E 02
35	1.5592131E 03	-4.4160067E 03	-2.8567937E 03
36	2.5289400E 02	9.8016434E 00	2.6269564E 02
37	1.7505081E 03	-4.6852453E 03	-2.9347372E 03
38	3.5536955E 02	-1.8167918E 02	1.7369037E 02
39	-4.0572610E 02	1.2512096E 03	8.4548349E 02
40	3.9247657E-06	1.1075175E 03	1.1075175E 03
41	-6.4630134E 01	-3.2486160E 02	-3.8949174E 02
42	1.7356803E 03	3.5576535E 03	5.2933338E 03
43	2.5298926E-05	3.7979819E 02	3.7979822E 02
44	1.3770334E-05	6.3675935E 02	6.3675936E 02
45	0.	3.3759212E 00	3.3759212E 00
46	0.	0.	0.
47	3.1270445E 03	-7.9435765E 03	-4.8165320E 03
48	0.	-3.3205566E 02	-3.3205566E 02
49	-1.3061686E 03	-7.0674279E 03	-8.3735964E 03

50 9.1247840E 02 4.5865474E 03 5.4990258E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL4PREORH SYMMETRIC	ROL4PREORH ANTI-SYM	S + AS
51	-8.6608869E 02	-5.0808985E-05	-8.6608874E 02
52	-4.2049485E 00	-5.1647395E-02	-4.2565958E 00
53	-1.1829049E-04	5.1231772E-02	5.1113482E-02
54	0.	5.1295053E 00	5.1295053E 00
55	0.	0.	0.
56	0.	-1.4331700E 03	-1.4331700E 03
57	0.	1.3518821E 03	1.3518821E 03
58	0.	-2.9649838E 01	-2.9649838E 01
59	0.	-2.2942765E 02	-2.2942765E 02
60	0.	2.9176226E 00	2.9176226E 00
61	0.	0.	0.
62	0.	0.	0.
63	4.5916694E 02	-5.4378163E-05	4.5916688E 02
64	-6.6126084E 02	-4.6550871E 03	-5.3163480E 03
65	-4.4427256E 03	-1.8224113E 03	-6.2651370E 03
66	-4.4431717E 03	1.9018202E 03	-2.5413515E 03
67	1.0811901E 02	-2.0964537E-04	1.0811880E 02
68	0.	-9.7443891E 01	-9.7443891E 01
69	2.9241790E-14	1.5795574E 00	1.5795574E 00
70	6.0715113E 03	-8.2778841E 02	5.2437229E 03
71	-3.3065542E 00	-2.6722004E 03	-2.6755069E 03
72	-4.3869644E 03	-5.0611771E 03	-9.4481416E 03
73	-4.6726791E 03	5.0611768E 03	3.8849774E 02
74	4.3644081E 03	9.6407384E 02	5.3284819E 03
75	4.1908250E 00	5.1210735E-02	4.2420357E 00
76	1.2170960E-04	-5.0842876E-02	-5.0721167E-02
77	8.0022118E-01	-2.7197843E 03	-2.7189841E 03
78	-6.0701302E 03	4.9636172E 03	-1.1065129E 03
79	3.0732874E 01	2.0373353E 03	2.0680681E 03
80	-6.0715114E 03	-1.0879874E 02	-6.1803101E 03
81	-1.2268580E-04	1.6158136E-03	1.4931279E-03
82	1.7512613E 03	3.5655642E 03	5.3168254E 03
83	-6.6031910E 02	4.6671704E 03	4.0068513E 03
84	6.0701301E 03	9.6951318E-01	6.0710996E 03
85	4.6628432E 01	-2.2027155E 03	-2.1560871E 03
86	-7.4054782E 01	2.5955808E 03	2.5215260E 03
87	9.3026627E-01	2.7184524E-05	9.3029345E-01
88	3.6420878E 02	2.1010518E 03	2.4652606E 03
89	-3.1416962E 02	-1.9031732E 03	-2.2173428E 03
90	1.0669779E 03	-5.1181396E 03	-4.0511617E 03
91	4.6983115E 02	5.1181392E 03	5.5879703E 03
92	4.6952354E 03	-9.6407366E 02	3.7311618E 03
93	-5.0839381E 01	2.5979057E 03	2.5470664E 03
94	7.3456255E 02	-3.9290416E 03	-3.1944790E 03
95	8.0550721E 02	4.4970427E 03	5.3025499E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PEO SYMMETRIC	ROL5PEO ANTI-SYM	S + AS
1	-7.8591595E 02	7.1858187E-04	-7.8591523E 02
2	4.5623865E 03	-3.2072910E 03	1.3550955E 03
3	1.7929138E 03	-3.5019550E 01	1.7578942E 03
4	1.5485459E-04	4.5633509E-04	6.1118967E-04
5	-3.1730867E-04	-5.1274626E 02	-5.1274657E 02
6	1.7945759E 03	-1.1494197E 03	6.4515616E 02
7	4.5632812E 03	-5.9924895E 02	3.9640323E 03
8	8.3996840E 01	-8.0221863E-04	8.3996037E 01
9	-5.2254382E 01	4.5419292E-04	-5.2253928E 01
10	0.	-3.4300000E 02	-3.4300000E 02
11	4.5623865E 03	-2.9993143E 03	1.5630722E 03
12	1.2283048E-05	1.1384573E 02	1.1384574E 02
13	1.0878641E-05	2.3962153E 02	2.3962154E 02
14	-0.	3.8642269E 02	3.8642269E 02
15	3.4479512E-01	2.5504280E 02	2.5538760E 02
16	1.7927563E 03	-3.3954156E 02	1.4532147E 03
17	0.	-5.0078692E 02	-5.0078692E 02
18	0.	-5.9304284E 02	-5.9304284E 02
19	0.	-0.	0.
20	3.2094333E-10	3.4299997E 02	3.4299997E 02
21	1.7944184E 03	-9.4483356E 02	8.4958487E 02
22	0.	-9.9721003E 02	-9.9721003E 02
23	0.	4.5616158E 02	4.5616158E 02
24	0.	-1.5277085E 03	-1.5277085E 03
25	4.5632812E 03	-4.6862628E 02	4.0946549E 03
26	0.	-2.1106642E 03	-2.1106642E 03
27	0.	-2.0081296E 03	-2.0081296E 03
28	0.	-3.8642269E 02	-3.8642269E 02
29	7.6085180E 01	1.0478656E 02	1.8087174E 02
30	6.3602820E 03	-8.5556538E 02	5.5047166E 03
31	4.1691194E-05	-1.9850543E 02	-1.9850539E 02
32	1.5376738E 03	1.8176222E 03	3.3552960E 03
33	-1.0742059E 03	-1.4794255E 03	-2.5536314E 03
34	8.6645697E 01	5.6278822E 01	1.4292452E 02
35	1.7909866E 03	-7.1685172E 02	1.0741349E 03
36	2.8924704E 02	-1.7794481E 02	1.1130223E 02
37	1.9723119E 03	-9.4143972E 02	1.0308722E 03
38	4.0622607E 02	1.8043685E 02	5.8666291E 02
39	-4.6378915E 02	2.4575830E 02	-2.1803085E 02
40	-4.2888079E-05	4.7934734E 02	4.7934729E 02
41	7.5979280E 01	-7.7734637E 00	6.0205817E 01
42	1.9906210E 03	-2.8802772E 02	1.7025933E 03
43	-1.0982549E-05	9.7229912E 02	9.7229911E 02
44	-3.4572285E-05	-6.8700039E 02	-6.8700042E 02
45	0.	1.6706069E 03	1.6706069E 03
46	0.	-0.	0.
47	6.3586747E 03	1.7681311E 03	8.1268058E 03
48	0.	1.4456274E 03	1.4456274E 03
49	1.5355337E 03	2.0284220E 03	3.5639557E 03
50	-1.0727109E 03	1.0974933E 02	-9.6296154E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PEO SYMMETRIC	ROL5PEO ANTI-SYM	S + AS
51	-9.9483531E 02	-1.0313965E-04	-9.9483540E 02
52	-4.7712691E 00	-4.1916353E-03	-4.7754607E 00
53	1.1967202E-04	4.4397267E-03	4.5593987E-03
54	0.	-1.0100368E 01	-1.0100368E 01
55	0.	-0.	0.
56	0.	-2.6501392E 02	-2.6501392E 02
57	0.	-1.1585258E 01	-1.1585258E 01
58	0.	4.6157339E 01	4.6157339E 01
59	0.	-1.3881378E 03	-1.3881378E 03
60	0.	1.4438138E 03	1.4438138E 03
61	0.	-0.	0.
62	0.	-0.	0.
63	6.7822915E 02	1.1712076E-05	6.7822915E 02
64	-9.7763886E 02	-3.4832141E 02	-1.3259603E 03
65	-6.5516259E 03	-5.2792400E 03	-1.1830866E 04
66	-6.5508587E 03	5.3631853E 03	-1.1876734E 03
67	2.6786968E 01	-6.9747937E-05	2.6786898E 01
68	0.	-5.8957824E 02	-5.8957824E 02
69	-3.1954108E-13	7.8165595E 02	7.8165595E 02
70	6.1565413E 03	4.2580472E 03	1.0414589E 04
71	-4.8825978E 00	-5.4004635E 02	-5.4492894E 02
72	-7.8085612E 03	1.4352466E 03	-6.3733146E 03
73	-8.1308906E 03	-1.4352464E 03	-9.5661370E 03
74	7.7831144E 03	5.6632142E 03	1.3446328E 04
75	4.7552338E 00	4.1361830E-03	4.7593699E 00
76	-1.3340292E-04	-4.3778186E-03	-4.5112215E-03
77	1.9798614E-01	-5.4447525E 02	-5.4427726E 02
78	-6.1589137E 03	1.9833505E 03	-4.1755633E 03
79	3.4578758E 01	-1.6025295E 01	1.8553462E 01
80	-6.1565412E 03	3.2384286E 03	-2.9181126E 03
81	1.5485459E-04	4.5633509E-04	6.1118967E-04
82	1.9710184E 03	-4.7045566E 02	1.5005628E 03
83	-9.7925608E 02	3.6109684E 02	-6.1815925E 02
84	6.1589137E 03	-5.4718264E 03	6.8708734E 02
85	7.0291475E 01	-9.2967448E 01	-2.2675974E 01
86	-9.9987690E 01	8.8903911E 02	7.8905143E 02
87	1.3743761E 00	-2.8867832E-05	1.3743473E 00
88	4.1551533E 02	-3.1665183E 02	9.8863498E 01
89	-3.5731651E 02	-6.5914941E 00	-3.6390800E 02
90	-5.6810890E 02	-1.0961643E 03	-1.6642732E 03
91	-1.2486462E 03	1.0961646E 03	-1.5248157E 02
92	8.1563373E 03	-5.6632144E 03	2.4931228E 03
93	-5.8396806E 01	4.2171859E 02	3.6332178E 02
94	-9.6025983E 02	-8.8588387E 02	-1.8461437E 03
95	-8.5311465E 02	1.1198853E 03	2.6677062E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLSPEORH SYMMETRIC	ROLSPEORH ANTI-SYM	S + AS
1	-7.8591595E 02	5.4418243E-04	-7.8591540E 02
2	4.5623865E 03	-4.0599946E 03	5.0239184E 02
3	1.7929138E 03	1.0151398E 03	2.8080536E 03
4	1.5485459E-04	3.3331111E-04	4.8816569E-04
5	-3.1730867E-04	-8.6967943E-04	-8.6967974E 02
6	1.7945759E 03	-1.9942888E 03	-1.9971291E 02
7	4.5632812E 03	3.2299127E 02	4.8862725E 03
8	8.3996840E 01	-3.7141119E-04	8.3996468E 01
9	-5.2254382E 01	2.3197192E-04	-5.2254150E 01
10	0.	-3.4300000E 02	-3.4300000E 02
11	4.5623865E 03	-3.5512302E 03	1.0111564E 03
12	1.2283048E-05	-1.6599877E 03	-1.6599877E 03
13	1.0878641E-05	-1.3313970E 03	-1.3313970E 03
14	-0.	3.8642269E 02	3.8642269E 02
15	3.4479512E-01	7.0003018E 02	7.0037497E 02
16	1.7927563E 03	5.5853910E 02	2.3512954E 03
17	0.	-1.1419933E 03	-1.1419933E 03
18	0.	-1.3523735E 03	-1.3523735E 03
19	0.	-0.	0.
20	3.2094333E-10	3.4299996E 02	3.4299996E 02
21	1.7944184E 03	-1.9211124E 03	-1.2669401E 02
22	0.	-3.5600322E 02	-3.5600322E 02
23	0.	-7.9686717E 02	-7.9686717E 02
24	0.	1.8422056E 02	1.8422056E 02
25	4.5632812E 03	1.5282605E 02	4.7161072E 03
26	0.	-3.3683077E 02	-3.3683077E 02
27	0.	-4.3711110E 02	-4.3711110E 02
28	0.	-3.8642269E 02	-3.8642269E 02
29	7.6085180E 01	6.8525421E 01	1.4461060E 02
30	6.3602820E 03	3.7292689E 02	6.7332089E 03
31	4.1691194E-05	1.3766164E 03	1.3766164E 03
32	1.5376738E 03	3.4660832E 03	5.0037570E 03
33	-1.0742059E 03	-9.6747410E 02	-2.0416799E 03
34	8.6645697E 01	-3.7096031E 02	-2.8431461E 02
35	1.7909866E 03	-1.3570551E 03	4.3393152E 02
36	2.8924704E 02	-2.1661862E 02	7.2628422E 01
37	1.9723119E 03	-1.7136503E 03	2.5866159E 02
38	4.0622607E 02	4.4941105E 02	8.5563712E 02
39	-4.6378915E 02	6.2714593E 02	1.6335678E 02
40	-4.2888079E-05	1.2098604E 03	1.2098604E 03
41	7.5979280E 01	2.8487583E 01	1.0446686E 02
42	1.9906210E 03	2.9305526E 02	2.2836762E 03
43	-1.0982549E-05	3.6927207E 02	3.6927206E 02
44	-3.4572285E-05	7.4995772E 02	7.4995769E 02
45	0.	-9.0567274E 01	-9.0567274E 01
46	0.	-0.	0.
47	6.3586747E 03	6.0917380E 02	6.9678485E 03
48	0.	-1.2949445E 02	-1.2949445E 02
49	1.5355337E 03	3.7995946E 02	1.9154932E 03
50	-1.0727109E 03	-4.0220103E 02	-1.4749119E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROLSPEORH SYMMETRIC	ROLSPEORH ANTI-SYM	S + AS
51	-9.9483531E 02	-4.8148781E-05	-9.9483535E 02
52	-4.7712691E 00	-1.2529436E-02	-4.7837986E 00
53	1.1967202E-04	1.2731076E-02	1.2850748E-02
54	0.	-9.9341435E-01	-9.9341435E-01
55	0.	-0.	0.
56	0.	-1.7867557E 03	-1.7867557E 03
57	0.	1.5105009E 03	1.5105009E 03
58	0.	8.3602978E 00	8.3602978E 00
59	0.	1.6739023E 02	1.6739023E 02
60	0.	-7.8272324E 01	-7.8272324E 01
61	0.	-0.	0.
62	0.	-0.	0.
63	6.7822915E 02	-2.1475020E-05	6.7822913E 02
64	-9.7763886E 02	-9.4642115E 02	-1.9240600E 03
65	-6.5516259E 03	-7.0220303E 03	-1.3573656E 04
66	-6.5508587E 03	7.1059758E 03	5.5511706E 02
67	2.6786968E 01	-8.9374162E-05	2.6786879E 01
68	0.	7.1094990E 01	7.1094990E 01
69	-3.1954108E-13	-4.2375280E 01	-4.2375280E 01
70	6.1565413E 03	6.5465832E 03	1.2703125E 04
71	-4.8825978E 00	-1.1000144E 03	-1.1048970E 03
72	-7.8085612E 03	7.2445409E 02	-7.0841072E 03
73	-8.1308906E 03	-7.2445386E 02	-8.8553444E 03
74	7.7831144E 03	6.4862370E 03	1.4269351E 04
75	4.7552338E 00	1.2450303E-02	4.7676840E 00
76	-1.3340292E-04	-1.2657314E-02	-1.2790717E-02
77	1.9798614E-01	-9.4533292E 02	-9.4513494E 02
78	-6.1589137E 03	2.0643868E 03	-4.0945269E 03
79	3.4578758E 01	4.6456103E 02	4.9913979E 02
80	-6.1565412E 03	3.1573914E 03	-2.9991497E 03
81	1.5485459E-04	3.3331111E-04	4.8816569E-04
82	1.9710184E 03	2.1579278E 02	2.1868112E 03
83	-9.7925608E 02	9.5919651E 02	-2.0059570E 01
84	6.1589137E 03	-7.7603616E 03	-1.6014478E 03
85	7.0291475E 01	-6.5293586E 02	-5.8264439E 02
86	-9.9987690E 01	1.5283893E 03	1.4284016E 03
87	1.3743761E 00	-7.7883635E-06	1.3743684E 00
88	4.1551533E 02	-6.7981415E 00	4.0871719E 02
89	-3.5731651E 02	-2.9221459E 02	-6.4953110E 02
90	-5.6810890E 02	-4.3679119E 02	-1.0049001E 03
91	-1.2486462E 03	4.3679139E 02	-8.1185477E 02
92	8.1563373E 03	-6.4862373E 03	1.6701000E 03
93	-5.8396806E 01	7.9834566E 02	7.3994885E 02
94	-9.6025983E 02	-1.4966876E 02	-1.1099286E 03
95	-8.5311465E 02	3.8367088E 02	-4.6944378E 02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PREO SYMMETRIC	ROL5PREO ANTI-SYM	S + AS
1	-7.8591595E 02	-3.1683728E-04	-7.8591626E 02
2	4.5623865E 03	3.1790826E 01	4.5941773E 03
3	1.7929138E 03	-2.5209221E 03	-7.2800836E 02
4	1.5485459E-04	-1.3412916E-04	2.0725431E-05
5	-3.1730867E-04	8.7870642E 02	8.7870611E 02
6	1.7945759E 03	4.3873456E 02	2.2333104E 03
7	4.5632812E 03	-4.3290053E 03	2.3427594E 02
8	8.3996840E 01	-8.1444397E-05	8.3996758E 01
9	-5.2254382E 01	3.6259224E-05	-5.2254345E 01
10	0.	3.4300000E 02	3.4300000E 02
11	4.5623865E 03	-1.4059469E 02	4.4217919E 03
12	1.2283048E-05	-3.2373717E 02	-3.2373716E 02
13	1.0878641E-05	-4.2551461E 02	-4.2551460E 02
14	-0.	-3.8642269E 02	-3.8642269E 02
15	3.4479512E-01	-5.6651839E 02	-5.6617360E 02
16	1.7927563E 03	-1.7546696E 03	3.8086624E 01
17	0.	-3.3247303E 02	-3.3247303E 02
18	0.	-3.9372184E 02	-3.9372184E 02
19	0.	0.	0.
20	3.2094333E-10	-3.4299996E 02	-3.4299996E 02
21	1.7944184E 03	6.7466208E 02	2.4690805E 03
22	0.	-1.1507309E 03	-1.1507309E 03
23	0.	8.2847079E 02	8.2847079E 02
24	0.	-1.9925542E 03	-1.9925542E 03
25	4.5632812E 03	-3.8376200E 03	7.2566128E 02
26	0.	-1.5574980E 03	-1.5574980E 03
27	0.	-1.2406257E 03	-1.2406257E 03
28	0.	3.8642269E 02	3.8642269E 02
29	7.6085180E 01	2.6845157E 01	1.0293034E 02
30	6.3602820E 03	4.9280158E 02	6.8530836E 03
31	4.1691194E-05	-5.7096306E-01	-5.7092137E-01
32	1.5376738E 03	5.4167470E 02	2.0793484E 03
33	-1.0742059E 03	-3.7901238E 02	-1.4532182E 03
34	8.6645697E 01	1.7513109E 02	2.6177678E 02
35	1.7909866E 03	5.5193496E 02	2.3429215E 03
36	2.8924704E 02	-1.7979079E 02	1.0945625E 02
37	1.9723119E 03	3.5152583E 02	2.3238378E 03
38	4.0622607E 02	3.6924099E 02	7.7546706E 02
39	-4.6378915E 02	-8.3627318E 00	-4.7215188E 02
40	-4.2888079E-05	4.3842962E 02	4.3842958E 02
41	7.5979280E 01	7.1256341E 01	1.4723562E 02
42	1.9906210E 03	-1.3276177E 03	6.6300323E 02
43	-1.0982549E-05	1.0214235E 03	1.0214235E 03
44	-3.4572285E-05	-7.8577347E 02	-7.8577350E 02
45	0.	1.8009619E 03	1.8009619E 03
46	0.	0.	0.
47	6.3586747E 03	2.3546205E 02	6.5941368E 03
48	0.	1.4270211E 03	1.4270211E 03
49	1.5355337E 03	3.5974771E 03	5.1330107E 03
50	-1.0727109E 03	-1.0060302E 03	-2.0787411E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PRFO SYMMETRIC	ROL5PREO ANTI-SYM	S + AS
51	-9.9483531E 02	-7.8044260E-05	-9.9483538E 02
52	-4.7712691E 00	1.2614940E-02	-4.7586542E 00
53	1.1967202E-04	-1.2007270E-02	-1.1887598E-02
54	0.	3.4539433E 00	3.4539433E 00
55	0.	0.	0.
56	0.	2.2123742E 02	2.2123742E 02
57	0.	-1.0817578E 02	-1.0817578E 02
58	0.	-7.4914122E 00	-7.4914122E 00
59	0.	-1.8105154E 03	-1.8105154E 03
60	0.	1.5564725E 03	1.5564725E 03
61	0.	0.	0.
62	0.	0.	0.
63	6.7822915E 02	5.7880511E-05	6.7822920E 02
64	-9.7763886E 02	9.3486923E 02	-4.2769638E 01
65	-6.5516259E 03	7.0780834E 03	5.2645752E 02
66	-6.5508587E 03	-6.9931962E 03	-1.3544055E 04
67	2.6786968E 01	1.7520025E-04	2.6787143E 01
68	0.	-7.6897300E 02	-7.6897300E 02
69	-3.1954108E-13	8.4264739E 02	8.4264739E 02
70	6.1565413E 03	-7.8630509E 03	-1.7065095E 03
71	-4.8825978E 00	6.4705275E 02	6.4217016E 02
72	-7.8085612E 03	-9.3912300E 02	-8.7476841E 03
73	-8.1308906E 03	9.3912277E 02	-7.1917679E 03
74	7.7831144E 03	-6.2376731E 03	1.5454412E 03
75	4.7552338E 00	-1.2538103E-02	4.7426957E 00
76	-1.3340292E-04	1.1941838E-02	1.1808435E-02
77	1.9798614E-01	6.1707937E 02	6.1727735E 02
78	-6.1589137E 03	3.3183611E 03	-2.8405527E 03
79	3.4578758E 01	-1.1536549E 03	-1.1190762E 03
80	-6.1565412E 03	2.2096668E 03	-3.9468744E 03
81	1.5485459E-04	-1.3412916E-04	2.0725431E-05
82	1.9710184E 03	-1.5387629E 03	4.3225554E 02
83	-9.7925608E 02	-9.2195021E 02	-1.9012063E 03
84	6.1589137E 03	6.3390227E 03	1.2497936E 04
85	7.0291475E 01	1.0895111E 03	1.1598026E 03
86	-9.9987690E 01	-8.2290897E 02	-9.2289666E 02
87	1.3743761E 00	8.2386425E-06	1.3743844E 00
88	4.1551533E 02	-9.2976282E 02	-5.1424749E 02
89	-3.5731651E 02	1.0833832E 03	7.2606671E 02
90	-5.6810890E 02	-7.8509088E 00	-5.7595981E 02
91	-1.2486462E 03	7.8514876E 00	-1.2407947E 03
92	8.1563373E 03	6.2376733E 03	1.4394011E 04
93	-5.8396806E 01	-3.2469980E 02	-3.8309660E 02
94	-9.6025983E 02	2.6169577E 02	-6.9856306E 02
95	-8.5311465E 02	-2.9169492E 02	-1.1448096E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PREORH SYMMETRIC	ROL5PREORH ANTI-SYM	S + AS
1	-7.8591595E 02	-4.9123673E-04	-7.8591643E 02
2	4.5623865E 03	-8.2091283E 02	3.7414737E 03
3	1.7929138E 03	-1.4707627E 03	3.2215103E 02
4	1.5485459E-04	-2.5715314E-04	-1.0229855E-04
5	-3.1730867E-04	5.2177325E 02	5.2177294E 02
6	1.7945759E 03	-4.0613447E 02	1.3884414E 03
7	4.5632812E 03	-3.4067651E 03	1.1565161E 03
8	8.3996840E 01	3.4936305E-04	8.3997188E 01
9	-5.2254382E 01	-1.8596179E-04	-5.2254567E 01
10	0.	3.4300000E 02	3.4300000E 02
11	4.5623865E 03	-6.9251047E 02	3.8698761E 03
12	1.2283048E-05	-2.0975706E 03	-2.0975706E 03
13	1.0878641E-05	-1.9965331E 03	-1.9965331E 03
14	-0.	-3.8642269E 02	-3.8642269E 02
15	3.4479512E-01	-1.2153101E 02	-1.2118622E 02
16	1.7927563E 03	-8.5658895E 02	9.3616731E 02
17	0.	-9.7367940E 02	-9.7367940E 02
18	0.	-1.1530524E 03	-1.1530524E 03
19	0.	0.	0.
20	3.2094333E-10	-3.4299997E 02	-3.4299997E 02
21	1.7944184E 03	-3.0161684E 02	1.4928016E 03
22	0.	-5.0952402E 02	-5.0952402E 02
23	0.	-4.2455794E 02	-4.2455794E 02
24	0.	-2.8062515E 02	-2.8062515E 02
25	4.5632812E 03	-3.2161676E 03	1.3471136E 03
26	0.	2.1633542E 02	2.1633542E 02
27	0.	3.3039285E 02	3.3039285E 02
28	0.	3.8642269E 02	3.8642269E 02
29	7.6085180E 01	-9.4159812E 00	6.6669199E 01
30	6.3602820E 03	1.7212939E 03	8.0815758E 03
31	4.1691194E-05	1.5745509E 03	1.5745509E 03
32	1.5376738E 03	2.1901358E 03	3.7278095E 03
33	-1.0742059E 03	1.3293907E 02	-9.4126680E 02
34	8.6645697E 01	-2.5210805E 02	-1.6546235E 02
35	1.7909866E 03	-8.8268347E 01	1.7027182E 03
36	2.8924704E 02	-2.1846460E 02	7.0782446E 01
37	1.9723119E 03	-4.2068481E 02	1.5516271E 03
38	4.0622607E 02	6.3821517E 02	1.0444412E 03
39	-4.6378915E 02	3.7302491E 02	-9.0764244E 01
40	-4.2888079E-05	1.1689427E 03	1.1689426E 03
41	7.5979280E 01	1.0751739E 02	1.8349667E 02
42	1.9906210E 03	-7.4653477E 02	1.2440862E 03
43	-1.0982549E-05	4.1839646E 02	4.1839646E 02
44	-3.4572285E-05	6.5118464E 02	6.5118461E 02
45	0.	3.9787651E 01	3.9787651E 01
46	0.	0.	0.
47	6.3586747E 03	-9.2349530E 02	5.4351794E 03
48	0.	-1.4810073E 02	-1.4810073E 02
49	1.5355337E 03	1.9490146E 03	3.4845483E 03
50	-1.0727109E 03	-1.5179806E 03	-2.5906914E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	ROL5PREORH SYMMETRIC	ROL5PREORH ANTI-SYM	S + AS
51	-9.9483531E 02	-2.3053387E-05	-9.9483533E 02
52	-4.7712691E 00	4.2771397E-03	-4.7669920E 00
53	1.1967202E-04	-3.7159209E-03	-3.5962487E-03
54	0.	1.2560896E 01	1.2560896E 01
55	0.	0.	0.
56	0.	-1.3005044E 03	-1.3005044E 03
57	0.	1.4139104E 03	1.4139104E 03
58	0.	-4.5288454E 01	-4.5288454E 01
59	0.	-2.5498737E 02	-2.5498737E 02
60	0.	3.4386282E 01	3.4386282E 01
61	0.	0.	0.
62	0.	0.	0.
63	6.7822915E 02	2.4693415E-05	6.7822917E 02
64	-9.7763886E 02	3.3676947E 02	-6.4086940E 02
65	-6.5516259E 03	5.3352929E 03	-1.2163329E 03
66	-6.5508587E 03	-5.2504057E 03	-1.1801264E 04
67	2.6786968E 01	1.5557402E-04	2.6787124E 01
68	0.	-1.0829977E 02	-1.0829977E 02
69	-3.1954108E-13	1.8616149E 01	1.8616149E 01
70	6.1565413E 03	-5.5745147E 03	5.8202661E 02
71	-4.8825978E 00	8.7084693E 01	8.2202096E 01
72	-7.8085612E 03	-1.6499155E 03	-9.4584767E 03
73	-8.1308906E 03	1.6499153E 03	-6.4809753E 03
74	7.7831144E 03	-5.4146503E 03	2.3684640E 03
75	4.7552338E 00	-4.2239827E-03	4.7510098E 00
76	-1.3340292E-04	3.6623424E-03	3.5289395E-03
77	1.9798614E-01	2.1622170E 02	2.1641969E 02
78	-6.1589137E 03	3.3993973E 03	-2.7595164E 03
79	3.4578758E 01	-6.7306860E 02	-6.3848985E 02
80	-6.1565412E 03	2.1286297E 03	-4.0279115E 03
81	1.5485459E-04	-2.5715314E-04	-1.0229855E-04
82	1.9710184E 03	-8.5251447E 02	1.1185040E 03
83	-9.7925608E 02	-3.2385051E 02	-1.3031066E 03
84	6.1589137E 03	4.0504875E 03	1.0209401E 04
85	7.0291475E 01	5.2954268E 02	5.9983415E 02
86	-9.9987690E 01	-1.8355878E 02	-2.8354647E 02
87	1.3743761E 00	2.9318112E-05	1.3744054E 00
88	4.1551533E 02	-6.1990913E 02	-2.0439379E 02
89	-3.5731651E 02	7.9776013E 02	4.4044362E 02
90	-5.6810890E 02	6.5152229E 02	8.3413391E 01
91	-1.2486462E 03	-6.5152174E 02	-1.9001679E 03
92	8.1563373E 03	5.4146506E 03	1.3570988E 04
93	-5.8396806E 01	5.1927276E 01	-6.4695306E 00
94	-9.6025983E 02	9.9791187E 02	3.7652038E 01
95	-8.5311465E 02	-1.0279093E 03	-1.8810240E 03

REVISED CONDITIONS

The following conditions have been rerun as explained at the beginning of Section VI. A variation of the previously used computer output is employed in these conditions and the applied load numbers are not correctly coded. Load Nos. 1 - 19 in the following outputs are equivalent to applied external load Nos. 96 through 114 in the previous outputs and in Figure II.

17. SEPTEMBER, 1963

REDUNDANT STRESS ANALYSIS

E = 26000000.0

LANDING CONDITION L-16, REVISED

(FLEXIBILITY COEFFICIENTS FOR MEMBERS 64 AND 83 EQUAL 2200.0)

APPLIED-LOAD CONDITIONS

S PMC

1

1	-1.3260000E 04
2	0.
3	1.8583000E 04
4	0.
5	2.1048740E 06
6	0.
7	4.0599999E 02
8	4.0599999E 02
9	4.0599999E 02
10	4.0599999E 02
11	-6.3600000E 02
12	-2.4800000E 02
13	-2.4800000E 02
14	-6.3600000E 02
15	0.
16	0.
17	0.
18	0.
19	0.

