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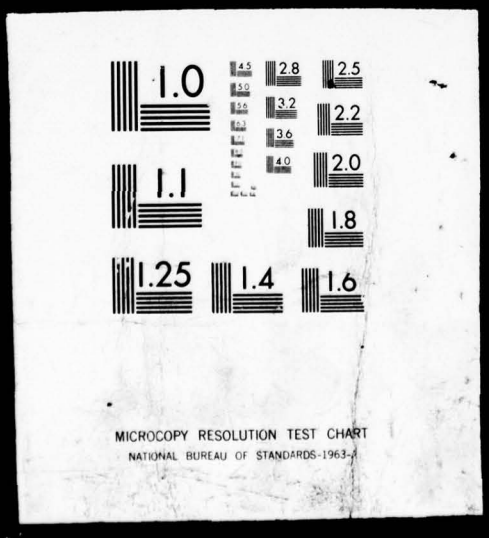
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Prepared for

PEARL HARBOR NAVAL SHIPYARD

Under Contract N00140-76-D-0813-0006 Task

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Revisions incorporating changes resulting from application experience of the FF-1052 Class Ship System Definition and Index (SSDI) (publication 1630-01-1-1389, April 1975) were made, along with revisions of the equipment- level code numbers in accordance with a newly issued Component Code Dictionary.

The SSDI is an orderly identification and structuring of the systems and sub-systems that make up a ship. In defining ship systems as well as their boundaries and interfaces, the SSDI provides a common language for communi-

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cont.
→ cating information about ship configurations and is thus useful to many naval activities involved in the operation, maintenance, modernization, and support of ships.



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SHIP SYSTEMS DEFINITION AND INDEX
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FOR FF-1052 CLASS SHIPS

August 1977

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ABBREVIATIONS

A.P.	–	After Perpendicular
APL	–	Allowance Parts List
ASROC	–	Anti-Submarine Rocket
ASW	–	Anti-Submarine Warfare
CDC	–	Component Dictionary Code
C.L.	–	Centerline
CNO	–	Chief of Naval Operations
COSAL	–	Coordinated Shipboard Allowance List
CPO	–	Chief Petty Officer
CSMP	–	Current Ship's Maintenance Project
DART	–	Detection, Action, Response Technique
DoD	–	Department of Defense
D.W.L.	–	Designer's Waterline
EIC	–	Equipment Identification Code
EOSS	–	Equipment Operational Sequencing System
FLT CINCS	–	Fleet Commanders-in-Chief
FMP	–	Fleet Modernization Program
F.P.	–	Forward Perpendicular
INSURV	–	Board of Inspection and Survey
MDCS	–	Maintenance Data Collection System
MOTU	–	*Mobile Technical Unit*
NAVAIR	–	Naval Air Systems Command
NAVELEX	–	Naval Electronics Systems Command
NAVPERS	–	Naval Personnel
NAVSEA	–	Naval Sea Systems Command
NAVSEC	–	Naval Ships Engineering Center
NAVSUP	–	Naval Supply
NMMFO	–	Navy Maintenance Management Field Office
NOSO	–	Naval Ordnance Support Office
PMS	–	Planned Maintenance System
POT&I	–	Preoverhaul Test and Inspection
ROH	–	Regular Overhaul
SECAS	–	Ship Equipment Configuration Accounting System
SSDI	–	Ship Systems Definition and Index
SWBS	–	Ship Work Breakdown Structure
SYSCOM	–	Systems Command
TYCOM	–	Type Commander

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1. INTRODUCTION

The Ship Systems Definition and Index (SSDI) is an orderly identification and structuring of the systems and subsystems that make up a ship. In defining ship systems as well as their boundaries and interfaces, the SSDI provides a common language for communicating information about ship configurations. The SSDI is thus useful to all naval activities involved in the life cycle operation, maintenance, modernization, and support of ships.

The SSDI presented herein is a revision of the FF-1052 Class SSDI* issued in October 1976. This revision incorporates changes to the coding identifications of systems, subsystems, and equipments to bring them into conformance with the current SWBS/SWABS/SECAS Staging Index for Surface Ships. The Staging Index, and its supporting Component Dictionary Code, is compatible with the Ships Work Breakdown Structure (SWBS) and the Ship Work Authorization Boundary (SWAB) descriptions.

This report discusses the general properties of SSDIs (Section 2); points out the many ways that SSDIs can be utilized by the various Navy activities (Section 3); provides general information on FF-1052 class ships (Section 4); and presents the SSDIs for the FF-1052 class (Section 5).

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*ARINC Research Corporation, Ship Systems Definition and Index (SWBS Staging Diagrams) for FF-1052 Class Ships, Publication 1804-01-1-1547, October 1976. Prepared for Pearl Harbor Naval Shipyard under Contract N00140-76-D-0813-0004.

2. PROPERTIES OF SSDI

The hierarchical concept on which the Ship Systems Definition and Index is based is illustrated in Figure 1. As can be seen, the SSDI is structured such that the summation of SSDI items at any level defines the total ship. An actual application of Figure 1, showing a typical ship breakdown from the major system to the sub-subsystem level, is presented in Figure 2.

As illustrated by Figures 1 and 2, the SSDI is structured to:

a. Provide a multi-level breakdown of the ship's configuration.

b. Completely define the ship at each level.

c. Contain no redundancies in its definition of the ship.

d. Utilize the Ships Work Breakdown Structure (SWBS). This provides a standard language based on the same nomenclature and coding system that is mandatory for use on a Navy-wide basis.

e. Utilize a standard Navy Staging Index for fourth-level identification codes and utilize a standard Navy Component Dictionary Code list (see Appendix A) for assigning fifth-level identification codes. The last two characters of the identifier are from this list, e.g., 2551M7.

f. Tailor the SWBS to the configuration of a specific ship class. The ship class diagrams can in turn be tailored to the configuration of each ship within the class.

Figure 3 extends a portion of Figure 2 to an additional level of detail to demonstrate the information provided in the SSDI. As shown, the following are identified:

a. System equipments

b. System boundaries

c. Shipboard maintenance work centers.

In some cases, notably for the more complex systems, the SSDI provides still further information in the form of line diagrams that depict:

a. Major hardware items within the system boundaries, and their interrelationships.

b. The verbal description shown on the system diagrams for selected SWBS-coded items. Those systems which are complex and interface with other complex systems are diagrammed as Figure 4 indicates.

c. The selected system's boundaries and interrelated SWBSs.

In a line diagram, solid lines within the system boundary denote equipments or components that are part of that particular system. Dashed lines show interfaces between those equipments/components and elements of other systems (see Figure 4).

Although some of the line diagrams show functional relationships, their specific purpose is to aid in the identification of ship systems. For that reason, the diagrams are greatly simplified from the actual configuration. For example, although there may be two or more identical forced-draft blowers in a combustion air system, only one is shown on the schematic (see Figure 4). This is because all blowers of the same type are part of the same system.

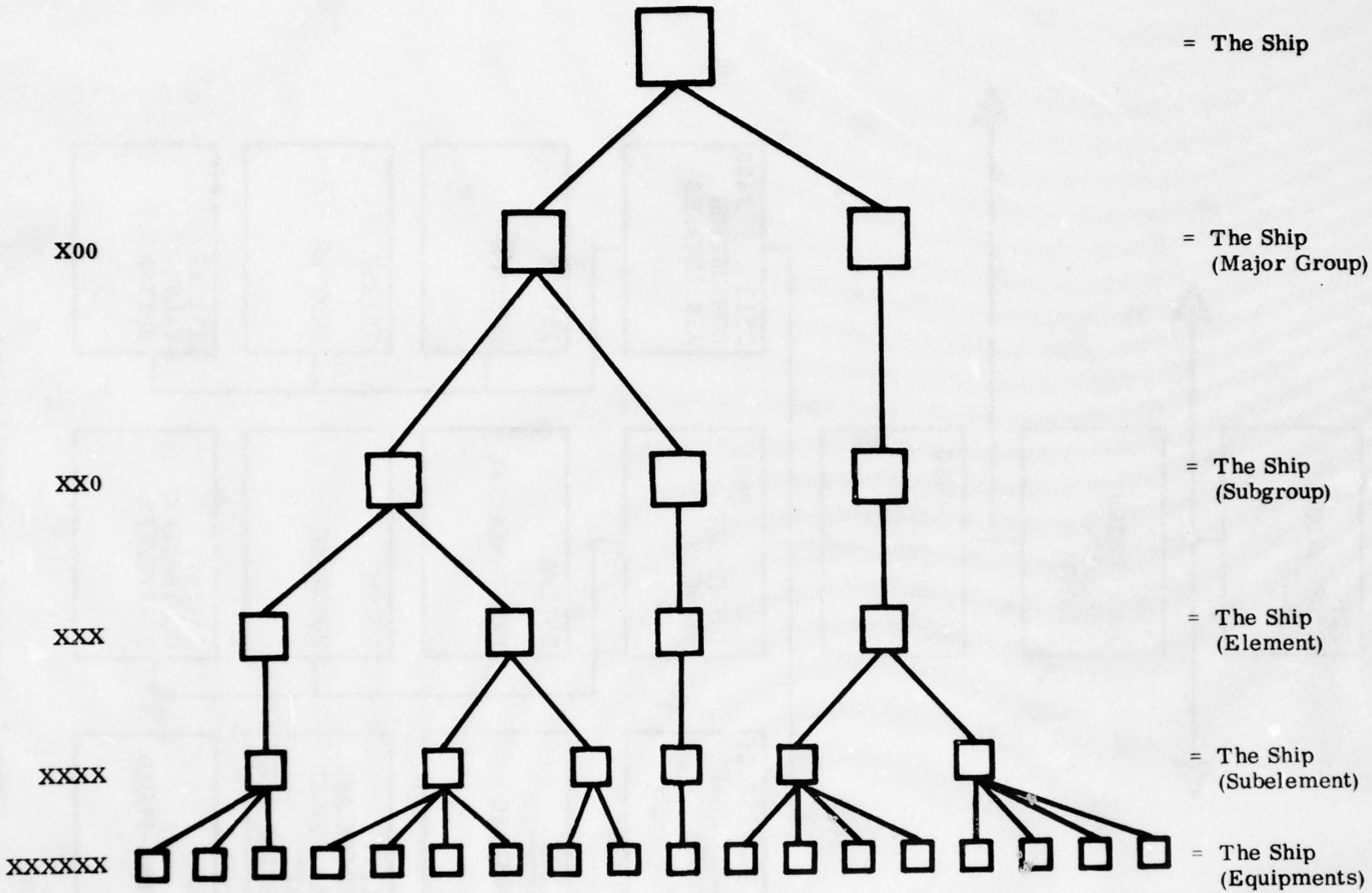


Figure 1. SSDI Concept

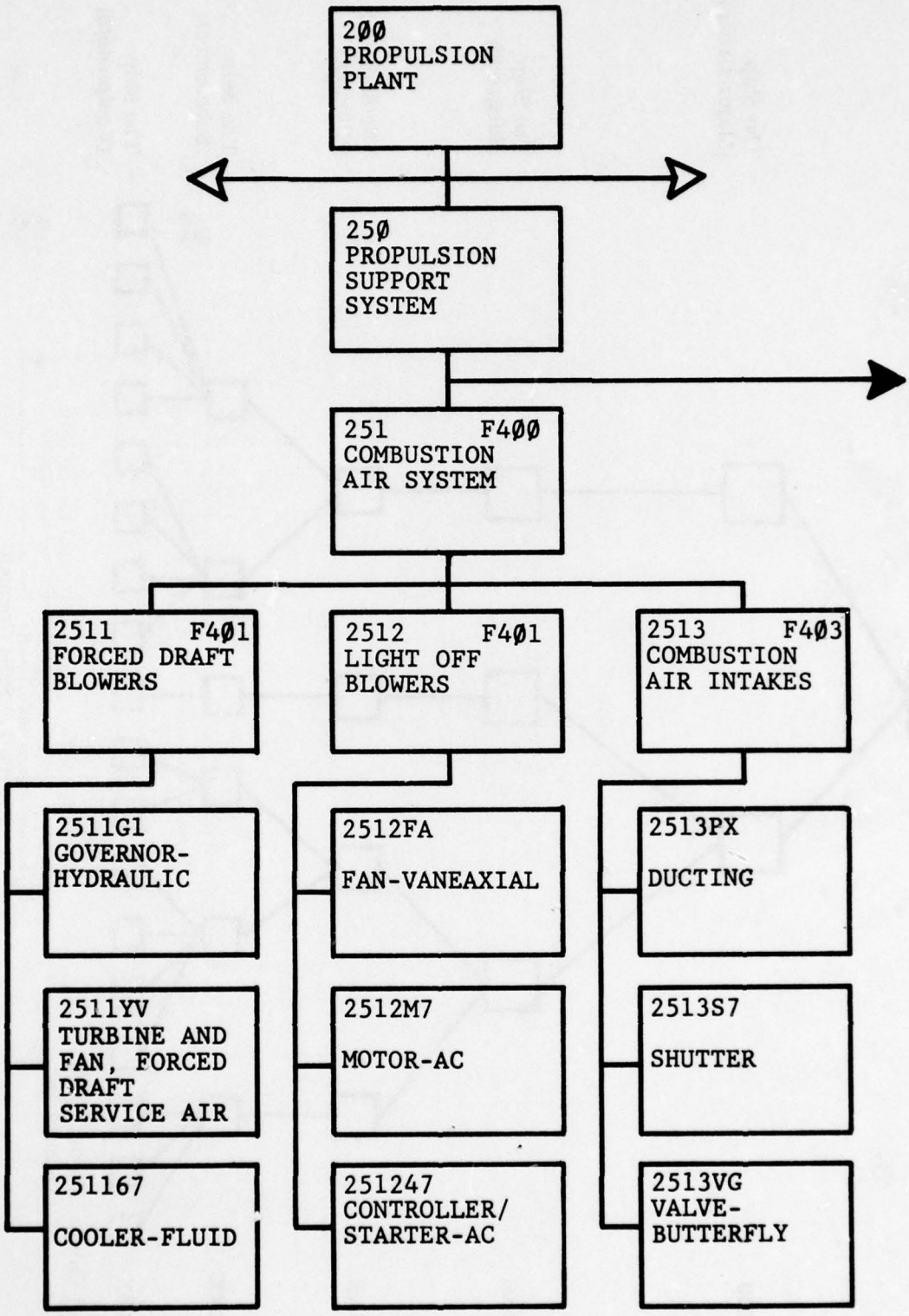


Figure 2. Portion of a Typical Ship's System

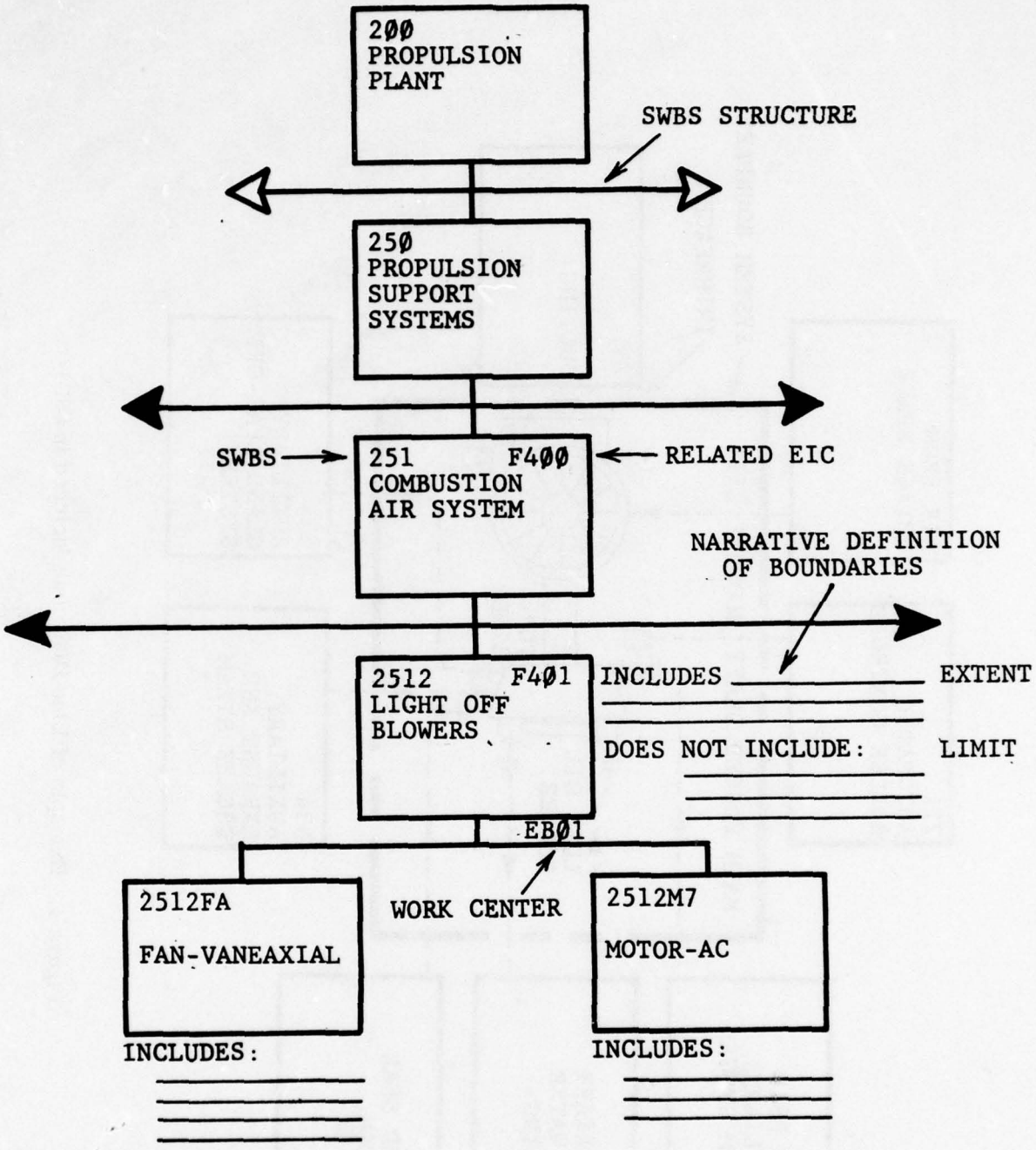


Figure 3. Example of System Diagrams Included in SSDI

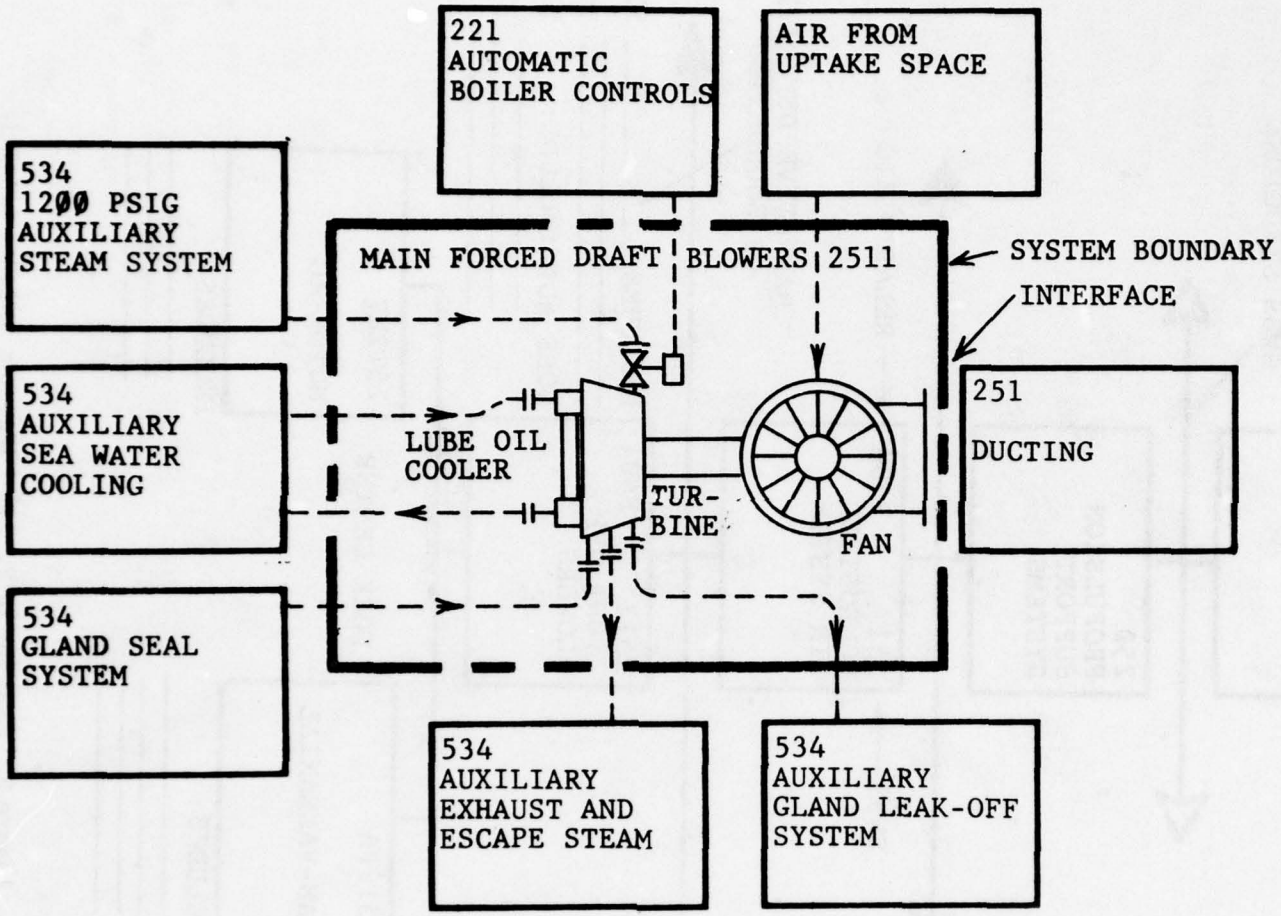


Figure 4. Example of Line Diagrams Included in SSDI

3. USES OF SSDI

Throughout a ship's life, ship's force personnel submit a vast amount of system, equipment, and parts information to their type commander and fleet support activities. Requests for alteration, reports of maintenance action, work requests, and parts requisitions are but a few examples. In each instance the submitted information must be related to a specific, definable portion of the ship.

In carrying out their responsibilities, the type commander and the support activities must not only identify a specific item within the total ship, but also be aware of its interfaces. In planning alterations or modifications, for example, the technical systems commands (NAVSEA, NAVELEX, NAVAIR) must be able to identify the various systems that will be affected by a particular change to a ship's configuration. Also, when preparing for overhaul or other availabilities, the type commander and repair activities must be able to organize a work package on the basis of specific as well as interrelated ship systems. This is done to ensure that the work package is completely and effectively defined.

