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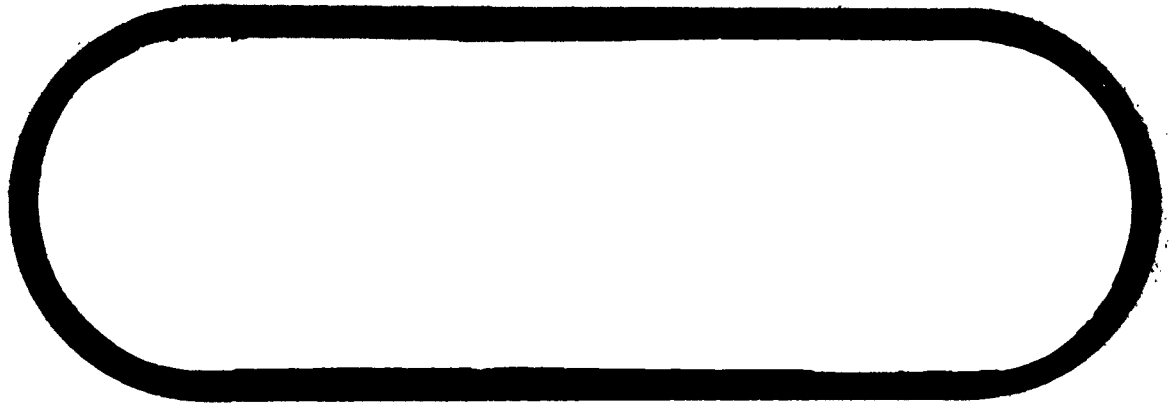


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TITLE QUALIFICATION TEST REPORT FOR DEFLECTORS, ROCKET MOTOR EXHAUST (S-153-1000-1-6, MCRON'S 6006, 6007, AND 6008 - WING I)

MODEL NO. WB-133A CONTRACT NO. AF04(647)-289

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QUALIFICATION TEST REPORT FOR DEFLECTORS,
ROCKET MOTOR EXHAUST (S-133-1000-1-6),
MRCN'S 6006, 6007 AND 6008 - WING I)

1. SCOPE - This qualification test report covers the testing performed to qualify the following types of Deflectors, Rocket Motor Exhaust, as required by Section 3. of Supplement I (D2-12295-2) to model specification S-133-1000-1-6. Certification of full compliance with the qualification requirements is included.

Type	Part Number
MXU-189/A37U-12	25-25876-1
MXU-204/A37U-12A	25-25876-2
MXU-187/A37U-12	25-25877-1
MXU-202/A37U-12A	25-25877-2
MXU-188/A37U-12	25-25878-1
MXU-203/A37U-12A	25-25878-2

2. APPLICABLE DOCUMENTS - The following documents and drawings, of the exact issue shown, form a part of this report to the extent specified herein.

THE BOEING COMPANY

Documents

	Date	Title
D2-11194	1 March 1963	Stress Analysis of Boeing Supplied Components of the Operation Missile
D2-12295-2	29 March 1963 Revision	Supplement I to Model Specification S-133-1000-1-6 - Qualification Requirements and Test Methods, Deflectors, Rocket Motor Exhaust
D2-12655	13 April 1962	Engineering Evaluation of Avcoat I

2. (continued)

	Date	Title
D2-14292	1 January 1963	Final Report - Temperature - Altitude, Humidity, and Installation and Handling Tests - Conduit Support Set Raceway (S-133-1000-1-7) and Conduit Support Set, Raceway (S-133-1006-2-2)
D2-14528	18 October 1962	Detail Test Procedures for Conduit Support Set, Raceway
T2-2957 (Classified)	1 January 1963	Base Heat Deflector Test Report
Drawings		
25-25876	7 March 1962	Deflector, Rocket Motor Exhaust
25-25877	8 March 1962	Deflector, Rocket Motor Exhaust
25-25878	18 December 1962	Deflector, Rocket Motor Exhaust

(Application for copies should be addressed to The Boeing Company, Aero-Space Division, P. O. Box 3985, Seattle 24, Washington.)