DEFLECTIONS OF REDUNDANT STRUCTURE

(APC)	i
1	2.6052091E-02
2	3.9362052E-03
3	2.2498449E-01
4	-8.6127710E-05
5	7.6162553E-03
6	3.4909412E-06
7	-1.0942618E-01
8	-1.4050384E-01
9	-1.3241200E-01
10	-1.0877276E-01
11	1.2766875E-01
12	1.5674051E-01
13	1.6384910E-01
14	1.2703766E-01
15	1.6566156E-01
16	1.9748583E-01
17	8.0318410E-02
18	2.3595511E-01
19	-4.3379555E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

(GIC)	1
1	-1.5122012E 03
2	6.1472012E 03
3	3.4497783E 03
4	-7.7250196E-03
5	-3.3591364E-03
6	3.4683146E 03
7	6.1613707E 03
8	1.7218294E 02
9	-1.0711312E 02
10	0.
11	6.1341475E 03
12	7.6981499E 01
13	6.8179653E 01
14	-0.
15	-1.5940067E 01
16	3.4144769E 03
17	1.7066492E 02
18	2.0210513E 02
19	-0.
20	2.1425863E-10
21	3.4330145E 03
22	1.7066492E 02
23	-0.
24	2.0210513E 02
25	6.1483169E 03
26	7.6981475E 01
27	6.8179641E 01
28	0.
29	7.4884825E 02
30	2.2534574E 04
31	-7.7338259E 02
32	1.3964937E 04
33	-1.0572589E 04
34	9.4715924E 02
35	3.4320669E 03
36	6.3728337E 02
37	3.7708877E 03
38	4.4972465E 02
39	-1.0204504E 03
40	-5.3795556E 02
41	7.4766746E 02
42	3.8600961E 03
43	-4.4407301E 02
44	-2.6880980E-04
45	-5.3795529E 02
46	-0.
47	2.2520841E 04
48	-7.7338267E 02
49	1.3941073E 04
50	-1.0555918E 04

(GIC)

1

51 -1.9064677E 03
52 -8.3020121E 00
53 1.6999472E-03
54 -1.2978985E 01
55 -0.
56 1.8364089E 02
57 -4.6492522E 02
58 1.1920929E-06
59 1.8364099E 02
60 -4.6492522E 02

61 -0.
62 -0.
63 1.3901158E 03
64 -1.0960727E 03
65 -2.5521219E 04
66 -2.5517195E 04
67 -1.3469313E 03
68 7.7997073E 01
69 -2.5170251E 02
70 1.5032543E 04

71 -9.9896184E 00
72 -2.5309910E 04
73 -2.6000336E 04
74 3.1885402E 04
75 8.2738748E 00
76 -1.8916638E-03
77 -9.9673344E 00
78 -9.2451935E 03
79 6.6527748E 01
80 -9.2145431E 03

81 -7.7250196E-03
82 3.7564630E 03
83 -1.1137286E 03
84 1.5063192E 04
85 1.5099141E 02
86 -2.0752968E 02
87 2.8190532E 00
88 8.9159917E 02
89 -7.6972233E 02
90 -8.5515150E 03

91 -1.0039757E 04
92 3.2684842E 04
93 -1.1190948E 02
94 -8.5244600E 03
95 -8.2933519E 03

16. SEPTEMBER, 1963

REDUNDANT STRESS ANALYSIS

E = 26000000.0

LANDING CONDITION L-10. REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 64 EQUALS 1900.0)

APPLIED-LOAD CONDITIONS

S	PMC	I
1	-5.1900000E	02
2	0.	
3	6.5420000E	03
4	0.	
5	6.3368300E	05
6	0.	
7	0.	
8	0.	
9	0.	
10	0.	
11	0.	
12	0.	
13	0.	
14	0.	
15	0.	
16	0.	
17	0.	
18	0.	
19	0.	

APPLIED-LOAD CONDITIONS

AS PMC

1

1	0.
2	4.1870000E 03
3	0.
4	3.7125800E 05
5	0.
6	-1.4712400E 05
7	2.6300000E 02
8	-2.5000000E 02
9	2.6300000E 02
10	-2.5000000E 02
11	-2.6000000E 02
12	-2.8700000E 02
13	2.5000000E 01
14	-5.7200000E 02
15	0.
16	0.
17	0.
18	0.
19	-8.6400000E 02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	8.0815197E-03	-1.4094422E-03	6.6720775E-03
2	1.2797136E-02	-1.0075239E-02	2.7218965E-03
3	1.3129003E-01	-3.9826026E-02	9.1464000E-02
4	2.0184208E-04	1.6016728E-02	1.6218570E-02
5	1.9745454E-03	4.9591845E-04	2.4704639E-03
6	-1.2669667E-05	1.9300027E-04	1.8033060E-04
7	-6.9788333E-02	-1.6000230E-01	-2.2979063E-01
8	-7.9321088E-02	-1.4826751E-02	-9.4147838E-02
9	-7.7458015E-02	6.1092154E-02	-1.6365861E-02
10	-6.4684935E-02	1.9804377E-01	1.3335883E-01
11	7.4956242E-02	1.6771561E-01	2.4267185E-01
12	8.4023951E-02	6.2329835E-03	9.0256934E-02
13	8.5861466E-02	-5.4279408E-02	3.1582058E-02
14	6.9724403E-02	-2.1198069E-01	-1.4225629E-01
15	6.0538431E-02	7.3628582E-02	1.3416701E-01
16	6.6432694E-02	-3.4600106E-02	3.1832588E-02
17	4.5227412E-02	3.8460554E-03	4.9073467E-02
18	1.1503418E-01	-4.5171857E-02	6.9862323E-02
19	-1.0075239E-02	-7.3006564E-02	-8.3081802E-02

INTERNAL LOADS IN REDUNDANT STRU 1-23

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-3.4774032E 02	1.0139492E-03	-3.4773931E 02
2	1.1968056E 03	-1.8531718E 03	-6.5636621E 02
3	7.9329638E 02	2.8911631E 03	3.6844594E 03
4	6.1031693E-04	4.2244613E-04	1.0327630E-03
5	-3.8304352E-02	-8.7605748E 02	-8.7609578E 02
6	1.0068293E 03	-1.9779003E 03	-9.7107103E 02
7	1.2310066E 03	2.9873133E 03	4.2183199E 03
8	5.2600977E 01	-4.2207512E-04	5.2600555E 01
9	-3.2722963E 01	3.6187550E-04	-3.2722601E 01
10	0.	-4.3200000E 02	-4.3200000E 02
11	1.1968056E 03	-1.5875845E 03	-3.9077887E 02
12	2.6826348E-06	1.2188496E 02	1.2188496E 02
13	2.3759103E-06	2.8275482E 02	2.8275482E 02
14	-0.	4.8668981E 02	4.8668981E 02
15	1.9344393E-01	5.2356638E 02	5.2375982E 02
16	7.9319636E 02	2.2298532E 03	3.0230496E 03
17	-0.	-1.6919792E 02	-1.6919792E 02
18	-0.	-2.0036788E 02	-2.0036788E 02
19	-0.	0.	-0.
20	-1.8298029E-10	4.3199997E 02	4.3199997E 02
21	1.0067411E 03	-1.9847232E 03	-9.7798208E 02
22	-0.	3.4118411E 01	3.4118411E 01
23	-0.	-2.3519518E 02	-2.3519518E 02
24	-0.	2.1920769E 02	2.1920769E 02
25	1.2310066E 03	2.7865208E 03	4.0175273E 03
26	-0.	-5.0399842E 02	-5.0399842E 02
27	0.	-6.2117853E 02	-6.2117853E 02
28	0.	-4.8668981E 02	-4.8668981E 02
29	2.8130582E 02	4.2837008E 02	7.0967590E 02
30	7.8440747E 03	7.8876964E 03	1.5731771E 04
31	1.4209850E-05	-3.8649904E 02	-3.8649903E 02
32	5.6851630E 03	8.0730016E 03	1.3758165E 04
33	-3.9716069E 03	-6.0479288E 03	-1.0019536E 04
34	3.0200881E 02	-4.9497457E 02	-1.9296586E 02
35	1.0240941E 03	-1.7560806E 03	-7.3198645E 02
36	1.7114042E 02	4.9581510E 02	6.6695552E 02
37	1.0724036E 03	-1.5049689E 03	-4.3256532E 02
38	2.2291862E 02	-5.0101323E 02	-2.7809461E 02
39	-2.5450669E 02	4.9297504E 02	2.3846835E 02
40	-9.7530831E-05	-8.3858398E 01	-8.3858495E 01
41	2.6770390E 02	-4.4190449E 02	-1.7420059E 02
42	9.7338299E 02	1.6415681E 03	2.6149511E 03
43	-6.7147732E-05	-1.2162620E 02	-1.2162627E 02
44	-9.7360289E-05	6.2435153E 01	6.2435056E 01
45	-0.	-1.9212102E 02	-1.9212102E 02
46	-0.	0.	-0.
47	7.5568614E 03	-8.0736499E 03	-5.1678845E 02
48	-0.	-2.4962204E 02	-2.4962204E 02
49	5.4102692E 03	-9.3082284E 03	-3.8979591E 03
50	-3.7795686E 03	6.2390137E 03	2.4594451E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-5.6886533E 02	6.2316964E-04	-5.6886472E 02
52	-2.5478483E 00	-5.3046595E-02	-2.6008948E 00
53	3.3724723E-04	5.2264482E-02	5.2601728E-02
54	-0.	-1.5019728E 01	-1.5019728E 01
55	-0.	0.	-0.
56	-0.	-3.7481878E 02	-3.7481878E 02
57	-0.	-3.3771698E 01	-3.3771698E 01
58	-0.	3.3883421E 01	3.3883421E 01
59	-0.	1.9918097E 02	1.9918097E 02
60	-0.	-1.6603965E 02	-1.6603965E 02
61	-0.	0.	-0.
62	-0.	0.	-0.
63	4.2473695E 02	-8.3379011E-06	4.2473695E 02
64	-4.2026554E 02	-3.0524690E 03	-3.4727345E 03
65	-6.3924526E 03	-7.6277896E 03	-1.4020242E 04
66	-6.2067890E 03	2.8192235E 03	-3.3875655E 03
67	-2.8458520E 02	-6.9495651E-04	-2.8458589E 02
68	-0.	8.4597341E 01	8.4597341E 01
69	-7.2666131E-13	-8.9891008E 01	-8.9891008E 01
70	2.1616587E 03	3.6866769E 03	5.8483356E 03
71	-3.0606517E 00	-1.8595739E 03	-1.8626345E 03
72	-8.6722070E 03	-6.4676436E 03	-1.5139851E 04
73	-8.4401351E 03	6.4676433E 03	-1.9724918E 03
74	8.9500283E 03	3.6171664E 03	1.2567195E 04
75	2.5392406E 00	5.2597051E-02	2.5918377E 00
76	-3.7361197E-04	-5.1836597E-02	-5.2210209E-02
77	-2.1059233E 00	-4.7845373E 03	-4.7866431E 03
78	-2.1261938E 03	-6.1000296E 02	-2.7361968E 03
79	1.5297508E 01	1.3230897E 03	1.3383873E 03
80	-1.9021585E 03	-7.1748255E 02	-2.6196410E 03
81	6.1031693E-04	4.2244613E-04	1.0327630E-03
82	9.0624218E 02	1.7744373E 03	2.6806795E 03
83	-6.3533046E 02	8.5476981E 03	7.9123678E 03
84	2.3856935E 03	-2.3851917E 03	5.0173950E-01
85	1.4123752E 02	-4.3119203E 03	-4.1706828E 03
86	-1.5347448E 02	1.5254046E 03	1.3719301E 03
87	8.6065352E-01	5.4949912E-05	8.6070846E-01
88	1.4534677E 02	1.3758974E 03	1.5212442E 03
89	-1.0984857E 02	-1.8114521E 03	-1.9213007E 03
90	-3.1662045E 03	-5.5278872E 03	-8.6940916E 03
91	-3.3783344E 03	5.5278864E 03	2.1495520E 03
92	8.6813135E 03	-3.6171663E 03	5.0641472E 03
93	-3.3392280E 01	1.0330918E 03	9.9969952E 02
94	-3.3856245E 03	-4.8551581E 03	-8.2407825E 03
95	-3.1572366E 03	5.9491580E 03	2.7919214E 03

16. SEPTEMBER, 1963

REDUNDANT STRESS ANALYSIS

E = 26000000.0

LANDING CONDITION L-10R, REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 83 EQUALS 1900.)

APPLIED-LOAD CONDITIONS

C

S	PMC	1
1		-5.190000E 02
2		0.
3		6.542000E 03
4		0.
5		6.336830E 05
6		0.
7		0.
8		0.
9		0.
10		0.
11		0.
12		0.
13		0.
14		0.
15		0.
16		0.
17		0.
18		0.
19		0.

C

C

APPLIED-LOAD CONDITIONS

AS PMC

1

1	0.	
2	-4.1870000E	03
3	0.	
4	-3.7125800E	05
5	0.	
6	1.4712400E	05
7	-2.5000000E	02
8	2.6300000E	02
9	-2.5000000E	02
10	2.6300000E	02
11	-4.3500000E	02
12	2.5000000E	01
13	-2.8700000E	02
14	-1.2300000E	02
15	0.	
16	0.	
17	0.	
18	0.	
19	8.6400000E	02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	8.0683659E-03	-3.0945663E-03	4.9737997E-03
2	-9.9585990E-03	-1.2534730E-02	-2.2493329E-02
3	1.3129906E-01	-2.8900572E-02	1.0239848E-01
4	-2.5581105E-04	-1.6014218E-02	-1.6270029E-02
5	1.9747812E-03	3.9985029E-04	2.3746315E-03
6	1.3801601E-05	-1.9245030E-04	-1.7864870E-04
7	-6.4849611E-02	1.9180254E-01	1.2695293E-01
8	-7.8803176E-02	4.8516616E-02	-3.0286560E-02
9	-7.7664869E-02	-2.6510033E-02	-1.0417490E-01
10	-6.9641719E-02	-1.6609206E-01	-2.3573378E-01
11	6.9887537E-02	-2.0475685E-01	-1.3486932E-01
12	8.3340359E-02	-4.4281797E-02	3.9058562E-02
13	8.6319151E-02	1.5999967E-02	1.0231912E-01
14	7.4808599E-02	1.7478741E-01	2.4959600E-01
15	6.6546694E-02	-8.4113885E-02	-1.7567191E-02
16	7.4066863E-02	3.0353323E-02	1.0442019E-01
17	4.4961071E-02	-2.7252357E-02	1.7708714E-02
18	1.1702797E-01	9.5941639E-04	1.1798738E-01
19	-1.2534730E-02	7.0087610E-02	5.7552880E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-4.3942509E 02	2.4047916E-02	-4.3940104E 02
2	1.2276597E 03	2.7622301E 03	3.9898898E 03
3	1.0024670E 03	-2.6064462E 03	-1.6039792E 03
4	8.4899826E-04	1.0015567E-02	1.0864565E-02
5	3.6535795E-02	8.7605662E 02	8.7609316E 02
6	7.9867967E 02	2.2673584E 03	3.0660380E 03
7	1.1991919E 03	-2.0754691E 03	-8.7627724E 02
8	6.3217435E 01	-1.8008654E-02	6.3199427E 01
9	-3.9327105E 01	3.8134918E-04	-3.9326724E 01
10	0.	4.3200000E 02	4.3200000E 02
11	1.2276597E 03	2.5504299E 03	3.7780896E 03
12	4.5245994E-06	-4.3908347E 02	-4.3908347E 02
13	4.0072700E-06	-5.6368579E 02	-5.6368579E 02
14	-0.	-4.8668981E 02	-4.8668981E 02
15	1.5345179E-01	-5.1036693E 02	-5.1021349E 02
16	1.0024081E 03	-1.9174629E 03	-9.1505482E 02
17	-0.	3.4118325E 01	3.4118325E 01
18	-0.	4.0403664E 01	4.0403664E 01
19	-0.	-0.	-0.
20	4.9206960E-10	-4.3199997E 02	-4.3199997E 02
21	7.9860985E 02	2.3018548E 03	3.1004646E 03
22	-0.	-1.6919801E 02	-1.6919801E 02
23	-0.	2.3519518E 02	2.3519518E 02
24	-0.	-3.7917190E 02	-3.7917190E 02
25	1.1991919E 03	-1.8208894E 03	-6.2169749E 02
26	-0.	1.8679990E 02	1.8679990E 02
27	0.	3.4024758E 02	3.4024758E 02
28	0.	4.8668981E 02	4.8668981E 02
29	2.6801430E 02	-4.4175343E 02	-1.7373913E 02
30	7.5608489E 03	-8.1333914E 03	-5.7254248E 02
31	1.6569717E-05	-1.4642794E 02	-1.4642792E 02
32	5.4165427E 03	-9.1491654E 03	-3.7326227E 03
33	-3.7839510E 03	6.2368813E 03	2.4529302E 03
34	3.1706760E 02	5.2402118E 02	8.4108877E 02
35	8.8847382E 02	2.0168989E 03	2.9053727E 03
36	1.2864149E 02	-4.2731770E 02	-2.9867621E 02
37	9.1062798E 02	1.8520258E 03	2.7634538E 03
38	1.9744477E 02	4.0600657E 02	6.0345134E 02
39	-2.2542319E 02	-6.0239853E 02	-8.2782171E 02
40	-9.7285619E-05	-1.4733913E 02	-1.4733923E 02
41	2.8099542E 02	4.2821913E 02	7.0921454E 02
42	1.1397176E 03	-1.3369270E 03	-1.9720941E 02
43	-6.7897242E-05	-6.9223390E 01	-6.9223457E 01
44	-9.7089063E-05	-6.2435147E 01	-6.2435244E 01
45	-0.	-3.9076526E 01	-3.9076526E 01
46	-0.	-0.	-0.
47	7.8391261E 03	7.8236040E 03	1.5662730E 04
48	-0.	-2.8330494E 02	-2.8330494E 02
49	5.6788896E 03	8.2259610E 03	1.3904851E 04
50	-3.9672244E 03	-6.0457972E 03	-1.0013022E 04

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-4.9353604E 02	5.0452223E-03	-4.9353100E 02
52	-2.1414093E 00	6.1047480E-02	-2.0803619E 00
53	2.3217973E-04	-5.9533762E-02	-5.9301583E-02
54	-0.	1.3082356E 00	1.3082356E 00
55	-0.	-0.	-0.
56	-0.	2.2946883E 02	2.2946883E 02
57	-0.	-1.6603965E 02	-1.6603965E 02
58	-0.	-3.3883423E 01	-3.3883423E 01
59	-0.	-3.4453093E 02	-3.4453093E 02
60	-0.	-3.3771698E 01	-3.3771698E 01
61	-0.	-0.	-0.
62	-0.	-0.	-0.
63	5.1042390E 02	-2.4326060E-04	5.1042367E 02
64	-6.2843553E 02	8.5510825E 03	7.9226470E 03
65	-6.2106721E 03	2.8173065E 03	-3.3933657E 03
66	-6.3923671E 03	-7.6277725E 03	-1.4020139E 04
67	-3.6076510E 02	-3.0334969E-03	-3.6076813E 02
68	-0.	-1.4633125E 02	-1.4633125E 02
69	-7.2483433E-13	-1.8283416E 01	-1.8283416E 01
70	2.3784950E 03	-2.5504650E 03	-1.7196991E 02
71	-3.6781350E 00	4.3134848E 03	4.3098067E 03
72	-8.2793124E 03	6.5024284E 03	-1.7768840E 03
73	-8.8330297E 03	-6.5024281E 03	-1.5335458E 04
74	8.4950978E 03	-3.6574434E 03	4.8376544E 03
75	2.1341395E 00	-6.0591329E-02	2.0735482E 00
76	-2.9289746E-04	5.9044325E-02	5.8751428E-02
77	-2.6698626E 00	1.9351416E 03	1.9324717E 03
78	-1.9093575E 03	-5.5920992E 02	-2.4685674E 03
79	1.9335936E 01	-1.1927692E 03	-1.1734332E 03
80	-2.1189949E 03	-4.4472933E 02	-2.5637242E 03
81	8.4899826E-04	1.0015567E-02	1.0864565E-02
82	1.0692056E 03	-1.4302697E 03	-3.6106412E 02
83	-4.2280858E 02	-3.0536764E 03	-3.4764850E 03
84	2.1688572E 03	3.5284045E 03	5.6972617E 03
85	-4.0900099E 01	1.8601644E 03	1.8192644E 03
86	2.5242236E 01	-1.6578802E 03	-1.6326380E 03
87	1.0347656E 00	-1.1131573E-02	1.0236340E 00
88	2.8337143E 02	-1.1400087E 03	-8.5663726E 02
89	-2.5173102E 02	4.5784028E 03	4.3266717E 03
90	-3.0289439E 03	5.6070868E 03	2.5781429E 03
91	-3.5151899E 03	-5.6070853E 03	-9.1222752E 03
92	9.1362442E 03	3.6574433E 03	1.2793687E 04
93	-2.8970541E 01	-1.1865355E 03	-1.2155060E 03
94	-3.2340212E 03	5.8103600E 03	2.5763388E 03
95	-3.3090143E 03	-4.9903592E 03	-8.2993734E 03

23. OCTOBER, 1963

REDUNDANT STRESS ANALYSIS

E = 26000000.0

FLIGHT CONDITION ROLL 4. REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 3 EQUALS 600.)
(FLEXIBILITY COEFFICIENT FOR MEMBER 83 EQUALS 1200.)

APPLIED-LOAD CONDITIONS
FLIGHT CONDITION ROLL 4, REVISED

S	PMC	1
1		0.
2		0.
3		-1.5410000E 03
4		0.
5		3.3067699E 05
6		0.
7		0.
8		0.
9		0.
10		0.
11		0.
12		0.
13		0.
14		0.
15		0.
16		0.
17		0.
18		0.
19		0.

APPLIED-LOAD CONDITIONS
FLIGHT CONDITION ROLL 4, REVISED

AS PMC	1
1	0.
2	7.600000E 01
3	0.
4	-3.646690E 05
5	0.
6	1.860570E 05
7	0.
8	-2.700000E 01
9	0.
10	-2.700000E 01
11	-3.480000E 02
12	-2.170000E 02
13	-9.000000E 01
14	-4.750000E 02
15	0.
16	0.
17	0.
18	0.
19	-3.180000E 02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	¹ SYMMETRIC	¹ ANTI-SYM	S + AS
1	2.8413714E-02	-9.4123977E-04	2.7472474E-02
2	-1.0772902E-02	-2.8745384E-02	-3.9518286E-02
3	-1.9203776E-01	-2.5934853E-02	-2.1797261E-01
4	1.6337633E-05	-1.5277722E-02	-1.5261385E-02
5	2.7302226E-03	1.7860208E-04	2.9088246E-03
6	2.0516434E-05	2.4671404E-04	2.6723047E-04
7	1.0966541E-01	1.8439758E-01	2.9406299E-01
8	1.0845771E-01	4.3638384E-02	1.5209609E-01
9	1.1395677E-01	-2.7080744E-02	8.6876030E-02
10	1.1153540E-01	-1.5935863E-01	-4.7823229E-02
11	-1.0429502E-01	-1.8961684E-01	-2.9391186E-01
12	-1.0918660E-01	-4.8040045E-02	-1.5722665E-01
13	-1.0616761E-01	2.0102176E-02	-8.6065438E-02
14	-1.0611520E-01	1.5696707E-01	5.0851861E-02
15	9.0985211E-03	-1.6539349E-01	-1.5629497E-01
16	2.5874385E-02	-3.7950460E-02	-1.2076075E-02
17	-7.1172637E-02	-2.7449661E-02	-9.8622297E-02
18	-1.1940785E-01	-1.5568187E-02	-1.3497604E-01
19	-2.8745384E-02	6.0543648E-02	3.1798264E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-6.3836069E 02	-1.8655368E-03	-6.3836255E 02
2	4.7300789E 03	1.9221168E 03	6.6521956E 03
3	1.4562996E 03	-3.6195554E 03	-2.1632558E 03
4	5.9396954E-04	-1.0244938E-03	-4.3052424E-04
5	-6.2828231E-03	-3.0960838E 02	-3.0961466E 02
6	1.4912476E 03	4.7160208E 03	6.2072685E 03
7	4.7907791E 03	-1.4181318E 03	3.3726473E 03
8	4.6146038E 01	1.6867191E-03	4.6147724E 01
9	-2.8707581E 01	-1.1090261E-03	-2.8708690E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.7300789E 03	2.0554354E 03	6.7855143E 03
12	1.2489365E-05	-1.6489328E 02	-1.6489327E 02
13	1.1061368E-05	-8.1701614E 01	-8.1701603E 01
14	-0.	1.7912889E 02	1.7912889E 02
15	2.8651614E-01	1.8235264E 02	1.8263916E 02
16	1.4561669E 03	-3.8433020E 03	-2.3871351E 03
17	-0.	-1.0641965E 02	-1.0641965E 02
18	-0.	-1.2602448E 02	-1.2602448E 02
19	-0.	0.	-0.
20	2.0938402E-10	1.5899999E 02	1.5899999E 02
21	1.4911169E 03	4.7328079E 03	6.2239248E 03
22	-0.	-8.3884478E 01	-8.3884478E 01
23	-0.	-3.5265170E 01	-3.5265170E 01
24	-0.	-7.2527970E 01	-7.2527970E 01
25	4.7907791E 03	-1.4810583E 03	3.3097208E 03
26	-0.	-2.5023032E 02	-2.5023032E 02
27	0.	-2.8595797E 02	-2.8595797E 02
28	0.	-1.7912889E 02	-1.7912889E 02
29	-6.3547859E 01	-4.3242806E 02	-4.9597592E 02
30	3.2284398E 03	-8.6017462E 03	-5.3733065E 03
31	4.0862623E-05	-2.6212811E 02	-2.6212807E 02
32	-1.2842961E 03	-9.1356184E 03	-1.0419914E 04
33	8.9719844E 02	6.1052215E 03	7.0024199E 03
34	-7.3210092E 01	5.0387266E 02	4.3066257E 02
35	1.4539672E 03	3.8621630E 03	5.3161302E 03
36	2.3639497E 02	-2.3712173E 02	-7.2675323E-01
37	1.6335512E 03	3.8254918E 03	5.4590430E 03
38	3.2924396E 02	6.4900231E 02	9.7824626E 02
39	-3.7589847E 02	-8.6912403E 02	-1.2450225E 03
40	3.8981253E-06	-1.3598164E 02	-1.3598164E 02
41	-6.5774050E 01	4.1857311E 02	3.5279907E 02
42	1.5904433E 03	-2.7598257E 03	-1.1693824E 03
43	2.5880757E-05	-8.3120371E 01	-8.3120346E 01
44	1.3718229E-05	-3.4707197E 01	-3.4707184E 01
45	-0.	-7.5799342E 01	-7.5799342E 01
46	-0.	0.	-0.
47	3.2365351E 03	7.8435597E 03	1.1080095E 04
48	-0.	-3.3821669E 02	-3.3821669E 02
49	-1.3292870E 03	7.9479994E 03	6.6187124E 03
50	9.2862879E 02	-5.9096102E 03	-4.9809814E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-8.0763193E 02	-1.6280661E-04	-8.0763209E 02
52	-3.8736765E 00	5.0345252E-02	-3.8233313E 00
53	-3.2270376E-05	-4.9898245E-02	-4.9930515E-02
54	-0.	-1.1356449E 01	-1.1356449E 01
55	-0.	0.	-0.
56	-0.	-1.5120033E 02	-1.5120033E 02
57	-0.	-1.3903596E 02	-1.3903596E 02
58	-0.	1.3792448E 01	1.3792448E 01
59	-0.	-6.5901849E 01	-6.5901849E 01
60	-0.	-6.5509208E 01	-6.5509208E 01
61	-0.	0.	-0.
62	-0.	0.	-0.
63	3.7263710E 02	8.7515959E-05	3.7263718E 02
64	-4.5359125E 02	4.9241970E 03	4.4706057E 03
65	-4.5960177E 03	2.7025990E 02	-4.3257579E 03
66	-4.6251335E 03	-2.2087407E 03	-6.8338742E 03
67	2.1915668E 01	7.7889346E-04	2.1916447E 01
68	-0.	-2.7990230E 01	-2.7990230E 01
69	2.9043305E-14	-3.5465558E 01	-3.5465558E 01
70	6.0249359E 03	2.9291829E 03	8.9541187E 03
71	-2.6844047E 00	2.3899981E 03	2.3873137E 03
72	-4.4041888E 03	5.4786119E 03	1.0744231E 03
73	-4.6554548E 03	-5.4786117E 03	-1.0134066E 04
74	4.3843520E 03	-1.4474192E 03	2.9369327E 03
75	3.8606722E 00	-4.9902335E-02	3.8107699E 00
76	3.5816107E-05	4.9498032E-02	4.9533848E-02
77	1.6213551E-01	1.5922274E 03	1.5923895E 03
78	-6.1167058E 03	-2.5564334E 03	-8.6731391E 03
79	2.8088546E 01	-1.6564265E 03	-1.6283379E 03
80	-6.0249362E 03	1.2961819E 03	-4.7287543E 03
81	5.9396954E-04	-1.0244938E-03	-4.3052424E-04
82	1.6063562E 03	-2.8476703E 03	-1.2413141E 03
83	-4.8380080E 02	-2.7183361E 03	-3.2021369E 03
84	6.1167055E 03	-1.6149312E 03	4.5017744E 03
85	5.4189852E 01	1.4474246E 03	1.5016144E 03
86	-7.9594024E 01	-1.9389964E 03	-2.0185904E 03
87	7.5495750E-01	-2.7166804E-05	7.5493034E-01
88	3.2357474E 02	-1.8197505E 03	-1.4961758E 03
89	-2.7632888E 02	2.4236066E 03	2.1472777E 03
90	1.0316000E 03	5.7012963E 03	6.7328962E 03
91	5.0553933E 02	-5.7012959E 03	-5.1957566E 03
92	4.6752915E 03	1.4474192E 03	6.1227106E 03
93	-4.7407994E 01	-2.2720835E 03	-2.3194914E 03
94	7.2777319E 02	5.5297928E 03	6.2575660E 03
95	8.1247118E 02	-4.3997920E 03	-3.5873208E 03

11. NOVEMBER. 1963

REDUNDANT STRESS ANALYSIS

E = 26000000.0

FLIGHT CONDITION ROLL 4R. REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 6 EQUALS 600.)

(FLEXIBILITY COEFFICIENT FOR MEMBER 64 EQUALS 1200.)

APPLIED-LOAD CONDITIONS
FLIGHT CONDITION ROLL 4R, REVISED

C

S	PMC	1
1	0.	
2	0.	
3	-1.5410000E 03	
4	0.	
5	3.3067699E 05	
6	0.	
7	0.	
8	0.	
9	0.	
10	0.	
11	0.	
12	0.	
13	0.	
14	0.	
15	0.	
16	0.	
17	0.	
18	0.	
19	0.	