Since so many activities are involved in supporting the ship, it is necessary that both ship and support personnel use a single, uniform language when communicating configuration information. The Ship Systems Definition and Index provides this common language by describing a specific ship in terms common to all ships of the fleet. Potential uses of the SSDI are outlined below.

3.1 SSDI SUPPORT TO SHIP'S FORCE

3.1.1 Maintenance

a. Serves as a checklist for planning and conducting inspection.

b. Provides the basis for comparing repair items with alterations.

c. Aids in establishing repair priorities.

d. Assists in identifying shipyard, intermediate maintenance activities, and ship's force interfaces.

e. Assists in making manpower assignments by ensuring that all systems of the ship are considered.

f. Aids ship's force in "buttoning up" all systems for post-repair testing.

g. Aids in alteration planning and analysis by showing possible interfaces in terms of various ship systems.

h. Aids in standardizing shipboard validation procedures.

i. Provides a means of identifying deficiencies in shipboard documentation such as the Coordinated Shipboard Allowance List (COSAL), Planned Maintenance System (PMS), etc.

j. Provides a capability for reducing duplication in validation programs.

k. Assists in identifying Equipment Identification Codes (EIC) necessary for Current Ship's Maintenance Project (CSMP) and Maintenance Data Collection System (MDCS).

l. Provides a standard language for maintenance documentation.

m. Provides a common set of system descriptions for the development of maintenance instructions (PMS) and operating instructions (Equipment Operational Sequencing System, EOSS).

3.1.2 Operation

a. Serves as a checklist for determining the completeness of EOSS coverage.

b. Provides a means of identifying interrelationships among operating systems.

c. Identifies the boundaries for system testing.

d. Provides a means of determining test equipment and support requirements.

3.1.3 Training

a. Provides a disciplined method for displaying a ship's configuration, thereby identifying training requirements from the equipment through the system level.

b. Supports training shipboard operation/maintenance personnel in ship systems and system interfaces.

3.2 SSDI SUPPORT TO OTHER NAVAL ACTIVITIES

3.2.1 PERAs/Shipyards/Industrial Activities

a. Defines ship systems for alteration and repair planning.

b. Provides a standard indexing language for:

- Ship Alteration and Repair Package (SARP)
- Specification preparation
- Cost estimating and progressing
- Drawing numbering

- Material identification and ordering

- Pre-Overhaul Test and Inspection (POT&I) planning and organization

- Management information systems.

c. Assists in determining priorities of work by displaying the affected equipment in relation to its system.

3.2.2 Ship Equipment Configuration Accounting System (SECAS)

a. Provides a standard structure for total shipboard validation.

b. Provides information for determining the desired level of validation.

3.2.3 Technical System Commands (NAVSEA, NAVELEX)

a. Aids in determining the SWBS identification of alterations for inclusion in shipalt records and subsequently in other Navy data bases.

b. Identifies ship systems such that the impact of alterations can be determined and decisions made concerning recommended priorities for inclusion in the Fleet Modernization Program (FMP).

c. Provides a means for ensuring that standard failure-data correlation and analysis is performed to the desired level.

3.2.4 Type Commanders (TYCOMs)

a. Aids in determining work priorities by displaying the affected equipment in relation to its system.

b. Identifies the system such that the impact of alterations can be determined and decisions made concerning recommended priorities for inclusion in the FMP.

c. Enables the TYCOM to properly identify and budget the system for repairs.

3.2.5 Naval Ships Engineering Center (NAVSEC)

a. Provides a vehicle for ensuring that standard failure-data correlation and analysis is performed to the desired level.

b. Defines the systems for design consideration and subsequent corrective measures such as the Detection, Action, Response Technique (DART) program.

c. Provides information for determining the required level of repair parts support requirements.

3.2.6 Fleet Support Activities

a. Identifies shipboard systems as an aid in determining personnel and material requirements in response to solving specific ship problems.

b. Serves as a tool for establishing required support capabilities (people and equipment).

4. GENERAL INFORMATION, FF-1052 CLASS

The data given in this section are generally applicable to the FF-1052 class. For individual ships of this class, consult the appropriate Ship's Information Book.

4.1 BASIS OF HULL MEASUREMENTS

The designers waterline (D.W.L.) is the waterline corresponding to the normal displacement and draft. This waterline is 14' 9" above and parallel to the molded base line, and is the draft datum line for showing heights of superstructure, rigging, etc., as authorized by NAVSEA. This datum line is measured from the bottom of the keel plate amidships, which is 1/4" below the molded base line.

The forward perpendicular (F.P.) is a vertical passing through the point where the designer's waterline and the forward side of the ship's stern intersect. The after perpendicular (A.P.) is a vertical passing through the point where the designer's waterline and the molded line of the ship's stern intersect.

4.2 *GENERAL DIMENSIONS AND CHARACTERISTICS*

Length, between perpendiculars	415' - 0"
Length, overall	438' - 0"
Breadth, extreme	46' - 7 1/4"
Draft above bottom of keel amidships (D.W.L.)	14' - 9 7/8"
Draft above lowest projection below keel (D.W.L.)	24' - 8 1/4"
Displacement to D.W.L. (salt water)	3,945 tons

4.3 HEIGHTS ABOVE D.W.L.

(D.W.L. 14' - 9" above molded base line)

Quadmast, including antenna No. 4-2	104' - 2 1/2"
C.L. of homing beacon	107' - 6 1/8"
C.L. of forward anchor light	44' - 0"
C.L. of masthead light	56' - 11 1/4"
C.L. of towing lights	
Upper	62' - 11 1/4"
Lower	50' - 11 1/4"
C.L. of sidelight (P/S)	33' - 0 3/4"
C.L. of blinker light (P/S)	72' - 7 1/2"
C.L. of range light	92' - 10"
C.L. of speed and aircraft warning lights (P/S)	118' - 1 5/8"
C.L. of ASW light	98' - 11 1/2"

C. L. of man overboard and breakdown lights (2) and ships task lights (3)	
Upper	118' - 7 3/8"
Middle	112' - 1 3/8"
Lower	105' - 7 3/8"
C. L. of aft anchor light	28' - 9"
C. L. of white stern light	19' - 9 7/16"
C. L. of blue stern light	18' - 5 7/16"
C. L. of wake light (P)	17' - 3' 5/16"
C. W. P. of rotating antenna No. 5-1	101' - 11 1/2"
C. W. P. of rotating antenna No. 5-2	81' - 4 1/2"
Underside of platform on quadmast	92' - 1 1/2"
06 level at top of billboard	67' - 1 1/2"
05 level at top of mack	58' - 1 1/2"
04 level in uptake space	49' - 1 1/2"
03 level at C. L. - aft FR 45	42' - 6 1/8"
03 level at C. L. - FR 54 (gun director platform)	44' - 11 1/2"
03 level in uptake space	40' - 1 1/2"
C. I. C. high hat	37' - 7 1/8"
02 level at C. L. - FR 45 1/2 (pilot house)	34' - 6 1/8"
02 level - FR 54 to 6" aft FR 69 (otbd C. I. C. high hat)	36' - 5 1/8"
02 level at C. L. - 6" aft FR 69	31' - 6 1/2"
02 level at C. L. - FR 93	30' - 9 1/2"
02 level at C. L. - FR 101 to FR 110	32' - 6 1/8"
02 level at C. L. - FR 110 (top of helo hangar)	35' - 10 1/2"
01 level at C. L. - FR 45 1/2 to FR 54	26' - 6 1/8"
01 level at C. L. - FR 54	24' - 6 1/8"
01 level at C. L. - FR 147	23' - 5 1/4"

4.4 SMALL BOATS

No.	Name	Each	Total
16	CO_2 Lifeboats	15	240
1	26' - 0" Personnel Boat	16	16
1	26' - 0" Motor Whaleboat	22	22
	TOTAL		278

4.5 BERTHING ACCOMMODATIONS

Berths		Lockers	
Officers	17	Type A	15
CPO	15	Type B	33
Crew	225	Peacoat	11
		CPO (Blue Uniform)	1
		CPO (Overcoat)	2

4.6 CAPACITY OF BOOMS AND CRANES

Boat Boom	3900 lb
Bathythermograph Boom	400 lb
ASROC and Torpedo Handling Boom	4000 lb
Mk 37 and EX 10 Torpedo Trolley Hoist - No. 2	4000 lb
Torpedo Magazine Crane - No. 1	1000 lb
ASROC Handling System	1500 lb

4.7 FRAME SPACING

Frames are numbered from 0 at the forward perpendicular to 166 at the after perpendicular. Frame spacing is 30" throughout.

Ships of the FF-1052 class are longitudinal framed vessels. Transverse framing does not exist at each frame numbered location. Transverse webs are spaced approximately every three frames between Frame 18 and the stern, and every two frames forward of Frame 18.

Part frames in the forward overhang are designated as "A", "B", "C", "D", "E", "F", and "G".

4.8 TANK CAPACITIES AT FULL LOAD CONDITIONS FOR FF-1052 - 1077

Tank	Gallons	Tons
a. Potable Water		
5-107-1-W	1,775	6.59
5-107-2-W	1,773	6.59
5-114-1-W	3,277	12.17
5-114-2-W	3,277	12.17
Total	10,104	37.52
b. Reserve Feed Water		
3-92-1-W	2,351	8.73
3-92-2-W	2,351	8.73
5-107-0-W	3,280	12.18
5-110-0-W	3,622	13.45
Total	11,604	43.09
c. Lube Oil		
5-101-1-F	1,078	3.70
5-104-3-F	1,034	3.55
Total	2,112	7.25

Tank	Gallons	Tons
d. JP-5		
5-125-0-J	12,797	38.79
5-137-0-J	13,661	41.41
Service Tank	1,000	3.03
Total	27,458	83.23
e. Fuel Oil		
(1) Storage		
5-29-1-E	4,871	17.15
5-29-2-F	4,871	17.15
5-41-1-F	15,856	55.83
5-41-2-F	15,856	55.83
5-48-1-F	15,819	55.70
5-48-2-F	15,819	55.70
5-54-1-F	20,888	73.55
5-54-2-F	20,888	73.55
5-61-1-F	10,724	37.76
5-61-2-F	10,724	37.76
5-121-1-F	6,558	23.09
5-121-4-F	5,430	19.12
5-126-1-F	6,168	21.72
5-126-2-F	6,168	21.72
5-132-1-F	7,231	25.46
5-132-2-F	7,231	25.46
5-150-0-F	8,219	28.94
Total	183,321	645.49
(2) Service		
4-76-0-F	12,320	43.38
5-61-0-F	18,503	65.15
Total	30,823	108.53
Total Fuel Oil	214,144	754.02

5. SSDI FOR FF-1052 CLASS SHIPS

5.1 SSDI INDEX

The SSDI for FF-1052 class ships is presented on the following pages, in the indicated order.

Index Diagrams	Page
Overall	21
100 - Hull Structure	22
200 - Propulsion Plant	23
300 - Electric Plant	24
400 - Command and Surveillance	25
500 - Auxiliary Systems	26
600 - Outfit and Furnishings	27
700 - Armament	28
800 - Integration/Engineering	29
900 - Support Services	30
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600 - Outfit and Furnishings	197
700 - Armament	223
800 - Integration/Engineering	237
900 - Support Services	243

The Legend of Symbols applies to the system diagrams that accompany certain of the index diagrams.

5.2 GENERAL COMMENTS

The following general comments apply to the FF-1052 class SSDI.

a. This SSDI is structured to encompass the entire FF-1052 class, i.e., all identified combinations of systems and equipments have been included. Individual ships will not necessarily have all identified components because of such factors as ship alterations that have/have not been accomplished, variations due to construction differences, etc.

b. In each SWBS group, elements X01 through X09 are used for general requirements, and element X98 for operating liquids. These non-hardware elements are indicated by dashed blocks.

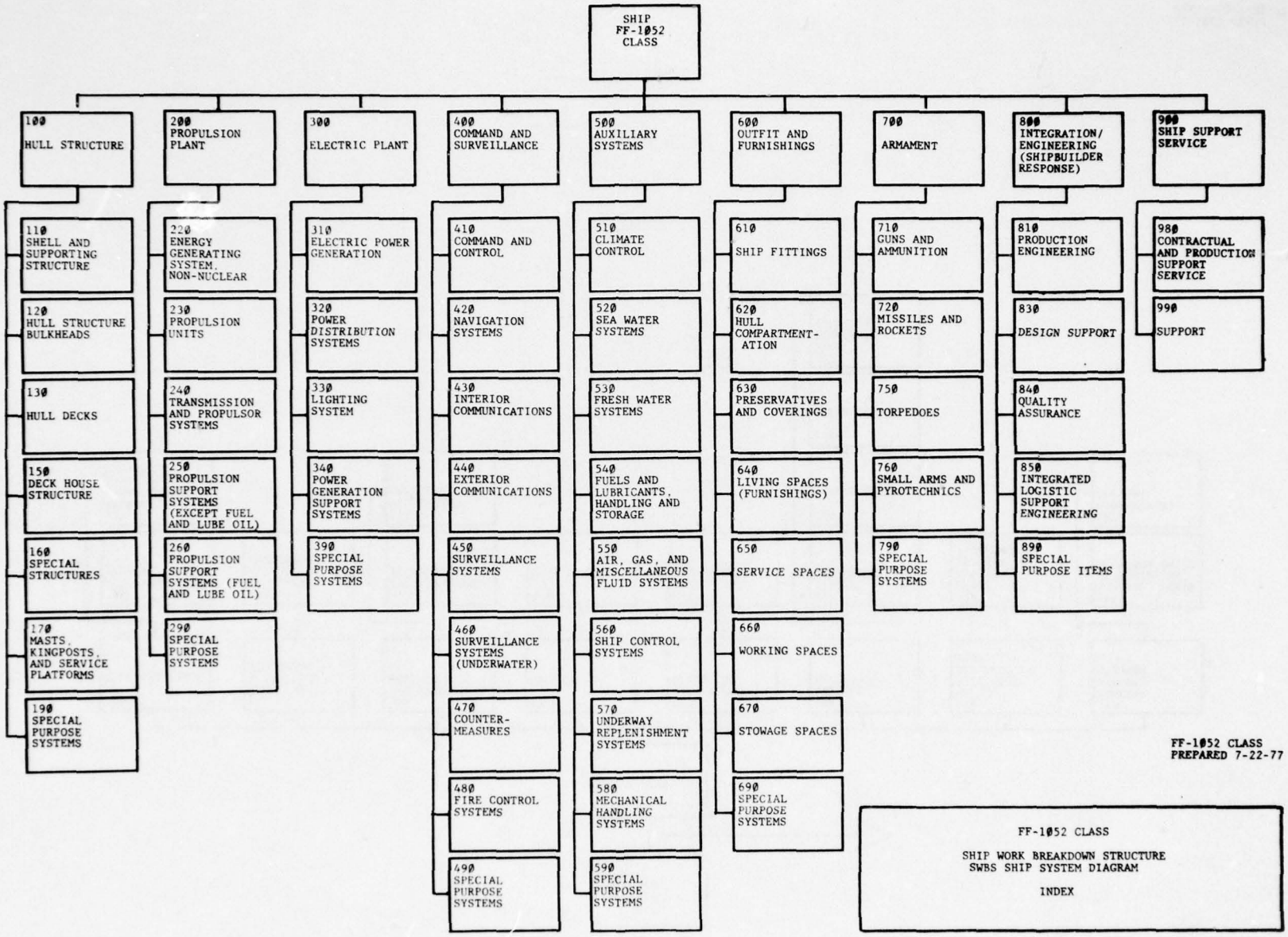
c. To maintain continuity of having equipments/components at the fifth level, some element titles are repeated at the fourth and fifth levels and appropriately numbered, e.g., element 163.

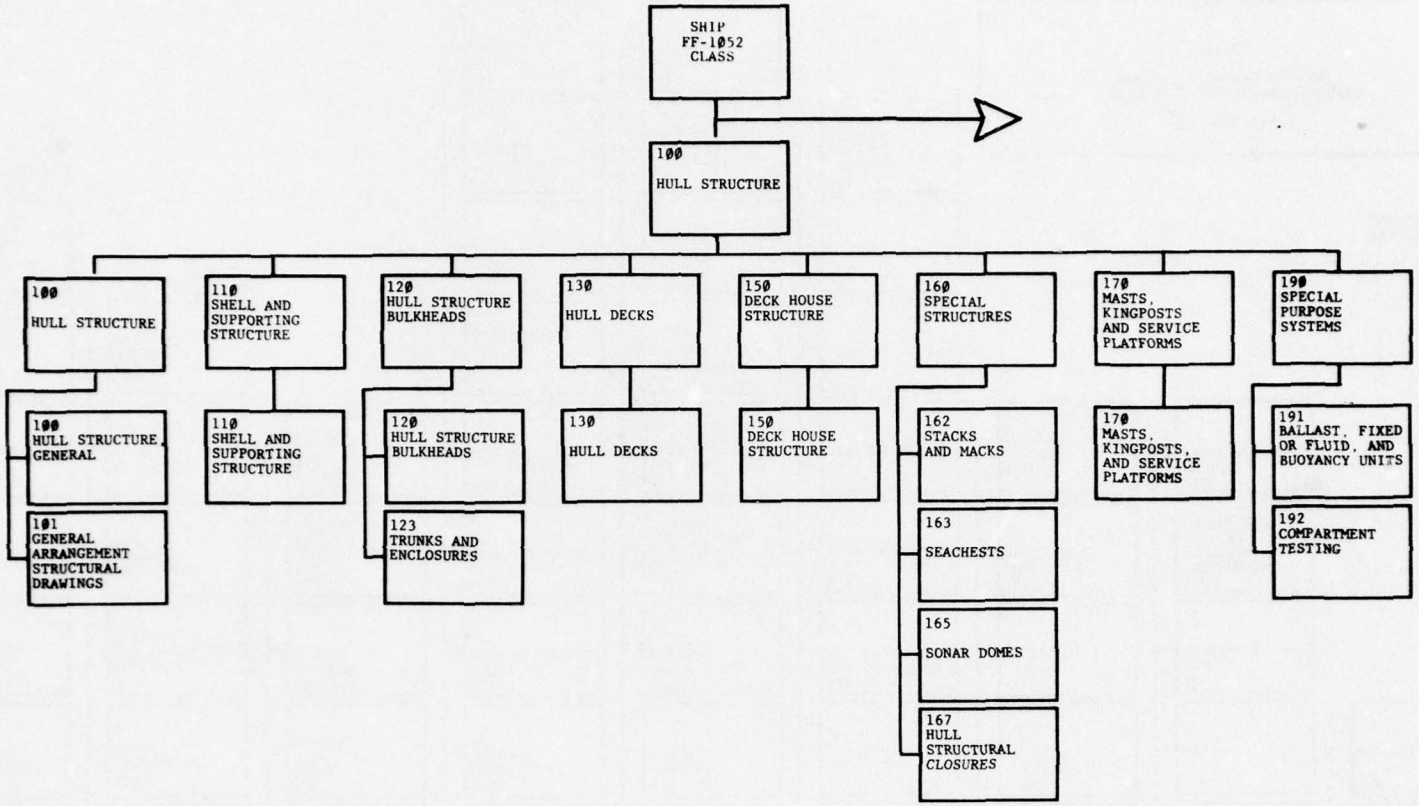
d. The term "With System", or "W.S.", indicates that the item is coded with the system of which it is a part or which it serves.

e. EIC cross-references are entered only in blocks with a direct cross-reference, i.e., same system, subsystem, and/or equipment as a SWBS classification.

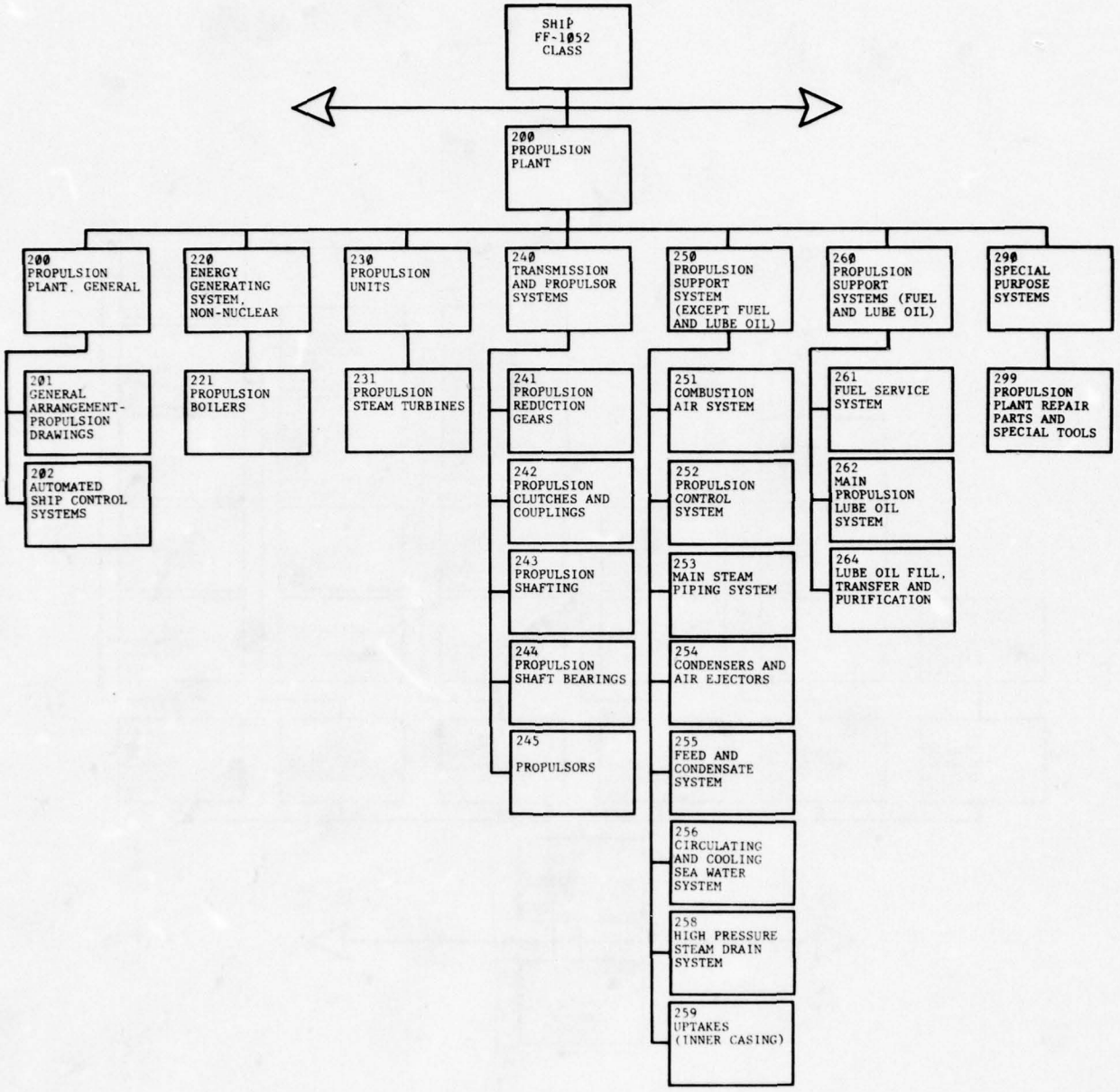
f. Work center assignments are representative. Use of the SSDI for specific ships of the class will require verification of applicable work centers.