3. QUALIFICATION REQUIREMENTS - The qualification requirements for the Deflectors, Rocket Motor Exhaust are stated in Section 3. of Supplement I (D2-12295-2) to S-133-1000-1-6. The test results in Section 5. herein reference the applicable requirement paragraphs of the above noted Supplement I.

4. CONFIGURATIONS

4.1 The configurations of the articles qualification tested are defined in paragraph 3.2 of Supplement I to S-133-1000-1-6.

4.2 The configuration of the end items qualified is defined, for Wing I missiles, by the following drawing and part numbers:

Drawing Number	Part Number
25-25876	25-25876-1 25-25876-2

4.2 (continued)

Drawing Number	Part Number
25-25877	25-25877-1 25-25877-2
25-25878	25-25878-1 25-25878-2

5. QUALIFICATION TEST RESULTS

5.1 Structural Tests - The qualification articles were subjected to the testing described in T2-2957. Based on a review of the test results presented in T2-2957 and the stress analysis presented in D2-11194, the qualification articles are considered to have satisfied the requirement of paragraphs 3.4.1.1 and 4.1.1 of Supplement I to S-133-1000-1-6.

Further substantiation of the structural adequacy of the Deflectors, Rocket Motor Exhaust is provided by the fact that no failures have been reported on flight test missiles.

5.2 Heat Tests - The qualification articles were subjected to the testing described in T2-2957. Based on analysis of the test results presented therein, the qualification articles are considered to have satisfied the requirements of paragraphs 3.4.1.2 and 4.1.2 of Supplement I to S-133-1000-1-6.

Further substantiation that the insulation thicknesses on the Deflectors, Rocket Motor Exhaust, are satisfactory is provided by the fact that no failures have been reported on flight test missiles.

5.3 Temperature - Altitude - Because of the similarity of construction and fabrication methods of the avcoat insulated components of the Deflectors, Rocket Motor Exhaust to the Conduit Support Set Raceway, and the more critical non-operating environmental limitations of avcoat insulated components, the Deflectors, Rocket Motor Exhaust are considered to have satisfied the requirements of paragraphs 3.4.2.1, 3.4.2.2 and 4.2.1 of Supplement I to S-133-1000-1-6. D2-14528 and D2-14292 describe the temperature - altitude testing to which the Conduit Support Set Raceway was subjected.

5.4 Humidity Test - The Contractor has conducted humidity tests of Avcoat I insulation on aluminum alloy structure. The test procedures, configuration and results are given in D2-12655. Since the non-operating environmental limitations of avcoat insulated components are more critical than the other components making up the deflector assembly, these tests are considered directly applicable to the Deflectors, Rocket Motor Exhaust. Accordingly the Deflectors, Rocket Motor Exhaust are considered to have satisfied the requirement of paragraphs 3.4.2.3 and 4.2 of Supplement I to S-133-1000-1-6.

CERTIFICATION OF QUALIFICATION

I hereby certify that the Deflectors, Rocket Motor Exhaust, MRCN's 6006, 6007 and 6008 for Wing I, of the types and part numbers listed below, have been tested as reported herein, and in my opinion have evidenced full compliance with the Qualification Requirements of Section 3. of Supplement I dated March 29, 1963 (Rev.) to model specification S-133-1000-1-6, dated 1 May 1962 and Appendix III thereof, dated 18 June 1962.

<u>Types</u>	<u>MRCN</u>	<u>Part Number</u>
MXU-189/A37U-12	6007	25-25876-1
MXU-204/A37U-12A	6007	25-25876-2
MXU-187/A37U-12	6008	25-25877-1
MXU-202/A37U-12A	6008	25-25877-2
MXU-188/A37U-12	6006	25-25878-1
MXU-203/A37U-12A	6006	25-25878-2

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