C

APPLIED-LOAD CONDITIONS
FLIGHT CONDITION ROLL 4R, REVISED

AS PMC 1

1	0.	
2	-7.6000000E	01
3	0.	
4	3.6466900E	05
5	0.	
6	-1.8605700E	05
7	-1.8600000E	02
8	1.6400000E	02
9	-1.8600000E	02
10	1.6400000E	02
11	-3.8200000E	02
12	-7.6000000E	01
13	-1.7500000E	02
14	-2.8300000E	02
15	0.	
16	0.	
17	0.	
18	0.	
19	3.1800000E	02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	¹ SYMMETRIC	¹ ANTI-SYM	S + AS
1	2.8411668E-02	-2.5432067E-03	2.5868461E-02
2	1.3373967E-02	-1.8600438E-02	-5.2264709E-03
3	-1.9203449E-01	-1.7245354E-02	-2.0927984E-01
4	-1.0567066E-04	1.5436608E-02	1.5330937E-02
5	2.7302248E-03	8.8139160E-05	2.8183640E-03
6	-2.0629943E-05	-2.2498257E-04	-2.4561251E-04
7	1.1154980E-01	-1.6967198E-01	-5.8122173E-02
8	1.0967258E-01	-2.4578034E-02	8.5094550E-02
9	1.1279301E-01	3.9651479E-02	1.5244449E-01
10	1.0964685E-01	1.8402073E-01	2.9366758E-01
11	-1.0612859E-01	1.6520500E-01	5.9076409E-02
12	-1.0990840E-01	2.1881606E-02	-8.8026799E-02
13	-1.0548249E-01	-4.9257878E-02	-1.5474036E-01
14	-1.0427734E-01	-1.8612090E-01	-2.9039825E-01
15	-1.1721255E-02	1.2608440E-01	1.1436315E-01
16	1.2308886E-02	1.5068318E-02	2.7377204E-02
17	-6.8632464E-02	2.2529140E-02	-4.6103324E-02
18	-1.2231755E-01	-1.6722167E-02	-1.3903972E-01
19	-1.8600438E-02	-4.3771659E-02	-6.2372097E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-6.5396094E 02	1.6932266E-03	-6.5395925E 02
2	4.7909654E 03	-1.6909167E 03	3.1000488E 03
3	1.4918893E 03	4.5784205E 03	6.0703097E 03
4	3.7464744E-04	7.1452365E-04	1.0891711E-03
5	6.4392152E-03	3.3859673E 02	3.3860317E 02
6	1.4558973E 03	-3.8020265E 03	-2.3461292E 03
7	4.7296707E 03	1.7827481E 03	6.5124187E 03
8	4.7962950E 01	-7.0919287E-04	4.7962241E 01
9	-2.9837988E 01	1.5675796E-03	-2.9836421E 01
10	0.	1.5900000E 02	1.5900000E 02
11	4.7909654E 03	-1.7361909E 03	3.0547746E 03
12	1.2675343E-05	-3.5433097E 02	-3.5433095E 02
13	1.1226081E-05	-3.7815606E 02	-3.7815605E 02
14	-0.	-1.7912889E 02	-1.7912889E 02
15	2.7972422E-01	-2.0145828E 02	-2.0117855E 02
16	1.4917636E 03	4.8499010E 03	6.3416645E 03
17	-0.	-1.4502559E 01	-1.4502559E 01
18	-0.	-1.7174248E 01	-1.7174248E 01
19	-0.	-0.	-0.
20	3.2414137E-10	-1.5899999E 02	-1.5899999E 02
21	1.4557697E 03	-3.7727734E 03	-2.3170037E 03
22	-0.	-1.4103136E 02	-1.4103136E 02
23	-0.	1.3689786E 02	1.3689786E 02
24	-0.	-2.7108715E 02	-2.7108715E 02
25	4.7296707E 03	1.8849295E 03	6.6146002E 03
26	-0.	1.8732000E 01	1.8732000E 01
27	0.	8.0928493E 01	8.0928493E 01
28	0.	1.7912889E 02	1.7912889E 02
29	-6.5807273E 01	4.1645330E 02	3.5064602E 02
30	3.2359362E 03	7.8486133E 03	1.1084549E 04
31	4.0882462E-05	-1.5290154E 02	-1.5290150E 02
32	-1.3299587E 03	8.1853213E 03	6.8553626E 03
33	9.2909800E 02	-5.8796823E 03	-4.9505843E 03
34	-7.0650235E 01	-4.3450096E 02	-5.0515119E 02
35	1.4309447E 03	-2.9275399E 03	-1.4965952E 03
36	2.2917721E 02	3.5455143E 02	5.8372864E 02
37	1.6060872E 03	-2.7626615E 03	-1.1565744E 03
38	3.2492298E 02	-6.7152185E 02	-3.4659886E 02
39	-3.7096516E 02	6.3631179E 02	2.6534663E 02
40	4.1471674E-06	-1.3832615E 02	-1.3832614E 02
41	-6.3514629E 01	-4.2778462E 02	-4.9129925E 02
42	1.6187546E 03	3.8325109E 03	5.4512654E 03
43	2.5616760E-05	-4.5597769E 01	-4.5597744E 01
44	1.3868022E-05	-8.1719689E 01	-8.1719675E 01
45	-0.	3.3759193E 00	3.3759193E 00
46	-0.	-0.	-0.
47	3.2288171E 03	-8.7796075E 03	-5.5507904E 03
48	-0.	-3.3205566E 02	-3.3205566E 02
49	-1.2836244E 03	-9.1474915E 03	-1.0431116E 04
50	8.9672922E 02	6.0396627E 03	6.9363919E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-7.9484431E 02	-2.1959367E-04	-7.9484452E 02
52	-3.8048002E 00	-5.1714708E-02	-3.8565149E 00
53	-1.3353937E-04	5.1070342E-02	5.0936803E-02
54	-0.	-3.9774480E 00	-3.9774480E 00
55	-0.	-0.	-0.
56	-0.	8.8571759E 01	8.8571759E 01
57	-0.	-1.7020410E 02	-1.7020410E 02
58	-0.	-1.0751308E 01	-1.0751308E 01
59	-0.	-2.4632075E 02	-2.4632075E 02
60	-0.	2.9176226E 00	2.9176226E 00
61	-0.	-0.	-0.
62	-0.	-0.	-0.
63	3.8730000E 02	1.3362975E-04	3.8730013E 02
64	-4.8417063E 02	-2.7341086E 03	-3.2182792E 03
65	-4.6250299E 03	-2.3330705E 03	-6.9581005E 03
66	-4.5963594E 03	3.8560201E 02	-4.2107574E 03
67	9.0852680E 00	-2.2055611E-04	9.0850475E 00
68	-0.	-1.0461883E 02	-1.0461883E 02
69	3.0898812E-14	1.5795507E 00	1.5795507E 00
70	6.1174667E 03	-1.6523867E 03	4.4650801E 03
71	-2.7889321E 00	-1.4390975E 03	-1.4418864E 03
72	-4.3930680E 03	-5.4812614E 03	-9.8743294E 03
73	-4.6665755E 03	5.4812612E 03	8.1468573E 02
74	4.3714753E 03	1.4504869E 03	5.8219622E 03
75	3.7920278E 00	5.1313983E-02	3.8433418E 00
76	1.4183383E-04	-5.0669552E-02	-5.0527719E-02
77	6.7090843E-02	-2.7496145E 03	-2.7495474E 03
78	-6.0241748E 03	1.3586745E 03	-4.6655003E 03
79	2.8775272E 01	2.0952335E 03	2.1240087E 03
80	-6.1174670E 03	-2.3799493E 03	-8.4974163E 03
81	3.7464744E-04	7.1452365E-04	1.0891711E-03
82	1.6340944E 03	3.9467328E 03	5.5808272E 03
83	-4.5294858E 02	4.9531050E 03	4.5001564E 03
84	6.0241746E 03	2.7176611E 03	8.7418356E 03
85	2.3237314E 01	-2.3983347E 03	-2.3750974E 03
86	-4.9223685E 01	1.5001990E 03	1.4509753E 03
87	7.8455631E-01	1.0573537E-03	7.8561366E-01
88	3.4704665E 02	2.5479479E 03	2.8949945E 03
89	-3.0045640E 02	-1.4445860E 03	-1.7450424E 03
90	1.0549404E 03	-5.5299723E 03	-4.4750319E 03
91	4.8226739E 02	5.5299717E 03	6.0122390E 03
92	4.6881681E 03	-1.4504868E 03	3.2376813E 03
93	-4.6657344E 01	1.7222526E 03	1.6755953E 03
94	7.5353665E 02	-4.5192698E 03	-3.7657332E 03
95	7.8667833E 02	5.4352682E 03	6.2219465E 03

18. OCTOBER. 1964

REDUNDANT STRESS ANALYSIS

$E = 26000000.$

FLIGHT CONDITION ROLL 4P. REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 3 EQUALS 1750.0)

(FLEXIBILITY COEFFICIENT FOR MEMBER 83 EQUALS 1000.0)

APPLIED-LOAD CONDITIONS

ROLL 4P

S	PMC	1
1		0.
2		0.
3		-1.5410000E 03
4		0.
5		3.3067699E 05
6		0.
7		0.
8		0.
9		0.
10		0.
11		0.
12		0.
13		0.
14		0.
15		0.
16		0.
17		0.
18		0.
19		0.

APPLIED-LOAD CONDITIONS

ROLL 4P

AS	PMC		
1		0.	
2		7.600000E	01
3		0.	
4		-3.646690E	05
5		0.	
6		1.860570E	05
7		-1.992000E	03
8		-2.019000E	03
9		-1.992000E	03
10		-2.019000E	03
11		-1.740000E	02
12		-4.300000E	01
13		8.400000E	01
14		-3.010000E	02
15		0.	
16		0.	
17		0.	
18		0.	
19		-3.180000E	02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	I SYMMETRIC	I ANTI-SYM	S + AS
1	3.0884546E-02	-3.8007676E-02	-7.1831294E-03
2	-2.7053889E-02	-5.0138296E-02	-7.7242184E-02
3	-2.0023957E-01	2.6136423E-01	6.1129667E-02
4	5.1419470E-04	-1.6959042E-02	-1.6444998E-02
5	2.8680329E-03	-2.0557627E-03	8.1227024E-04
6	5.6661376E-03	8.4733225E-03	1.4157460E-04
7	1.0892934E-01	6.7845360E-03	1.1571388E-01
8	1.1355208E-01	-1.6160817E-01	-4.8055484E-02
9	1.2488320E-01	-2.6579159E-01	-1.4090839E-01
10	1.2286742E-01	-3.7878414E-01	-2.5591672E-01
11	-1.0316614E-01	-4.8431638E-02	-1.5159778E-01
12	-1.1315520E-01	1.1946020E-01	6.3049979E-03
13	-1.1147255E-01	1.9366539E-01	8.2192844E-02
14	-1.1710245E-01	3.3948815E-01	2.2288569E-01
15	4.7698761E-02	-2.7856098E-01	-2.3086222E-01
16	4.8868054E-02	-1.0608685E-01	-5.7218792E-02
17	-8.3522701E-02	1.0137484E-01	1.7857055E-02
18	-1.2246634E-01	1.7285579E-01	5.7389448E-02
19	-5.0188296E-02	1.6413087E-01	1.1394258E-01

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-4.1354450E 02	-2.5276591E-03	-4.1354563E 02
2	4.9084920E 03	-3.2844593E 03	1.6240027E 03
3	9.4342459E 02	-3.2828642E 03	-2.3394399E 03
4	5.8173929E-04	-1.5376749E-03	-7.5568530E-04
5	-7.6433469E-02	-3.0777661E 02	-3.0945304E 02
6	1.3695620E 03	3.7602484E 03	5.1298103E 03
7	5.1766301E 03	-7.4134251E 03	-2.2367950E 03
8	3.6779835E 01	1.8662807E-03	3.6781701E 01
9	-2.2880872E 01	-1.1944163E-03	-2.2882066E 01
10	0.	-1.5900000E 02	-1.5900000E 02
11	4.9084920E 03	-2.8503828E 03	2.0581092E 03
12	1.0868930E-05	-1.9387268E 03	-1.9387268E 03
13	9.6262090E-06	-1.6527202E 03	-1.6527202E 03
14	-0.	1.7912889E 02	1.7912889E 02
15	2.6313646E-01	3.1977841E 02	3.2004154E 02
16	9.4328074E 02	-3.2164604E 03	-2.2731795E 03
17	-0.	-1.5206359E 03	-1.5206359E 03
18	-0.	-1.8007703E 03	-1.8007703E 03
19	-0.	0.	-0.
20	-4.8055602E-10	1.5899799E 02	1.5899799E 02
21	1.3694419E 03	4.0671157E 03	5.4365575E 03
22	-0.	-1.4981007E 03	-1.4981007E 03
23	-0.	-3.5265169E 01	-3.5265169E 01
24	-0.	-1.7472738E 03	-1.7472738E 03
25	5.1766301E 03	-7.1755637E 03	-1.9989335E 03
26	-0.	-2.0240638E 03	-2.0240638E 03
27	0.	-1.8569765E 03	-1.8569765E 03
28	0.	-1.7912889E 02	-1.7912889E 02
29	-5.1088583E 01	-3.7049302E 02	-4.2158167E 02
30	3.7012662E 03	-9.4067769E 03	-5.7055107E 03
31	3.8790313E-05	1.3129937E 03	1.3129938E 03
32	-1.0324954E 03	-5.5026227E 03	-6.5351182E 03
33	7.2129261E 02	5.2307937E 03	5.9520863E 03
34	-8.7514942E 01	3.2935996E 02	2.4184502E 02
35	1.2676340E 03	3.9005756E 03	5.1682096E 03
36	2.2603532E 02	-6.2781390E 02	-4.0177858E 02
37	1.4369719E 03	3.3012702E 03	4.7382420E 03
38	2.8260034E 02	1.6599599E 03	1.9425603E 03
39	-3.2264533E 02	-3.6350819E 02	-6.8615351E 02
40	3.6364637E-06	1.6251925E 03	1.6251925E 03
41	-7.8233323E 01	5.6283733E 02	4.8460401E 02
42	1.0861875E 03	-1.9662324E 03	-8.8004490E 02
43	2.7883562E-05	1.3706980E 03	1.3706987E 03
44	1.3383350E-05	-3.4707235E 01	-3.4707221E 01
45	-0.	1.6853749E 03	1.6853749E 03
46	-0.	0.	-0.
47	3.3279731E 03	8.1952841E 03	1.1523257E 04
48	-0.	1.2369051E 03	1.2369051E 03
49	-1.5810877E 03	1.3244860E 04	1.1663772E 04
50	1.1045346E 03	-7.9463999E 03	-6.8418652E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-1.0412525E 02	-6.6346207E-04	-1.0412591E 02
52	-3.4368315E 00	5.6628001E-02	-3.3802035E 00
53	-1.2875356E-04	-5.5136005E-02	-5.5264756E-02
54	-0.	-2.2474755E 00	-2.2474755E 00
55	-0.	0.	-0.
56	-0.	-1.6729421E 03	-1.6729421E 03
57	-0.	1.3830502E 03	1.3830502E 03
58	-0.	1.3792430E 01	1.3792430E 01
59	-0.	-1.5876437E 03	-1.5876437E 03
60	-0.	1.4565769E 03	1.4565769E 03
61	-0.	0.	-0.
62	-0.	0.	-0.
63	2.9700638E 02	-3.6947390E-05	2.9700634E 02
64	-2.7629106E 02	3.8760788E 03	3.5974878E 03
65	-4.6701812E 03	9.8877612E 02	-3.6674051E 03
66	-4.5215006E 03	-1.9858719E 03	-6.5073805E 03
67	1.1806011E 02	7.3654272E-04	1.1806084E 02
68	-0.	-6.7431360E 02	-6.7431360E 02
69	2.7075773E-14	7.8856568E 02	7.8856568E 02
70	5.7473304E 03	2.3059423E 03	7.7532726E 03
71	-2.1395041E 00	1.4750097E 03	1.4728702E 03
72	-4.7263370E 03	6.2525805E 03	1.5262436E 03
73	-4.3333066E 03	-6.2525803E 03	-1.0585887E 04
74	4.7573657E 03	-2.3435933E 03	2.4157724E 03
75	3.4252804E 00	-5.6179293E-02	3.3691091E 00
76	1.3500076E-04	5.4708824E-02	5.4843823E-02
77	8.7374434E-01	1.1923356E 03	1.1932094E 03
78	-6.3943114E 03	4.2885137E 03	-2.1057977E 03
79	1.8176820E 01	-1.5023462E 03	-1.4841494E 03
80	-5.7473304E 03	6.7054220E 03	4.5607161E 02
81	5.8193959E-04	-1.3376249E-03	-7.5568530E-04
82	1.1053716E 03	-2.3661572E 03	-1.2607857E 03
83	-6.8768658E 02	-2.5173877E 03	-3.7050745E 03
84	6.3943111E 03	-4.4758780E 03	1.9184331E 03
85	2.2540742E 02	1.7711044E 03	1.9965118E 03
86	-2.4146476E 02	-1.5017684E 03	-1.7432331E 03
87	6.0169299E-01	5.7060946E-05	6.0175005E-01
88	1.2180156E 02	-1.6760932E 03	-1.5542317E 03
89	-8.1403149E 01	2.7054389E 03	2.6210357E 03
90	8.4415489E 02	5.8175845E 03	6.6617393E 03
91	6.3341967E 02	-5.8175829E 03	-5.1241633E 03
92	4.3022778E 03	2.3435932E 03	6.6458710E 03
93	-4.1332153E 01	-2.2946812E 03	-2.3360134E 03
94	5.8528848E 02	5.6723123E 03	6.2570008E 03
95	9.5510918E 02	-5.2383074E 03	-4.2831983E 03

18. OCTOBER, 1965

REDUNDANT STRESS ANALYSIS

E = 26000000.0

FLIGHT CONDITION ROLL 4PP, REVISED

(FLEXIBILITY COEFFICIENT FOR MEMBER 6 EQUALS 1750.0)

(FLEXIBILITY COEFFICIENT FOR MEMBER 64 EQUALS 1000.0)

APPLIED-LOAD CONDITIONS

ROLL 4PR

S	PMC	1
1	0.	
2	0.	
3	-1.5410000E 03	
4	0.	
5	3.3067699E 05	
6	0.	
7	0.	
8	0.	
9	0.	
10	0.	
11	0.	
12	0.	
13	0.	
14	0.	
15	0.	
16	0.	
17	0.	
18	0.	
19	0.	

ROLL 4P^u

APPLIED-LOAD CONDITIONS

AS PMC

1

1	0.	
2	-7.6000000E	01
3	0.	
4	3.6466900E	05
5	0.	
6	-1.8605700E	05
7	-2.1780000E	03
8	-1.8280000E	03
9	-2.1780000E	03
10	-1.8280000E	03
11	-2.0800000E	02
12	9.8000000E	01
13	-1.0000000E	00
14	-1.0900000E	02
15	0.	
16	0.	
17	0.	
18	0.	
19	3.1800000E	02

DEFLECTIONS OF REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	3.0859232E-02	-4.1095560E-02	-9.2243279E-03
2	2.7173676E-02	-1.6474705E-02	1.2678691E-02
3	-2.0021876E-01	2.7147577E-01	7.1257505E-02
4	-1.5241675E-01	1.7105977E-02	1.6523561E-02
5	2.3682184E-03	-2.1713912E-03	6.2682719E-04
6	-5.5636477E-01	-6.1230401E-05	-1.1600694E-04
7	1.2255112E-01	-3.7046346E-01	-2.6761234E-01
8	1.1875178E-01	-2.4578047E-01	-1.2702908E-01
9	1.2033710E-01	-1.8608197E-01	-6.5744870E-02
10	1.0872110E-01	5.8955568E-03	1.1401666E-01
11	-1.1708564E-01	3.4952756E-01	2.3244192E-01
12	-1.1677779E-01	2.0059779E-01	8.3820498E-02
13	-1.0831282E-01	1.1541887E-01	7.1060443E-03
14	-1.0315871E-01	-4.4489769E-02	-1.4764848E-01
15	-2.0052434E-02	2.0840780E-01	1.8832736E-01
16	9.9794650E-03	5.7841470E-02	6.7829735E-02
17	-7.4602448E-02	1.2563926E-01	5.1036811E-02
18	-1.3031276E-01	2.0134395E-01	7.1030991E-02
19	-1.6474705E-02	-3.7286923E-02	-5.3781908E-02

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
1	-6.0077870E 02	1.5557502E-03	-6.0057733E 02
2	5.1759063E 03	-7.7439525E 03	-2.5680462E 03
3	1.3701065E 03	3.6655456E 03	5.0357020E 03
4	2.2082585E-04	1.9605767E-04	4.1788351E-04
5	7.6352769E-02	3.5836009E 02	3.3843645E 02
6	9.4422851E 02	-3.3954231E 03	-2.4511945E 03
7	4.9079507E 03	-3.4661528E 03	1.4417759E 03
8	5.861376E 01	-3.3805093E-04	5.8681008E 01
9	-3.6505865E 01	9.2459425E-04	-3.6504941E 01
10	0.	1.5900000E 02	1.5900000E 02
11	5.1759063E 03	-7.4884387E 03	-2.3125325E 03
12	1.4183389E-03	-2.1281644E 03	-2.1281644E 03
13	1.2543989E-03	-1.9491746E 03	-1.9491746E 03
14	-0.	-1.7912889E 02	-1.7912889E 02
15	1.8141635E-01	-6.3770757E 01	-6.3583342E 01
16	1.3700470E 03	4.2269641E 03	5.5970110E 03
17	-0.	-1.4287188E 03	-1.4287188E 03
18	-0.	-1.6919201E 03	-1.6919201E 03
19	-0.	-0.	-0.
20	8.3758294E-10	-1.5899999E 02	-1.5899999E 02
21	9.4414577E 02	-3.0762099E 03	-2.1320641E 03
22	-0.	-1.5552476E 03	-1.5552476E 03
23	-0.	1.3689785E 02	1.3689785E 02
24	-0.	-1.9458330E 03	-1.9458330E 03
25	4.9079057E 03	-3.0631635E 03	1.8447453E 03
26	-0.	-1.7551015E 03	-1.7551015E 03
27	0.	-1.4900901E 03	-1.4900901E 03
28	0.	1.7912889E 02	1.7912889E 02
29	-7.6225037E 01	5.6157633E 02	4.8335129E 02
30	3.3274449E 03	8.1628888E 03	1.1490334E 04
31	4.7209933E-03	1.4222203E 03	1.4222203E 03
32	-1.5809204E 03	1.3499538E 04	1.1918618E 04
33	1.1044177E 03	-7.9235969E 03	-6.8241792E 03
34	-5.6770612E 01	-7.0322686E 02	-7.5999746E 02
35	9.9036214E 02	-1.9370769E 03	-9.4671476E 02
36	1.3923933E 02	1.7561300E 02	3.1485232E 02
37	1.1062806E 03	-2.2088345E 03	-1.1025539E 03
38	2.3055188E 02	4.2267402E 02	6.5322590E 02
39	-2.6322147E 02	1.0468943E 03	7.8367282E 02
40	4.8975493E-06	1.6228480E 03	1.6228480E 03
41	-5.1096871E 01	-3.6670839E 02	-4.1780526E 02
42	1.4253773E 03	3.6506226E 03	5.0759999E 03
43	2.5853769E-03	1.4082212E 03	1.4082213E 03
44	1.4317281E-03	-8.1719733E 01	-8.1719719E 01
45	-0.	1.7645501E 03	1.7645501E 03
46	-0.	-0.	-0.
47	3.7004873E 03	-9.6472068E 03	-5.9467195E 03
48	-0.	1.2430662E 03	1.2430662E 03
49	-1.0326677E 03	-5.5318524E 03	-6.5645152E 03
50	7.2140948E 02	5.1773599E 03	5.8987694E 03

INTERNAL LOADS IN REDUNDANT STRUCTURE

PT	1 SYMMETRIC	1 ANTI-SYM	S + AS
51	-5.5011663E 02	9.1504752E -04	-5.5011572E 02
52	-2.6083817E 00	-5.5397054E -02	-2.6647788E 00
53	4.0498649E -05	5.6757139E -02	5.6797638E -02
54	-1.	5.1295054E 00	5.1295054E 00
55	-1.	-0.	-0.
56	-1.	-1.4331701E 03	-1.4331701E 03
57	-0.	1.5518821E 03	1.5518821E 03
58	-0.	-1.0751325E 01	-1.0751325E 01
59	-0.	-1.7680626E 03	-1.7680626E 03
60	-0.	1.5250058E 03	1.5250058E 03
61	-0.	-0.	-0.
62	-0.	-0.	-0.
63	4.738348E 02	-1.5762690E -04	4.7383432E 02
64	-6.8768100E 02	-2.5245843E 03	-5.2127703E 03
65	-4.5214589E 03	-2.1119788E 03	-6.6334377E 03
66	-4.6760139E 01	1.1137460E 03	-3.5627659E 03
67	-3.5078137E 01	-6.2084559E -04	-3.5078137E 01
68	-0.	-7.5094219E 02	-7.5094219E 02
69	3.5467591E -14	8.2561079E 02	8.2561079E 02
70	6.5941253E 03	-4.5330756E 03	1.8610717E 03
71	-3.4124418E 00	-1.7586506E 03	-1.7620550E 03
72	-4.1283002E 03	-6.5764738E 03	-1.0724774E 04
73	-4.2315433E 03	6.5754735E 03	1.8651302E 03
74	4.064919E 01	2.7617554E 03	6.8066874E 03
75	2.5996196E 00	5.5871879E -02	2.6554915E 00
76	-2.7575456E -05	-5.6232099E -02	-5.6261472E -02
77	-2.5964274E -01	-2.6533584E 03	-2.6536580E 03
78	-5.7475161E 01	6.2461744E 03	4.9857834E 02
79	2.6425849E 01	1.6774952E 03	1.7039210E 03
80	-6.3941258E 03	4.4847178E 03	-1.9094079E 03
81	2.2082585E -04	1.7605767E -04	4.1688351E -04
82	1.4376788E 03	3.4738425E 03	4.9115213E 03
83	-2.7684287E 02	3.8874142E 03	3.6155714E 03
84	5.7475160E 03	1.8141407E 03	7.5616567E 03
85	-1.4626446E 02	-1.4751363E 03	-1.6214007E 03
86	1.2325153E 01	1.3142720E 03	1.4375430E 03
87	9.5999728E -01	7.1519894E -04	9.6071248E -01
88	4.5360970E 01	2.2927163E 03	2.6965258E 03
89	-3.7105800E 02	-7.0308736E 02	-1.0741463E 03
90	1.1243555E 03	-6.3346236E 03	-5.2102681E 03
91	4.1404420E 02	6.3346240E 03	6.7486688E 03
92	4.9947415E 03	-2.7417854E 03	2.2529561E 03
93	-5.2291870E 01	1.1325704E 03	1.1072786E 03
94	8.9466375E 02	-5.5680184E 03	-4.4735549E 03
95	6.4557674E 02	5.5580219E 03	6.2555981E 03

X. MAIN ENGINE MOUNTS

The main engine mount truss structures, side and center, were idealized for the redundant space frame loads analysis as explained in Section III. In the actual engine mount structures, the engine loads are applied eccentrically to the truss joints. This develops bending moments in the local mount structure.

The side engine mount members, which are laterally braced, react engine mount loads in bending and torsion, in addition to axial loading. The bending moment is assumed to be reacted by a couple in the lateral braces and torsion is reacted primarily, through the lower engine mount supports, at the front and aft bulkheads.

The bending moments produced in the center main mount are assumed reacted by couples at joints 18A and 18B. In calculating the couple loads the transverse member 18A - 18B is assumed pin jointed to the engine mount truss members so that the truss members are loaded by axial loads only.

The side mounts are analyzed for loading conditions, HOVER 1 and HSC-1P. The HOVER 1 loading on the left hand mount produces the critical vertical loading on the engine and on the fan mount link. This condition also develops the critical M_x in the side mounts. Condition HSC-1P produces the critical forward acting load on the side mounts and develops the critical M_z at the mount apex.

M_x and M_z applied at the apex of the side mounts are distributed to the two members, 12 and 31, assuming that the member geometrically more resistant in bending reacts the greater portion of the moment, i. e., member 12 reacts the greater portion of M_z and member 31 reacts the greater portion of M_x .

The center main mounts are analyzed for the following conditions:

LG-3P	HIGHEST	COMBINED FORWARD LOADING
HOVER 1	HIGHEST	COMBINED VERTICAL LOADING
ROLL 5PREO	HIGHEST	- M_z MOMENT
ROLL 5PEORH	HIGHEST	+ M_z MOMENT

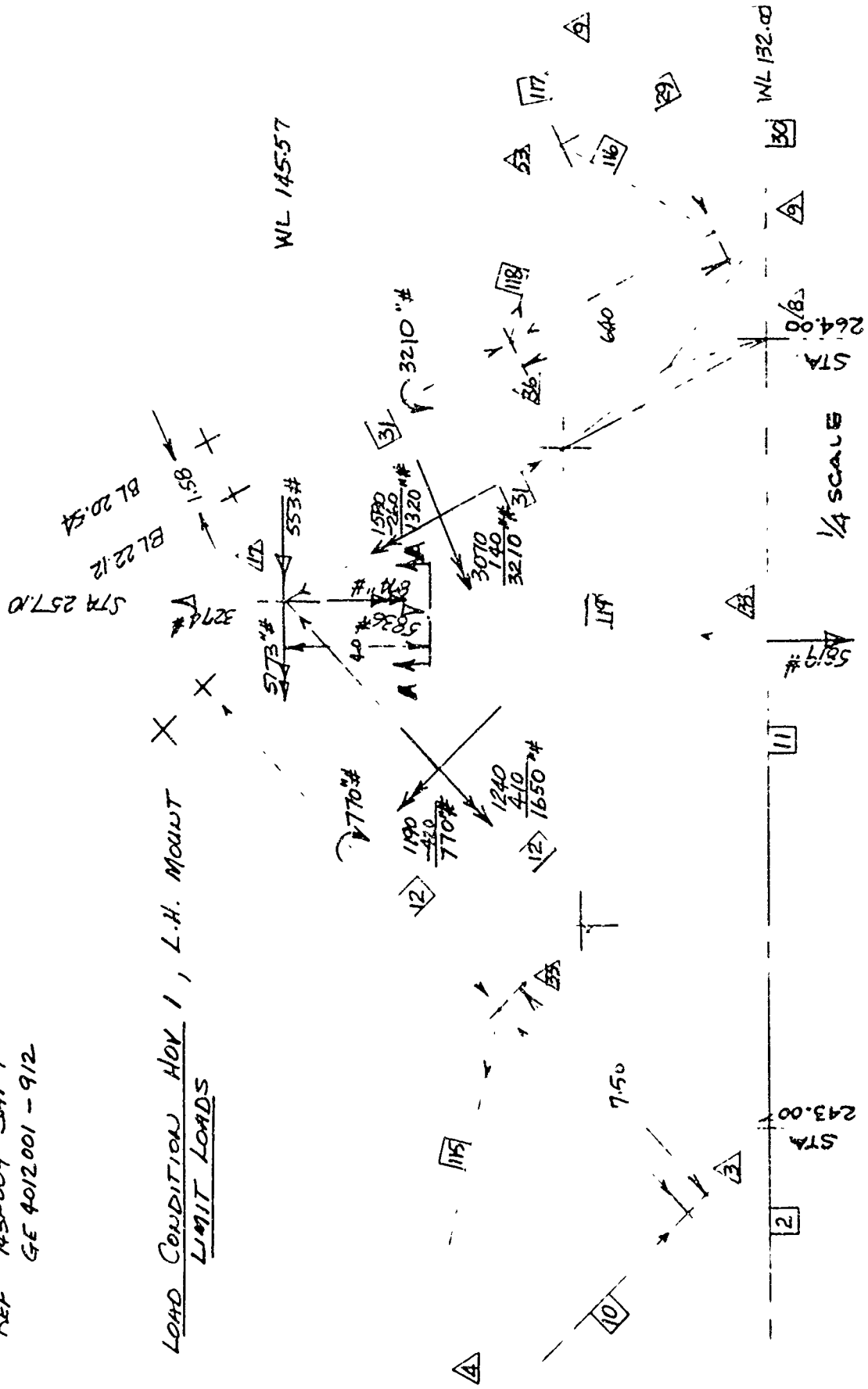
The center engine mount member loads are summarized along with the basic space frame members and tension and column allowables with margins of safety are shown. At joints 39, 40, 43 and 44 the members are all coplanar so these joints do not provide column end support. For this reason column allowables are calculated based on the combined lengths of members 24 + 59, 18 + 56, 40 + 57 and 45 + 60. The margins of safety for these columns are based on the higher of the two member loads in compression.