SHIP SYSTEMS DEFINITION AND INDEX
FOR FF-1052 CLASS SHIPS

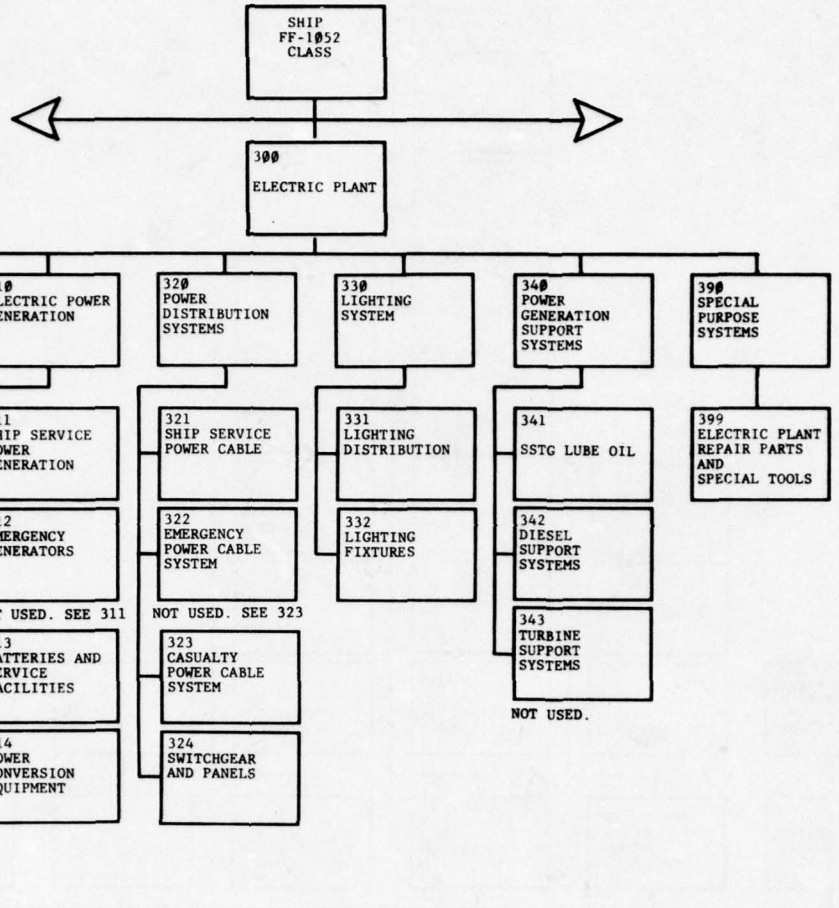

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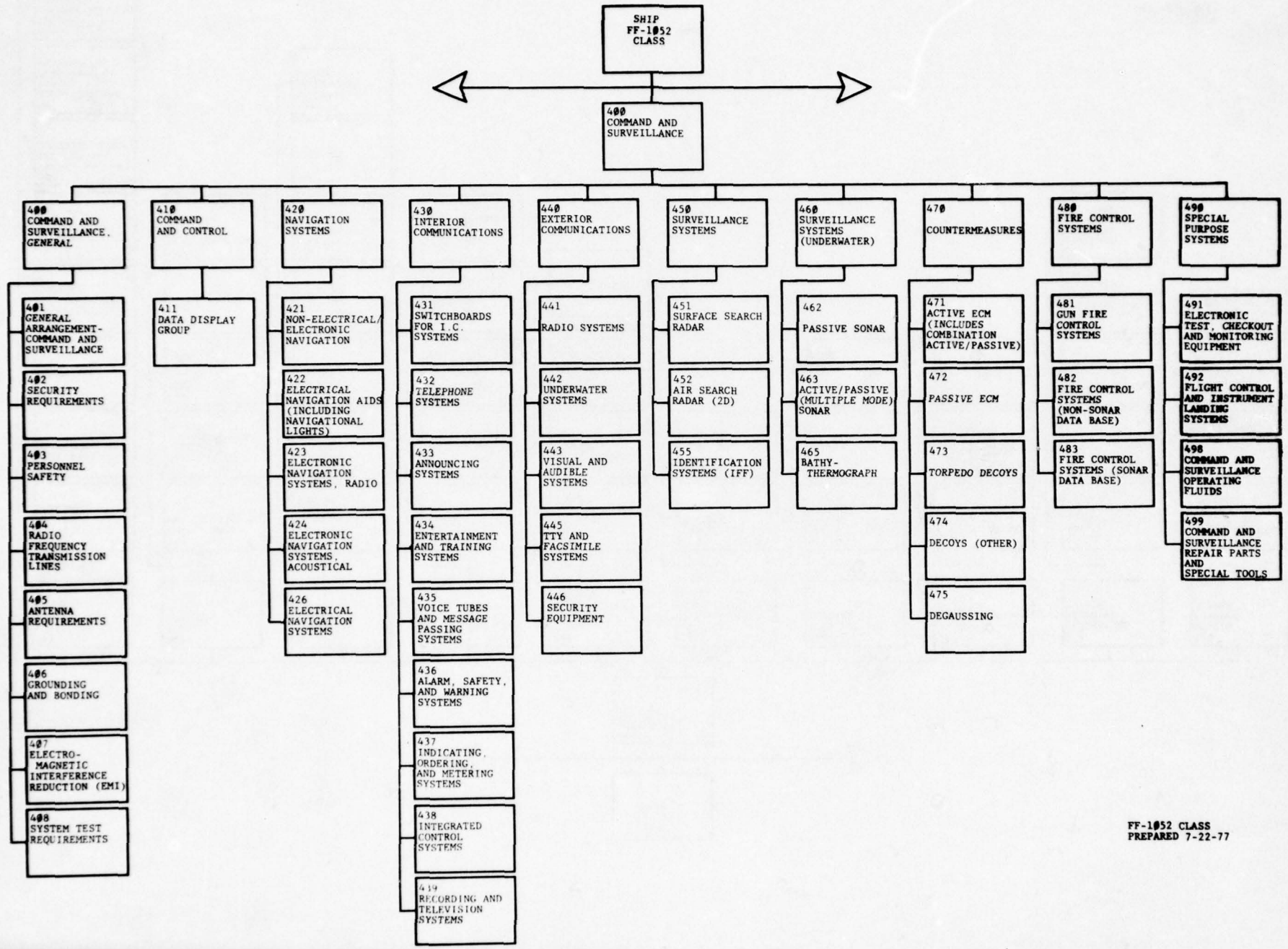
FF-1052 CLASS
PREPARED 7-22-77



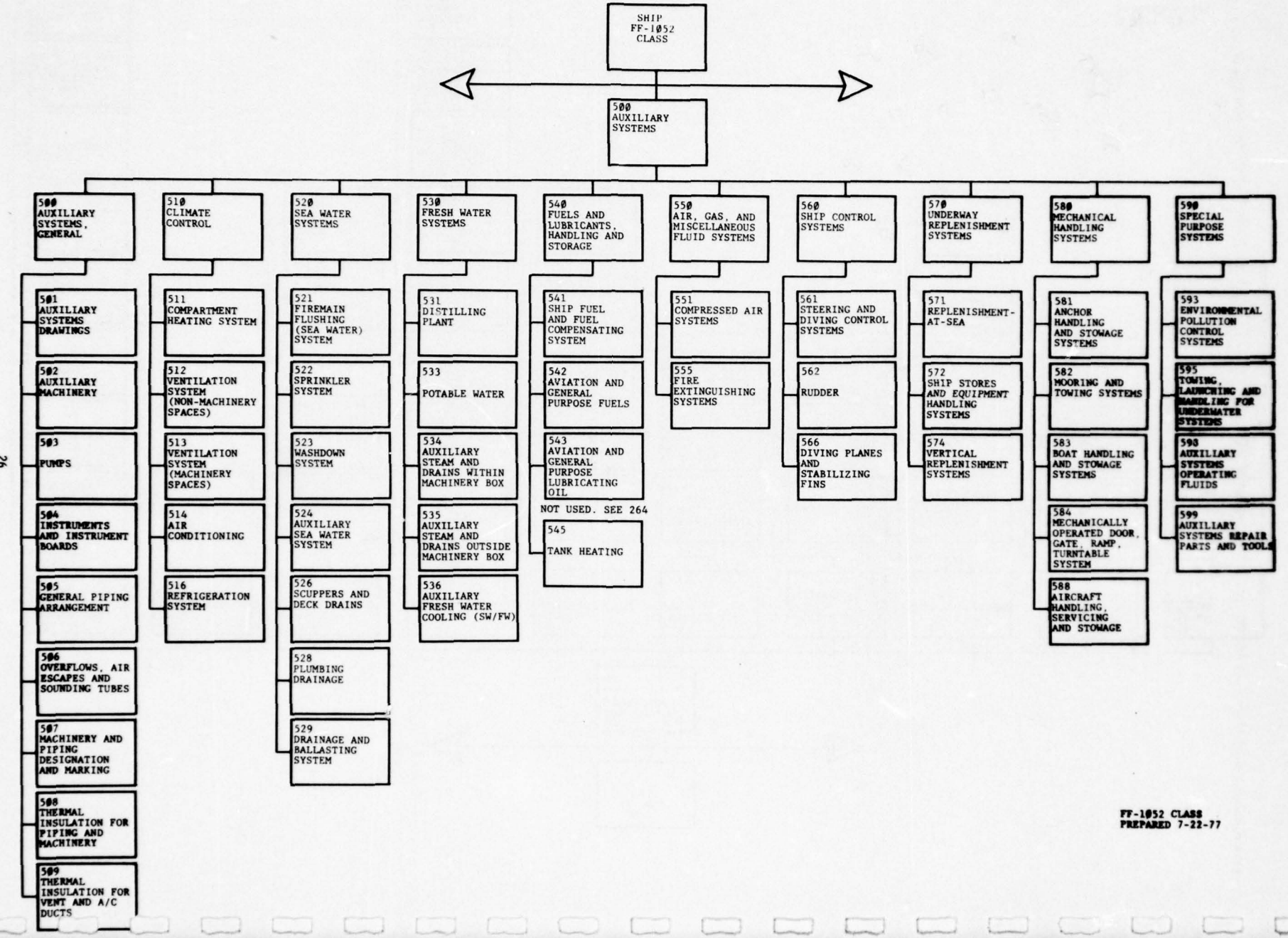
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PREPARED 7-22-77

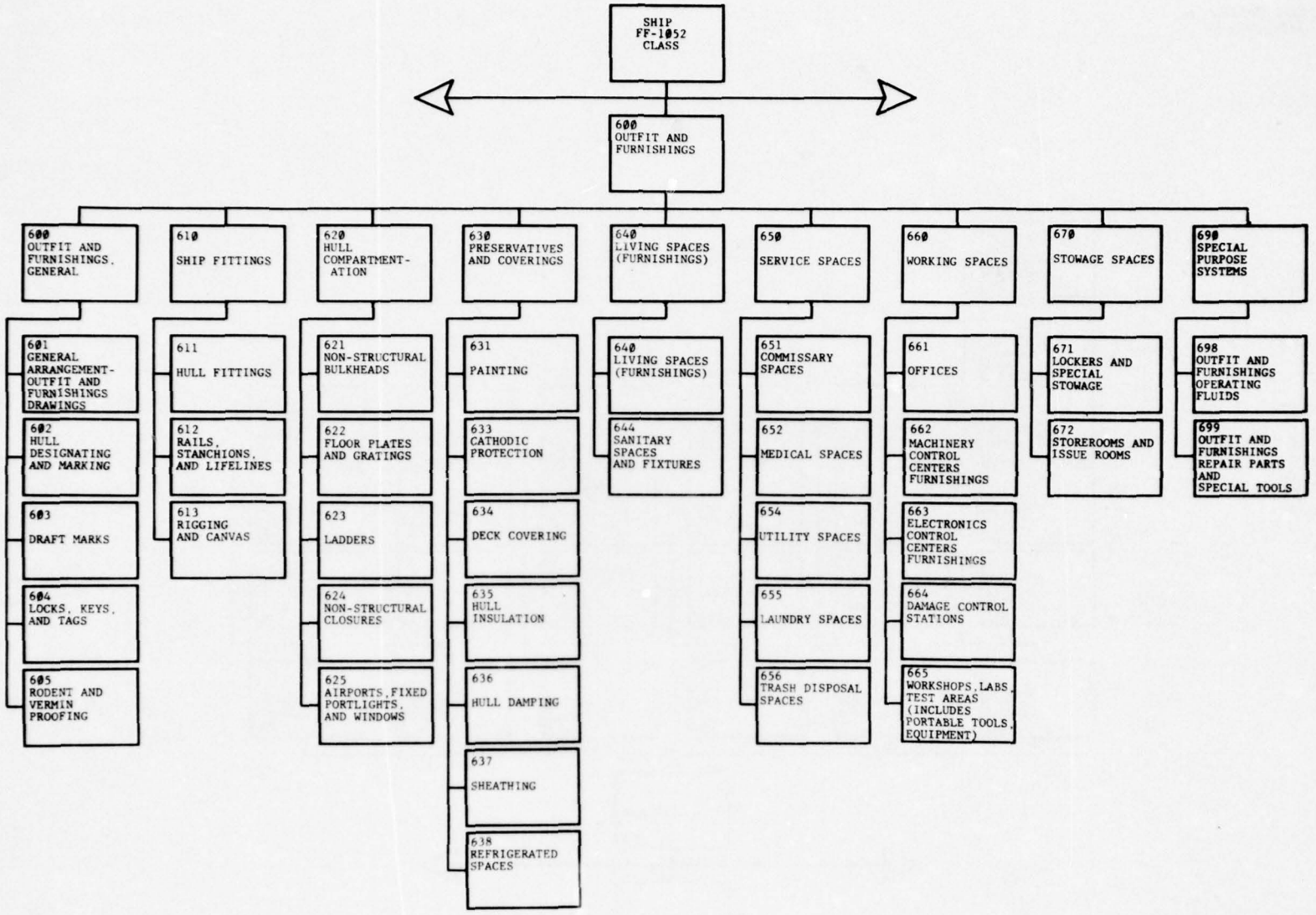


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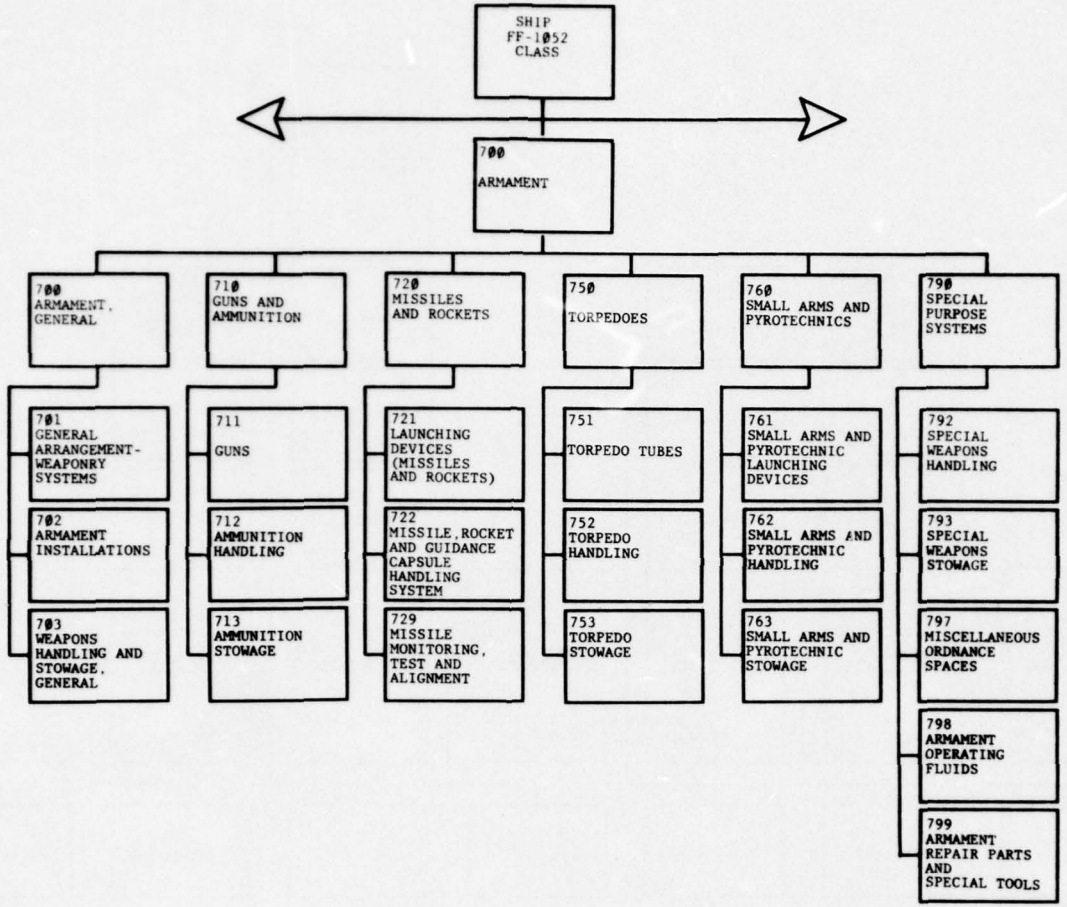


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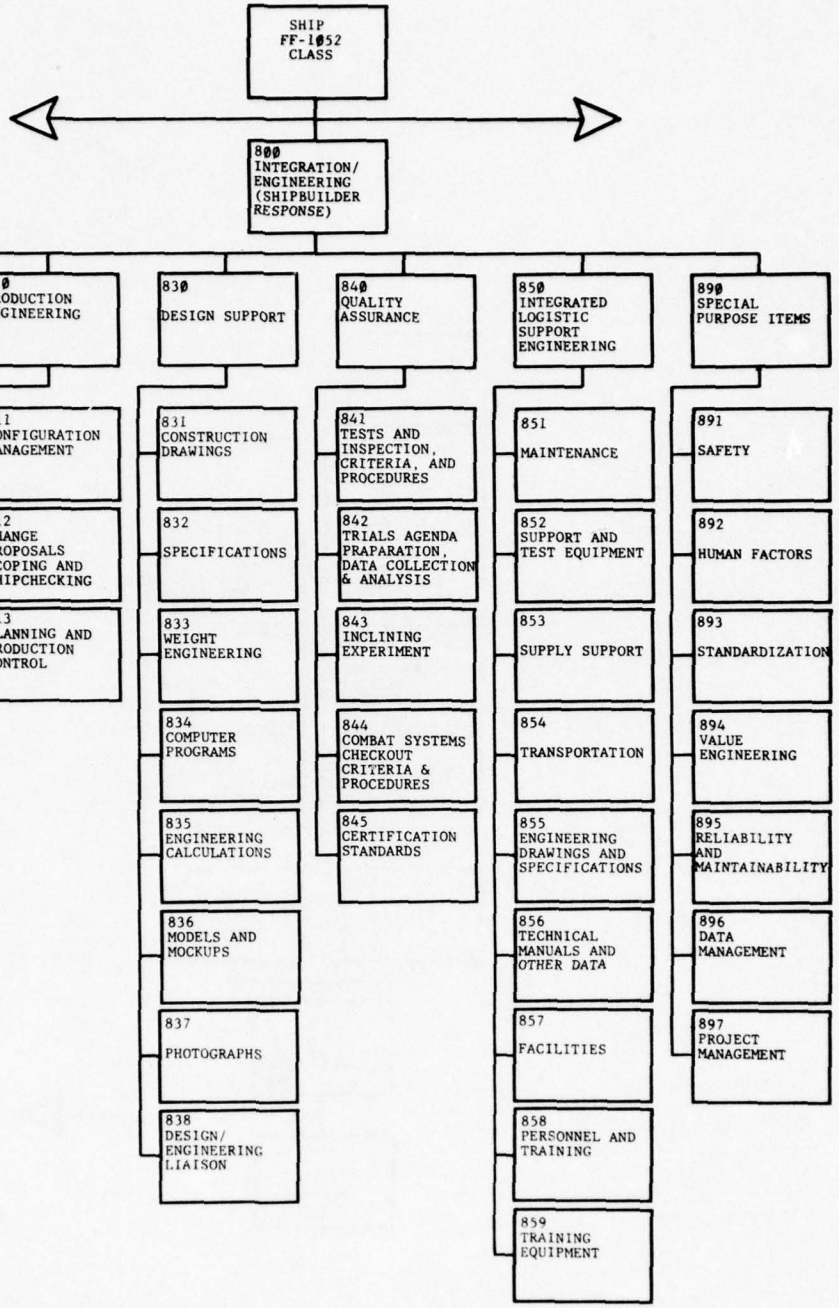

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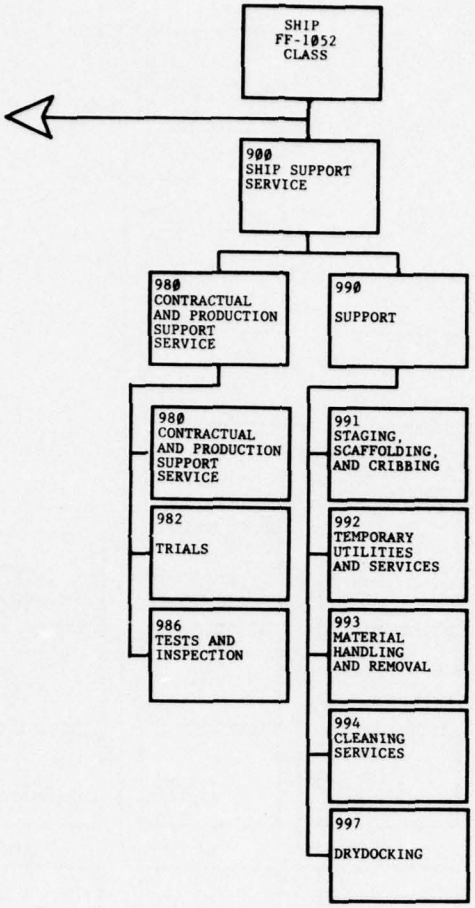
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



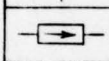
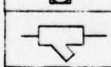
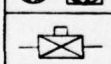
FF-1052 CLASS
PREPARED 7-22-77

LEGEND OF SYMBOLS

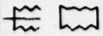
SYMBOL	DESCRIPTION
	GLOBE VALVE
	GLOBE VALVE, LOCKED OPEN
	GLOBE VALVE, LOCKED CLOSED
	GLOBE VALVE, MANUALLY OPERATED IN PLACE OR PNEUMATICALLY FROM MAIN DECK
	AIR MOTOR OPERATED VALVE
	GLOBE VALVE, WITH MANUAL GEAR OPERATED IN PLACE AND AJACENT SPACE
	GLOBE VALVE, ANGLE
	GLOBE VALVE, REMOTE OPERATED
	GLOBE STOP CHECK VALVE
	GATE VALVE
	BUTTERFLY VALVE
	SWING CHECK VALVE
	LIFT CHECK VALVE
	NEEDLE VALVE
	STOP COCK PLUG OR CYLINDER VALVE 3 WAY, 2 PORT
	CONTROLLED VALVE, BOILER FEED
	PRESSURE REDUCING OR PRESSURE REGULATING INCREASED ACTUATING PRESSURE CLOSES
	PRESSURE REDUCING OR PRESSURE REGULATING DECREASED ACTUATING PRESSURE CLOSES
	PRESSURE REGULATING VALVE AIR PILOT OPERATED
	PUMP GOVERNOR
	THERMOSTATICALLY CONTROLLED VALVE
	DUMP VALVE
	PILOT VALVE
	FLOAT OPERATED VALVE
	ANGLE LIFT CHECK VALVE
	CONTROL VALVE
	HOSE CONNECTION AND GLOBE VALVE

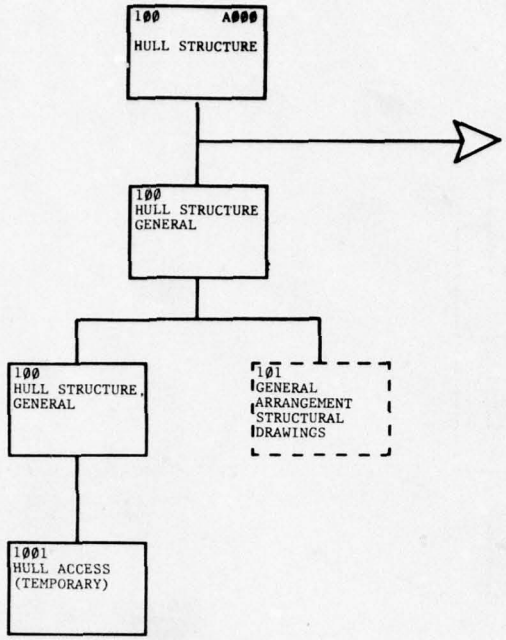
NOTE: VALVES OTHER THAN THE GLOBE VALVE MAY USE THE MODIFIERS SHOWN. IN ADDITION COMBINATIONS OF VALVE MODIFIERS MAY BE USED.

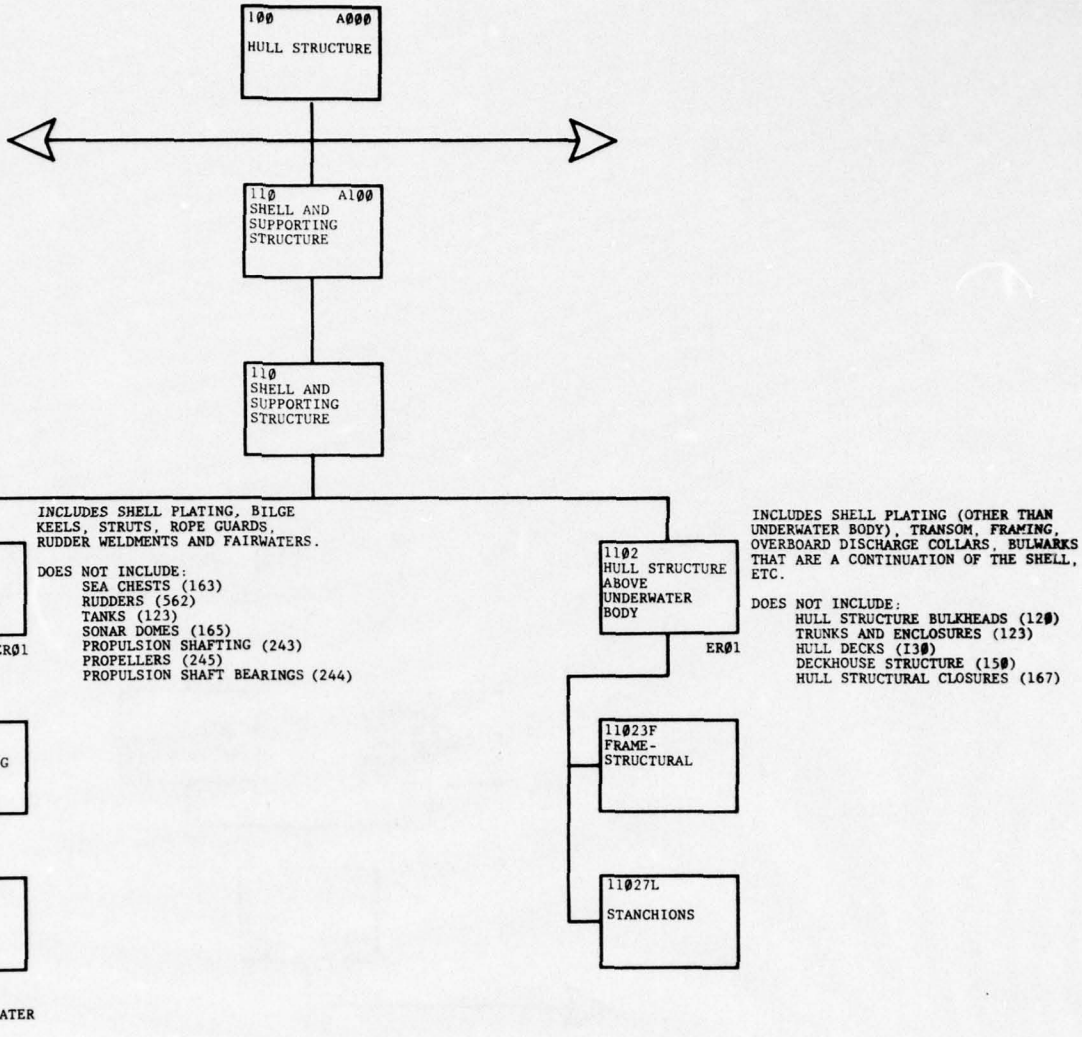
LEGEND OF SYMBOLS

SYMBOL	DESCRIPTION
	VENT
	BOILER DRUM SAFETY VALVE
	ANGLE RELIEF VALVE (ENCLOSED SPRING)
	COMBINED EXHAUST AND RELIEF VALVE
	PRESSURE GAUGE
	VACUUM - PRESSURE GAUGE
	DUPLEX PRESSURE GAUGE
	ABSOLUTE PRESSURE GAUGE
	DISTANT READING PRESSURE GAUGE
	DISTANT READING THERMOMETER
	SIGHT READING THERMOMETER
	THERMO ELEMENT
	METER, SIGHT FLOW
	PRESSURE BREAKDOWN ORIFICE
	OPEN FUNNEL
	SPECTACLE FLANGE
	DUPLEX STRAINER
	Y STRAINER
	STRAINER
	IMPULSE TRAP & STRAINER
	SALINITY CELL
	ORIFICE PLATE
	MOTOR CONTROLLER
	TEST TEE
	DESUPERHEATER
	MANIFOLD
	EDUCTOR

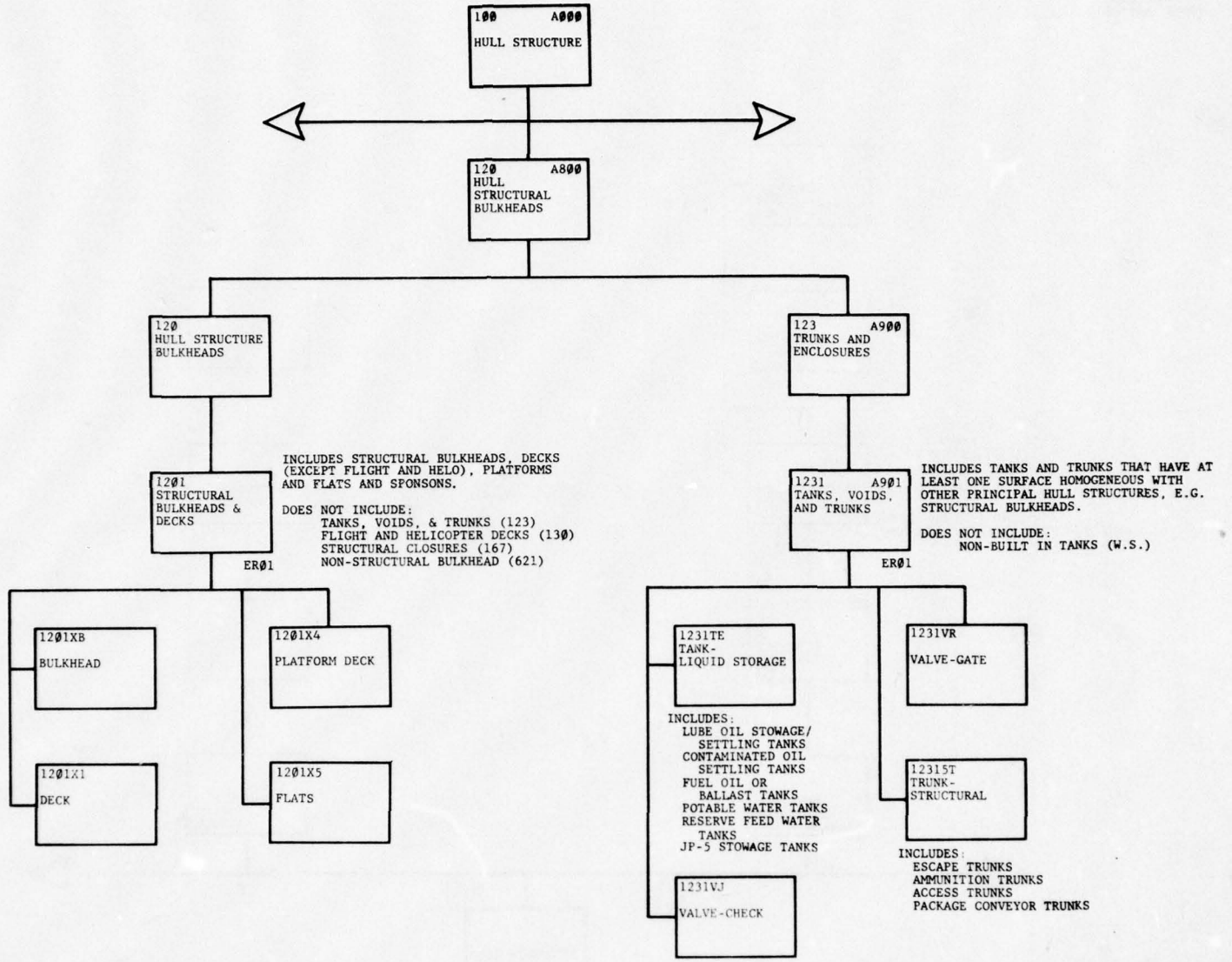
LEGEND OF SYMBOLS

SYMBOL	DESCRIPTION
	PUSHBUTTON & INDICATOR LIGHT
	PUSHBUTTON
	EXPANSION JOINT
	GAGE GLASS
	DUPLEX (TWIN BASKET) MAGNETIC STRAINER
	THERMOCOUPLE CONNECTION OR THERMOSTAT
	THERMOMETER ANY ANGLE DIAL, BARE BULB TYPE DIRECT READING
	THERMOMETER DISTANT READING BARE BULB TYPE
	CONSTANT FLOW FITTING
	FUNNEL WITH SWING COVER
	CONCENTRIC REDUCER
	REDUCER
	HOSE ADAPTER
	SOUND ISOLATION FITTING
	FLEXIBLE HOSE
	FLOW MEASURING NOZZLE
	SHAFT TURBINE END, COUPLING OIL SPRAY
	ANGLE STOP VALVE
	BALL CHECK STOP VALVE
	PRESSURE VENT
	LOCK SHIELD VALVE, HIGH LIFT
	BOTTOM BLOWDOWN VALVE, HIGH LIFT
	TOP BLOWDOWN VALVE, HIGH LIFT
	AIR OPERATED VALVE SPRING CLOSING
	AUTOMATIC RECIRCULATING VALVE
	CROSS VALVE
	MOTOR PRESSURE SWITCH
	LIMIT SWITCHES

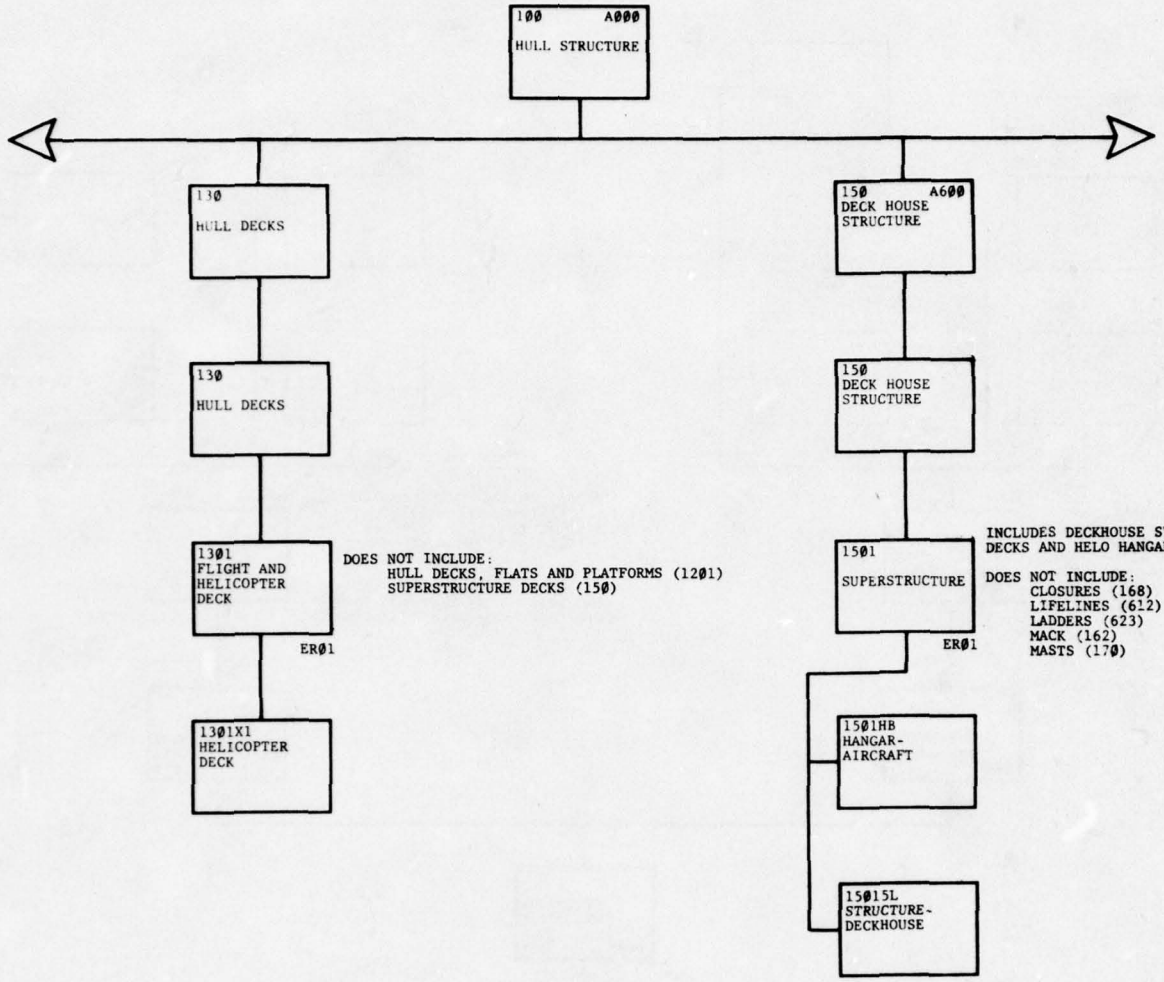

100 A000
HULL STRUCTURE
100
HULL STRUCTURE
GENERAL
100
HULL STRUCTURE
GENERAL
101
GENERAL
ARRANGEMENT
STRUCTURAL
DRAWINGS
1001
HULL ACCESS
(TEMPORARY)