REF: 143 F009, SHT. 1 DIRECTION COSINES & MEMBER TRUE LENGTHS

MEMBER	FROM		W.C.	TO		ΔX	ΔY	ΔZ	TL.	DIRECTION COSINES			
	STA.	B.L.		STA.	B.L.					X	Y	Z	
3-17	112	243.00	132.00	257.10	22.12	145.57	14.10	0	13.57	19.57	.7205	0	.6934
4-35	115	243.00	132.00	248.46	22.12	137.25	5.46	15.05	5.25	16.85	.3240	.8932	.3116
5-37	243.00	-7.07	132.00	248.46	-22.12	137.25	5.46	15.05	5.25	16.85	.3240	.8932	.3116
6-19	26	243.00	132.00	257.10	-22.12	145.57	14.10	0	13.57	19.57	.7205	0	.6934
8-17	31	264.00	132.00	257.10	22.12	145.57	6.90	0	13.57	15.22	.4534	0	.8911
8-53	116	264.00	132.00	263.44	18.00	134.75	.56	4.12	2.75	4.98	.1123	.8265	.5516
9-53	117	267.00	132.00	263.44	18.00	134.75	3.56	10.55	2.75	11.47	.3104	.9198	.2398
10-54	267.00	-7.45	132.00	263.44	-18.00	134.75	3.56	10.55	2.75	11.47	.3104	.9198	.2398
11-19	48	264.00	132.00	257.10	-22.12	145.57	6.90	0	13.57	15.22	.4534	0	.8916
11-54	264.00	-22.12	132.00	263.44	-18.00	134.75	.56	4.12	2.75	4.98	.1123	.8265	.5516
18A-18B-54	257.10	.44	145.57	257.10	-.44	257.10	0	.88	0	.88	0	1.0000	0
18-20	55	257.10	145.57	256.75	0	132.00	.35	0	13.57	13.58	.0258	0	.9997
18A-39	56	257.10	145.57	249.75	2.75	138.50	7.35	2.31	7.07	10.41	.7027	.2258	.6759
18A-43	57	257.10	145.57	262.26	2.75	138.50	5.16	2.31	7.07	9.05	.5702	.2552	.7812
18B-40	59	257.10	145.57	249.75	-2.75	138.50	7.35	2.31	7.07	10.46	.7027	.2258	.6759
18B-44-60	257.10	-.44	145.57	262.26	-2.75	138.50	5.16	2.31	7.07	9.05	.5702	.2552	.7812
36-53	118	261.11	137.68	263.44	18.00	134.75	2.33	4.12	2.93	5.57	.4186	.7402	.5264
38-54	261.11	-22.12	137.68	263.44	-18.00	134.75	2.33	4.12	2.93	5.57	.4186	.7402	.5264
17-33	119	257.10	145.57	256.00	22.12	132.00	1.10	0	13.57	13.61	.0808	0	.9971
19-34	120	257.10	145.57	256.00	-22.12	132.00	1.10	0	13.57	13.61	.0808	0	.9971

REF. 143F009 SHT 1
 GE 4012001 - 912

LOAD CONDITION HOV 1, L.H. MOUNT
LIMIT LOADS



LOAD CONDITION NO. 1, L.H. MOUNT
LIMIT LOADS

MEMBER LOADS

JOINT 33

$$\Sigma F_z = .9971(119) - 5819 = 0$$

$$119 = +5836$$

JOINT 17:

$$\Sigma F_x = .7205(12) - .4534(31) - .0808(5836) - 553 = 0$$

$$\Sigma F_z = .6934(12) + 8916(31) - .9971(5836) + 3274 = 0$$

$$(12) = .6293(31) + 1422$$

$$12 = -2161$$

$$1.3280(31) = 1559$$

$$31 = -1174$$

THE BENDING MOMENTS IN MEMBERS 12 & 31 ARE REACTED BY COUPLE LOADS IN THE TRANSVERSE BRACING MEMBERS.

JOINT 35

$$\Sigma M = 770 - 7.50(10) = 0$$

$$10 = -103^*$$

$$\Sigma F_y = 103 - .8932(115) = 0$$

$$115 = +115$$

$$\Sigma F_z = -.6934(2161) - .3116(115) + .6934(12') = 0$$

$$12' = -2213$$

MAX LOADS IN MEMBER 12 ARE:

$$P_c = -2213 \#$$

$$M = 770 \text{ '#}$$

$$T = 1650 \text{ '#}$$

JOINT 36

$$\Sigma M = 3210 - 6.40(R_{yB}) = 0$$

$$R_{yB} = -502^*$$

$$\Sigma F_y = 502 - .7402(118) = 0$$

$$118 = +678$$

$$\Sigma F_z = -.8916(1174) - .5264(678) + .8916(31') = 0$$

$$31' = -1575$$

MAX LOADS IN MEMBER 31 ARE:

$$P_c = -1575 \#$$

$$M = 3210 \text{ '#} \quad \checkmark$$

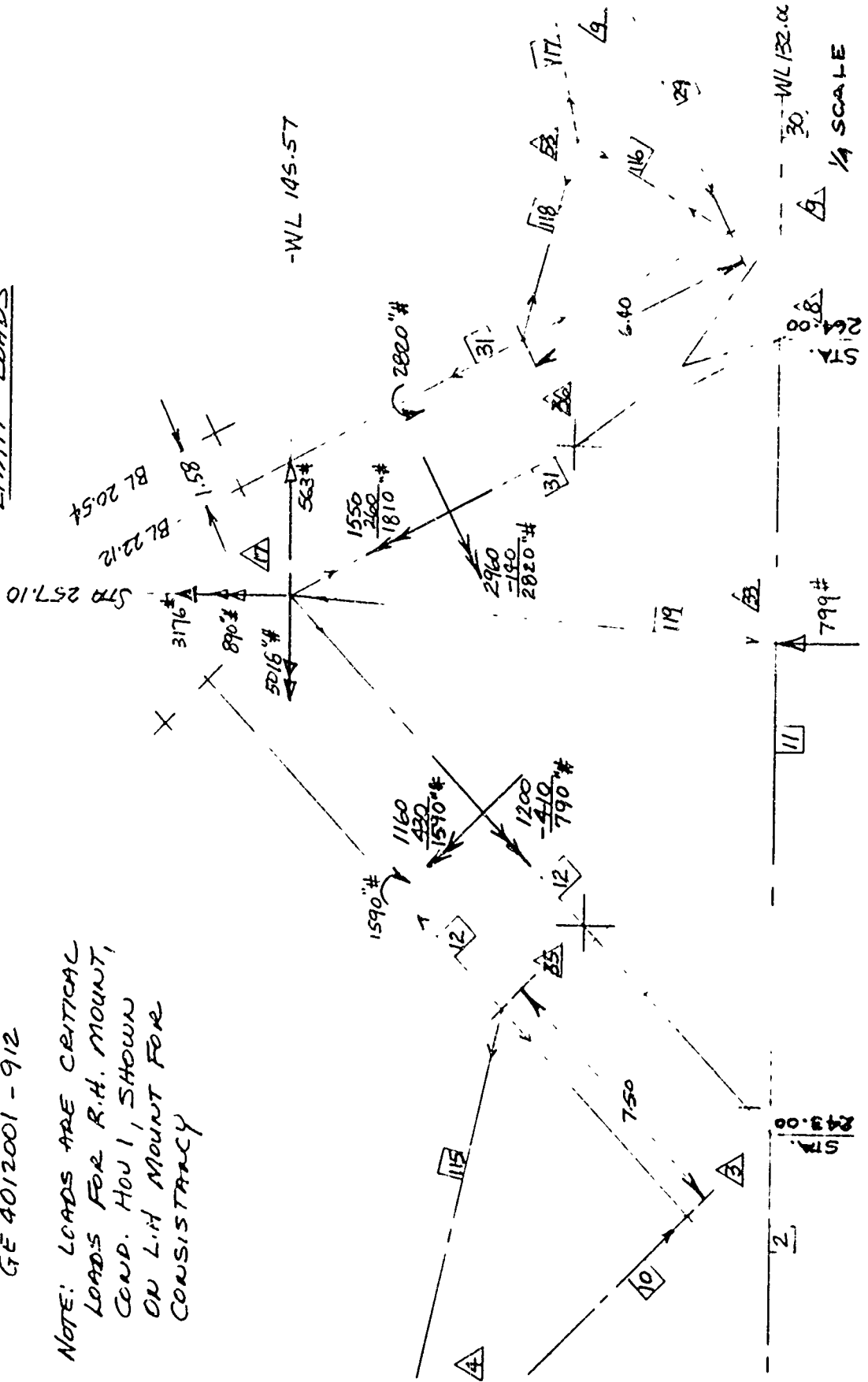
$$T = 1320 \text{ '#}$$

* SIDE ENGINE MOUNT LOADING ONLY

LOAD CONDITION HOV 1, R.H. MOUNT
LIMIT LOADS

REF: 143 F009 SHT 1
GE 4012001 - 912

NOTE: LOADS ARE CRITICAL
LOADS FOR R.H. MOUNT,
COND. HOV 1, SHOWN
ON L.H. MOUNT FOR
CONSISTENCY



LOAD CONDITION HOV 1, R.H. MOUNT
LIMIT LOADS

MEMBER LOADS:

JOINT 33 (34)

$$\Sigma F_z = 799 - .9971(119) = 0$$

$$119 = -801$$

JOINT 17 (19)

$$\Sigma F_x = -.7205(12) + .4534(31) + .0808(801) + 563 = 0$$

$$\Sigma F_z = -.6934(12) - .8916(31) + .9971(801) + 3176 = 0$$

$$(12) = .6293(31) + 871$$

$$12 = +2468$$

$$-1.3280(31) = -3371$$

$$31 = +2538$$

THE BENDING MOMENTS IN MEMBERS 12 & 31 ARE REACTED BY COUPLE LOADS IN THE TRANSVERSE BRACING MEMBERS.

JOINT 35 (37)

$$\Sigma M = 1590 - 7.50(10) = 0$$

$$10 = -212^*$$

$$\Sigma F_y = 212 - .8932(115) = 0$$

$$115 = +237$$

$$\Sigma F_z = .6934(2468) - .3116(237) - .6934(12') = 0$$

$$12' = +2361$$

MAX LOADS IN MEMBER 12 ARE:

$$P_t = +2468 \#$$

$$M = 1590 \text{ " \#}$$

$$T = 790 \text{ " \#}$$

JOINT 36 (38)

$$\Sigma M = 2820 - 6.40(R_{y8}) = 0$$

$$R_{y8} = -441^*$$

$$\Sigma F_y = 441 - .7402(118) = 0$$

$$118 = +596$$

$$\Sigma F_z = .8916(2538) - .5264(596) - .8916(31') = 0$$

$$31' = +2186$$

MAX LOADS IN MEMBER 31 ARE:

$$P_t = +2538 \#$$

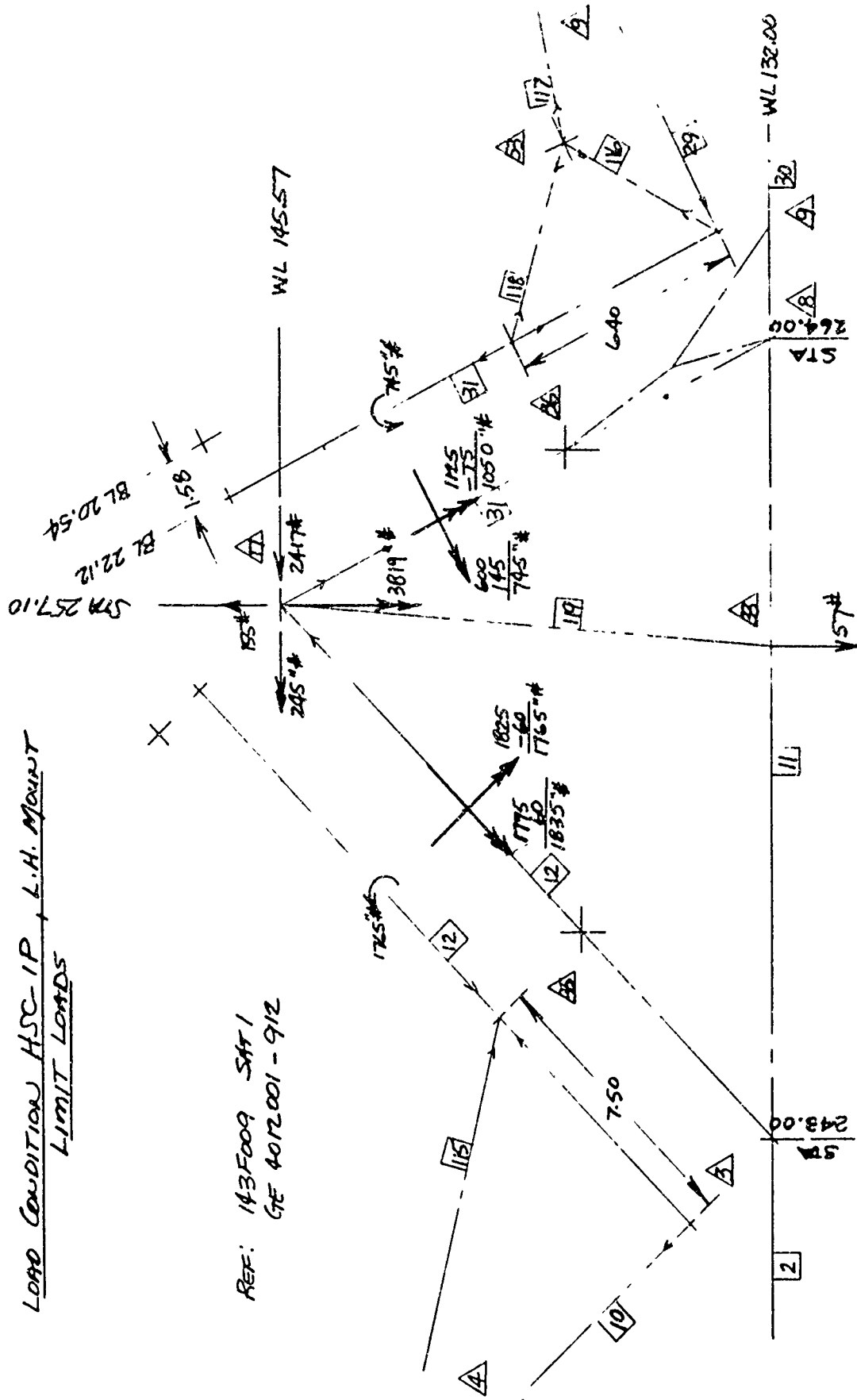
$$M = 2820 \text{ " \#}$$

$$T = 1810 \text{ " \#}$$

* SIDE ENGINE MOUNT LOADING ONLY

LOAD CONDITION HSC-IP, L.H. MOUNT
LIMIT LOADS

REF: 143F009 SAT 1
GE 4012.001-912



MAIN ENGINE MOUNTS - SIDE

LOAD CONDITION HSC-1P, L.H. MOUNT
LIMIT LOADS

MEMBER LOADS:

JOINT 33

$$\Sigma F_z = .9971(119) - 57 = 0$$

$$119 = +57$$

JOINT 17

$$\Sigma F_x = .7205(12) + .4534(31) - .0808(57) - 2417 = 0$$

$$\Sigma F_z = .6934(12) - .8916(31) - .9971(57) + 155 = 0$$

$$(12) = -.6293(31) + 3361$$

$$12 = -2210$$

$$-1.3280(31) = -2429$$

$$31 = +1829$$

THE BENDING MOMENTS IN MEMBERS 12 & 31 ARE REACTED BY COUPLE LOADS IN THE TRANSVERSE BRACING MEMBERS.

JOINT 35

$$\Sigma M = 1765 - 7.50(10) = 0$$

$$10 = +235 *$$

$$\Sigma F_y = 235 - .8932(115) = 0$$

$$115 = -263$$

$$\Sigma F_z = -.6934(2210) + .3116(263) + .6934(12') = 0$$

$$12' = -2092$$

MAX LOADS IN MEMBER 12 ARE:

$$P_z = -2210 \#$$

$$M = 1765 \text{ " \#}$$

$$T = 1835 \text{ " \#}$$

JOINT 36

$$\Sigma M = 745 - 6.40(R_{y8}) = 0$$

$$R_{y8} = -116 *$$

$$\Sigma F_y = 116 - .7402(118) = 0$$

$$118 = +157$$

$$\Sigma F_z = .8916(1829) - .5264(157) - .8916(31') = 0$$

$$31' = +1736$$

MAX LOADS IN MEMBER 31 ARE:

$$P_z = +1829 \#$$

$$M = 745 \text{ " \#}$$

$$T = 1050 \text{ " \#}$$

* SIDE ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - SIDE

LOADS SUMMARY & ANALYSIS
ULTIMATE LOADS

MAXIMUM LOADING IN MEMBER 12(26) OCCURS UNDER LOADING CONDITION HSC-1P

$$P_c = -3315 \#$$

$$M = 2648 \#$$

$$T = 2753 \#$$

MAXIMUM LOADING IN MEMBER 31(48) OCCURS UNDER LOADING CONDITION HOV 1, L.H. SIDE

$$P_c = -2363 \#$$

$$M = 4815 \#$$

$$T = 1980 \#$$

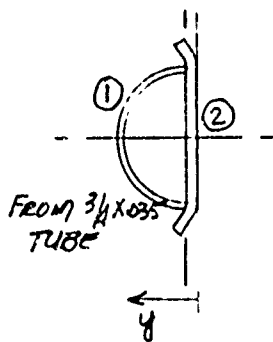
PRELIMINARY ANALYSIS SHOWED THE ABOVE LOADING COMBINATIONS ARE NOT CRITICAL.

MAXIMUM LOADING IN MEMBER 119, UPPER PORTION OF THE WING FAN NOZZLE SUPPORT MEMBER, IS:

$$+ 8754 \#$$

$$- 1202 \#$$

SECTION A-A P. = REF 143 F009, SHT 6



ITEM	t	A	y	A _y	A _y ²	I _o
1	.035	.039	.265	.0103	.0027	.0003
2	.049	.049	.025	.0012	—	—
		.088		.0115	.0027	.0003

$$\bar{y} = \frac{.0115}{.088} = .1307$$

$$I_{yy} = .0027 - .088(.0171) + .0003 = .0015 \text{ IN}^4$$

$$r_{A-A} = (I/A)^{1/2} = \left(\frac{.0015}{.088}\right)^{1/2} = .042 \text{ IN} ; \quad P_{@33} = .2531$$

$$P_t = \frac{8754}{.088} = 99,480 \text{ psi}$$

$$L = 13.61 - 4 = 9.61 ; \quad L' = 6.80 ; \quad L'/P_{AVG} = \frac{6.80}{.147} = 46$$

$$P_{cc} = -7880 \#$$

$$M.S.F. = +.81$$

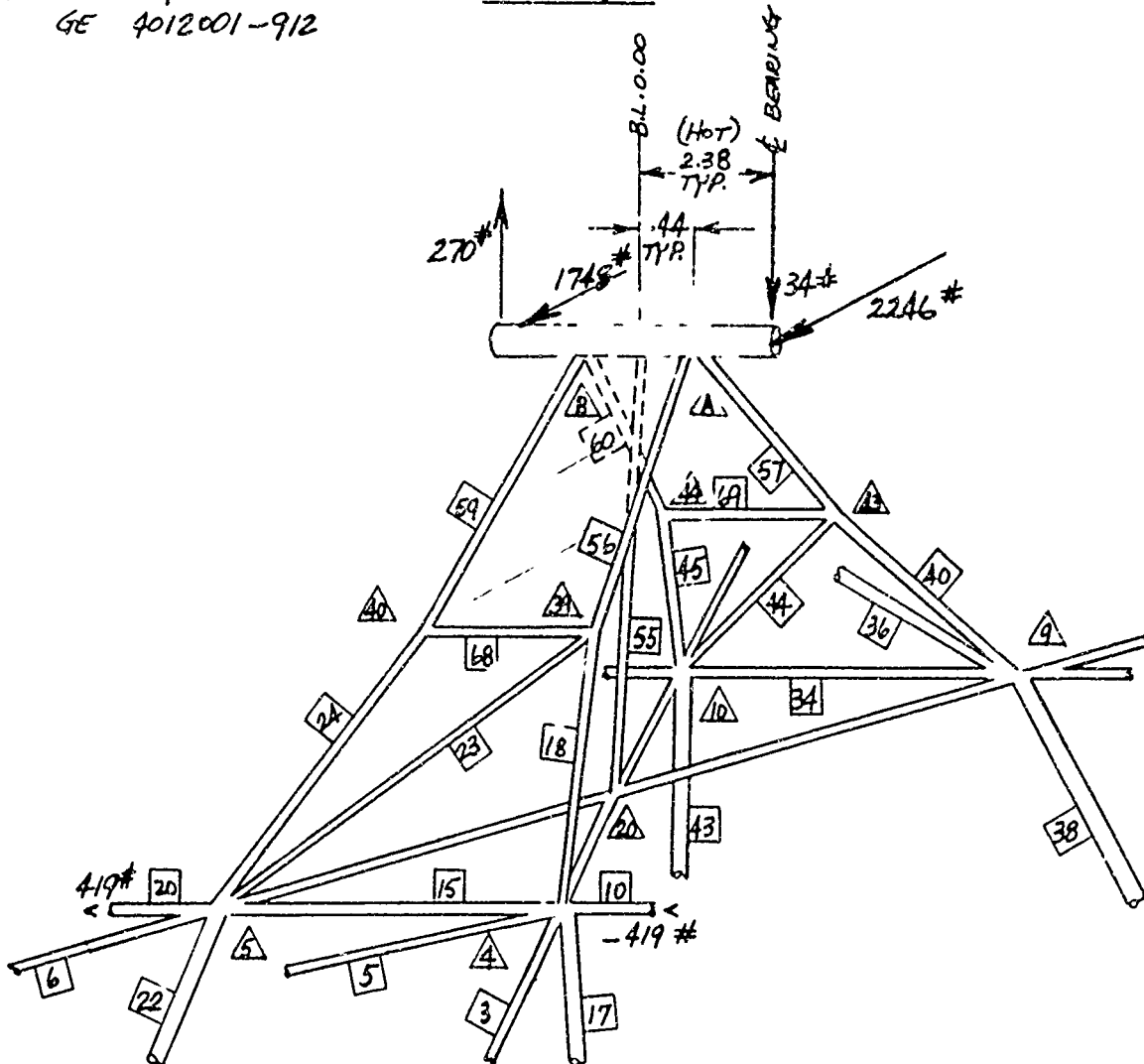
$$M.S.C. = \text{HIGH}$$

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION LG-3P

LIMIT LOADS

REF: 143F009 SH.1
GE 4012001-912



LOADS AS APPLIED TO TRUSS JOINTS: (+ INDICATES AFT & UPWARD)

$$P_{18A} = -\left(\frac{1748 + 2246}{2}\right) - \left[\frac{(2246 - 1748)2.38}{.88}\right] = -1997 - 1347 = -3344 \#$$

$$P_{18B} = -1997 + 1347 = -650 \#$$

$$P_{218A} = \left(\frac{270 - 34}{2}\right) - \left[\frac{(270 + 34)2.38}{.88}\right] = 118 - 822 = -704 \#$$

$$P_{218B} = 118 + 822 = 940 \#$$

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION LG-3P
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 18A

$$\sum F_x = .7027(56) + .5702(57) - 3344 = 0$$

$$\sum F_z = .6759(56) - .7812(57) - 704 = 0$$

$$(56) = -.8114(57) + 4759$$

$$-1.3296(57) = -2513$$

$$57 = +1690$$

$$56 = -3225$$

$$18_A - 18_B = -230$$

$$\sum F_y = .2552(1890) - .2208(3225) + (18_A - 18_B)$$

JOINT 18B

$$\sum F_x = -.7027(59) + .5702(60) - 650 = 0$$

$$\sum F_z = -.6759(59) - .7812(60) + 940 = 0$$

$$(59) = +1.8114(60) - 925$$

$$-1.3296(60) = -1565$$

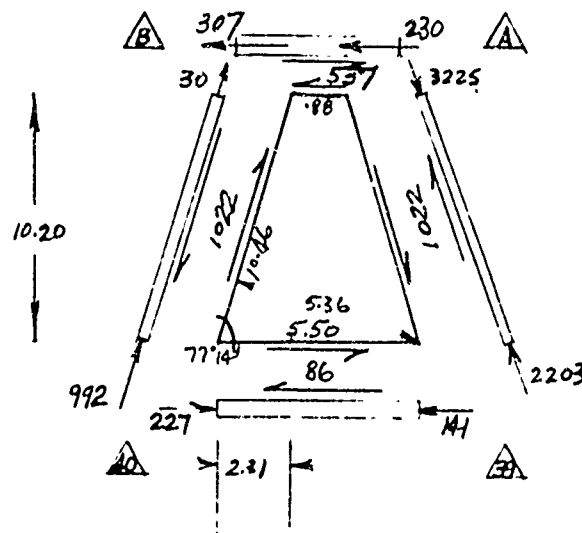
$$60 = +1177$$

$$59 = +90$$

$$\sum F_y = -.2208(30) - .2552(1177) + (18_A - 18_B)$$

$$18_A - 18_B = +307$$

WEB:



MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION LG-3P

LIMIT LOADS

TRUSS MEMBER AXIAL LOADS

JOINT 40

$$\sum F_x = .6543(24) - .7027(992) = 0$$

$$24 = -1065$$

$$\sum F_z = .6297(24) - .6759(992) = 0$$

$$\sum F_y = .4189(1065) - .2208(992) - (68)$$

$$68 = -227$$

JOINT 39

$$\sum F_x = .6543(18) + .4974(23) - .7027(2203) = 0$$

$$\sum F_y = -.4189(18) + .7235(23) + .2208(2203) + 141 = 0$$

$$(18) = -.7602(23) + 2366$$

$$1.0419(23) = 364$$

$$23 = -349$$

$$18 = -2101$$

JOINT 44

$$\sum F_x = .5089(45) - .5702(1177) = 0$$

$$45 = +1318$$

$$\sum F_z = -.6976(45) + .7812(1177) = 0$$

$$\sum F_y = .2552(1177) - .5044(1318) + 69$$

$$69 = +364$$

JOINT 43

$$\sum F_x = .5089(40) + .3650(44) - .5702(1890) = 0$$

$$\sum F_y = .5044(40) - .7851(44) - .2552(1890) - 364 = 0$$

$$(40) = -.7172(44) + 2118$$

$$-1.1468(44) = -222$$

$$44 = +194$$

$$40 = +1979$$

JOINT 5

$$\sum F_z = -.4787(349) - .6297(1065) + .7457(22) = 0$$

$$22 = -1123$$

$$\sum F_x = .8891(6) + .5924(1123) - .4974(349) - .6543(1065) = 0$$

$$6 = -231^*$$

$$\sum F_y = .4576(231) - .7235(349) - .4189(1065) + .3049(1123) - 49 + (15) = 0$$

$$15 = +670$$

* ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION LG-3P
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 4

$$\Sigma F_z = -.6297(2101) + .7457(17) = 0 \qquad 17 = -1774$$

$$\Sigma F_x = -.8891(3) + .7062(5) + .5924(1774) - .6543(2101) = 0$$

$$\Sigma F_y = .4576(3) + .7080(5) - 670 - 419 - .3049(1774) + .4159(2101) = 0$$

$$(3) = .7943(5) - 364 \qquad 3 = +315 *$$

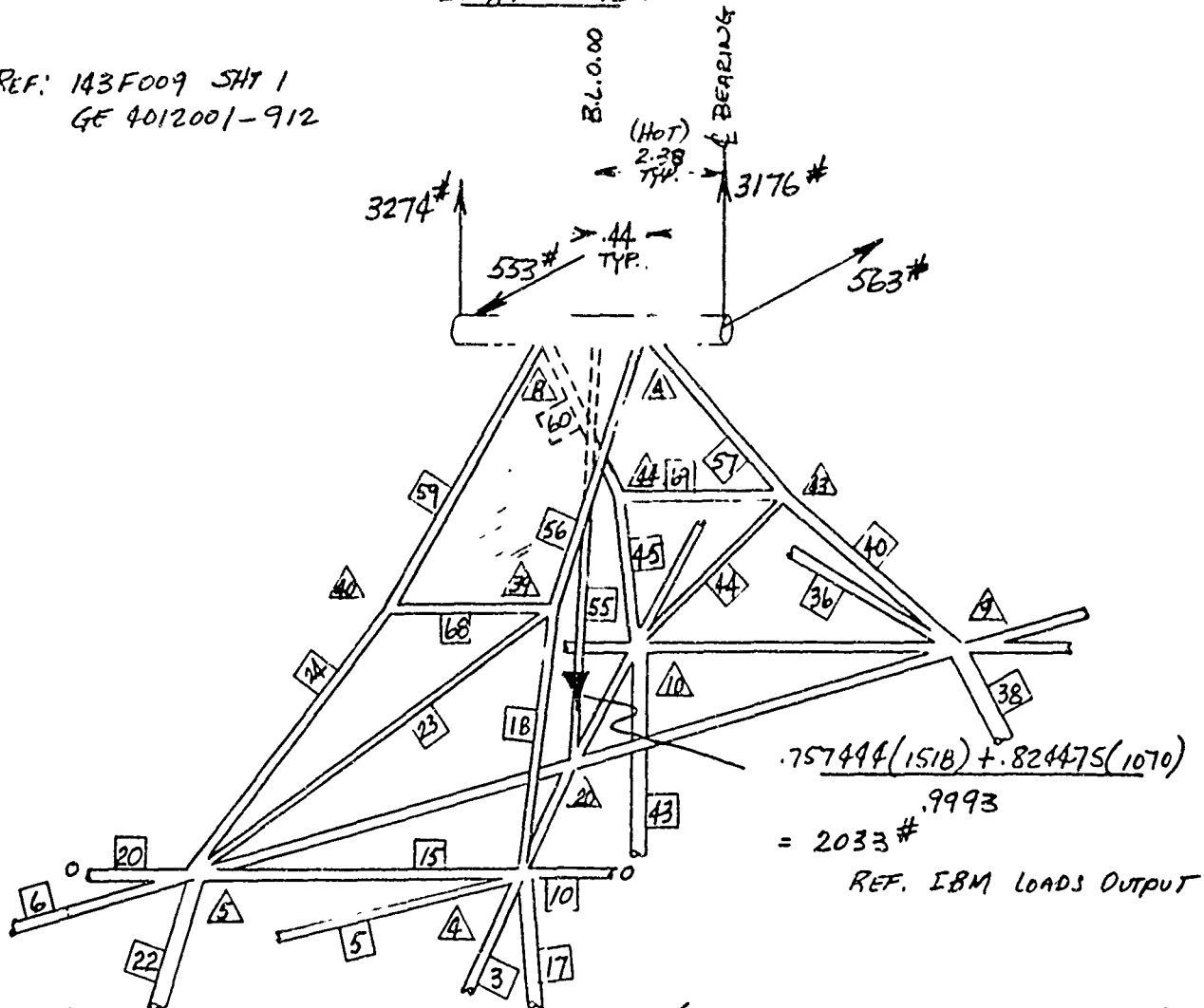
$$1.0715(5) = 916 \qquad 5 = -855$$

* ENGINE MOUNT LOADING ONLY

MAINE ENGINE MOUNTS - CENTER

LOAD CONDITION HOVER 1
LIMIT LOADS

REF: 143F009 SHY 1
GE 4012001-912



LOADS AS APPLIED TO TRUSS APEX: (+ INDICATES AFT & UPWARD)

$$P_{x1BA} = \left(\frac{563 - 553}{2} \right) + \left[\frac{(563 + 553)2.38}{.88} \right] - \frac{.0258(2033)}{2} = 5 + 3018 - 26 = 2997\#$$

$$P_{x1BB} = 5 - 3018 - 26 = -3039\#$$

$$P_{z1BA} = \left(\frac{3176 + 3274}{2} \right) - \left[\frac{(3274 - 3176)2.38}{.88} \right] - \frac{.9993(2033)}{2} = 3225 - 265 - 1016 = 1944\#$$

$$P_{z1BB} = 3225 + 265 - 1016 = 2474\#$$

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION HOVER 1
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 18_A

$$\Sigma F_x = -.7027 (56) - .5702 (57) + 2997 = 0$$

$$\Sigma F_z = -.6759 (56) + .7812 (57) + 1944 = 0$$

$$(56) = -.8114 (57) + 4265$$

$$1.3296 (57) = 939$$

$$57 = -706$$

$$56 = +3692$$

$$\Sigma F_y = .2208 (3692) - .2552 (706) - (18_A - 18_B)$$

$$18_A - 18_B = +635$$

JOINT 18_B

$$\Sigma F_x = .7027 (59) + .5702 (60) - 3039 = 0$$

$$\Sigma F_z = .6759 (59) - .7812 (60) + 2474 = 0$$

$$(59) = -.8114 (60) + 4325$$

$$-1.3296 (60) = -5397$$

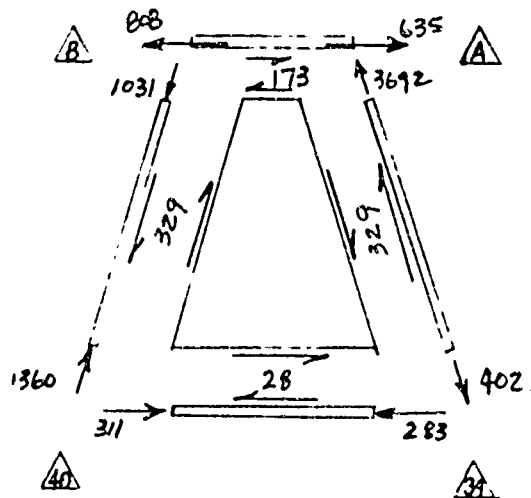
$$60 = +4059$$

$$59 = -1031$$

$$\Sigma F_y = .2208 (1031) - .2552 (4059) + (18_A - 18_B) = 0$$

$$18_A - 18_B = +808$$

WEB:



MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION NUMBER 1
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS

JOINT 40

$$\Sigma F_x = .6543 (24) - .7027 (1360) = 0$$

$$\Sigma F_z = .6297 (24) - .6759 (1360) = 0$$

$$\Sigma F_y = .4189 (1460) - .2208 (1360) - (68) = 0$$

$$24 = -1460$$

$$68 = -311$$

JOINT 39

$$\Sigma F_x = -.6543 (18) - .4974 (23) + .7027 (4021) = 0$$

$$\Sigma F_y = .4189 (18) - .7235 (23) - .2208 (4021) + 283 = 0$$

$$(18) = -.7602(23) + 4318$$

$$-1.0419 (23) = -1204$$

$$23 = +1156$$

$$18 = +3439^*$$

JOINT 44

$$\Sigma F_x = .5089 (45) - .5702 (4059) = 0$$

$$\Sigma F_z = -.6976 (45) + .7812 (4059) = 0$$

$$\Sigma F_y = .2552 (4059) - .5044 (4546) + (69) = 0$$

$$45 = +4576$$

$$69 = +1257$$

JOINT 43

$$\Sigma F_x = -.5089 (40) - .3650 (44) + .5702 (706) = 0$$

$$\Sigma F_y = -.5044 (40) + .7851 (44) + .2552 (706) - 1257 = 0$$

$$(40) = -.7172 (44) + 791$$

$$1.1468 (44) = 1476$$

$$44 = -1287$$

$$40 = +132$$

JOINT 5

$$\Sigma F_z = .4787 (1156) - .6297 (1460) + .7457 (22) = 0$$

$$22 = -491$$

$$\Sigma F_x = .8891(6) + .5924 (491) + .4974 (1156) - .6543 (1460) = 0$$

$$6 = -101^*$$

$$\Sigma F_y = .4576 (101) + .3049 (491) + .7235 (1156) - .4189 (1460) - (15) = 0$$

$$15 = -421$$

* ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION HOVER 1
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS

JOINT 4

$$\Sigma F_z = .6297(3439) - .7457(17) = 0$$

$$17 = +2904'$$

$$\Sigma F_x = -8891(3) - .7062(5) - .5924(2904) + .6513(3439) = 0$$

$$\Sigma F_y = .4576(3) - .7080(5) + 421 + .3049(2904) - .4189(3439) = 0$$

$$(3) = -.7943(5) + 596$$

$$3 = +494 *$$

$$-1.0715(5) = -139$$

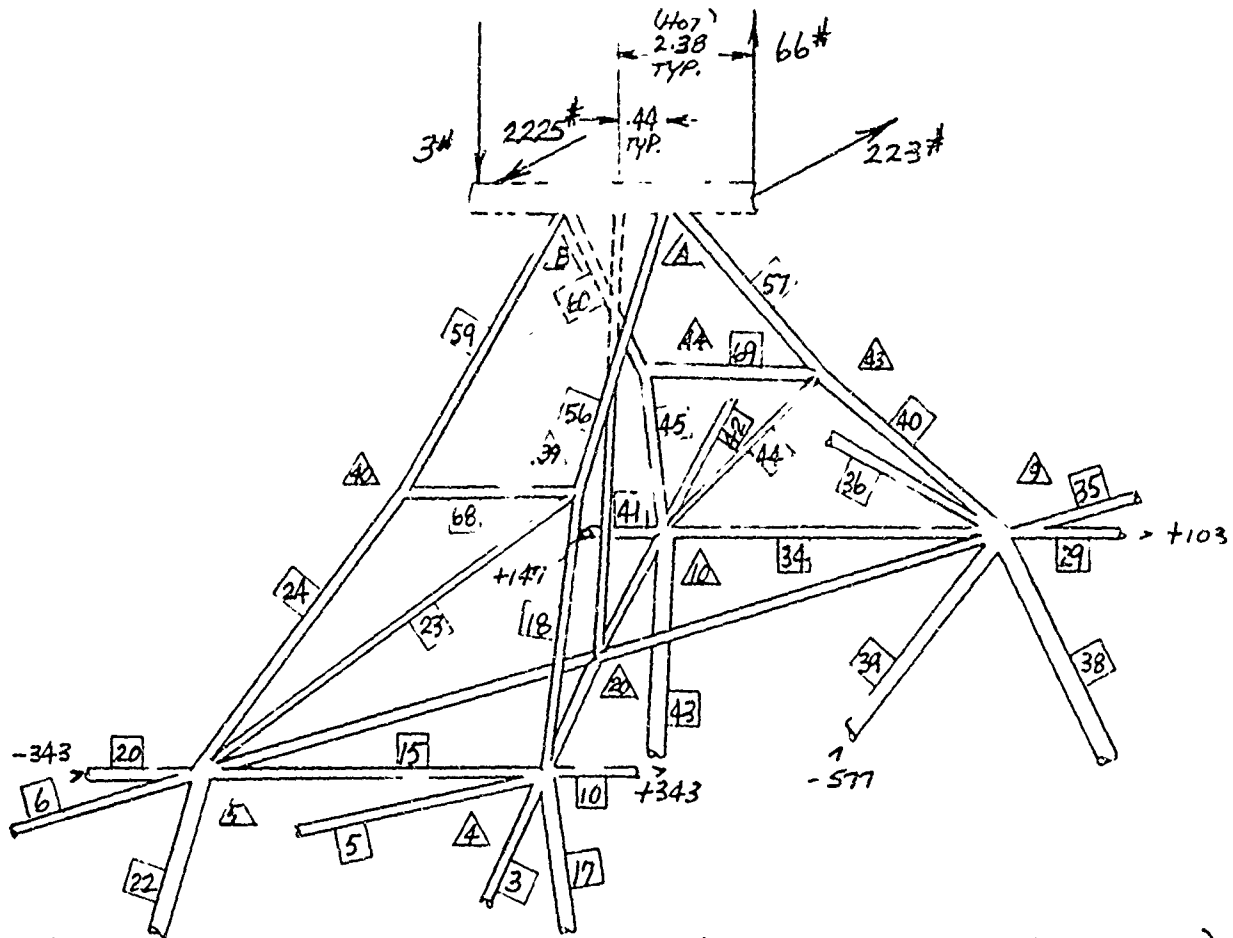
$$5 = +129$$

* ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION: ROLL SPREAD
LIMIT LOADS

KIT 143F009 SH71
GE 4012001-912



LOADS AS APPLIED TO TRUSS APEX: (+ INDICATES AFT & UPWARD)

$$P_{X18A} = \left(\frac{223 - 2225}{2} \right) + \left[\frac{(223 + 2225) 2.38}{.88} \right] = -1001 + 6621 = 5620 \#$$

$$P_{X18B} = -1001 - 6621 = -7622 \#$$

$$P_{Z18A} = \left(\frac{66 - 3}{2} \right) + \left[\frac{(66 + 3) 2.38}{.88} \right] = 31 + 187 = 218 \#$$

$$P_{Z18B} = 32 - 187 = -155 \#$$

MEMBER LOADS 10 & 20 REF. IBM SOL. (ENGINE SIDE LOADS ONLY)

" " 29, 39, 41 REF. IBM SOL. (FUSELAGE LOADS ONLY)

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION ROLL 5PRE0
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 18A

$$\sum F_x = -.7027 (56) - .5702 (57) + 5620 = 0$$

$$\sum F_z = -.6759 (56) + .7812 (57) + 218 = 0$$

$$(56) = -.8114 (57) + 7998$$

$$1.3296 (57) = 5188$$

$$57 = -3902'$$

$$56 = +4832'$$

$$\sum F_y = .2208 (4832) - .2552 (3902) - (18_A - 18_B) = 0$$

$$18_A - 18_B = +71$$

JOINT 18B

$$\sum F_x = .7027 (59) + .5702 (60) - 7622 = 0$$

$$\sum F_z = .6759 (59) - .7812 (60) - 155 = 0$$

$$(59) = -.8114 (60) + 10,847$$

$$-1.3296 (60) = -7176$$

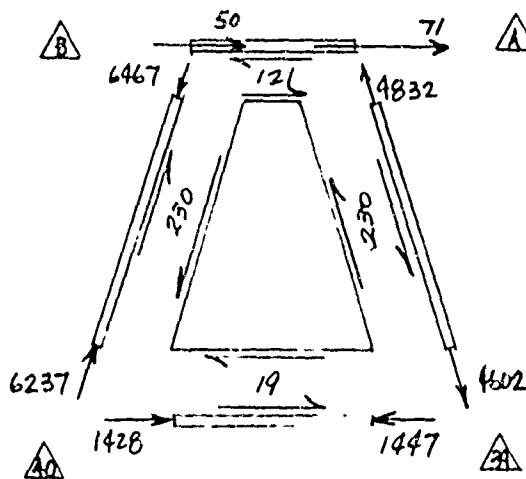
$$60 = +5398'$$

$$59 = -6467'$$

$$\sum F_y = .2208 (6467) - .2552 (5398) - (18_A - 18_B) = 0$$

$$18_A - 18_B = -50$$

WEB:



MAIN ENGINE MOUNTS - CENTER
LOAD CONDITION ROLL SPREAD
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 40

$$\Sigma F_x = .6543(24) - .7027(6237) = 0 \quad 24 = -6697'$$

$$\Sigma F_z = .6297(24) - .6759(6237) = 0$$

$$\Sigma F_y = .4189(6697) - .2208(6237) - (68) = 0 \quad 68 = -1428'$$

JOINT 39

$$\Sigma F_x = -.6543(18) - .4974(23) + .7027(4602) = 0$$

$$\Sigma F_y = .4189(18) - .7235(23) - .2208(4602) + 1447 = 0$$

$$(18) = -.7602(23) + 4942$$

$$-1.0419(23) = -2501$$

$$23 = +2400'$$

$$18 = +3118$$

JOINT 44

$$\Sigma F_x = .5089(45) - .5702(5398) = 0$$

$$\Sigma F_z = -.6976(45) + .7812(5398) = 0$$

$$\Sigma F_y = .2552(5398) - .5044(6046) + (69)$$

$$45 = +6046'$$

$$69 = +1672'$$

JOINT 43

$$\Sigma F_x = -.5089(40) - .3650(44) + .5702(3902) = 0$$

$$\Sigma F_y = -.5044(40) + .7851(44) + .2552(3902) - 1672 = 0$$

$$(40) = -.7172(44) + 4372$$

$$1.1468(44) = 2881$$

$$44 = -2512'$$

$$40 = -2570'$$

JOINT 5

$$\Sigma F_z = .7457(22) + .4787(2400) - .6297(6697) = 0$$

$$22 = -4114'$$

$$\Sigma F_x = .8691(6) + .5924(4114) + .4974(2400) - .6543(6697) = 0$$

$$6 = -845'$$

$$\Sigma F_y = .4576(845) + 343 + .3049(4114) + .7235(2400) - .4189(6697) - 15 = 0$$

$$15 = -915'$$

* ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION ROLL SPEED
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS

JOINT 4

$$\begin{aligned}\Sigma F_z &= .6297(3118) - .7457(17) = 0 & 17 &= +2633 \\ \Sigma F_x &= -.8891(3) - .7062(5) - .5924(2633) + .6543(3118) = 0 \\ \Sigma F_y &= .4576(3) - .7080(5) + 343 + 915 + .3049(2633) - .489(3118) = 0 \\ & (3) = -.7943(5) + 540 & 3 &= -203 * \\ & -1.0715(5) = 1002 & 5 &= +935 '\end{aligned}$$

JOINT 10

$$\begin{aligned}\Sigma F_z &= .6976(6046) - .5003(2512) - .8450(43) = 0 & 43 &= +3504' \\ \Sigma F_x &= 8086(42) - .2019(147) + .4630(3504) + .3650(2512) - .5089(6046) = 0 & 42 &= +702 * \\ \Sigma F_y &= -.9794(147) - .5883(702) - .2674(3504) - .7851(2512) + .5044(6046) + (34) = 0 \\ & & 34 &= +416 '\end{aligned}$$

JOINT 9

$$\begin{aligned}\Sigma F_z &= .8450(38) + .7402(577) - .6976(2570) = 0 & 38 &= -1616' \\ \Sigma F_x &= -.8086(35) - .5618(36) - .2019(103) - .4630(1616) - .4056(577) \\ & \quad + .5089(2570) = 0 \\ \Sigma F_y &= -.5883(35) + .8273(36) + 9794(103) - 416 - .2674(1616) + .5364(577) \\ & \quad + .5044(2570) = 0 \\ & (35) = -.6948(36) + 377 & 35 &= -735 * \\ & 1.2360(36) = -637 & 36 &= +515 '\end{aligned}$$

* ENGINE MOUNT LOADING ONLY

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION ROLL 5 PEORH
LIMIT LOADS

REF. CENTER ENGINE MOUNT SKETCH

ENGINE MOUNT APPLIED LOADS

$$P_{X1BA} = -2176$$

$$P_{Z1BA} = -19$$

$$P_{X1BB} = 172$$

$$P_{Z1BB} = 58$$

LOADS AS APPLIED TO TRUSS APEX (+ INDICATES AFT & UPWARD)

$$P_{X1BA} = \left(\frac{-2176 + 172}{2} \right) - \left[\frac{(2176 + 172) \cdot 2.38}{.88} \right] = -1002 - 6350 = -7352 \#$$

$$P_{X1BB} = -1002 + 6350 = +5348 \#$$

$$P_{Z1BA} = \left(\frac{58 - 19}{2} \right) - \left[\frac{(19 + 58) \cdot 2.38}{.88} \right] = 20 - 208 = -188 \#$$

$$P_{Z1BB} = 20 + 208 = +228 \#$$

TRUSS MEMBER AXIAL LOADS:

JOINT 18A

$$\Sigma F_x = .7027(56) + .5702(57) - 7352 = 0$$

$$\Sigma F_z = .6759(56) - .7812(57) - 188 = 0$$

$$(56) = -.8114(57) + 10,462$$

$$56 = -6261'$$

$$-1.3296(57) = -6883$$

$$57 = +5177'$$

$$\Sigma F_y = -.2208(6261) + .2552(5177) + (18A - 18B) = 0$$

$$18A - 18B = -61$$

JOINT 18B

$$\Sigma F_x = -.7027(59) - .5702(60) + 5348 = 0$$

$$\Sigma F_z = -.6759(59) + .7812(60) + 228 = 0$$

$$(59) = -.8114(60) + 7611$$

$$59 = +4610'$$

$$1.3296(60) = 4916$$

$$60 = -3698'$$

$$\Sigma F_y = -.2208(4610) + .2552(3698) + (18A - 18B) = 0$$

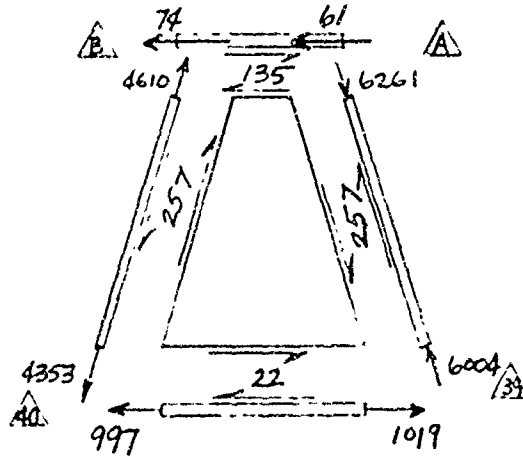
$$18A - 18B = +74$$

MAIN ENGINE MOUNTS - CENTER

LOAD CONDITION ROLL SPEORH
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS

WEB:



JOINT 40

$$\sum F_x = -.6543(24) + .7027(4353) = 0$$

$$24 = + 4675'$$

$$\sum F_y = -.6297(24) + .6759(4353) = 0$$

$$\sum F_y = -.4189(4675) + .2208(4353) + (68) = 0$$

$$68 = + 997'$$

JOINT 39

$$\sum F_x = .6543(18) + .4974(23) - .7027(6004) = 0$$

$$\sum F_y = -.4189(18) + .7235(23) + .2208(6004) - 1019 = 0$$

$$(18) = -.7602(23) + 6448$$

$$1.0419(23) = 2394$$

$$18 = - 4701'$$

$$23 = - 2298'$$

JOINT 44

$$\sum F_x = -.5089(45) + .5702(3698) = 0$$

$$45 = - 4142'$$

$$\sum F_y = .6976(45) - .7812(3698) = 0$$

$$\sum F_y = .5044(4142) - .2552(3698) - (69) = 0$$

$$69 = - 1145'$$

JOINT 43

$$\sum F_x = .5089(40) + .3650(44) - .5702(5177) = 0$$

$$\sum F_y = .5044(40) - .7851(44) - .2552(5177) + 1145 = 0$$

$$(40) = -.7172(44) + 5801$$

$$-1.1468(44) = - 2750$$

$$40 = + 4081'$$

$$44 = + 2398'$$

LOAD CONDITION ROLL SPEECH
LIMIT LOADS

TRUSS MEMBER AXIAL LOADS:

JOINT 5

$$\begin{aligned} \Sigma F_z &= -.7457(22) - .4787(2298) + .6297(4675) = 0 & 22 &= +2472' \\ \Sigma F_x &= -.8891(6) - .5924(2472) - .4974(2298) + .6543(4675) = 0 & 6 &= +508* \\ \Sigma F_y &= -.4576(508) - 343 - .3049(2472) - .7235(2298) + .4189(4675) - (15) = 0 \\ & & 15 &= +1033' \end{aligned}$$

JOINT 4

$$\begin{aligned} \Sigma F_z &= -.6297(4701) + .7457(17) = 0 & 17 &= -3970' \\ \Sigma F_x &= .8891(3) + .7062(5) + .5924(3970) - .6543(4701) = 0 \\ \Sigma F_y &= -.4576(3) + .7080(5) - 343 - 1033 - .3049(3970) + .4189(4701) = 0 \\ & (3) = -.7943(5) + 814 & 3 &= -80* \\ & 1.0715(5) = 990 & 5 &= -924' \end{aligned}$$

JOINT 10

$$\begin{aligned} \Sigma F_z &= -.6976(4142) + .5003(2398) + .8450(43) = 0 & 43 &= -2000' \\ \Sigma F_x &= -.8086(42) - .2019(104) - .4630(2000) - .3650(2398) + .5089(4142) = 0 & 42 &= -353* \\ \Sigma F_y &= -.9794(104) + .5863(353) + .2674(2000) + .7851(2398) - .5044(4142) - (34) = 0 \\ & & 34 &= -434' \end{aligned}$$

JOINT 9

$$\begin{aligned} \Sigma F_z &= -.8450(38) + .7402(351) + .6976(4081) = 0 & 38 &= +3676' \\ \Sigma F_x &= .8086(35) + .5618(36) - .2019(145) + .4630(3676) - .4056(351) - .5089(4081) = 0 \\ \Sigma F_y &= .5883(35) - .8273(36) + .9794(145) + 434 + .2674(3676) + .5364(351) - .5044(4081) = 0 \\ & (35) = -.6948(36) + 676 & 35 &= +627* \\ & -1.2360(36) = -86 & 36 &= +70 \end{aligned}$$

MEMBER LOAD	10	= -343	}	REF: IBM SOL. SIDE ENGINE LOADS ONLY
"	20	= +313		
"	29	= +145		
"	39	= -351	}	REF IBM SOL. FUSELAGE LOADS ONLY
"	41	= +104		

* ENGINE MOUNT LOADS ONLY

REF. TIMOSHENKO, THEORY OF ELASTIC STABILITY

143F009 SH 5

STA

$C = 2.0$

$\Delta L = \frac{69.75 - 49.32}{2} = 10.22$

$P_{EMAX} = 7898 \# \text{ ULT}$

$P_{CMAX} = -38,282 \# \text{ ULT.}$

214.00

221.25

224.22

COLUMN:

$\frac{I_1}{I_2} = \frac{.2557}{.4156} = .6152$

$\frac{a}{L} = \frac{10.57}{53.13} = .199 \approx .200$

$\eta = 3$

For $\frac{I_1}{I_2} = .6 \quad \eta = 9.02$

$\frac{I_1}{I_2} = .8 \quad \eta = 9.50$

$\therefore m = 9.05$

$P_{CR} = \frac{9.05 (27.5)^* (10)^6 (.4156)}{(53.13)^2} = 36,620 \#$

$M.S.C = \frac{36,620}{38,282} - 1 = \underline{\underline{-0.04}}$

245.50

250.785

256.06

TAPERED

CONSTANT

TAPERED

$L = 69.75$

$t = .100$

$A = .7167$

$I = .4156$

10.67

53.13

277.35

283.75

$t = .058$

6.40

1/4 BOLT

$P_c = \frac{38,282}{.4236} = 90,370 \text{ psi}$

$F_{cc} = KE \left(\frac{t}{L}\right)^2 = 3.6 (27.5)^* (10)^6 \left(\frac{.058}{1.80}\right)^2$

$F_{cc} = 101,950 \text{ psi}$

$C = 1.5$

$\Delta L = \frac{69.75 - 56.94}{2} = 6.40$

$M.S.CC = \frac{101,950}{90,370} - 1 = \underline{\underline{+0.09}}$

* ASSUMES TEMP < 150°F DURING CONV. LANDING

MEMBER IDENTIFICATION		MAX TENS. LOAD #	LOADING & CONDITION	MAX Comp. LOAD #	LOADING & CONDITION	MEMBER TRUE LENGTH	MEM E. CONE	MEMBER TRUE LENGTH
143FOC9 POINTS	IBM LOADS	ULTIMATE	MAX TENS.	ULTIMATE	MAX Comp.	POINT TO POINT		POINT TO POINT
1-2	1	1121	SPC-1	-2358	F-8P	44.00		
1-3	2	14,553	LG-3R	-8256	SPC-1	29.00	C=2.0	44.00
1-4	3	9105	Roll 4R*	-3760	L-2OR	32.62	C=2.0	29.00
1-25	4	0	-	0	-	36.50		32.62
2-4	5	1403*	Roll 5PREO	-1386*	Roll 5PEORH	41.06	C=2.0	36.50
2-5	6	9310	Roll 4*	-3676	Roll 4PR	32.62	C=2.0	41.06
2-6	7	14,988	LG-3	-8688	SPC-1	29.00	C=2.0	32.62
2-25	8	263	F-8P	-71	SPC-1, IR	57.17		29.00
2-26	9	44	SPC-1, IR	-164	F-8P	36.50		57.17
3-4	10	648	L-10R, 2OR*	-648	L-10, 2O*	14.93	C=2.0	36.50
3-8	11	14,226	LG-3R	-8160	SPC-1	21.00	C=2.0	14.93
3-17	12	2313	Hov 4, 4R	-3309	HSC-1P	19.57	C=2.0	21.00
3-25	13	2049	Hov 4, 4R	-3074	LG-3PR	46.62	C=2.0	19.57
3-32	14	730	L-10, 2O*	-730	L-10R, 2OR*	24.79	C=2.0	46.62
4-5	15	1550*	Roll 5PEORH	-1372*	Roll 5PREO	14.15	C=2.0	24.79
4-20	16	9513	Roll 4R*	-10,292	TRAN IR	15.46	C=2.0	14.15
4-25	17	4356*	Hov 1	-5955*	Roll 5PEORH	48.95	C=2.0	15.46
4-39	18	5158*	Hov 1	-7052*	Roll 5PEORH	10.32	C=2.0	48.95
4-18A	18+56			-9392*	" "	20.52	"	10.32
4-K	19	7779	Hov 1, TRAN			11.72	C=1.0	20.52
5-6	20	648	L-10, 2O*	-648	L-10R, 2OR*	14.93	C=2.0	11.72
5-20	21	9336	Roll 4*	-3676	Roll 4R*	15.46	C=2.0	14.93
5-26	22	3708*	Roll 5PEORH	-6171*	Roll 5PREO	48.95	C=2.0	15.46
5-39	23	3600*	Roll 5PREO	-3447*	Roll 5PEORH	13.58	C=2.0	48.95
5-40	24	7012*	Roll 5PEORH	-10,046*	Roll 5PREO	10.32	C=2.0	13.58
5-18B	24+59			-10,046*	" "	20.52	"	10.32
6-11	25	14,676	LG-3	-8834	SPC-1	21.00	C=2.0	20.52
6-19	26	3612	Hov 1, IR	-3310	HSC-1P	19.57	C=2.0	21.00
								19.57

A

XI. SUMMARY - S

MEMBER LENGTH TO JOINT	MEMBER END CONDITIONS	COLUMN LENGTH L'	MEMBER DESCRIPTION	CROSS-SECTION AREA A	RADIUS OF GYRATION P	L'/P	TENSION ALLOWABLE LOAD #	COLUMN ALLOWABLE LOAD #	L'/P
		L' = L/NE					$F_{tu} = 180,000$	292 (C.C.R.) MIL. HANDB.	
1.00			REF. 143F008						
2.00	C=2.0, C=2.0	20.51	1 1/4 X .035	.1336	.4297	47.73	24,048	-13,407	47.73
2.62	C=2.0, C=2.0	23.07	7/8 X .035	.0924	.2972	77.62	16,632	-3974	77.62
6.50			REF. 143F008						
1.06	C=2.0, C=2.0	29.03	3/4 X .035	.0786	.2531	114.70	14,148	-1549	114.70
2.62	C=2.0, C=2.0	23.07	7/8 X .035	.0924	.2972	77.62	16,632	-3974	77.62
2.00	C=2.0, C=2.0	20.51	1 1/4 X .035	.1336	.4297	47.73	24,048	-13,407	47.73
7.17			REF. 143F008						
6.50			REF. 143F008						
4.93	C=2.0, C=2.0	10.56	3/4 X .035	.0786	.2531	41.71	14,148	-9155	41.71
1.00	C=2.0, C=2.0	14.85	1 1/4 X .035	.1336	.4297	34.56	24,048	-17,118	34.56
9.57	C=2.0, C=2.0	13.84	1 3/8 X .083	.3369	.4577	30.24	60,642	-46,789	30.24
6.62	C=2.0, C=2.0	32.96	1 1/4 X .035	.1336	.4297	76.70	24,048	-5985	76.70
4.79	C=2.0, C=1.0	21.16	3/4 X .035	.0786	.2531	83.60	14,148	-3029	83.60
4.15	C=2.0, C=2.0	10.00	3/4 X .035	.0786	.2531	39.51	14,148	-9507	39.51
5.46	C=2.0, C=2.0	10.93	7/8 X .035	.0924	.2972	36.78	16,632	-11,673	36.78
8.95	C=2.0, C=2.0	34.61	1 3/8 X .035	.1473	.4739	73.03	26,514	-6995	73.03
7.32	C=2.0, C=2.0	7.30	7/8 X .049	.1272	.2925	24.96	22,896	-18,463	24.96
20.52	"	14.51	7/8 X .049	.1272	.2925	49.61		-12,551	49.61
1.72	C=1.0, C=1.0	11.72							
4.93	C=2.0, C=2.0	10.56	3/4 X .035	.0786	.2531	41.71	14,148	-9155	41.71
5.46	C=2.0, C=2.0	10.93	7/8 X .035	.0924	.2972	36.78	16,632	-11,673	36.78
8.95	C=2.0, C=2.0	34.61	1 3/8 X .035	.1473	.4739	73.03	26,514	-6995	73.03
3.58	C=2.0, C=2.0	9.60	3/4 X .035	.0786	.2531	37.94	14,148	-9860	37.94
7.32	C=2.0, C=2.0	7.30	7/8 X .049	.1272	.2925	24.96	22,896	-18,463	24.96
20.52	"	14.51	7/8 X .049	.1272	.2925	49.61		-12,551	49.61
1.00	C=2.0, C=2.0	14.85	1 1/4 X .035	.1336	.4297	34.56	24,048	-17,118	34.56
7.57	C=2.0, C=2.0	13.84	1 3/8 X .083	.3369	.4577	30.24	60,642	-46,789	30.24

B

XI. SUMMARY - SPACE FRAME MEMBER CRITICAL LOADS & MARGINS OF SAFETY

	TENSION ALLOWABLE LOAD #	COLUMN ALLOWABLE LOAD #	M.S. _t	M.S. _c	REMARKS	398
	$F_{tu} = 180,000$	896 (C.P.C.) MIL-HDBK-5				
	24,048	-13,407	+ .65	+ .62		
	16,632	-3974	+ .82	+ .06	* REVISED CONDITION	
	14,148	-1549	HIGH	+ .12	* CENTER ENGINE MOUNT	
	16,632	-3974	+ .79	+ .08	* REVISED CONDITION	
	24,048	-13,407	+ .60	+ .54		
	14,148	-9155	HIGH	HIGH	* REVISED CONDITION	
	24,048	-17,118	+ .69	HIGH		
	60,642	-46,789	—	—	SEE SIDE ENGINE MOUNT	
	24,048	-5985	HIGH	+ .95		
	14,148	-3028	HIGH	HIGH	* REVISED CONDITION	
	14,148	-9507	HIGH	HIGH	* CENTER ENGINE MOUNT	
	16,632	-11,673	+ .75	+ .13	* REVISED CONDITION	
	26,514	-6995	HIGH	+ .17	* CENTER ENGINE MOUNT	
	22,896	-18,463	HIGH	—	* CENTER ENGINE MOUNT	
		-12,537	—	+ .33	"	
					SEE PROPELLSION SUPPORT SUMM	
	14,148	-9155	HIGH	HIGH	* REVISED CONDITION	
	16,632	-11,673	+ .78	HIGH	* REVISED CONDITION	
	26,514	-6995	HIGH	+ .13	* CENTER ENGINE MOUNT	
	14,148	-9860	HIGH	HIGH	* CENTER ENGINE MOUNT	
	22,896	-18,463	HIGH	—	* CENTER ENGINE MOUNT	
		-12,537	—	+ .25	"	
	24,048	-17,118	+ .64	+ .94	"	
	60,642	-46,789	—	—	SEE SIDE ENGINE MOUNT	