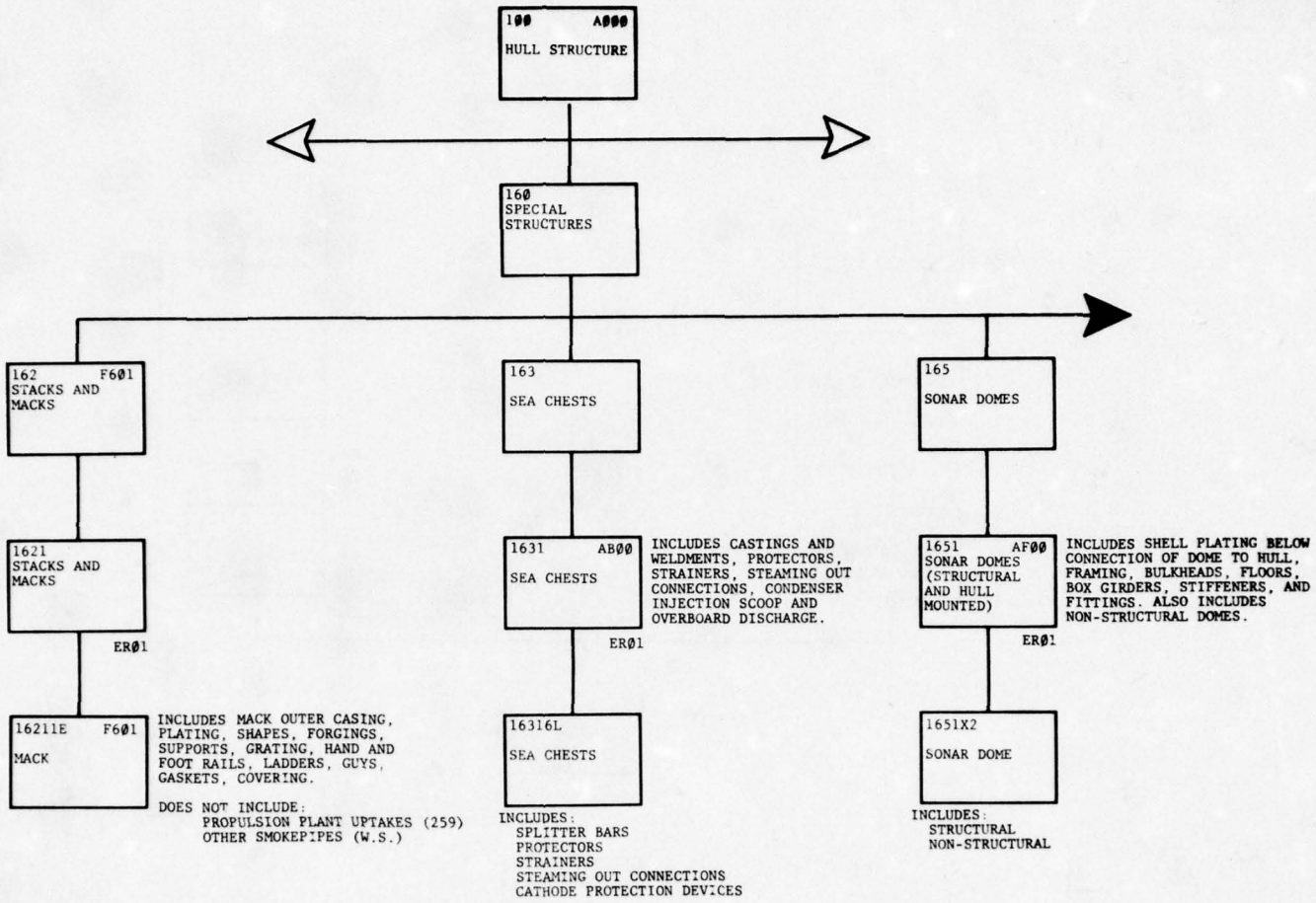
FF-1052 CLASS
PREPARED 6-22-77



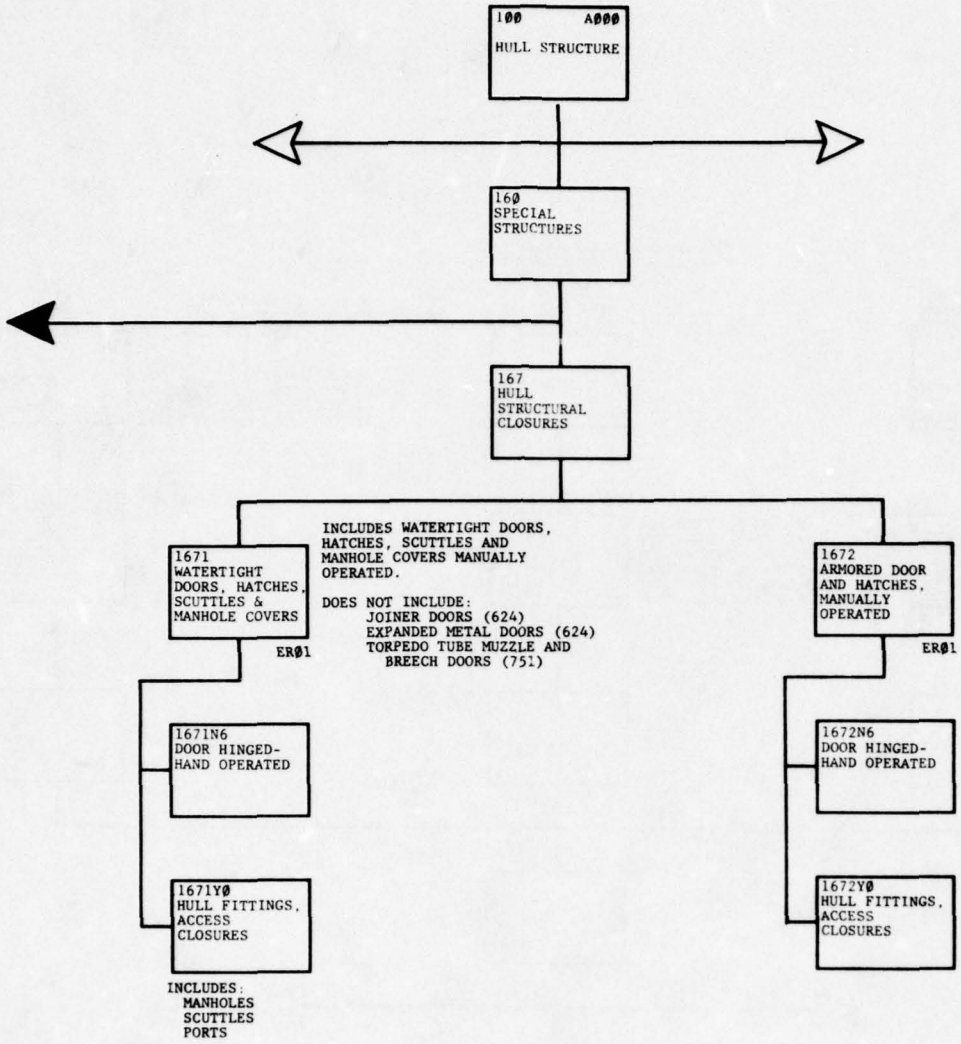
FF-1052 CLASS
PREPARED 6-22-77



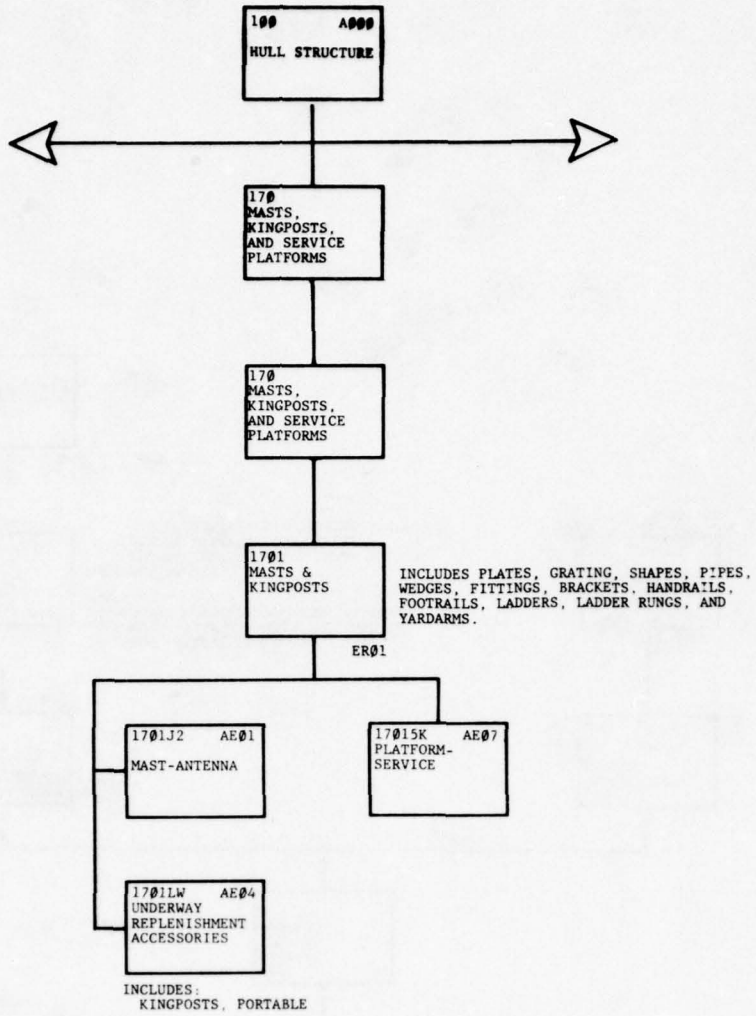
FF-1052 CLASS
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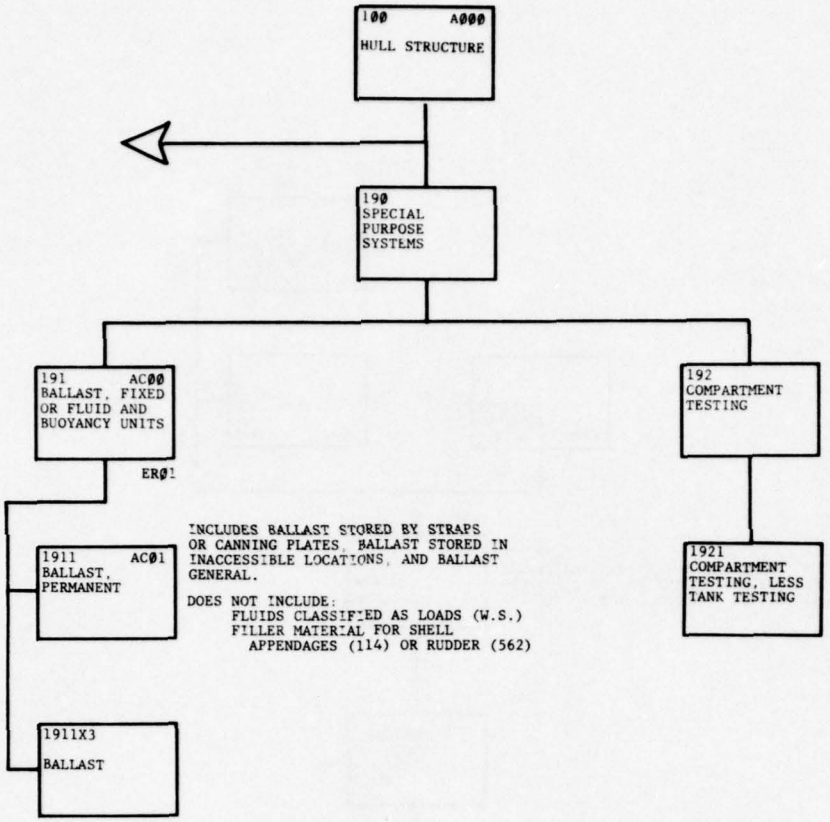
FF-1052 CLASS
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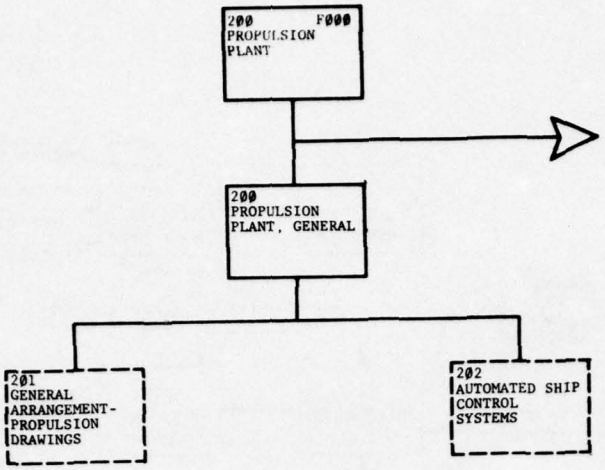
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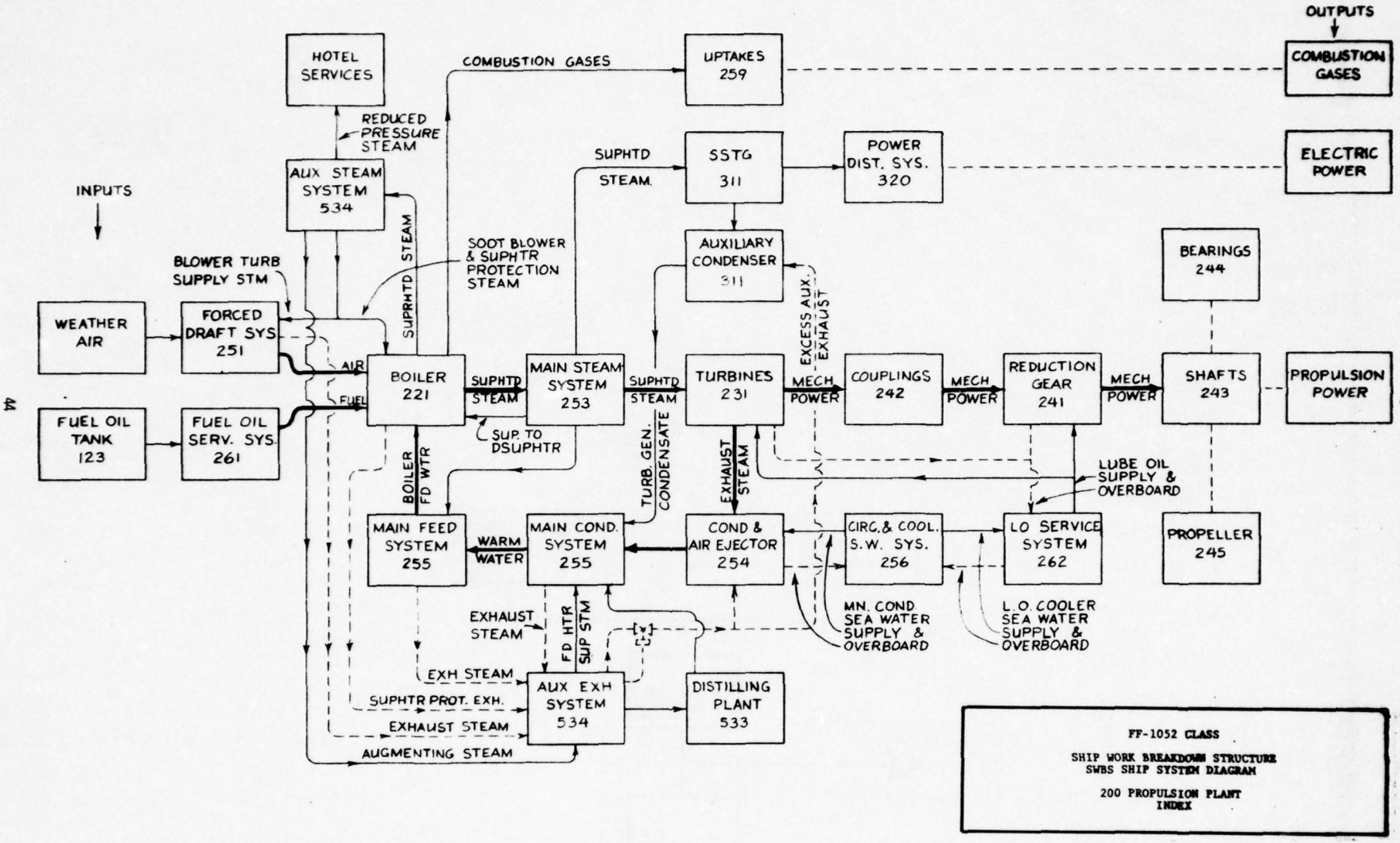
FF-1052 CLASS
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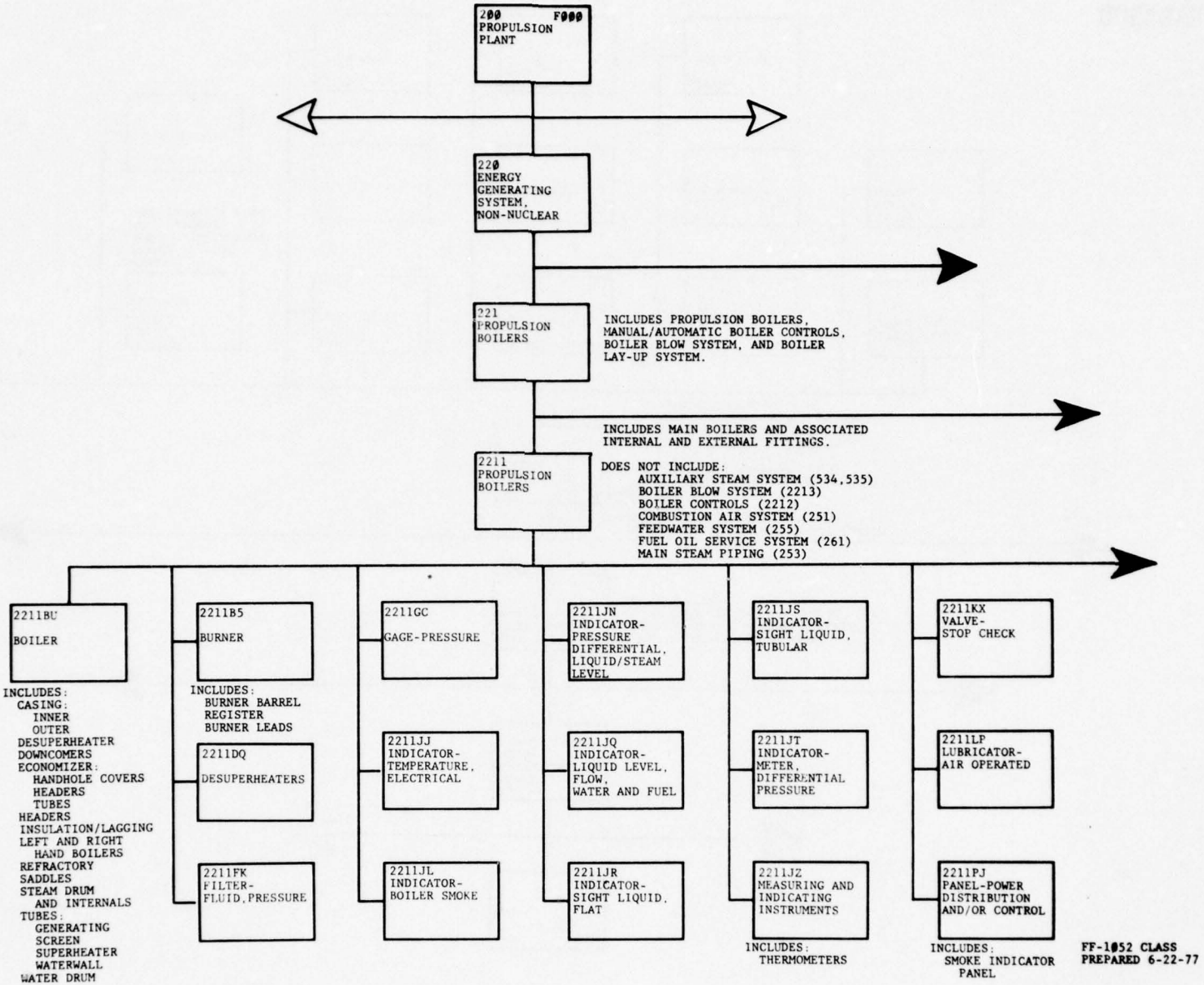


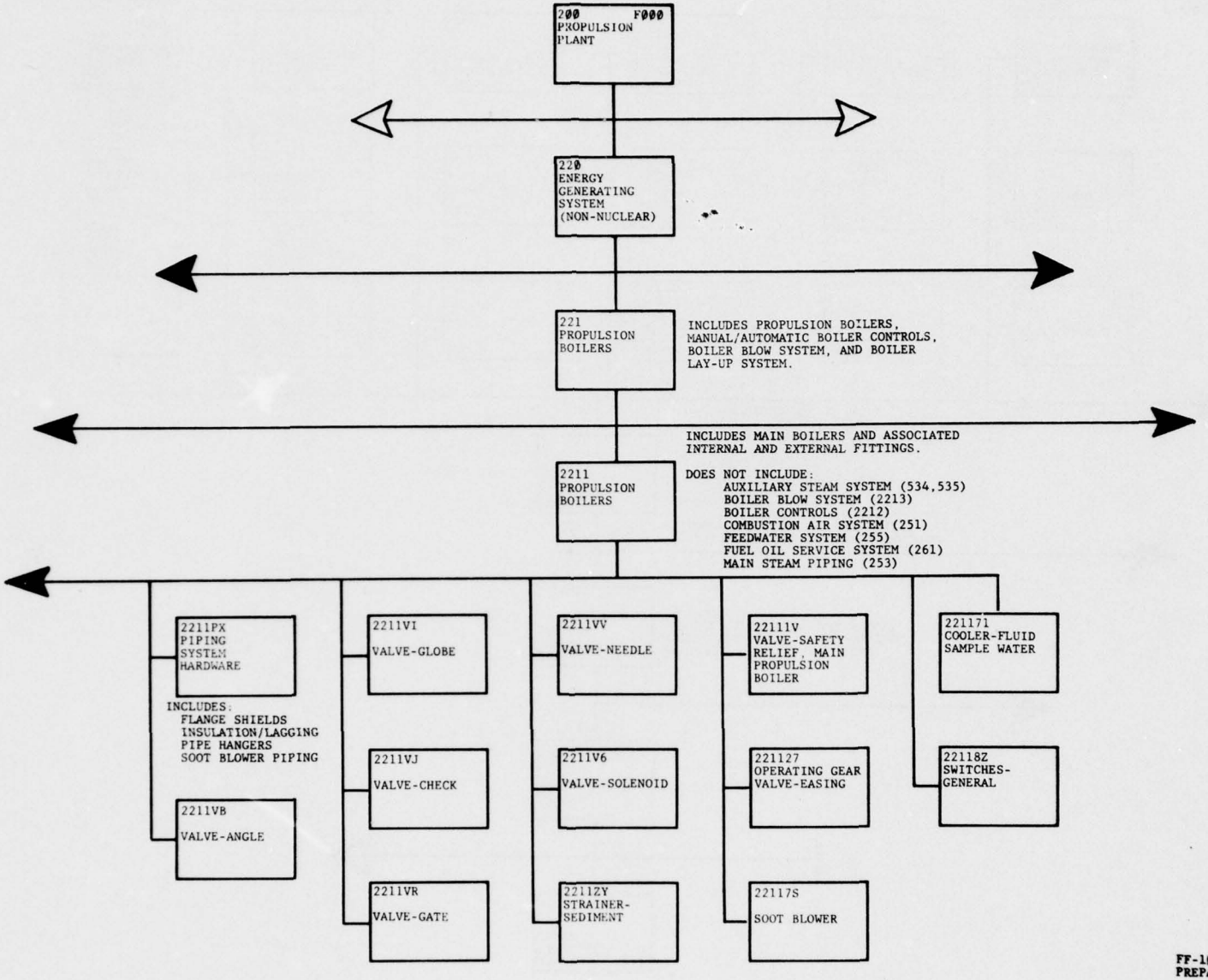
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PREPARED 6-22-77



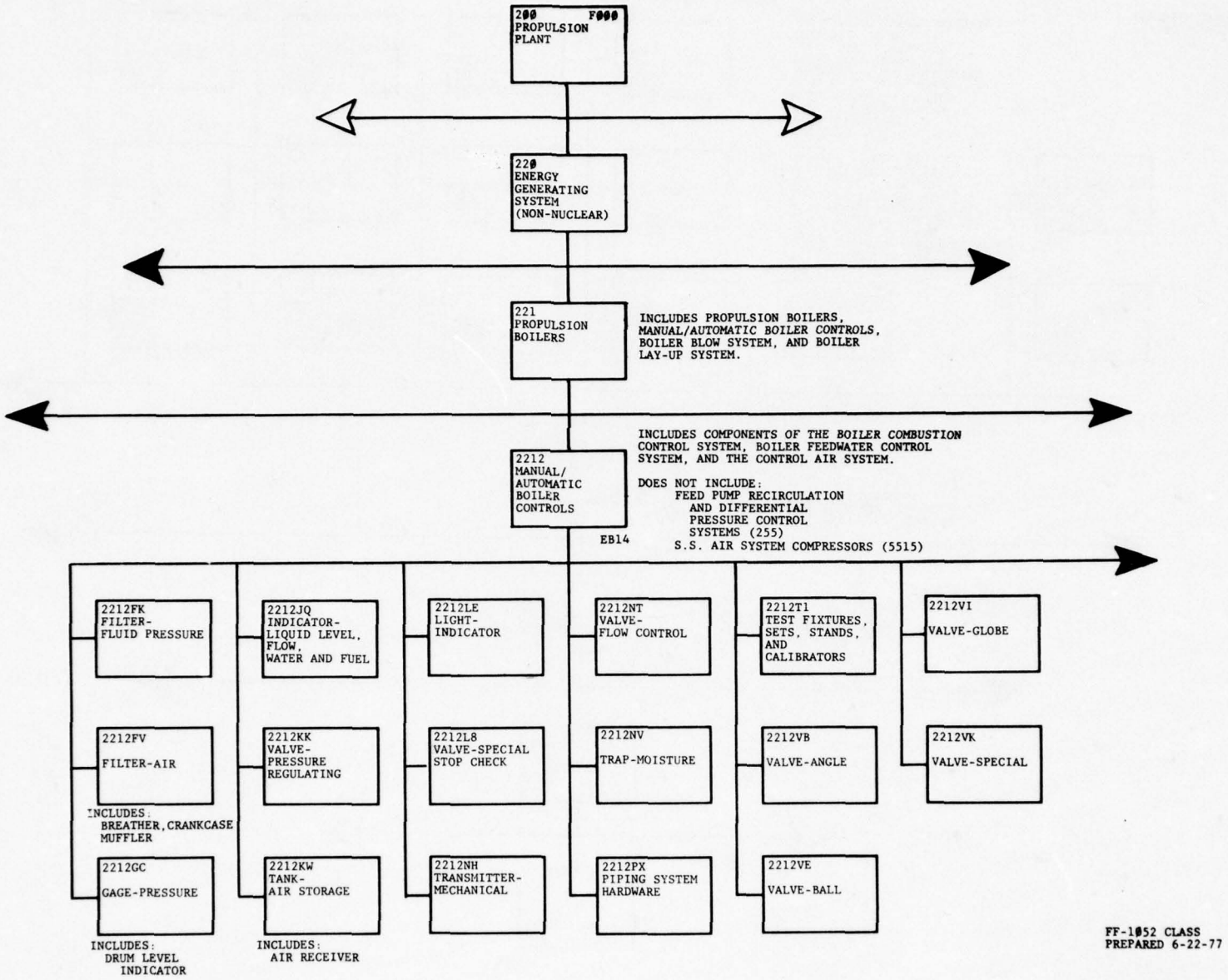
FF-1052 CLASS
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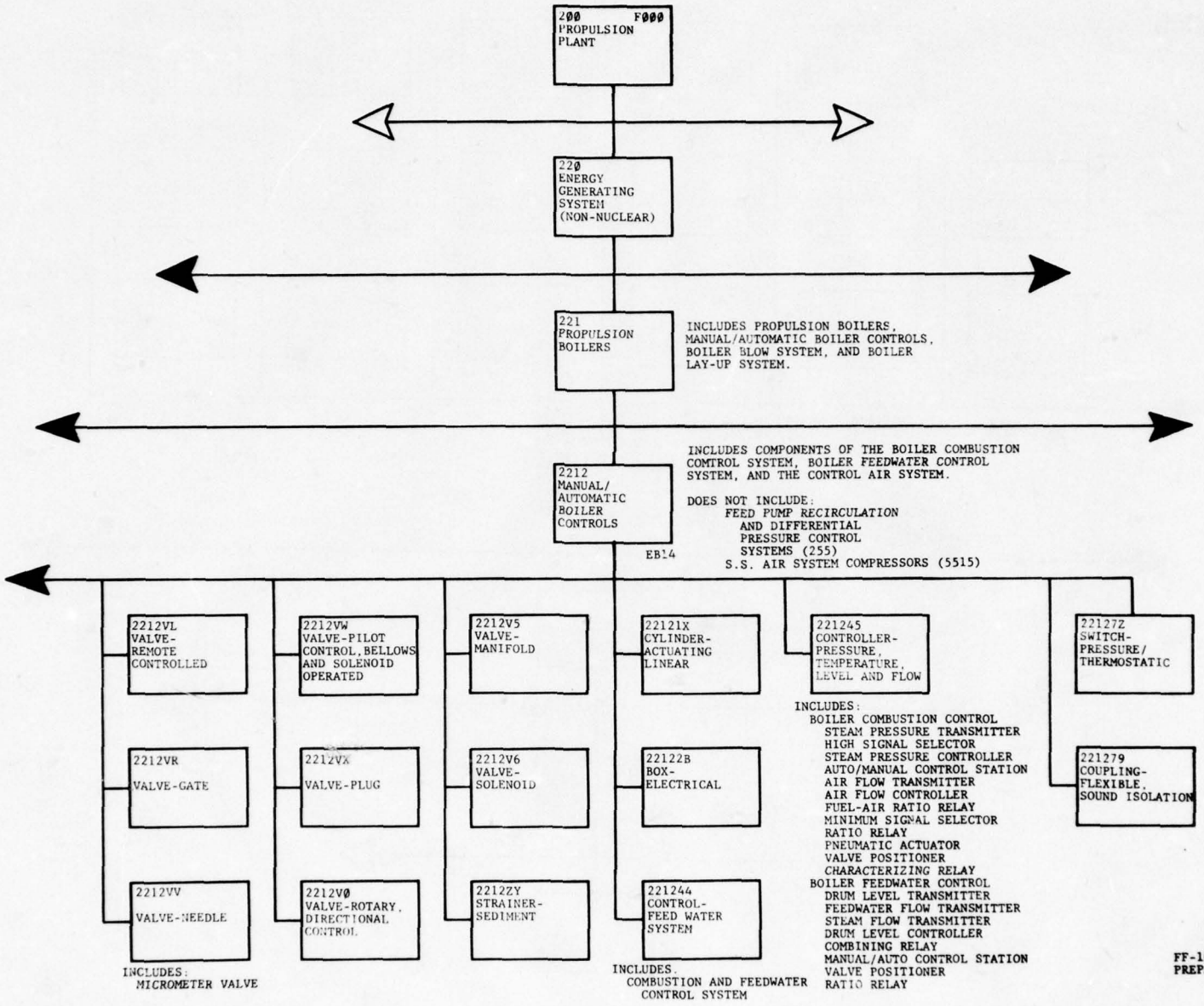

200 F000
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220
ENERGY GENERATING SYSTEM, NON-NUCLEAR
221
PROPULSION BOILERS
INCLUDES PROPULSION BOILERS, MANUAL/AUTOMATIC BOILER CONTROLS, BOILER BLOW SYSTEM, AND BOILER LAY-UP SYSTEM.
2211
PROPULSION BOILERS
INCLUDES MAIN BOILERS AND ASSOCIATED INTERNAL AND EXTERNAL FITTINGS.
DOES NOT INCLUDE:
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BOILER BLOW SYSTEM (2213)
BOILER CONTROLS (2212)
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TUBES
HEADERS
INSULATION/LAGGING
LEFT AND RIGHT HAND BOILERS
REFRACTORY
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BURNER LEADS
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2211JS
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FF-1052 CLASS
PREPARED 6-22-77

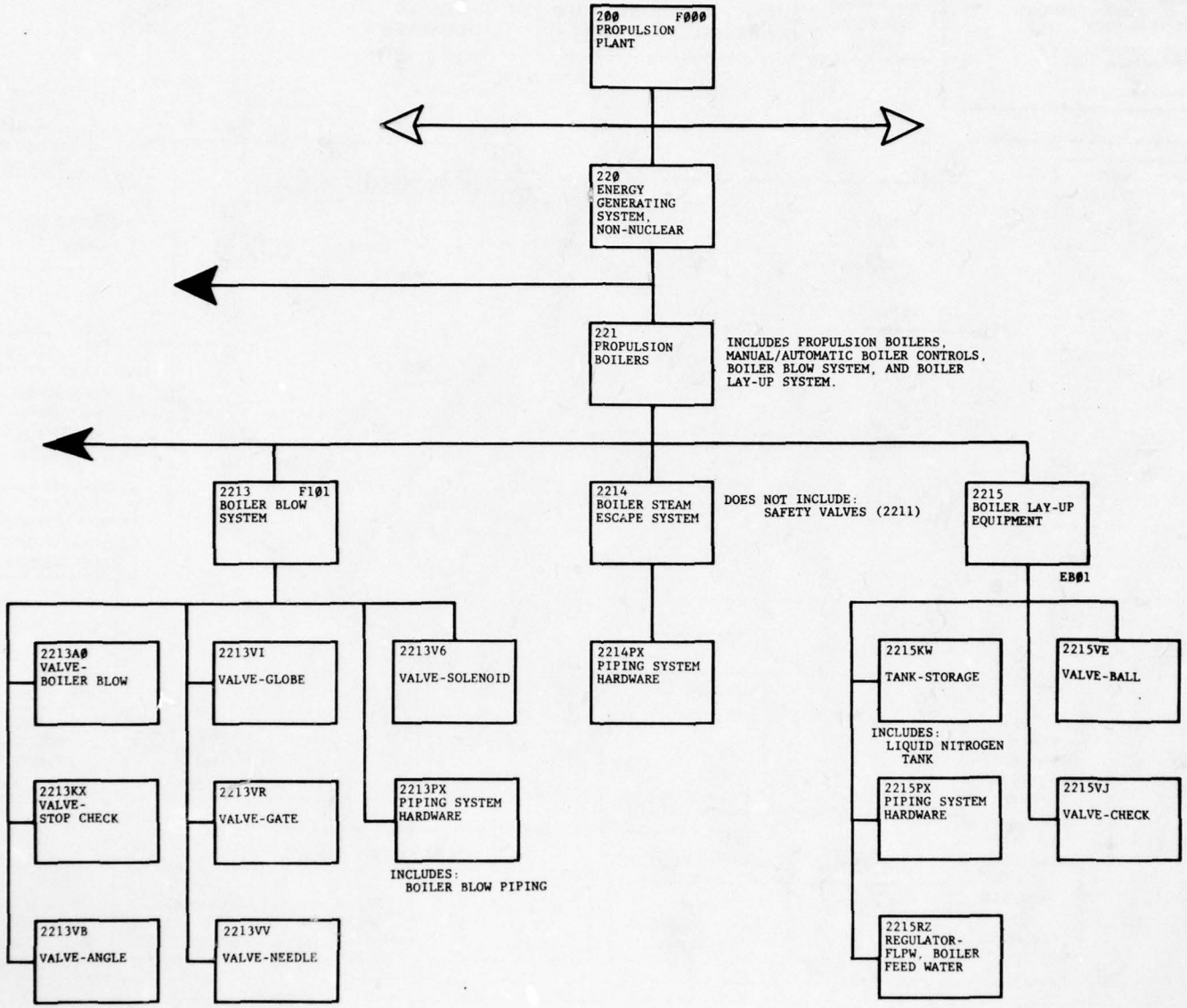


FF-1052 CLASS
PREPARED 6-22-77

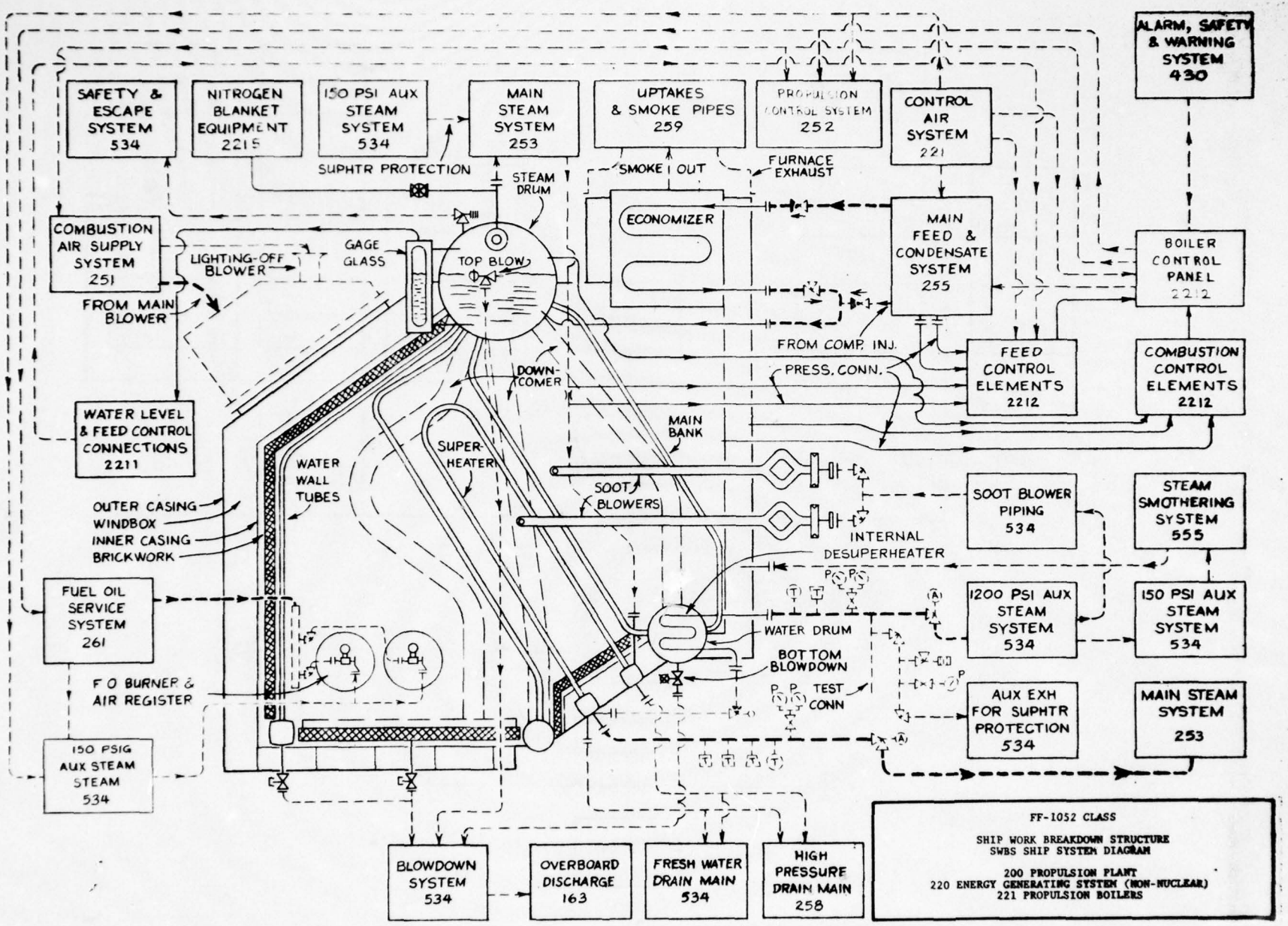


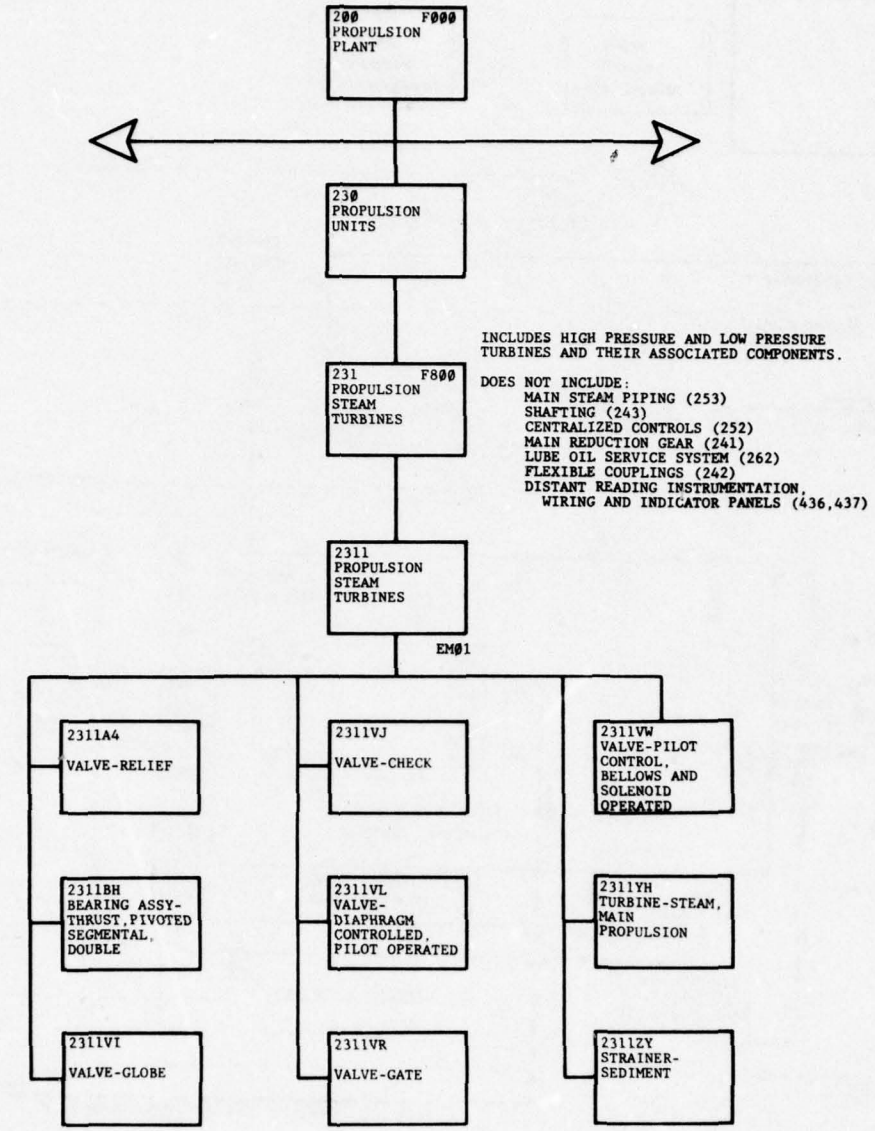
FF-1052 CLASS
PREPARED 6-22-77


200 F000
PROPULSION PLANT
220
ENERGY GENERATING SYSTEM (NON-NUCLEAR)
221
PROPULSION BOILERS
INCLUDES PROPULSION BOILERS, MANUAL/AUTOMATIC BOILER CONTROLS, BOILER BLOW SYSTEM, AND BOILER LAY-UP SYSTEM.
2212
MANUAL/ AUTOMATIC BOILER CONTROLS
EB14
INCLUDES COMPONENTS OF THE BOILER COMBUSTION COMTROL SYSTEM, BOILER FEEDWATER CONTROL SYSTEM, AND THE CONTROL AIR SYSTEM.
DOES NOT INCLUDE:
FEED PUMP RECIRCULATION AND DIFFERENTIAL PRESSURE CONTROL SYSTEMS (255)
S.S. AIR SYSTEM COMPRESSORS (5515)
2212VL VALVE-REMOTE CONTROLLED
2212VR VALVE-GATE
2212VV VALVE-NEEDLE
INCLUDES: MICROMETER VALVE
2212VW VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
2212VX VALVE-PLUG
2212V0 VALVE-ROTARY, DIRECTIONAL CONTROL
2212V5 VALVE-MANIFOLD
2212V6 VALVE-SOLENOID
2212ZY STRAINER-SEDIMENT
22121X CYLINDER-ACTUATING LINEAR
22122B BOX-ELECTRICAL
221244 CONTROL-FEED WATER SYSTEM
INCLUDES: COMBUSTION AND FEEDWATER CONTROL SYSTEM
221245 CONTROLLER-PRESSURE, TEMPERATURE, LEVEL AND FLOW
INCLUDES:
BOILER COMBUSTION CONTROL
STEAM PRESSURE TRANSMITTER
HIGH SIGNAL SELECTOR
STEAM PRESSURE CONTROLLER
AUTO/MANUAL CONTROL STATION
AIR FLOW TRANSMITTER
AIR FLOW CONTROLLER
FUEL-AIR RATIO RELAY
MINIMUM SIGNAL SELECTOR
RATIO RELAY
PNEUMATIC ACTUATOR
VALVE POSITIONER
CHARACTERIZING RELAY
BOILER FEEDWATER CONTROL
DRUM LEVEL TRANSMITTER
FEEDWATER FLOW TRANSMITTER
STEAM FLOW TRANSMITTER
DRUM LEVEL CONTROLLER
COMBINING RELAY
MANUAL/AUTO CONTROL STATION
VALVE POSITIONER
RATIO RELAY
22127Z SWITCH-PRESSURE/ THERMOSTATIC
221279 COUPLING-FLEXIBLE, SOUND ISOLATION
FF-1052 CLASS
PREPARED 6-22-77