C

MEMBER IDENTIFICATION		MAX TENS. LOAD #	LOADING CONDITION	MAX. Comp. LOAD #	LOADING CONDITION	MEMBER TRUE LENGTH	MEMBER END
143FO09 PRINTS	IBM LOADS	ULT. MATE	MAX TENS.	ULTIMATE	MAX Comp	POINT TO POINT	CONDITIONS
							-77.1
							216.5
6-26	27	3200	Hov1,1R	-3156	LG-3P	46.62	C=2.0,C=2.0
6-32	28	730	L-10R,20R	-730	L-10*,20	24.79	C=2.0,C=1.0
8-9	29	1124	L-16 *	-744	Roll 4*	14.86	C=2.0,C=2.0
8-13	30	33802	L-16 *	-9016	Roll 4P*	23.00	C=2.0,C=2.0
8-17	31	2739	HSC-1P	-2274	Hov1,1R	15.22	C=2.0,C=2.0
8-25	32	20,948	L-16 *	-15,630	Roll 4*	61.91	C=2.0,C=2.0
8-28	33	10,503	Roll 4*	-15,860	L-16 *	43.25	C=2.0,C=1.5
							(-3.0)
9-10	34	1420	L-16 *	-1140	Roll 4PR*	14.90	C=2.0,C=2.0
9-13	35	7974	Roll 4*	-2541	SPC-1	24.73	C=2.0,C=2.0
9-14	36	1000	L-10 *	-720	Hov 4R	35.60	C=2.0,C=2.0
9-20	37	8188	Roll 4*	-3000	SPC-1	12.67	C=2.0,C=2.0
9-28	38	5514*	Roll 5PEORH	-2424*	Roll 5PREO	43.19	C=2.0,C=1.5
							(-3.0)
9-31	39	1268	Roll 4PREORH	-1868	Roll 4*	49.31	C=2.0,C=1.5
							(-3.5)
9-43	40	6122 *	Roll 5PEORH	-3855*	Roll 5PREO	9.32	C=2.0,C=2.0
9-18A	40+57			-5853	"	18.08	"
10-11	41	1120	L-16 *	-736	Roll 4R*	14.86	C=2.0,C=2.0
10-14	42	8176	Roll 4R*	-3018	SPC-1	24.73	C=2.0,C=2.0
10-31	43	5256 *	Roll 5PREO	-3786	Hov 4,4R	43.19	C=2.0,C=1.5
							(-3.0)
10-43	44	3597 *	Roll 5PEORH	-3768 *	Roll 5PREO	12.99	C=2.0,C=2.0
10-44	45	9069 *	Roll 5PREO	-6213 *	Roll 5PEORH	9.32	C=2.0,C=2.0
10-18B	45+60			-6213*	" "	18.08	" "
10-N	46	7614	Hov & TRAN	—	—	10.61	C=1.0,C=1.0
11-14	47	33782	L-16 *	-8920	Roll 4PR*	23.00	C=2.0,C=2.0
11-19	48	3879	Hov1,1R	-1482	SPC-1R	15.22	C=2.0,C=2.0
11-26	49	20,912	L-16 *	-15,646	Roll 4R*	61.91	C=2.0,C=2.0
							31.00*
11-31	50	10,404	Roll 4R*	-15,834	L-16 *	43.25	C=2.0,C=1.0
							(-3.0)
13-14	51	—	—	-3090	HSC-1	44.00	
13-28	52	0	—	0	—	36.62	

A

REF. POINT	MEMBER END CONDITIONS	COLUMN LENGTH L'	MEMBER DESCRIPTION	CROSS-SECTION AREA A	RADIUS OF GYRATION P	L'/P	TENSION ALLOWABLE LOAD	COLLIMN ALLOWABLE LOAD	M.S.L
		7.71							
		21.65							
1	C=2.0, C=2.0	32.96	1 1/4 X 035	1336	.4297	76.70	24,048	-5985	HIGH
2.0	C=2.0, C=1.0	21.16	3/4 X 035	.0786	.2531	83.60	14,148	-3028	HIGH
1.0	C=2.0, C=2.0	10.51	3/4 X 035	.0786	.2531	41.52	14,148	-9155	HIGH
2.0	C=2.0, C=2.0	16.26	1 1/4 X 065	.2420	.4196	38.75	43,560	-29,272	+ .29
2.0	C=2.0, C=2.0	10.76	1 3/8 X 083	.3369	.4577	23.51	60,642	-48,902	—
2.0	C=2.0, C=2.0	43.76	1 1/2 X 035	.1611	.5181	84.50	28,998	-6062	+ .38
2.0	C=2.0, C=1.0	26.46	"	.1611	.5181	51.07		-15,734	
1.0	C=2.0, C=1.5	30.66	1 5/8 X 035	.1748	.5623	54.53	31,464	-15,349	HIGH
1.5	(-3.0)								
2.0	C=2.0, C=2.0	10.51	3/4 X 035	.0786	.2531	41.63	14,148	-9155	HIGH
2.0	C=2.0, C=2.0	17.49	7/8 X 035	.0924	.2972	58.85	16,632	-6706	HIGH
2.0	C=2.0, C=2.0	25.17	7/8 X 035	.0924	.2972	84.69	16,632	-3312	HIGH
2.0	C=2.0, C=2.0	8.96	7/8 X 035	.0924	.2972	30.15	16,632	-13,246	HIGH
1.5	C=2.0, C=1.5	30.62	1 1/4 X 035	.1336	.4297	71.26	24,048	-6823	HIGH
1.5	(-3.0)								
1.5	C=2.0, C=1.5	34.90	1 1/4 X 035	.1336	.4297	81.22	24,048	-5267	HIGH
1.5	(-3.5)								
2.0	C=2.0, C=2.0	6.59	7/8 X 049	.1272	.2925	22.53	22,896	-19,033	HIGH
2.0	"	12.78	"	.1272	.2925	43.69		-14,246	
2.0	C=2.0, C=2.0	10.51	3/4 X 035	.0786	.2531	41.52	14,148	-9155	HIGH
2.0	C=2.0, C=2.0	17.49	7/8 X 035	.0924	.2972	58.85	16,632	-6706	HIGH
2.0	C=2.0, C=1.5	30.62	1 1/4 X 035	.1336	.4297	71.26	24,048	-6823	HIGH
2.0	(-3.0)								
2.0	C=2.0, C=2.0	9.19	3/4 X 035	.0786	.2531	36.29	14,148	-10,070	HIGH
2.0	C=2.0, C=2.0	6.59	7/8 X 049	.1272	.2925	22.53	22,896	-19,033	HIGH
2.0	"	12.78	"	.1272	.2925	43.69		-14,246	
2.0	C=1.0, C=1.0	10.61							
2.0	C=2.0, C=2.0	16.26	1 1/4 X 065	.2420	.4196	38.75	43,560	-29,272	+ .29
2.0	C=2.0, C=2.0	10.76	1 3/8 X 083	.3369	.4577	23.51	60,642	-48,902	—
2.0	C=2.0, C=2.0	43.76	1 1/2 X 035	.1611	.5181	84.50	28,998	-6062	+ .39
2.0	C=2.0, C=1.0	26.46	"	.1611	.5181	51.07		-15,734	
2.0	C=2.0, C=1.5	30.66	1 5/8 X 035	.1748	.5623	54.53	31,464	-15,349	HIGH
2.0	(-3.0)								
			REF. 143F019						
			REF. 143F019						

B

$\frac{1}{p}$	TENSION ALLOWABLE LOAD	COLUMN ALLOWABLE LOAD	M.S.L	M.S.C	REMARKS
		.996 (CURVE) MIL-HDBK-5			
70	24,048	-5985	HIGH	+ .90	
1.60	14,148	-3028	HIGH	HIGH	* REVISED CONDITION
52	14,148	-9155	HIGH	HIGH	* " "
2.75	43,560	-29,272	+ .29	HIGH	* " "
2.51	60,642	-48,902	—	—	SEE SIDE ENGINE MOUNT
1.50	28,998	-6062	+ .38	—	* REVISED CONDITION
51.07		-15,734		+ .01	* BRAKED AT MIDLENGTH
1.53	31,464	-15,319	HIGH	- .03	* REVISED CONDITION
1.63	14,148	-9155	HIGH	HIGH	* " "
3.85	16,632	-6706	HIGH	HIGH	* " "
1.69	16,632	-3312	HIGH	HIGH	* " "
2.15	16,632	-13,246	HIGH	HIGH	* " "
1.26	24,048	-6823	HIGH	HIGH	* CENTER ENGINE MOUNT
1.22	24,048	-5267	HIGH	HIGH	* REVISED CONDITION
2.53	22,896	-19,033	HIGH	—	* CENTER ENGINE MOUNT
43.69		-14,246		HIGH	* " "
1.52	14,148	-9155	HIGH	HIGH	* REVISED CONDITION
3.85	16,632	-6706	HIGH	HIGH	" "
1.26	24,048	-6823	HIGH	+ .80	* CENTER ENGINE MOUNT
1.629	14,148	-10,070	HIGH	HIGH	* CENTER ENGINE MOUNT
2.53	22,896	-19,033	HIGH	—	* CENTER ENGINE MOUNT
43.69		-14,246		HIGH	* " "
					SEE PROPULSION SUPPORT SUMM
3.75	43,560	-29,272	+ .29	HIGH	* REVISED CONDITION
3.51	60,642	-48,902	—	—	SEE SIDE ENGINE MOUNT
1.50	28,998	-6062	+ .39	—	* REVISED CONDITION
51.07		-15,734		+ .01	* BRAKED AT MIDLENGTH
1.53	31,464	-15,319	HIGH	- .03	* REVISED CONDITION

MEMBER IDENTIFICATION		MAX TENS. LOAD #	LOADING CONDITION	MAX COMP. LOAD #	LOADING CONDITION	MEMBER TRUE LENGTH	MEMO END CONDIT.
143FO9 POINTS	IBM LOADS	ULTIMATE	MAX TENS.	ULTIMATE	MAX COMP.	POINT TO POINT	
							707 81
14-31	53	0		0		36.62	
18A-18B	54	—	—	-477	TRAN 2	4.76	C=2.0, C=:
18A-20	55	3094	HON & TRAN	—	—	13.78	C=2.0, C=:
18A-29	56	7248 *	ROLL 5 PRED	-9392 *	ROLL 5 PRED	10.20	C=2.0, C=:
18A-43	57	7766 *	ROLL 5 PRED	-5853 *	ROLL 5 PRED	8.76	C=2.0, C=:
18B-39	58	1456	HON 1, 1R	-51	L-10R 2OR	11.41	C=2.0, C=:
18B-40	59	6915 *	ROLL 5 PRED	-9700 *	ROLL 5 PRED	10.20	C=2.0, C=:
18B-44	60	8097 *	ROLL 5 PRED	-5227 *	ROLL 5 PRED	8.76	C=2.0, C=:
20-K	61	2277	HON & TRAN	—	—	9.77	C=1.0, C=:
20-N	62	1605	HON & TRAN	—	—	8.97	C=1.0, C=:
25-26	63	2116	F-8P	-566	SPC-1, 1R	44.00	
25-31	64	11,884	L-10R *	-1644	L-16 *	83.73	C=1.0, C=:
25-28	65	6804	SPC-1	-38,282	L-16 *	73.06	C=2.0, C=:
26-31	66	7898	SPC-1R	-38,276	L-16 *	73.06	C=2.0, C=:
28-31	67	243	L-4-3, 3R	-2020	L-16 *	38.00	(-325)
39-40	68	1496 *	ROLL 5 PRED	-2142 *	ROLL 5 PRED	5.50	C=2.0, C=:
43-44	69	2508 *	ROLL 5 PRED	-1718 *	ROLL 5 PRED	5.50	C=2.0, C=:
16-20	F2	8372	ROLL 4R *	-8236	TRAN 1R	12.67	C=2.0, C=:
26-28	F3	11,868	L-10 *	-1671	L-16 *	83.73	C=1.0, C=:
							(-9.0)
25-27	64	11,884	L-10R *	-5210	L-10 *	44.93	C=1.0, C=:
26-27	83	11,868	L-10 *	-5214	L-10R *	44.93	C=1.0, C=:
27-31	64	11,884	L-10R *	-5210	L-10 *	38.80	C=1.0, C=:
27-28	83	11,868	L-10 *	-5214	L-10R *	38.80	C=1.0, C=:

A

MEMBER ID DIT.	DIA TION	MEMBER TYPE	MEMBER END CONDITIONS	COLUMN LENGTH L'	MEMBER DESCRIPTION	CROSS- SECTION AREA A	RADIUS OF GYRATION P	L/P	TENSION ALLOWABLE LOAD #	COLL ALL. LOAD
		36.62			REF. 143FC19					.896 MIL-6
		4.76	C=2.0, C=2.0							
		13.78	C=2.0, C=2.0	9.74	3/4 X .035	.0786	.2531	38.50	14,148	-98
		10.20	C=2.0, C=2.0	7.21	7/8 X .049	.1272	.2925	24.65	22,896	
		8.76	C=2.0, C=2.0	6.19	7/8 X .049	.1272	.2925	21.16	22,896	-19.5
		11.41	C=2.0, C=2.0		WEB					
		10.20	C=2.0, C=2.0	7.21	7/8 X .049	.1272	.2925	24.65	22,896	-18.4
		8.76	C=2.0, C=2.0	6.19	7/8 X .049	.1272	.2925	21.16	22,896	-19.5
		9.77	C=1.0, C=1.0	9.77						
		8.97	C=1.0, C=1.0	8.97						
		44.00			REF. 143FC08					
		83.73	C=1.0, C=2.0 (-9.0)	63.79	1/4 X .035	.1336	.4297	148.45	24,048	-16
		73.06	C=2.0, C=1.5 (-3.25)	53.18	REF: SECTION X					
		73.06	C=2.0, C=1.5 (-3.25)	53.18	REF: SECTION X					
		38.00			REF. 143FO19					
		5.50	C=2.0, C=2.0	3.89	7/8 X .049	.1272	.2925	13.30	22,896	-19.4
		5.50	C=2.0, C=2.0	3.89	7/8 X .049	.1272	.2925	13.30	22,896	-19.4
		12.67	C=2.0, C=2.0	8.96	7/8 X .035	.0924	.2972	30.15	16,632	-13.2
		83.73	C=1.0, C=2.0 (-9.0)	63.79	1/4 X .035	.1336	.4297	148.45	24,048	-16
		44.93	C=1.0, C=1.0 (-9.0)	35.93	1/4 X .035	.1336	.4297	83.62	24,048	-51.5
		44.93	C=1.0, C=1.0 (-9.0)	35.93	1/4 X .035	.1336	.4297	83.62		-51.5
		38.80	C=1.0, C=2.0	33.12	1/4 X .035	.1336	.4297	77.08		-59.8
		38.80	C=1.0, C=2.0	33.12	1/4 X .035	.1336	.4297	77.08	24,048	-59.8

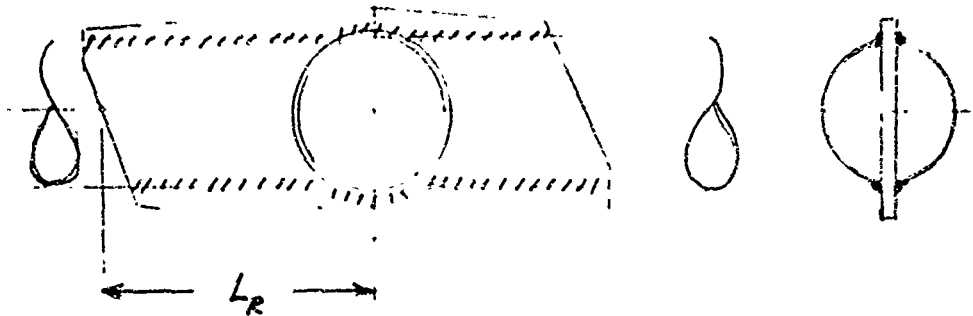
B

L/W	L/P	TENSION ALLOWABLE LOAD #	COLUMN ALLOWABLE LOAD #	M.S. _f	M.S. _c	REMARKS
			.896 (CURVE) MIL-HDBK-5			
98	38.50	14,148	-9860	HIGH	—	CENTER ENGINE MOUNT
94	24.65	22,896	—	HIGH	—	* CENTER ENGINE MOUNT SEE MEMBER 18 FOR COLUMN
	21.16	22,896	-19,033	HIGH	—	* CENTER ENGINE MOUNT SEE MEMBER 40 FOR COLUMN
94	24.65	22,896	-18,463	HIGH	—	* REVISED CONDITION SEE CENTER ENGINE MOUNT
94	21.16	22,896	-19,033	HIGH	—	* CENTER ENGINE MOUNT SEE MEMBER 24 FOR COLUMN
						* CENTER ENGINE MOUNT SEE MEMBER 45 FOR COLUMN SEE PROPUSSION SUPPORT SUMM.
						SEE PROPUSSION SUPPORT SUMM.
161	148.45	24,048	-1675	HIGH	+ .02	* REVISED CONDITION
				HIGH	- .04	* " " " " " "
				HIGH	- .04	* " " " " " "
161	13.30	22,896	-19,603	HIGH	HIGH	* CENTER ENGINE MOUNT
161	13.30	22,896	-19,603	HIGH	HIGH	* CENTER ENGINE MOUNT
161	30.15	16,632	-13,246	HIGH	+ .61	* " " " " " "
	148.45	24,048	-1675	HIGH	+ .002	* " " " " " "
15	83.62	24,048	-5156	HIGH	- .01	* REVISED CONDITION
98	83.62	↑	-5156	HIGH	- .01	* " " " " " "
98	77.08	↓	-5985	HIGH	+ .15	* " " " " " "
	77.08	24,048	-5985	HIGH	+ .15	* " " " " " "

XII. FITTINGS AND ATTACHMENTS

JOINT-CLUSTER GUSSET WELDS

All gusset welds in the space frame (Drawing 143F009) were checked against the following table and are therefore not critical.



$$L_R = l_R \quad \text{WHERE } l_R = \text{LENGTH OF SINGLE WELD BEAD}$$

$$A_{WR} = 4 L_R t \quad \text{WHERE } t = \text{THICKNESS OF TUBE UNDER CONSIDERATION}$$

$$A_{WR} = \text{TOTAL AREA OF WELD REQUIRED}$$

$$80,000 A_{WR} = 180,000 A_t \quad \text{WHERE } A_t = \text{GROSS-SECTIONAL AREA OF TUBE}$$

($F_{SW} = F_{TW} = 80,000 \text{ psi}$; $F_{ULT} = 180,000 \text{ psi}$)

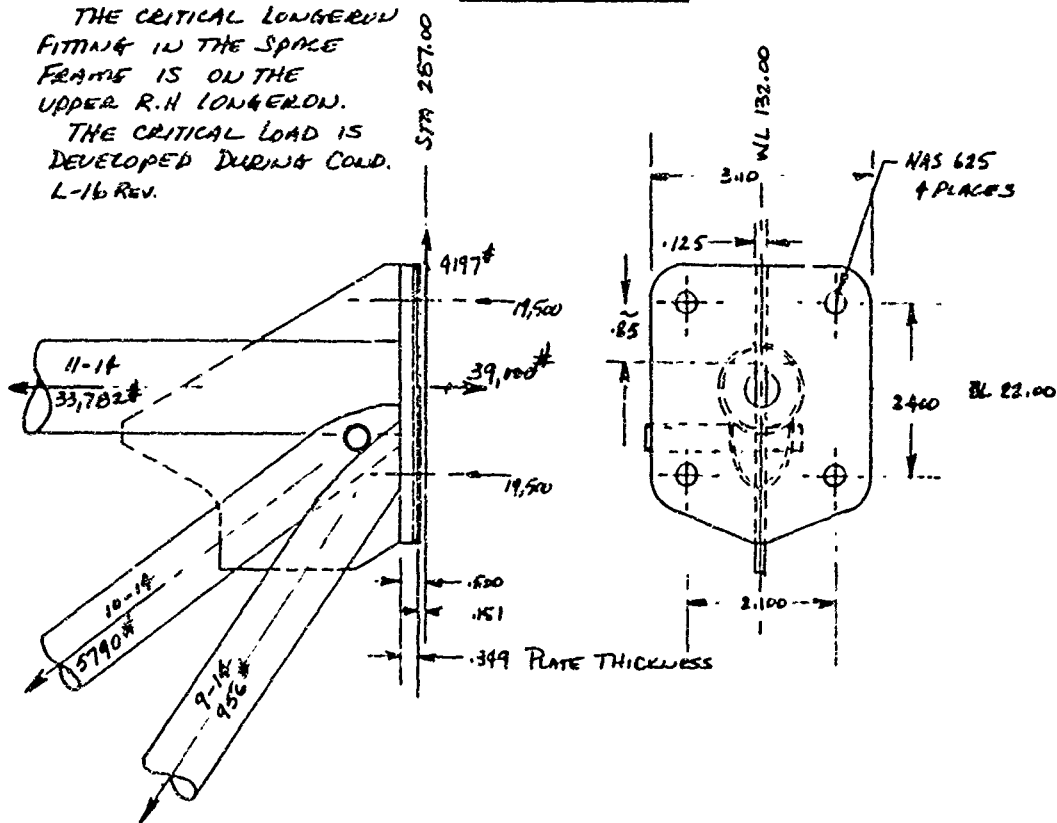
$$A_{WR} = 2.25 A_t = 4 L_R t = 4 L_R t$$

$$L_R = .5625 \frac{A_t}{t}$$

TUBE	A_t	$\frac{A_t}{t}$	L_R	NOMINAL L_R
3/4 x .028	.0635	2.267	1.275	1.3
7/8 x .028	.0745	2.661	1.497	1.5
7/8 x .035	.0924	2.640	1.485	1.5
7/8 x .049	.1272	2.596	1.460	1.5
1 1/4 x .028	.1075	3.839	2.159	2.2
1 1/4 x .035	.1336	3.817	2.147	2.2
1 1/4 x .065	.2420	3.723	2.094	2.1
1 3/8 x .035	.1473	4.209	2.368	2.4
1 3/8 x .083	.3269	4.059	2.283	2.3
1 1/2 x .035	.1611	4.603	2.589	2.6
1 5/8 x .035	.1748	4.994	2.809	2.8

REF: 143 F009 SHY 3 UPPER LONGERON FITTING
ULTIMATE LOADS

THE CRITICAL LONGERON FITTING IN THE SPACE FRAME IS ON THE UPPER R.H. LONGERON.
THE CRITICAL LOAD IS DEVELOPED DURING COLD.
L-16 Rev.



BOLTS:

$$P_{bu} = 11,050 \# / \text{BOLT} = 44,200 \# \text{ FOR PATTERN OF 4 BOLTS}$$

REF. NAS 624 THEN 604 PART SPEC. $M.S. = \frac{44,200}{39,000} - 1 = +.13$
(SHEAR PER BOLT IS NEGLIGIBLE)

FLANGE PLATE: BENDING

$$t = .349$$

$$I = \frac{3.10 (.349)^3}{12} = .0109 \text{ in}^4$$

$$M = .85 (19,500) = 16,575 \text{ in} \cdot \text{lb}$$

NEGLECTING BENDING STIFFNESS OF GUSSET:

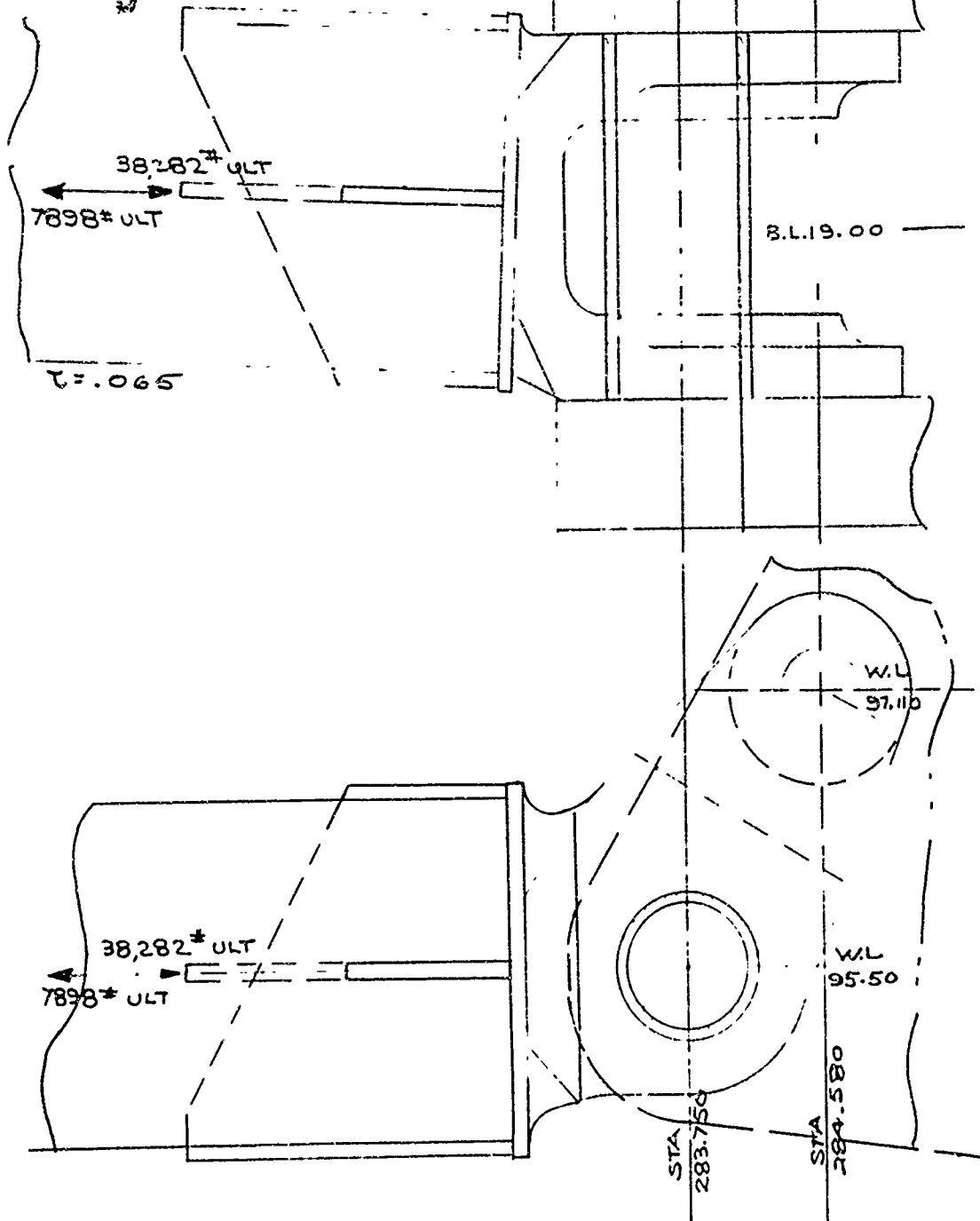
$$f_{bu} = \frac{16,575 (.175)}{.0109} = 266,100 \text{ psi}$$

$$F_{bu} = 1.5 (180,000) = 270,000 \text{ psi } M.S. = +.01$$

LOWER LONGERON FITTING - STA 287.00

REF: 143F009 SHT 5

CRITICAL LOADING CONDITIONS
ARE L-16 REV. FOR COMP. LOADS
& SPC-1R FOR TENSION LOADS
IN THE LOWER LONGERON.



LOWER LONGERON FITTING - STA 287.00

WELD: TUNGSTEN FITTING

$$L_w = 8(1.50) = 12 \text{ IN}$$

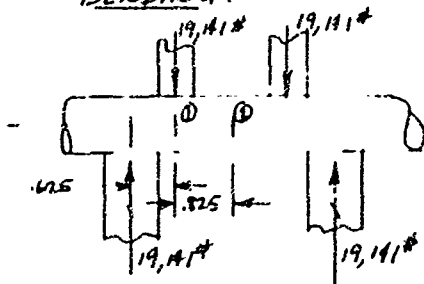
$$P_w = 12(.058)(20,000) = 55,680 \text{ \#}$$

MAIN BOLT: NAS 632-58 $F_{tu} = 180,000 \text{ psi}$

SHEAR

$$P_{sa} = 94,380 \text{ \#} \quad \text{SHEAR NOT CRITICAL}$$

BENDING:



$$M_1 = .625(19,141) = 11,963 \text{ \"\#}$$

$$M_2 = 1.450(19,141) - .625(19,141) = 11,963 \text{ \"\#}$$

$$f_b = \frac{11,963(.375)}{.0155} = 289,430 \text{ psi}$$

$$F_b \cong 1.7(180,000) = 306,000 \text{ psi}$$

$$MS_b = \frac{306}{289.4} - 1 = \underline{+0.06}$$

FIXITY BOLT: NAS 626-58 $F_{tu} = 180,000 \text{ psi}$

SHEAR:

$$P_{sa} = 23,625 \text{ \#}$$

THE FIXITY BOLT THEREFORE DEVELOPS AN END RESTRAINT MOMENT IN THE LOWER LONGERON OF

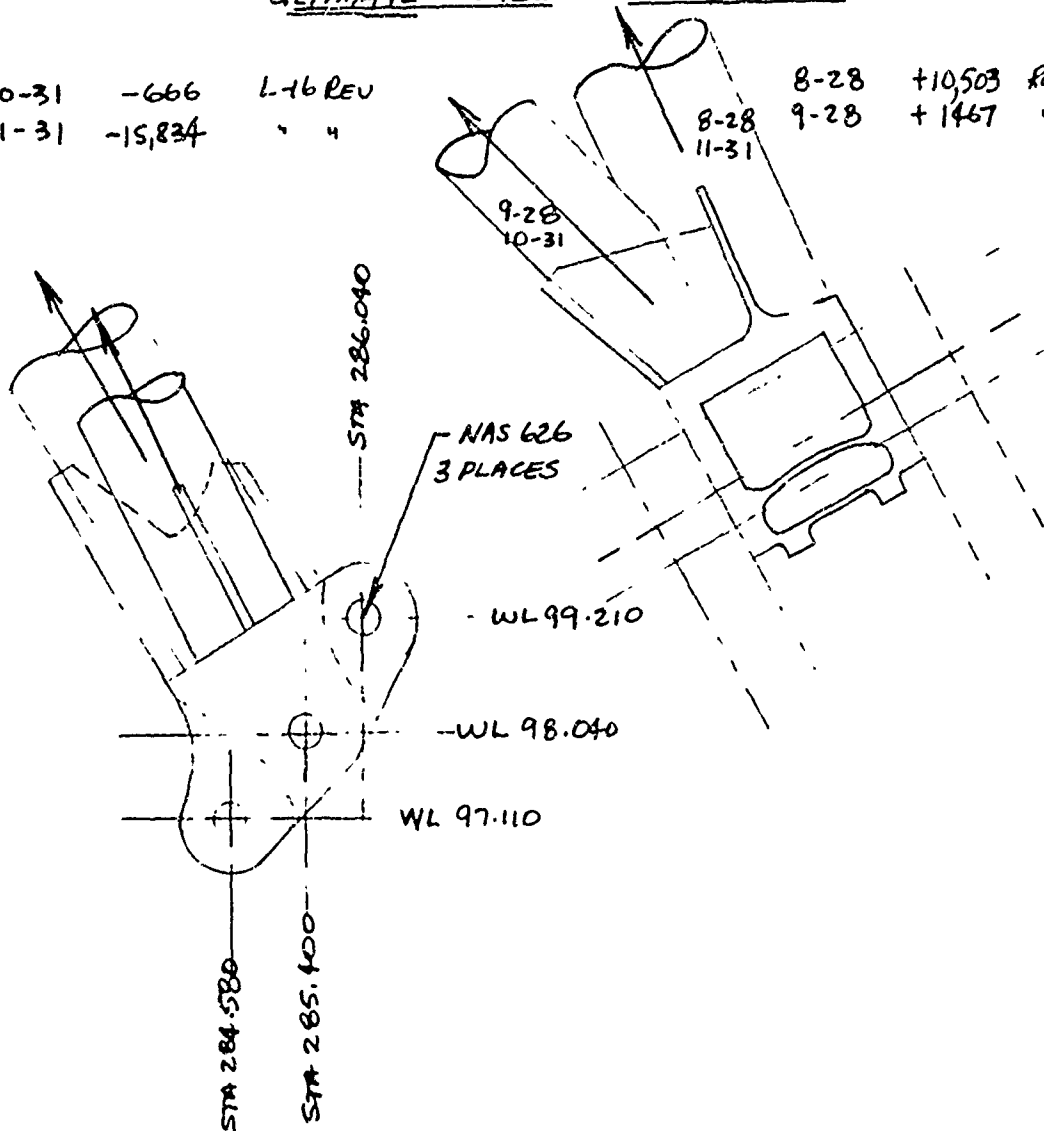
$$1.8(23,625) = 42,525 \text{ \"\#}$$

REF: 143FOC9 SHT 5

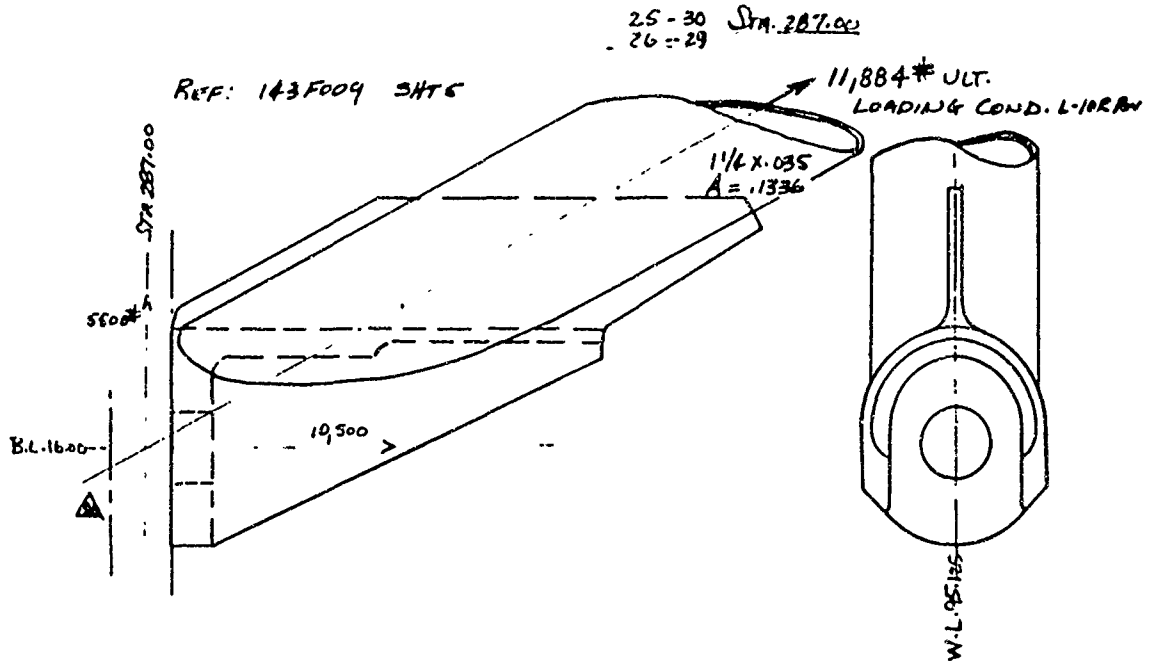
FITTING - MEMBERS 10-31 & 11-31 -15,834 L-16
ULTIMATE LOADS 8-28 & 9-28

10-31 -666 L-16 REV
 11-31 -15,834 " "

8-28 +10,503 Rect Key
 8-28 9-28 +1467 " "



FITTING - MEMBERS



GUSSET & WELD

$$t_g = .10 ; P_{tga} \approx .10(1.7)(180,000) = 30,600 \#$$

$$l_w = 2(2.0) + 2(1.8) = 7.6 \text{ IN.}$$

$$P_{w} = 7.6(.035)(80,000) = 21,280 \# \text{ IN GUSSET ALONE; ADD BUTT WELD.}$$

GUSSET & WELD OK.