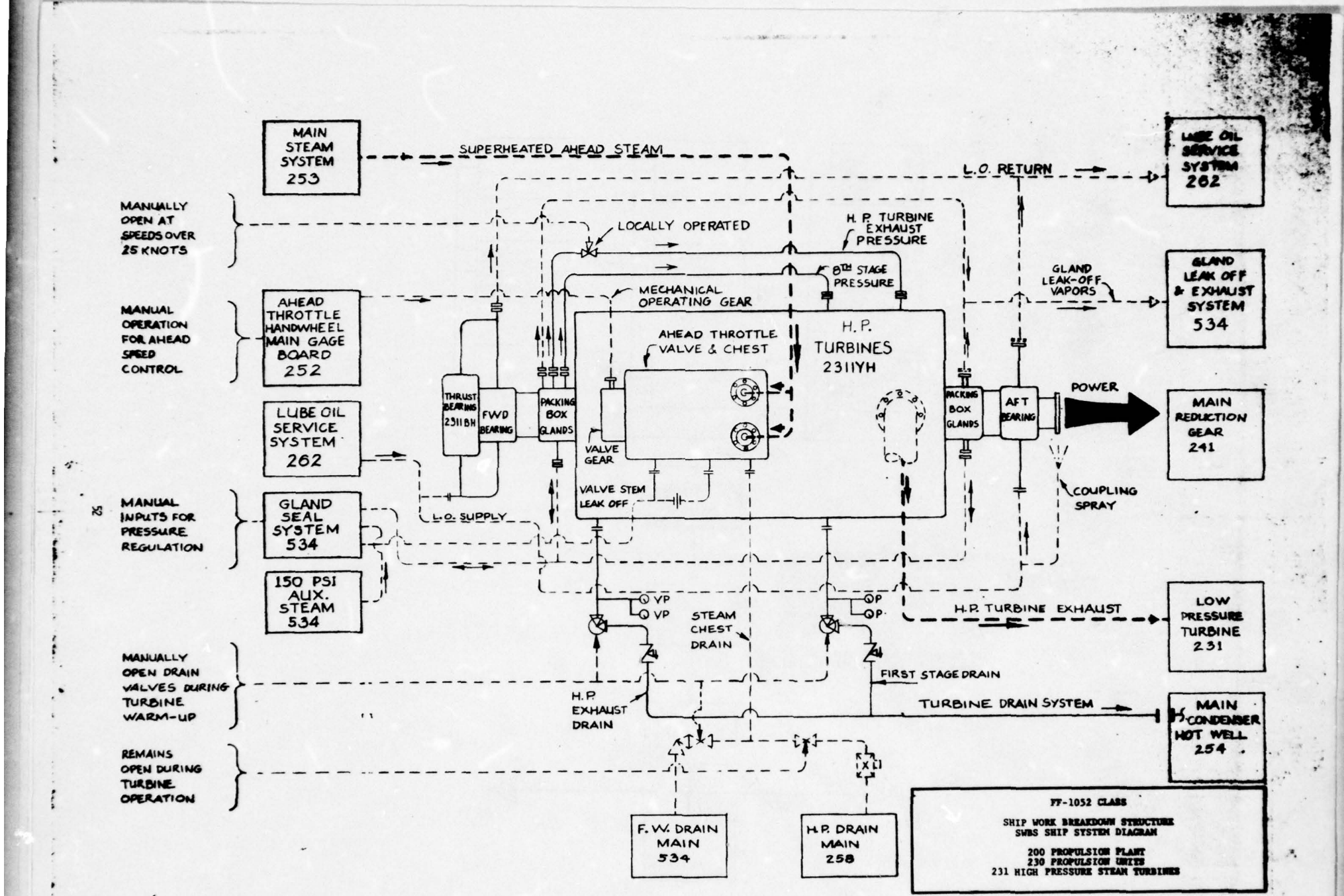


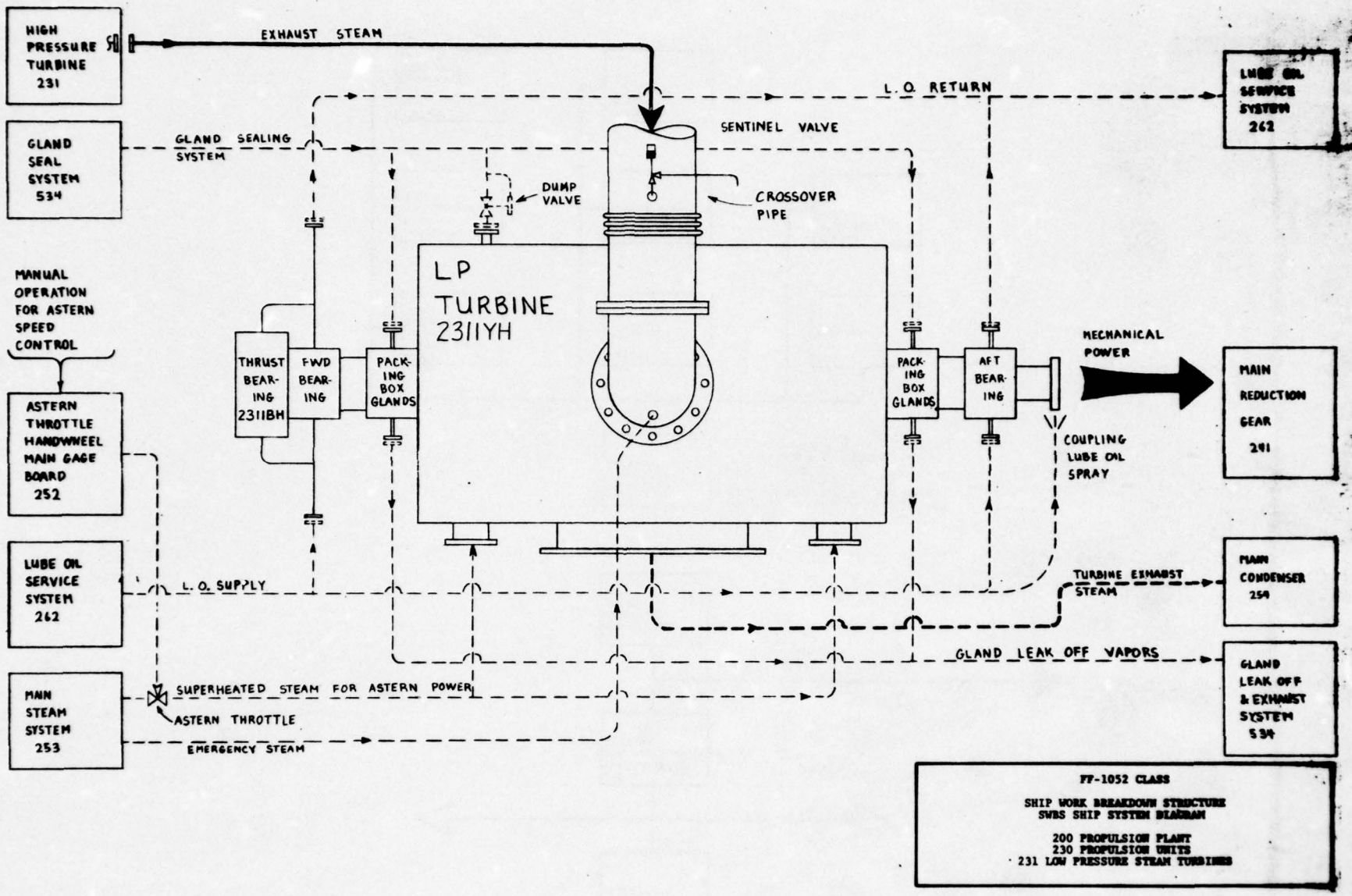
FF-1Ø52 CLASS
PREPARED 7-6-77

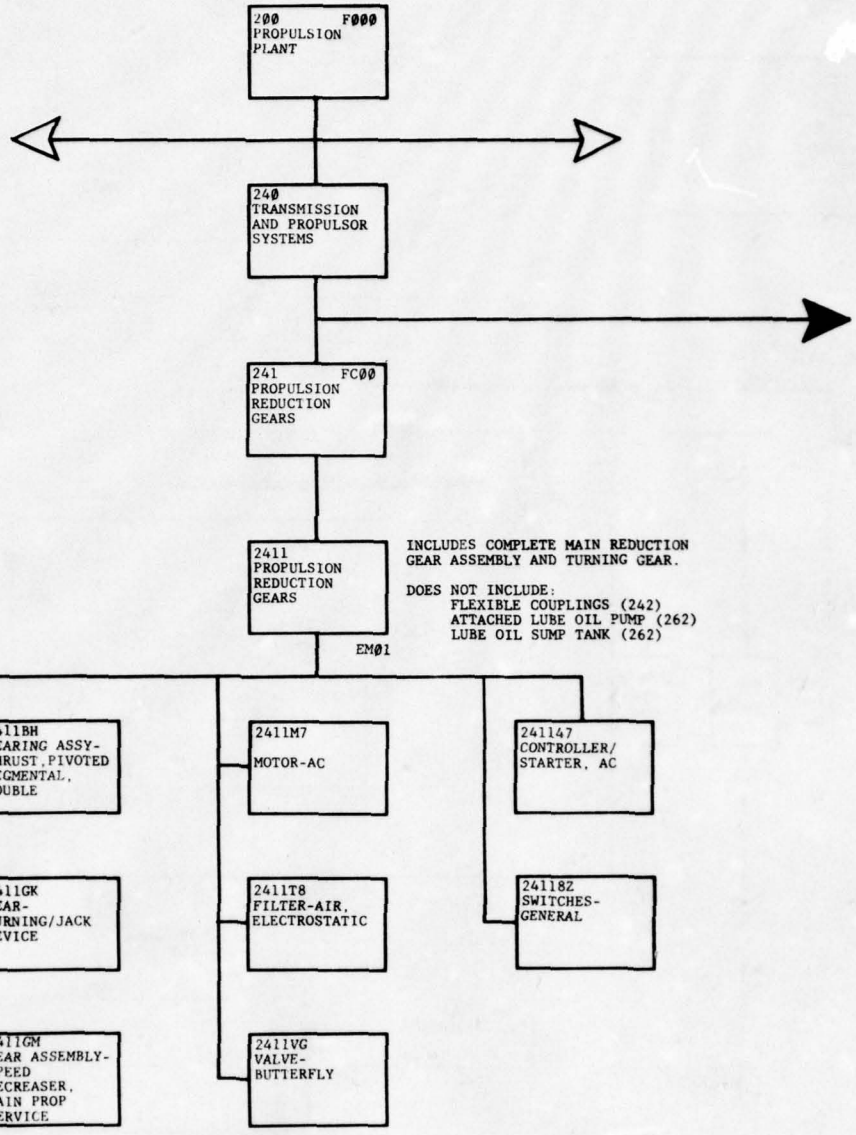

SAFETY & ESCAPE SYSTEM 534
NITROGEN BLANKET EQUIPMENT 2215
150 PSI AUX STEAM SYSTEM 534
MAIN STEAM SYSTEM 253
UPTAKES & SMOKE PIPES 259
PROPULSION CONTROL SYSTEM 252
CONTROL AIR SYSTEM 221
ALARM, SAFETY & WARNING SYSTEM 430
SUPHTR PROTECTION
STEAM DRUM
SMOKE OUT
FURNACE EXHAUST
COMBUSTION AIR SUPPLY SYSTEM 251
LIGHTING-OFF BLOWER
GAGE GLASS
TOP BLOW
ECONOMIZER
MAIN FEED & CONDENSATE SYSTEM 255
BOILER CONTROL PANEL 2212
FROM MAIN BLOWER
FROM COMP. INJ.
PRESS. CONN.
FEED CONTROL ELEMENTS 2212
COMBUSTION CONTROL ELEMENTS 2212
DOWN-COMER
WATER LEVEL & FEED CONTROL CONNECTIONS 2211
MAIN BANK
SUPER-HEATER
WATER WALL TUBES
SOOT BLOWERS
SOOT BLOWER PIPING 534
STEAM SMOTHERING SYSTEM 555
OUTER CASING
WINDBOX
INNER CASING
BRICKWORK
INTERNAL DESUPERHEATER
FUEL OIL SERVICE SYSTEM 261
1200 PSI AUX STEAM SYSTEM 534
150 PSI AUX STEAM SYSTEM 534
WATER DRUM
BOTTOM BLOWDOWN
F O BURNER & AIR REGISTER
TEST CONN
AUX EXH FOR SUPHTR PROTECTION 534
MAIN STEAM SYSTEM 253
150 PSIG AUX STEAM STEAM 534
BLOWDOWN SYSTEM 534
OVERBOARD DISCHARGE 163
FRESH WATER DRAIN MAIN 534
HIGH PRESSURE DRAIN MAIN 258
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
220 ENERGY GENERATING SYSTEM (NON-NUCLEAR)
221 PROPULSION BOILERS



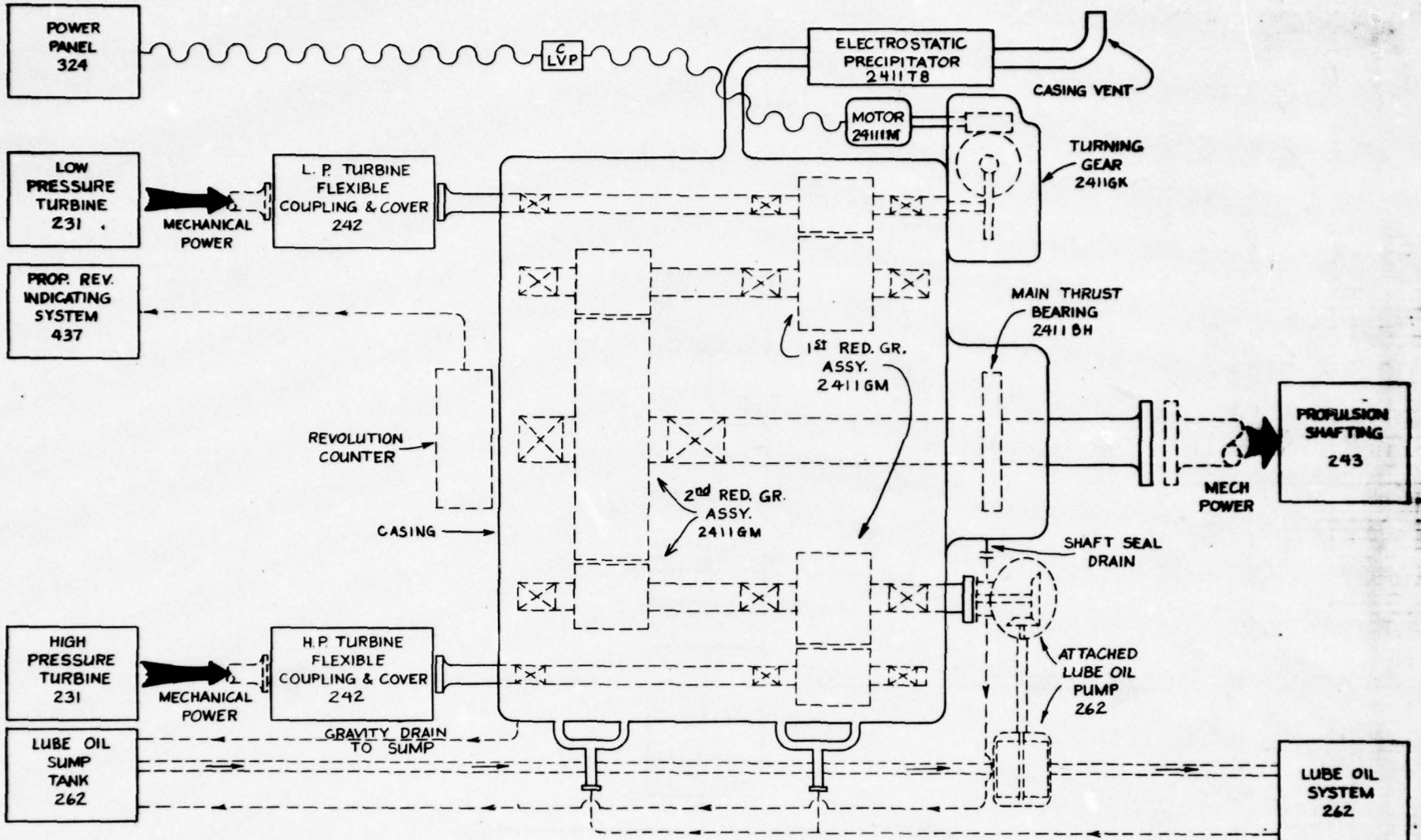
FF-1052 CLASS
PREPARED 6-22-77


MAIN STEAM SYSTEM 253
SUPERHEATED AHEAD STEAM
L.O. RETURN
LUBE OIL SERVICE SYSTEM 262
MANUALLY OPEN AT SPEEDS OVER 25 KNOTS
LOCALLY OPERATED
H. P. TURBINE EXHAUST PRESSURE
8TH STAGE PRESSURE
MECHANICAL OPERATING GEAR
GLAND LEAK-OFF VAPORS
GLAND LEAK OFF & EXHAUST SYSTEM 534
MANUAL OPERATION FOR AHEAD SPEED CONTROL
AHEAD THROTTLE HANDWHEEL MAIN GAGE BOARD 252
AHEAD THROTTLE VALVE & CHEST
H.P. TURBINES 2311YH
THRUST BEARING 2311BH
FWD BEARING
PACKING BOX GLANDS
VALVE GEAR
VALVE STEM LEAK OFF
PACKING BOX GLANDS
AFT BEARING
POWER
MAIN REDUCTION GEAR 241
COUPLING SPRAY
LUBE OIL SERVICE SYSTEM 262
L.O. SUPPLY
MANUAL INPUTS FOR PRESSURE REGULATION
GLAND SEAL SYSTEM 534
150 PSI AUX. STEAM 534
VP
VP
P
P
STEAM CHEST DRAIN
H.P. TURBINE EXHAUST
LOW PRESSURE TURBINE 231
MANUALLY OPEN DRAIN VALVES DURING TURBINE WARM-UP
FIRST STAGE DRAIN
H.P. EXHAUST DRAIN
TURBINE DRAIN SYSTEM
MAIN CONDENSER HOT WELL 254
REMAINS OPEN DURING TURBINE OPERATION
F.W. DRAIN MAIN 534
H.P. DRAIN MAIN 258
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
230 PROPULSION UNITS
231 HIGH PRESSURE STEAM TURBINES


HIGH PRESSURE TURBINE 231
EXHAUST STEAM
L.O. RETURN
LUBE OIL SERVICE SYSTEM 262
GLAND SEAL SYSTEM 534
GLAND SEALING SYSTEM
SENTINEL VALVE
DUMP VALVE
CROSSOVER PIPE
LP TURBINE 2311YH
MANUAL OPERATION FOR ASTERN SPEED CONTROL
THRUST BEARING 2311BH
FWD BEARING
PACKING BOX GLANDS
PACKING BOX GLANDS
AFT BEARING
MECHANICAL POWER
MAIN REDUCTION GEAR 241
COUPLING LUBE OIL SPRAY
ASTERN THROTTLE HANDWHEEL MAIN GAGE BOARD 252
LUBE OIL SERVICE SYSTEM 262
L.O. SUPPLY
TURBINE EXHAUST STEAM
MAIN CONDENSER 254
GLAND LEAK OFF VAPORS
GLAND LEAK OFF & EXHAUST SYSTEM 534
MAIN STEAM SYSTEM 253
SUPERHEATED STEAM FOR ASTERN POWER
ASTERN THROTTLE
EMERGENCY STEAM
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
230 PROPULSION UNITS
231 LOW PRESSURE STEAM TURBINES