BOIT: LWB22-B

$$F_{tu} = 220,000 \text{ psi}$$

$$P_t = 10,500 \#$$

$$M_{REQ.} \approx 1100 \text{ IN. LB}$$

$$P_s = 5500 \#$$

MOMENT IS COUPLED OUT IN .50 IN.

$$\Sigma P_t = 12,700 \#$$

$$\Delta P_t = 2200 \#$$

$$P_s = 5500 \#$$

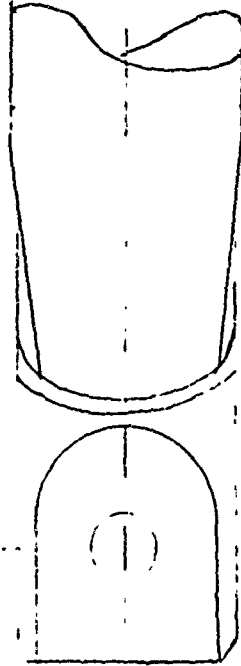
COMBINED LOADING:

$$P_{ca} = 32,175 \#$$

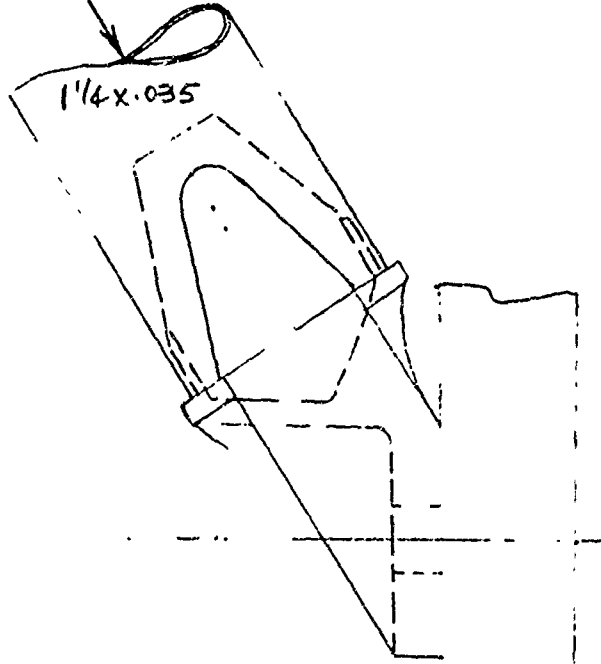
$$P_{ca} = 25,640 \#$$

FITTING - MEMBER 9-31, STA. 287.00

REF: 143F009 SHTS



1868 # U.L.T. LOAD COND. ROLL 4 REV.



WELD:

$$l_w = 4.0$$

$$P_{w} = 4.0 (.035) (80,000) = 11,200 \# \quad \text{FISHMOUTH ALONE.}$$

BOLT:

NAS 626-62

$F_{tu} = 180,000 \text{ psi}$

$$P_t = 1160 \#$$

$$P_s = 1600 \#$$

$$E P_t = 1672 \#$$

$$P_s = 1600 \#$$

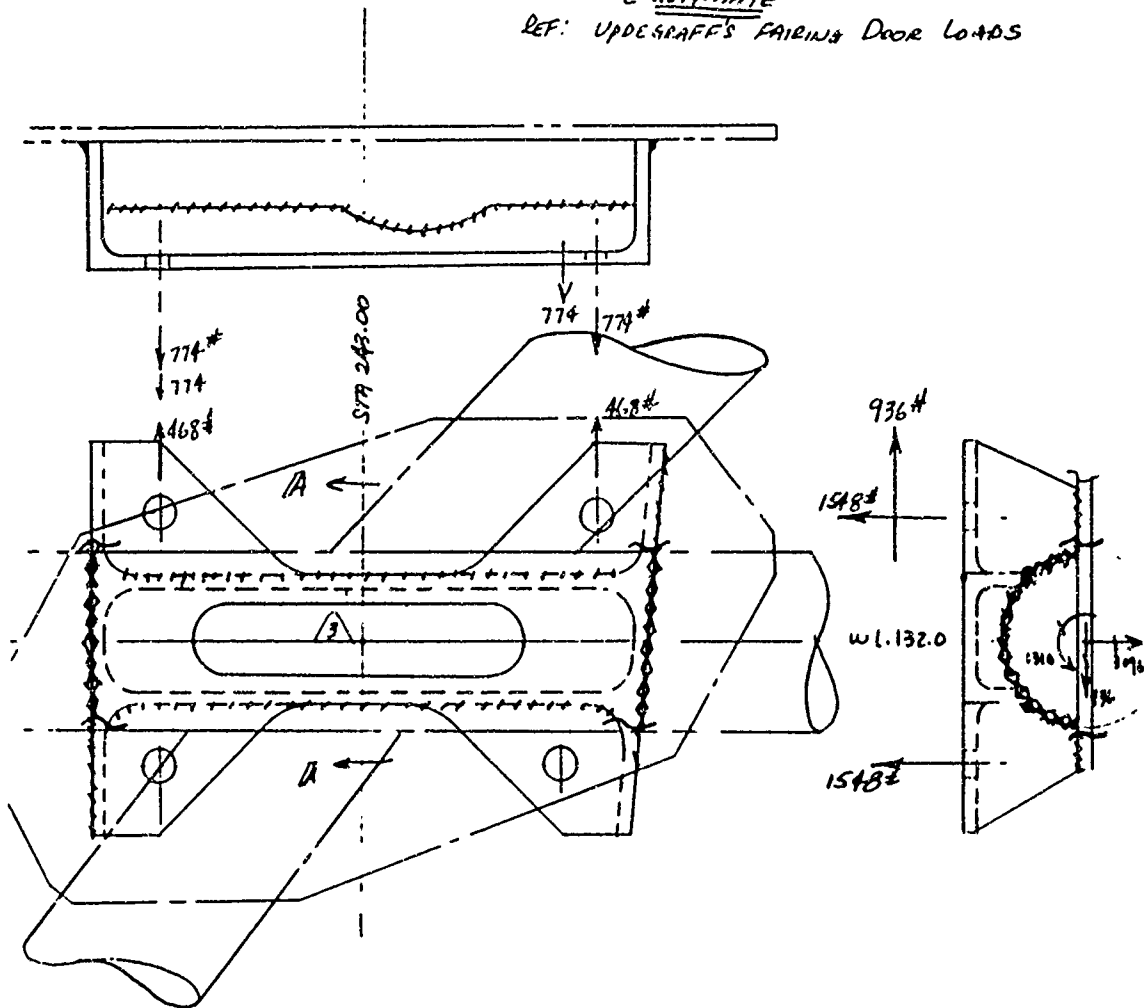
$$M_{FTG} = .16 (1600) = 256 \#$$

$$\text{COUPLE OUT OVER .50 IN } \therefore \Delta P_t = 512 \#$$

**FAIRING DOOR - TRUSS ATTACHMENT
FORWARD FOOTING**

REF 113F009 SH 6

LOADS ARE ULTIMATE
REF: UPDEGRAFF'S FAIRING DOOR LOADS



WELD: ASSUME EFF. ALONG CROSS-HATCHED MARKS ONLY.

FITTING END-TUBE WELD:

$$l = 2\pi \frac{D}{2} = 1.25\pi = 3.92 \text{ in.}$$

$$A_w = 3.92 (.035) = .137 \text{ in}^2$$

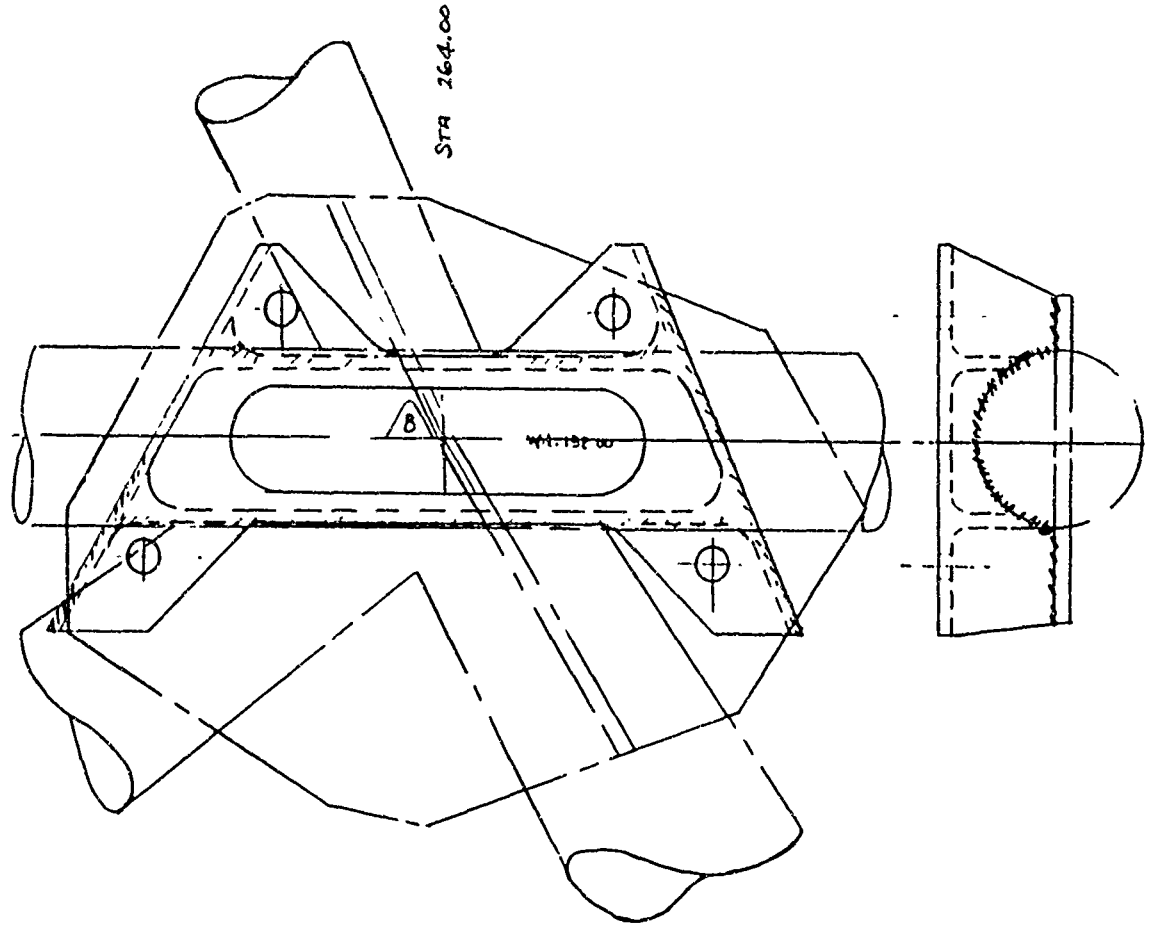
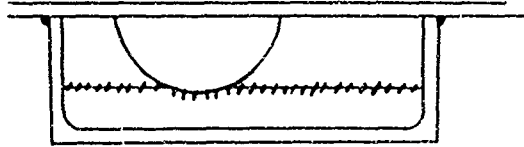
$$P_{tw} = .137 (80,000) = 10,990 \#$$

$$P = \frac{1310}{.62} + (3096^2 + 936^2)^{1/2} = 2114 + 3234 = 5348 \#$$

END WELDS ALONE SUFFICIENT FOR LOADING

FAIRING DOOR - TRUSS ATTACHMENT
AFT FOOTING

REF: 143 F009 SHY 6



XIII. PROPULSION SYSTEM SUPPORTS

PROPULSION SYSTEM SUPPORTS-CROSSOVER DUCTS

The crossover duct support structure is shown in Figure III and the support link end coordinates are given in the crossover duct and tailpipe support summary, along with maximum support link loads, allowables and margins of safety.

A sketch of the left hand crossover duct showing maximum applied gas loads and support reactions is shown. The duct is supported at three points, J, K and L. The support at J provides reactions along all three axes; the support at K provides vertical and xy plane reactions and the support at L provides a single xy plane reaction for a total of six reactions on the duct. The magnitude of these reactions was solved by a computer solution of the six equations of statics. The solutions are shown on the duct sketch. These reactions were then resolved into the duct support links, which resulted in the maximum link loads shown on the Summary Sheet.

Because of the similarity of the left hand and right hand crossover duct support points, the right hand duct is not shown. The right hand duct support points are M, N and R and are located on Figure III and in the Summary Table. Reactions on the right hand duct are the same as those shown on the left hand duct.

All link allowable loads are based on material properties at 600 degrees F. Crossover duct support links are solution heat treated and aged A-286 material.

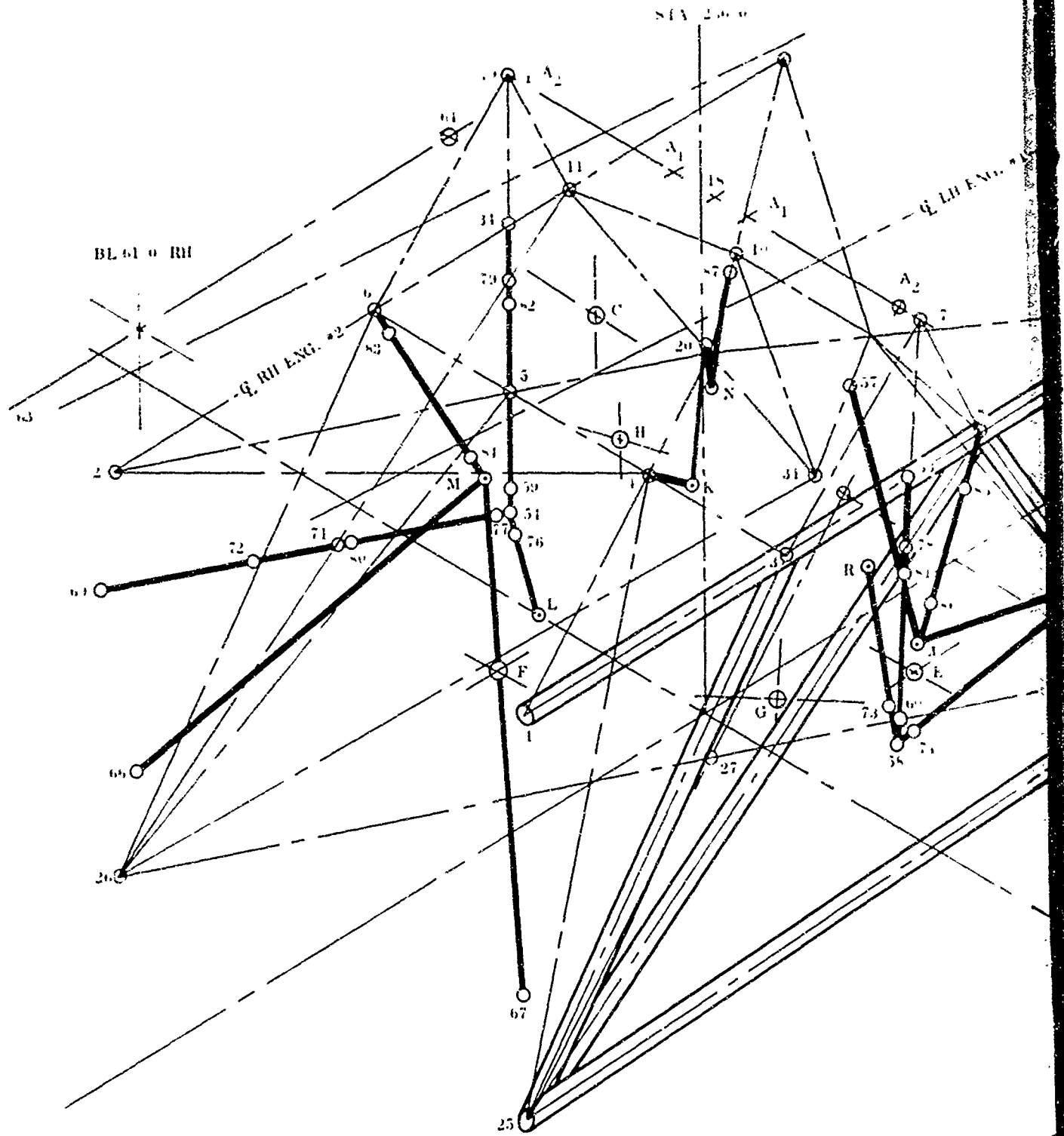


FIGURE III CRO

A

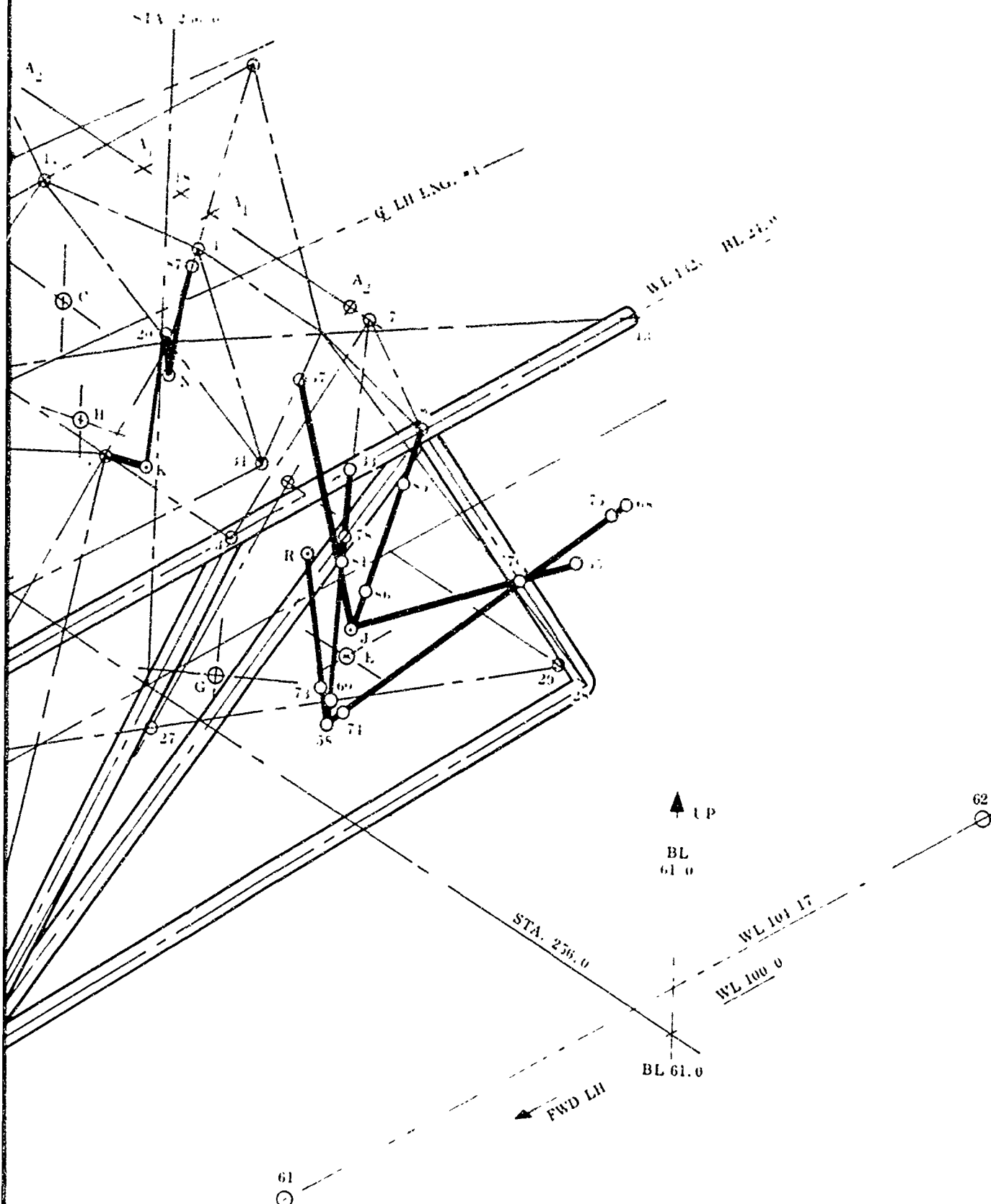
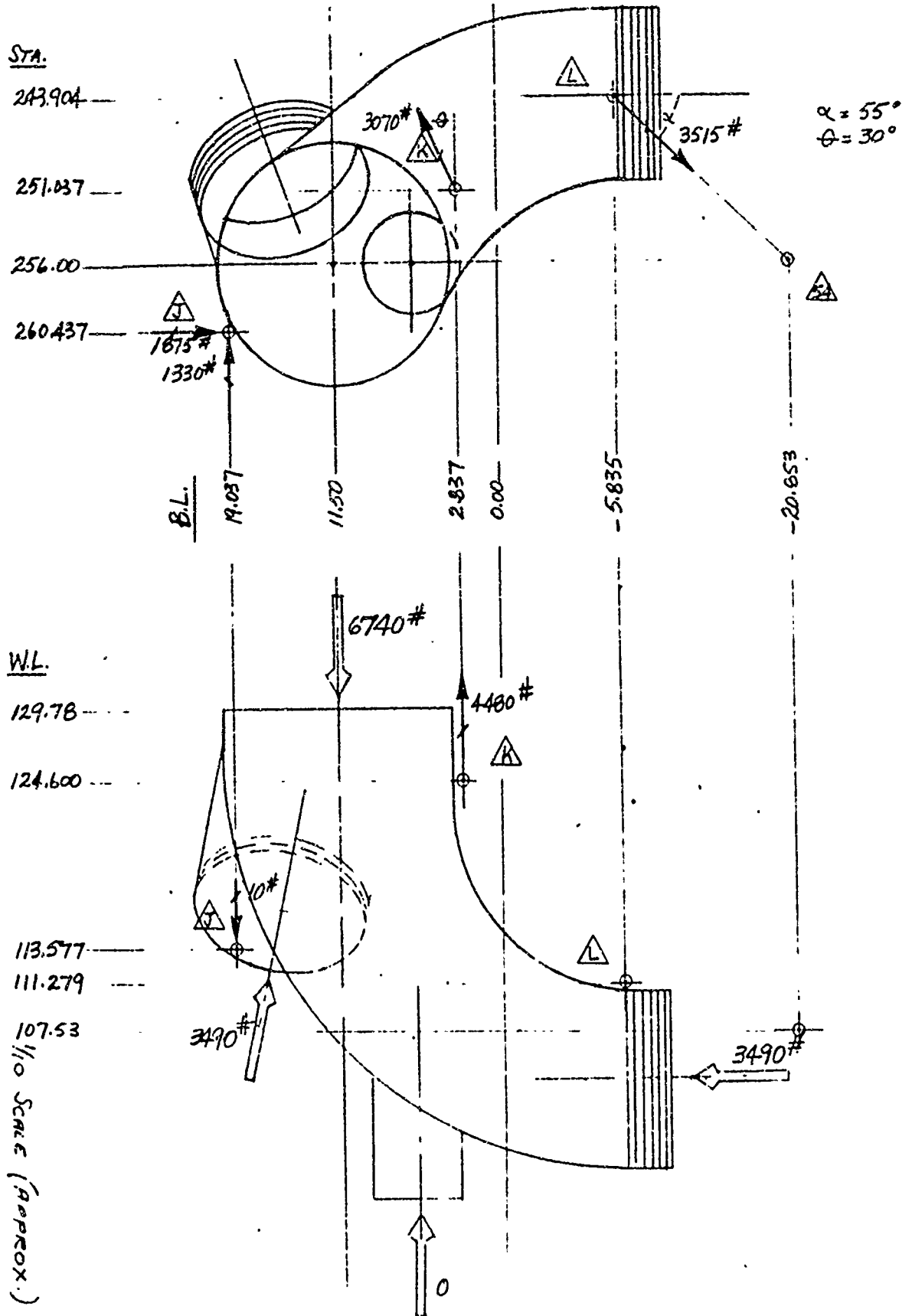


FIGURE III CROSSOVER DUCT SUPPORT STRUCTURE

B

CROSSOVER DUCT L. H. SIDE

LIMIT LOADS



LOCATION	MEMBER	FROM:			TO:			ΔX
		STA.	B.L.	W.L.	STA.	B.L.	W.L.	
L.H. CROSS-OVER DUCT	4-K	243.00	+7.07	132.00	251.037	+2.837	124.600	8.037
	8-J	264.00	+22.00	132.00	260.437	+19.037	113.577	3.563
	20-K	256.75	0	132.00	251.037	+2.837	124.600	5.713
	33-58	256.00	+22.567	132.00	256.00	+20.853	107.53	0
	55-J	287.00	+16.75	106.00	260.437	+19.037	113.577	26.567
	57-J	287.00	-10.00	106.00	↓	↓	↓	26.567
	58-68	256.00	+20.853	107.53	287.00	+22.50	113.70	31.00
	54-L	256.00	-20.853	107.53	243.904	-5.835	111.279	12.09
	58-78	256.00	+20.853	107.53	256.00	+21.70	126.20	0
	R.H. CROSS-OVER DUCT	6-M	243.00	-22.00	132.00	251.563	-19.037	113.577
10-N		267.00	-7.45	132.00	260.963	-2.837	124.600	6.037
20-N		256.75	0	132.00	↓	↓	↓	4.217
34-54		256.00	-22.567	132.00	256.00	-20.85	107.53	0
54-69		256.00	-20.853	107.53	214.00	-22.577	115.88	42.00
58-R		256.00	+20.853	107.53	260.096	+5.835	111.279	12.09
66-M		214.00	-20.20	103.50	251.563	-19.037	113.577	37.567
67-M		214.00	+22.00	103.50	↓	↓	↓	37.567
54-79		256.00	-20.853	107.53	256.00	-21.70	126.20	0
54-71		256.00	-20.853	107.53	235.95	-21.695	111.523	20.05
69-72	214.00	-22.577	115.88	228.00	-22.00	113.10	14.00	
TAILPIPE SUPPORT LINKS	FWD L.H.	SEE ENGINE - TAILPIPE LOADS ANALYSIS						2 G.F. 41
	R.H.	"	"	"	"	"	"	
	AFT L.H.	"	"	"	"	"	"	
	R.H.	"	"	"	"	"	"	
BELLOW SPANNING LINK	L.H.	"	"	"	"	"	"	
	R.H.	"	"	"	"	"	"	

A

CROSSOVER DUCT AND

To		Δx	Δy	Δz	MEMBER TRUE LENGTH	COLUMN LENGTH L'	MEMBER DESCRIPTION	P A	MAXIMUM TENSION LBS
B.L.	W.L.								
						C=1.0 BOTH ENDS			
+2837	124.600	8.037	4.233	7.40	11.72	11.72	3/4X.028	.0635	7779
+19.037	113.577	3.563	2.963	18.423	19.00	19.00	3/4X.022	.2575/.0503	—
+2.837	124.600	5.713	2.837	7.40	9.77	9.77	3/4X.022	.0503	2277
+20.853	107.53	0	1.714	24.47	24.53	24.53	3/4X.049	.2484/1079	8750
+19.037	113.577	26.563	2.287	7.577	27.72	27.72	1/4X.028	.3880/.0965	—
↓	↓	26.563	29.037	7.577	40.08	40.08	3/4X.022	.0503	4044
+22.50	113.70	31.00	1.647	6.17	31.65	31.65	1/4X.028		SEE W
-5.835	111.279	12.096	15.018	3.749	19.65	19.65	3/4X.028	.0635	5275
+21.70	126.20	0	.847	18.670	18.69	18.69	3/4X.049	.2484/1079	8750
-19.037	113.577	8.563	2.963	18.423	20.53	20.53	3/4X.022	.2575/.0503	—
-2.837	124.600	6.037	4.613	7.40	10.61	10.61	3/4X.028	.0635	7614
↓	↓	4.213	2.837	7.40	8.98	8.98	3/4X.022	.0503	1685
-20.85	107.53	0	1.717	24.47	24.53	24.53	3/4X.049	.2484/1079	8750
-22.577	115.88	42.00	1.724	8.35	42.85	42.85	3/4X.028		SEE W
+5.835	111.279	12.096	15.018	3.749	19.65	19.65	3/4X.028	.0635	5275
-19.037	113.577	37.563	1.163	10.077	38.91	37.00	1/4X.028	.4322/1075	—
↓	↓	37.563	41.037	10.077	56.54	56.54	3/4X.020	.0457	3545
-21.70	126.20	0	.847	18.67	18.69	18.69	3/4X.049	.2484/1079	8750
-21.695	111.523	20.05	.842	3.993	20.46	20.46			SEE W
-22.00	113.10	14.00	.577	2.78	14.28	14.28			SEE W
CASE ANALYSIS		2 G.E. UNIT LOADS SECT. VI			7.281	MATL 321	7/16X.035	.043	1170
"	"	"	"	"	7.281	321	7/16X.035	.043	1170
"	"	"	"	"	5.749	4130	5/16 Rod		975
"	"	"	"	"	5.749	4130	5/16 Rod		975
"	"	"	"	"	~ 9.25	321	7/16X.035	.043	2418
"	"	"	"	"	~ 9.25	321	7/16X.035	.043	2418

B

CROSSOVER DUCT AND TAILPIPE SUPPORT SUMMARY

MEMBER TRUE LENGTH	COLUMN LENGTH L'	MEMBER DESCRIPTION	ρ / A	MAXIMUM LOADS		ALLOWABLE LOADS		CRITICAL M.S.
				TENSION	COMPRESSION ULTIMATE	TENSION	COLUMN	
	C=1.0 BOTH ENDS					$F_u = 135 \text{ KSI}$	$E = 26(10)^6$	
11.72	11.72	3/4 X .028	.0635	7779	—	8572	—	+10
19.00	19.00	3/4 X .022	.2575 / .0503	—	-510	—	-2366	HIGH
9.77	9.77	3/4 X .022	.0503	2277	—	6790	—	HIGH
24.53	24.53	3/4 X .049	.2484 / .1079	8750	-1203	14,566	-2806	+66
27.72	27.72	1/4 X .028	.3880 / .0715	—	-4823	—	-5020	+04
40.08	40.08	3/4 X .022	.0503	4044	—	6790	—	+68
31.65	31.65	1/4 X .028		SEE WING REPORT No. 63B118				
19.65	19.65	3/4 X .028	.0635	5275	—	8572	—	+63
18.69	18.69	3/4 X .049	.2484 / .1079	8750	-1203	14,566	-4940	+66
20.53	20.53	3/4 X .022	.2575 / .0503	—	-470	—	-2030	HIGH
10.61	10.61	3/4 X .028	.0635	7614	—	8572	—	+13
8.98	8.98	3/4 X .022	.0503	1605	—	6790	—	HIGH
24.53	24.53	3/4 X .049	.2484 / .1079	8750	-1203	14,566	-2806	+66
42.85	42.85	3/4 X .028		SEE WING REPORT No. 63B118				
19.65	19.65	3/4 X .028	.0635	5275	—	8572	—	+63
38.91	37.00	1/4 X .028	.4322 / .1075	—	-4295	—	-4050	-06
56.54	56.54	3/4 X .020	.0457	3545	—	6170	—	+74
18.69	18.69	3/4 X .049	.2484 / .1079	8750	-1203	14,566	-4936	+63
20.46	20.46			SEE WING REPORT No. 63B118				
14.28	14.28			SEE WING REPORT No. 63B118				
7.281	MATL: 321	7/16 X .035	.0443	1170	—	2702	—	HIGH
7.281	321	7/16 X .035	.0443	1170	—	2702	—	HIGH
5.749	4130	5/16 Rod		975	—	5200	—	HIGH
5.749	N.T. 175 KSI 4130	5/16 Rod		975	—	5200	—	HIGH
~ 9.25	321	7/16 X .035	.0443	2418	—	2702	—	+12
~ 9.25	321	7/16 X .035	.0443	2418	—	2702	—	+12

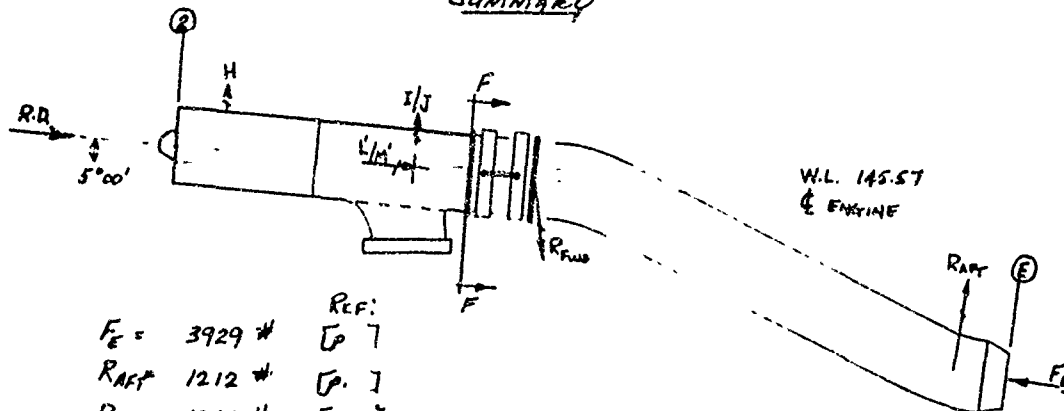
C

PROPULSION SYSTEM SUPPORTS, TAILPIPE

The engine-tailpipe assembly is analyzed for support structure loads due to thrust only for the critical operating conditions. External gas loads and support link reactions are located, computed and shown. Tailpipe link loads are summarized and compared with allowable loads in the crossover duct and tailpipe support summary of Section XIII A. Tailpipe forward support links and bellows spanning links are 321 material and the aft tailpipe support links are 4130 rods heat treated to 125 KSI minimum. Link allowable loads in the summary are based on material properties at 600 degrees F.

ENGINE TAILPIPE LOADS
THRUST ONLY - LIMIT LOADS

CRITICAL LOAD CONDITION : $M_0 = .8$; S.L. STD. DAY
Summary



	REF:
$F_e = 3929 \#$	[p.]
$R_{AFT} = 1212 \#$	[p.]
$R_{FWD} = 1366 \#$	[p.]
$(L+M)' = 3503 \#$	[p.]
$R.D. = 1559 \#$	[p.]

SOLUTION FOR $(L+M)'$ FOR COMPLETE ENGINE, T.P. SYSTEM

$$\sum F_x = .9962 (L+M)' + .1590 R_{FWD} + .1609 R_{AFT} - .9931 F_e = 0$$

$$.9962 (L+M)' = .9931 (3929) - .1590 (1366) - .1609 (1212)$$

$$.9962 (L+M)' = 3490$$

$$(L+M)' = 3503 \# \quad \text{CHECKS WITH VALUE FOR FREE BODY OF p. 6.}$$

$$\sum F_z = -.0872 R_D - .0872 (L+M)' - .9872 R_{FWD} + .9854 R_{AFT} + .1170 F_e$$

$$= -.0872 (1456) - .0872 (3701) - .9872 (1366) + .9854 (1212) + .1170 (3929) = 0 \quad \text{OK}$$

$$\sum M_{y @ 0} = M_{y EF} + 0 = 0 \quad [\text{REF: p.}]$$

THE TOTAL NET THRUST APPLIED TO THE A/E IS EQUAL TO THE THRUST COMPONENTS IN THE FWD AND AFT T.P. SUPPORT LINKS PLUS $(L+M)'$ MINUS R.D.

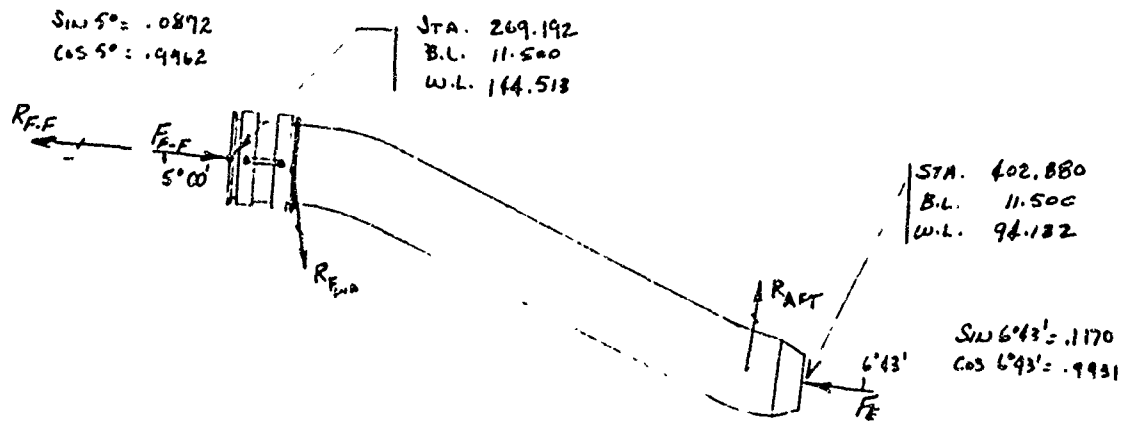
$$T_{X \text{ NET}} = .1590 (1366) + .1609 (1212) + .9962 (3503) - .9962 (1559) = 2349 \#$$

$$T_{E \text{ NET}} = \frac{T_{X \text{ NET}}}{.9962} = 2358 \#$$

CHECK: BY THE CLASSIC EQUATION $T_{\text{NET}} = M_E N_E - M_R N_0 + A_E P_{E_e}$

$$T_{X \text{ NET}} = 1.74 (1810) (.9931) - 1.74 (894) (.9962) + 113.04 (6.90) (.9931) = 2349 \# \quad \text{SEE T_{X \text{ NET}} ABOVE}$$

ENGINE-TAILPIPE LOADS



LINK	FROM (T.P)			TO (FUS)			ΔX	ΔY	ΔZ	TRUE LENGTH	DIRECTION COSINE		
	STA	B.L.	W.L.	STA	B.L.	W.L.					X	Y	Z
FWD	284.842	1.690 21.310	141.538	286.000	1.690 21.310	136.350	-1.158	0	+7.188	7.281	.1590	0	.9872
AFT	391.400	1.066 21.924	96.225	392.325	.746 22.244	101.890	-.925	.32	-5.165	5.749	.1609	*	.9854

* NOTE: ON EACH T.P. THE (R) AFT LINKS & CARBURY SIDE (Y) LOAD COMPONENTS EQUAL IN MAGNITUDE & OPPOSITE IN DIRECTION. $\sum F_y \text{ LINKS} = 0$

$$\begin{aligned} \textcircled{1} \quad \sum F_x &= .9962 F_{FF} + .1590 R_{FWD} + .1609 R_{AFT} - .9962 R_{FF} - .9931 F_E = 0 \\ \textcircled{2} \quad \sum F_z &= -.0872 F_{FF} - .9872 R_{FWD} + .9854 R_{AFT} + .0872 R_{FF} + .1170 F_E = 0 \\ \textcircled{3} \quad \sum M_{T.F.} &= 15.65(.9872) R_{FWD} - 2.975(.1590) R_{FWD} - 122.208(.9854) R_{AFT} - 48.288(.1609) R_{AFT} \\ &\quad + 50.331(.9931) F_E - 133.688(.1170) F_E = 0 \\ &= 14.9767 R_{FWD} - 128.1933 R_{AFT} + 34.3422 F_E = 0 \\ &= R_{FWD} - 8.5595 R_{AFT} + 2.2930 F_E = 0 \end{aligned}$$

ENGINE-TAILPIPE LOADS

$$\textcircled{1} \quad R_{FWD} = 6.2654 R_{FF} - 1.0119 R_{AFT} + 6.2459 F_E - 6.2654 F_{FF}$$

$$\textcircled{2} \quad -0.0872 F_{FF} - 6.1852 R_{FF} + 9.959 R_{AFT} - 6.1660 F_E + 6.1852 F_{FF} + 9.854 R_{AFT} \\ + 0.08716 R_{FF} + 1.1170 F_E = 0$$

$$-6.0980 R_{FF} - 6.0490 F_E + 1.9843 R_{AFT} + 6.0980 F_{FF} = 0$$

$$R_{AFT} = 3.0731 R_{FF} + 3.0484 F_E - 3.0731 F_{FF}$$

$$\textcircled{3} \quad 6.2654 R_{FF} - 1.0119 R_{AFT} + 6.2459 F_E - 6.2654 F_{FF} - 26.3042 R_{FF} - 26.0928 F_E \\ + 26.3042 F_{FF} + 2.2930 F_E = 0$$

$$-20.0388 R_{FF} - 3.1097 R_{AFT} - 3.0247 F_E + 3.1097 F_{FF} - 17.5539 F_E + 20.0388 F_{FF} = 0$$

$$-23.1485 R_{FF} - 20.6386 F_E + 23.1485 F_{FF} = 0$$

$$R_{FF} = F_{FF} - .8916 F_E$$

THE EQUATIONS FOR THE THREE UNKNOWN IN GENERAL TERMS ARE THEN:

$$\underline{R_{FF} = F_{FF} - .8916 F_E}$$

$$R_{AFT} = 3.0731 F_{FF} - 2.7400 F_E + 3.0484 F_E - 3.0731 F_{FF}$$

$$\underline{R_{AFT} = .3084 F_E}$$

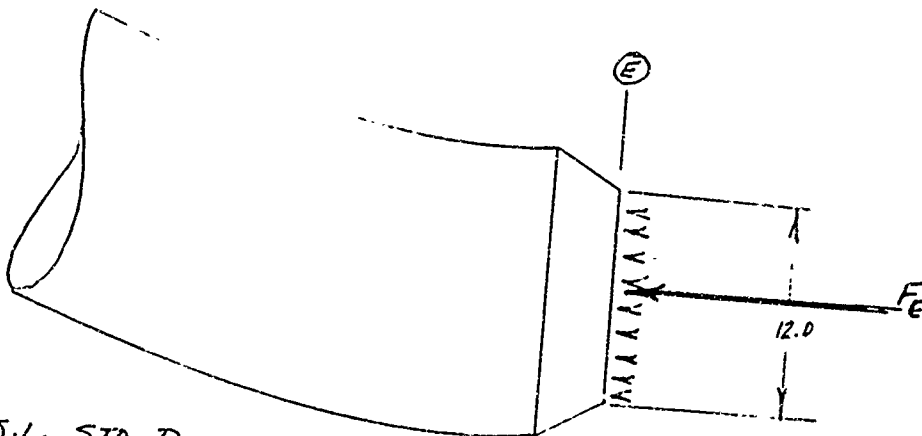
$$R_{FWD} = 6.2654 F_{FF} - 5.5862 F_E - .3121 F_E + 6.2459 F_E - 6.2654 F_{FF}$$

$$\underline{R_{FWD} = .3476 F_E}$$

ENGINE-TAILPIPE LOADS

LIMIT LOADS

TAIL PIPE EXIT



$M_0 = .8$; S.L. STD. DAY

$P_E = 21.6 \text{ psia} = 6.90 \text{ psig}$

$A_E = 113.04$

$W = 56.06 \text{ \#/SEC}$

$V_E = 1810 \text{ ft/SEC}$

REF: TSUNODA, 11/29/62

$F_E = P_E A_E + \frac{W V_E}{32.2} = 6.90(113.04) + \frac{56.06}{32.2}(1810) = \underline{\underline{3929 \#}}$

DIVERTER - FLEX SECT. FLANGE - SECTION F-F

$M_0 = .8$; S.L. STD. DAY

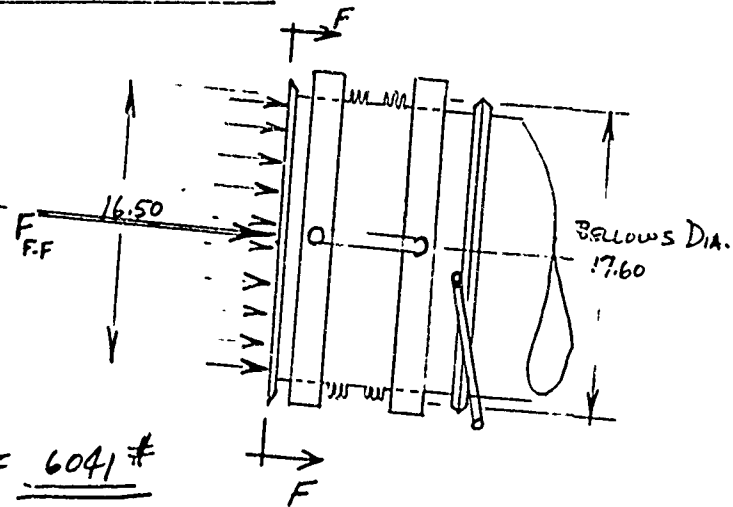
$P_{F.F} = 38.00 \text{ psia} = 23.30 \text{ psig}$

$A_{F.F} = 213.72$

$W = 56.06 \text{ \#/SEC}$

$V_{F.F} = 610 \text{ ft/SEC}$

REF: TSUNODA, 11/29/62



$F_{F.F} = 23.3(213.72) + \frac{56.06}{32.2}(610) = \underline{\underline{6041 \#}}$

ENGINE - TAILPIPE LOADS

LIMIT LOADS

For $F_E = 3929 \#$

$\$ F_{FF} = 6041 \#$

$R_{FE} = 2538 \#$ [TENS ACROSS DIVERTER - FLEX SECTION FLANGE]

$R_{FT} = 1212 \#$ [TENS] [IN TWO LINKS]

$R_{FWD} = 1366 \#$ [TENS] [IN TWO LINKS]

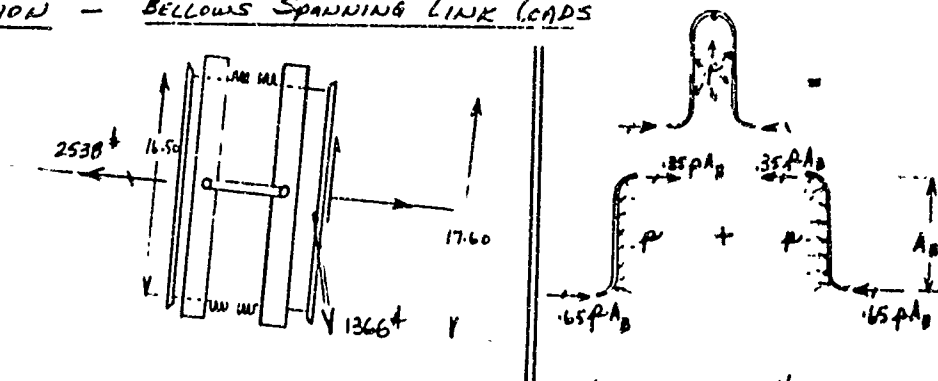
CHECK: ABOVE VALUES SUBSTITUTED INTO EQNS. OF P (2)

Eqn. ① $\Sigma F_x = 0$ ✓

" ② $\Sigma F_z = 0$ ✓

" ③ $\Sigma M_{FF} = +1 \ 20$ ✓

FLEX SECTION - BELLOWS SPANNING LINK LOADS



THE LINKS TRANSFER THE TAILPIPE AXIAL LOAD (P_{TP}) OF 2538# ACROSS THE BELLOWS. IN ADDITION THEY CARRY THE LOAD PRODUCED BY ACTION OF PRESSURE, IN THE AXIAL DIRECTION, ON THE BELLOWS NET PROJECTED AREA. THIS IS NORMALLY EQUAL TO APPROX. $.65 p A_B$ [SEE SKETCH] FOR DESIGN PURPOSES ASSUME BELLOWS LOAD IN LINKS EQUAL TO $p A_B$. GIVES CONSERVATIVE LINK DESIGN LOAD

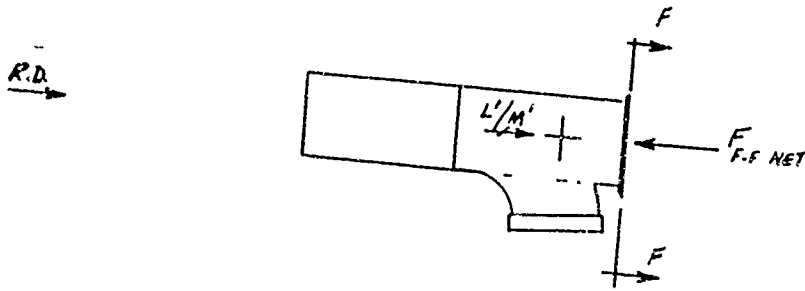
$$P_{EP} = P_{FF} (A_B) = 23.30 \left[.785(17.60)^2 - .785(16.50)^2 \right] = 685.99 \#$$

$$P_{E_{TP}} = 2538 \#$$

$$\Sigma P_L = 3224 \# \text{ [TENS] [IN TWO LINKS]}$$

ENGINE - TAILPIPE LOADS

LIMIT LOADS



R.D. = RAM DRAG ACTING AFT AHEAD OF THE ENGINE INLET. ASSUMED ACTING ON THE AIRCRAFT AT THE DUCT ENTRY ALONG THE ENGINE & IS NOT FELT ON THE ENGINE MOUNTS.

$$R.D. = M N_0^2 \quad \text{WHERE } M = \frac{W_2}{g} \quad \& \quad N_0 = N_{M_0} = .8 \quad ; \quad M_0 = .8, \text{ SIL. STD DAY}$$

$$W = 56.16 \text{ \#/SEC}$$

$$N_0 = .8 (1117) = 894 \text{ FT/SEC}$$

REF: TSUNODA 12/4/62

$$R.D. = \frac{56.16}{32.2} (894)^2 = 1559 \text{ \#}$$

$$F_{F.F. NET} = F_{F.F} - R_{F.F} = 6041 - 2538 = 3503 \text{ \#}$$

THIS IS THE TOTAL THRUST LOAD FELT AT THE ENGINE MOUNTS.

$$\therefore (L' + M') = 3503 \text{ \#}$$

$$\& \quad \underline{L' = M' = \frac{3503}{2} = 1752 \text{ \#}}$$

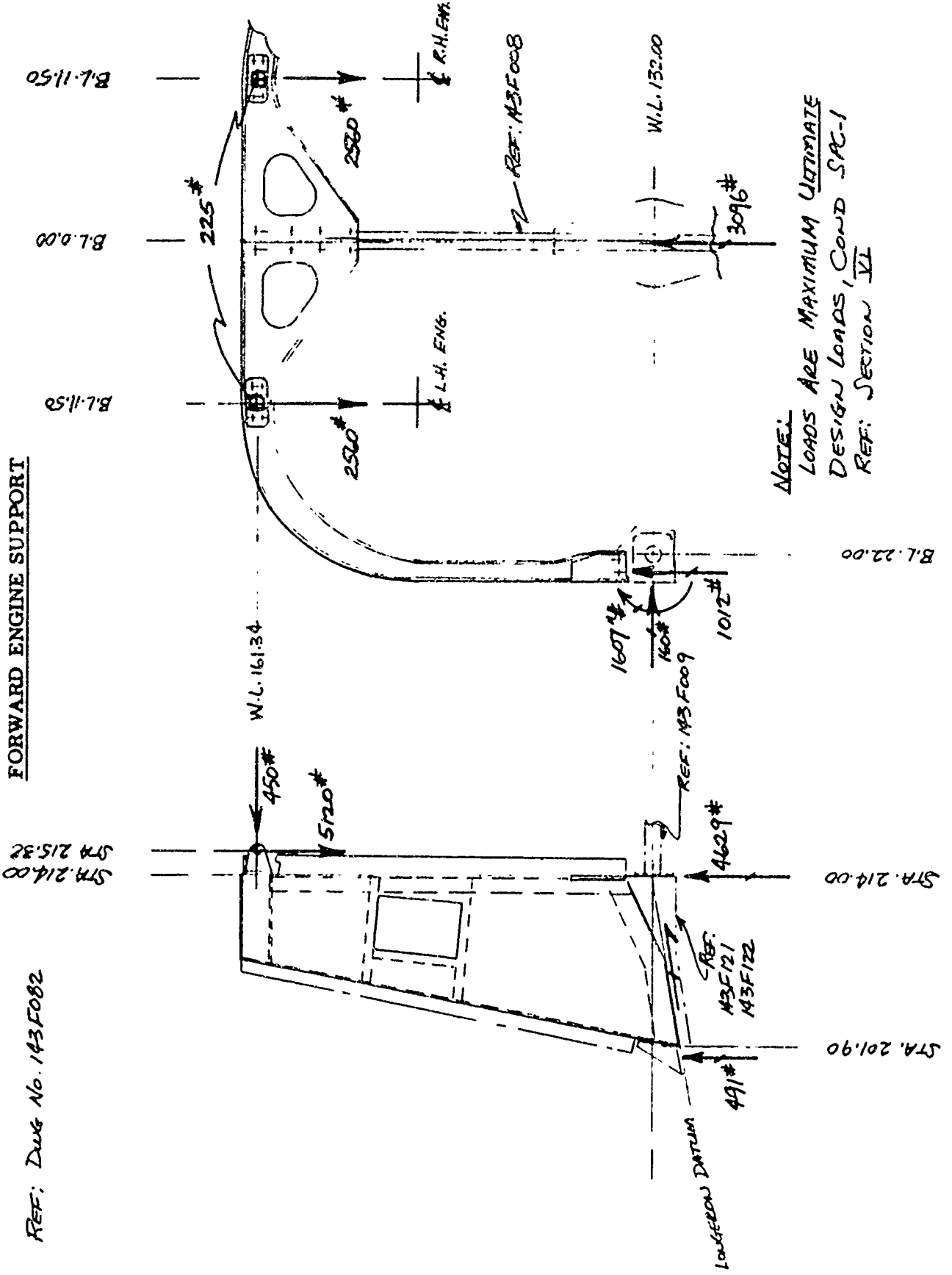
PROPULSION SYSTEM SUPPORTS-FORWARD ENGINE SUPPORT
AND ENGINE MOUNT FITTINGS

The forward engine support consists of a swinging link assembly mounted from an engine support frame at Fuselage Station 214.00. The frame is designed to bridge both engines with vertical supports at B. L. ± 24.00 and at the aircraft centerline. A sketch of the frame is shown with engine loads applied for the critical design loading condition. Reactions shown are the result of a preliminary analysis utilizing "Rigid Frame Formulas" by A. Klienlogel. In addition to the engine loads shown, the frame at Fuselage Station 214.00 also reacts air loads beamed to it by the removable engine compartment cover. Since these loads are generally of a relieving nature they are not shown in this report. A sketch of the engine support link is shown with critical design loads and reactions. Loads shown both on the frame and on the links are for the engine hot, maximum expanded condition.

The main engine support fittings are bolted to the main engine support structure described and analyzed in Section X of this report. Sketches of these fittings are shown with loads located and applied for two critical loading conditions. Load condition HSC-1P applies maximum forward loading. Condition HOVER 1 applies maximum vertical loading to both inboard and outboard fittings. These loads are also located for a hot engine in maximum expanded condition.

FORWARD ENGINE SUPPORT

REF: DWG No. 143F082

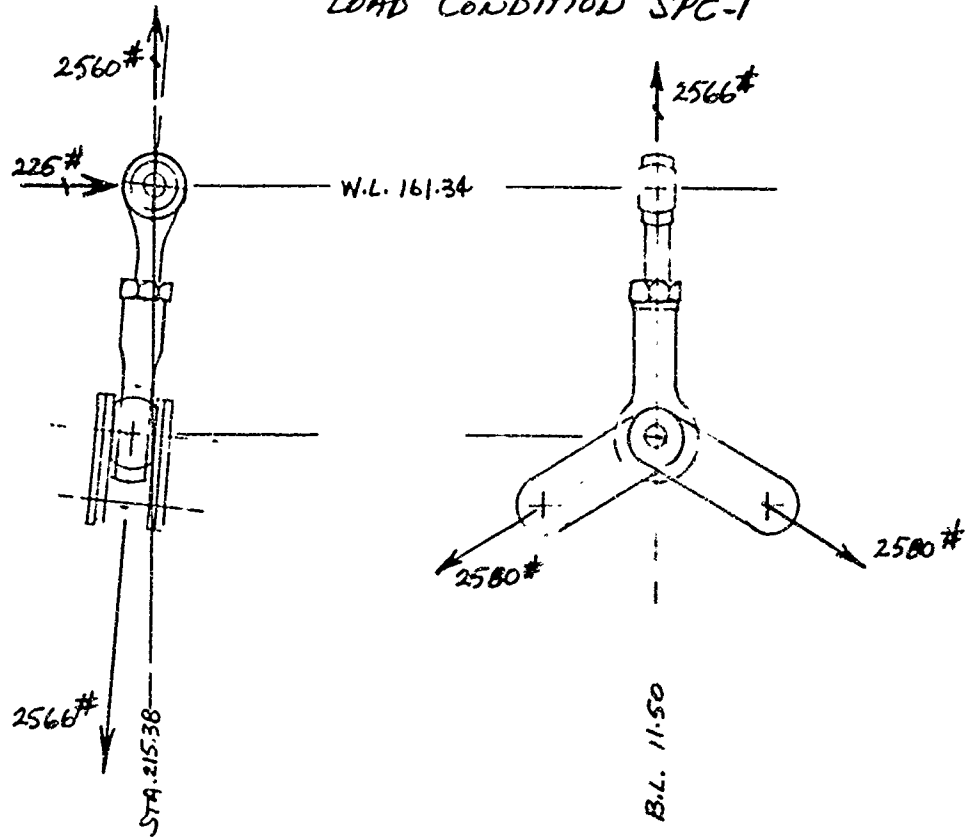


FORWARD ENGINE SUPPORT

FORWARD ENGINE MOUNT LINK

REF: DWG # 143P018

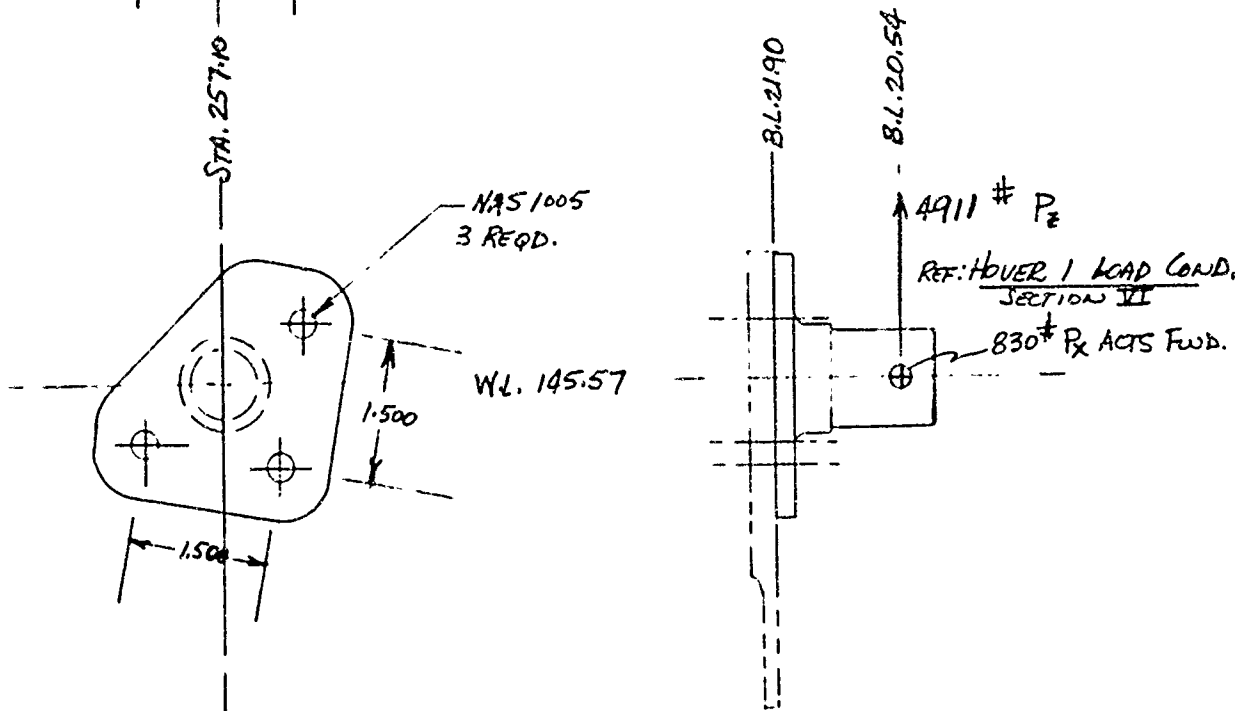
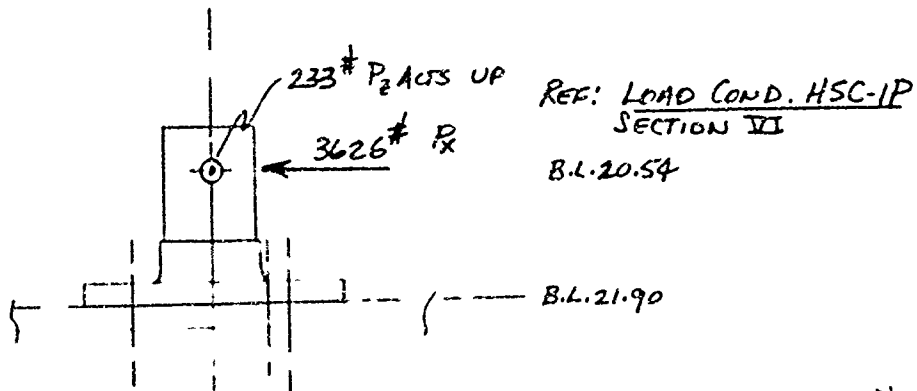
LOADS ARE ULTIMATE
LOAD CONDITION SPC-1



OUTBOARD FITTING - MAIN ENGINE SUPPORT

REF. DWG 143P005
143P009

ULTIMATE LOADS



INBOARD FITTING - MAIN ENGINE SUPPORT

REF: DWG. NO 143P005
143F009

ULTIMATE LOADS