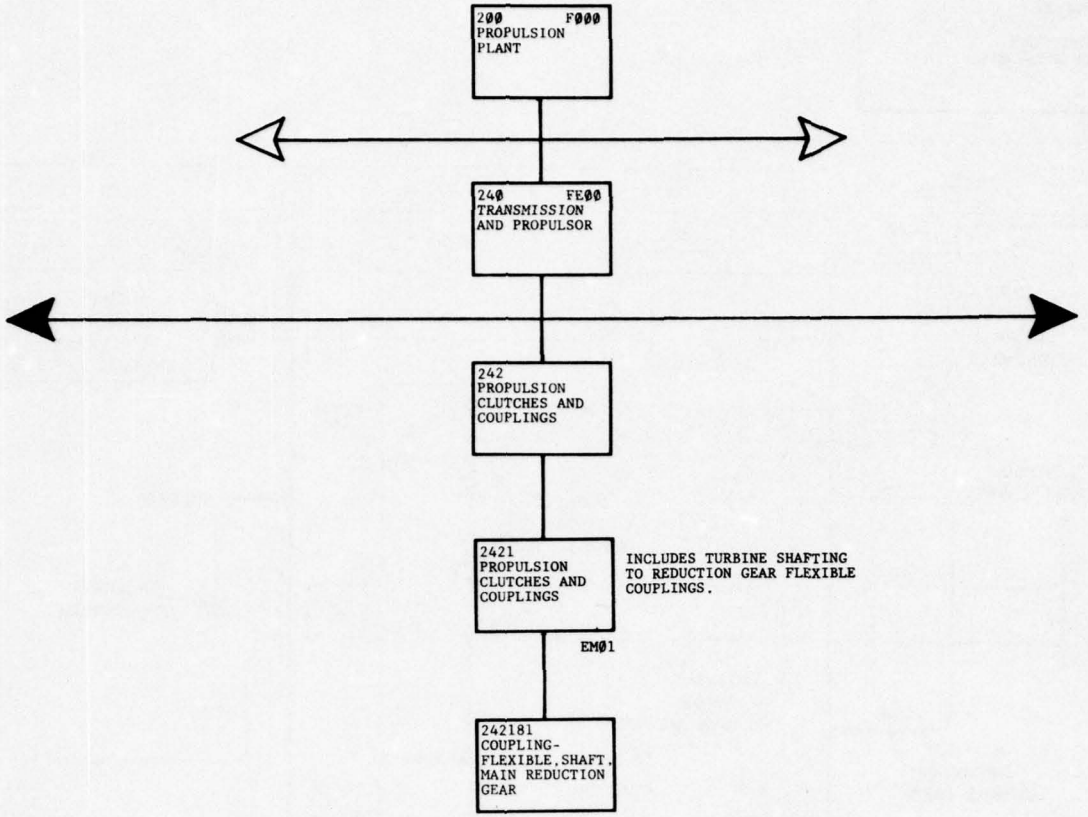
FF-1052 CLASS
PREPARED 6-22-77



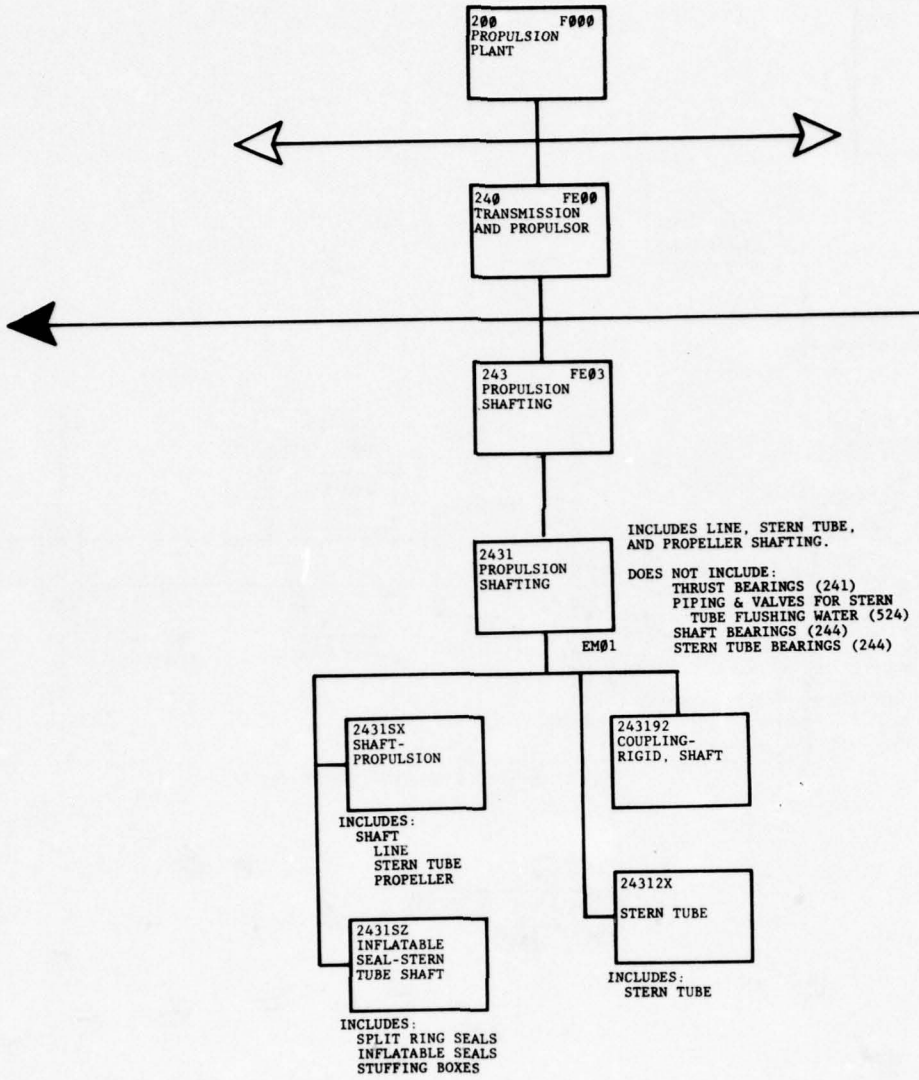
FF-1052 CLASS

SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

200 PROPULSION PLANT
240 TRANSMISSION AND PROPULSOR SYSTEMS
241 PROPULSION REDUCTION GEARS

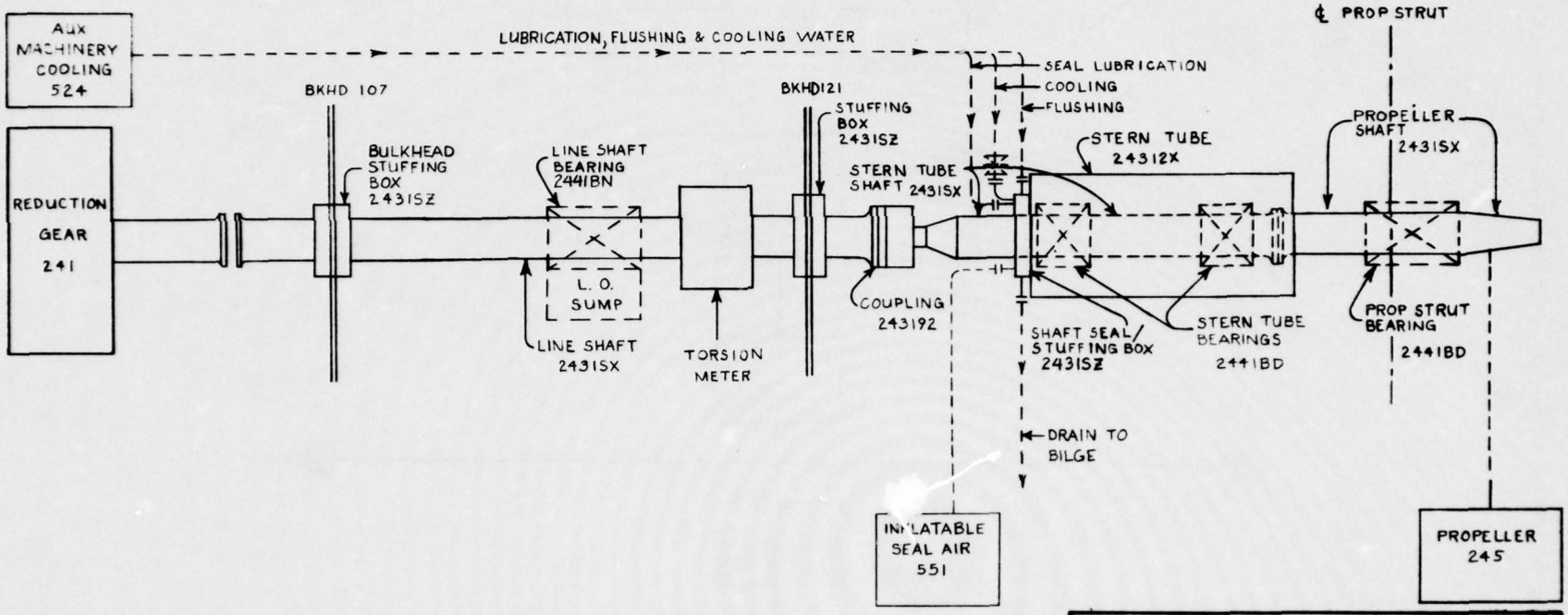


FF-1052 CLASS
PREPARED 6-22-77



FF-1052 CLASS
PREPARED 6-22-77

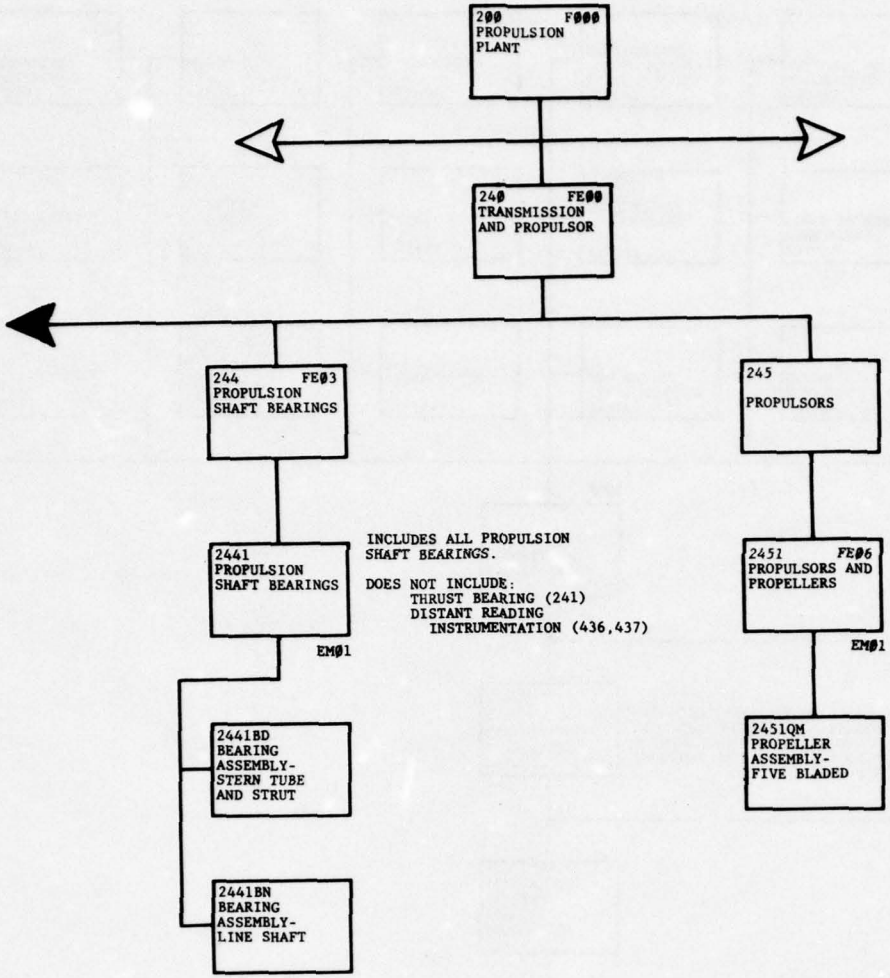
SHAFTING
MAIN PROPULSION
243

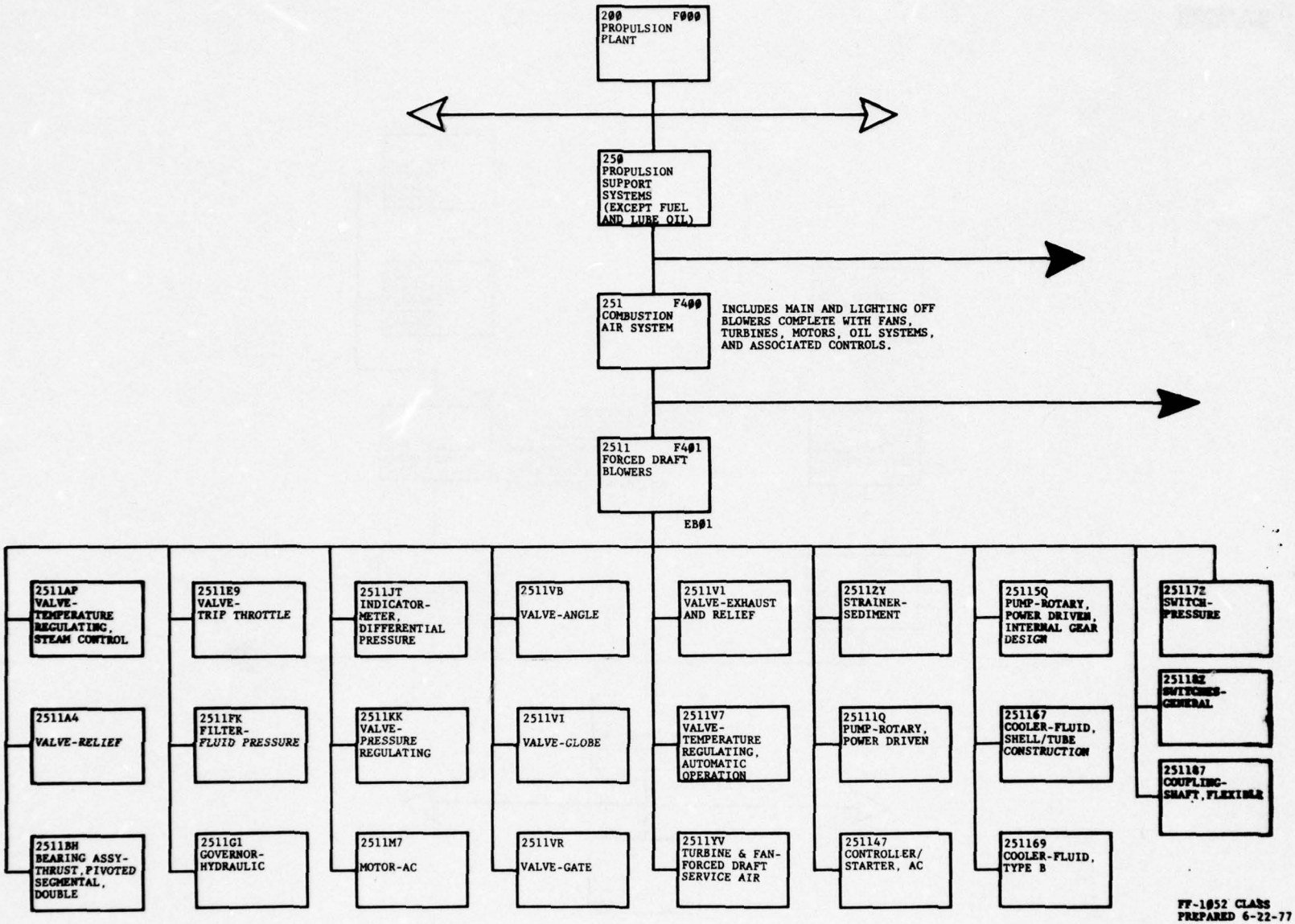


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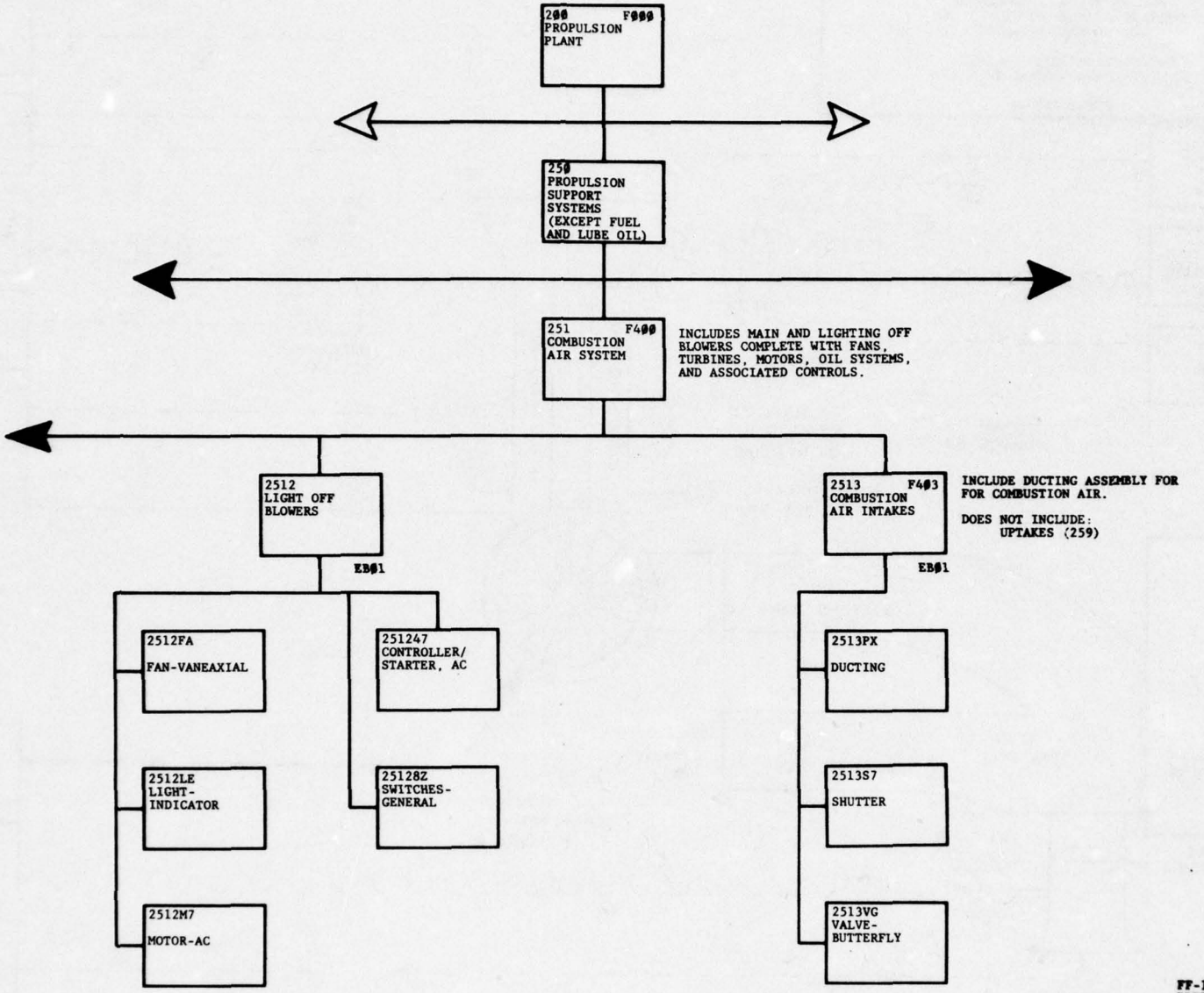
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

200 PROPULSION PLANT
240 TRANSMISSION AND PROPULSOR SYSTEMS
243 PROPULSION SHAFTING

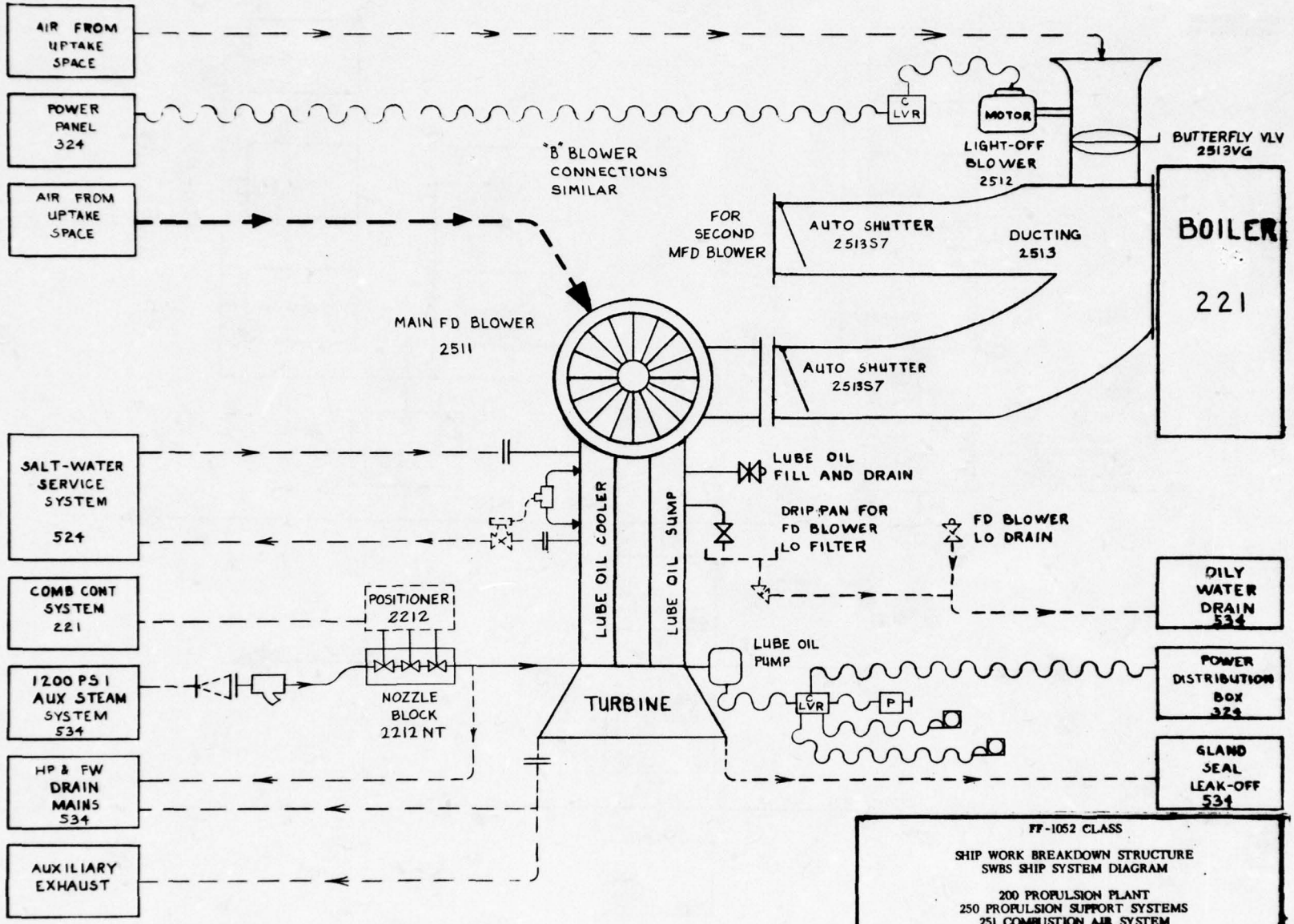

200 F000
PROPULSION PLANT
240 FE00
TRANSMISSION AND PROPULSOR
244 FE03
PROPULSION SHAFT BEARINGS
245
PROPULSORS
2441
PROPULSION SHAFT BEARINGS
EM01
INCLUDES ALL PROPULSION SHAFT BEARINGS.
DOES NOT INCLUDE:
THRUST BEARING (241)
DISTANT READING INSTRUMENTATION (436,437)
2451 FE06
PROPULSORS AND PROPELLERS
EM01
2441BD
BEARING ASSEMBLY-STERN TUBE AND STRUT
2441BN
BEARING ASSEMBLY-LINE SHAFT
2451QM
PROPELLER ASSEMBLY-FIVE BLADED

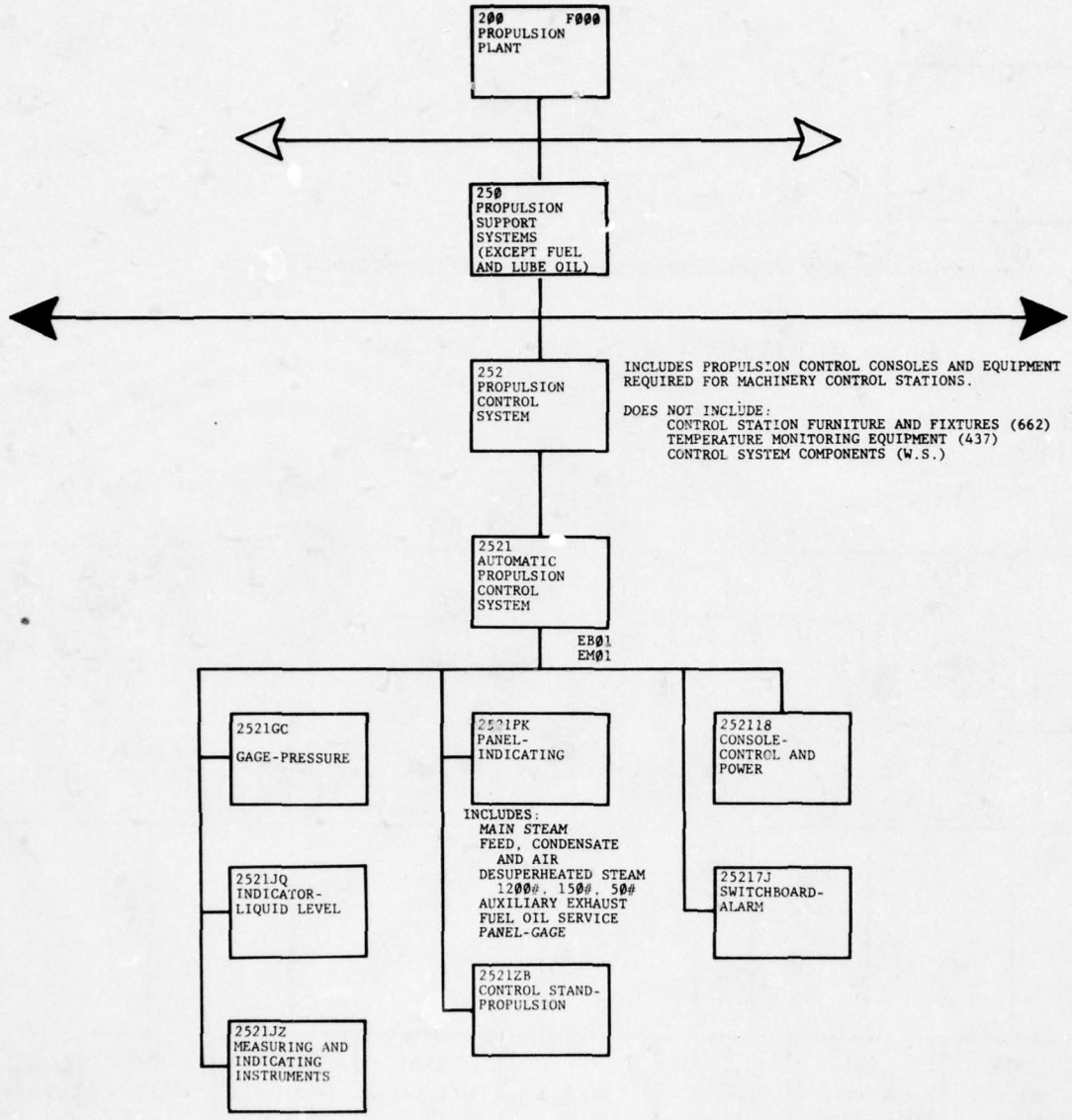


FF-1052 CLASS
PREPARED 6-22-77

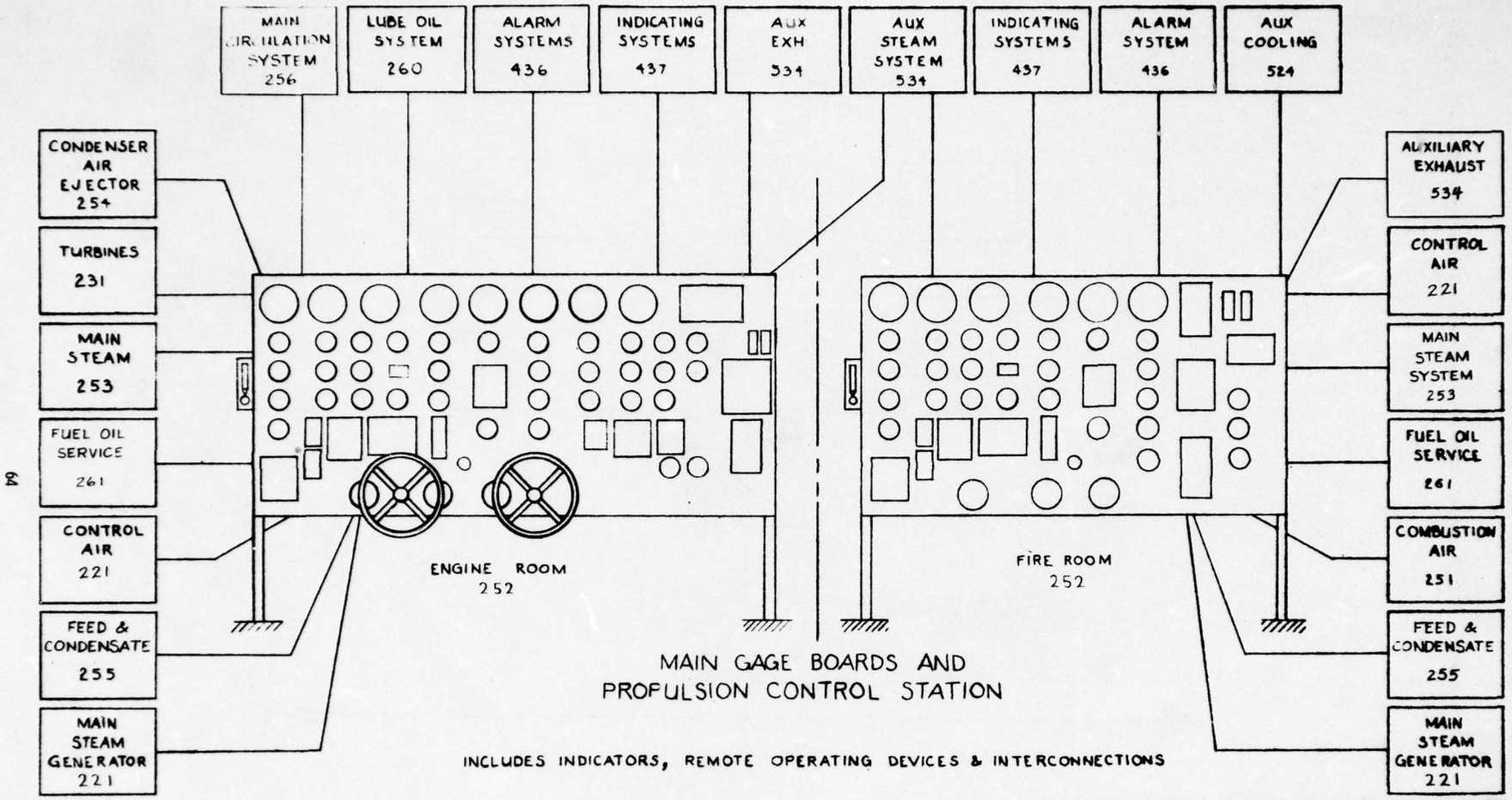


FF-1052 CLASS
PREPARED 6-22-77


AIR FROM UPTAKE SPACE
POWER PANEL 324
AIR FROM UPTAKE SPACE
"B" BLOWER CONNECTIONS SIMILAR
C LVR
MOTOR
LIGHT-OFF BLOWER 2512
BUTTERFLY VLV 2513VG
FOR SECOND MFD BLOWER
AUTO SHUTTER 2513S7
DUCTING 2513
BOILER 221
MAIN FD BLOWER 2511
AUTO SHUTTER 2513S7
SALT-WATER SERVICE SYSTEM 524
LUBE OIL FILL AND DRAIN
DRIP PAN FOR FD BLOWER LO FILTER
FD BLOWER LO DRAIN
COMB CONT SYSTEM 221
POSITIONER 2212
LUBE OIL COOLER
LUBE OIL SUMP
OILY WATER DRAIN 534
1200 PSI AUX STEAM SYSTEM 534
NOZZLE BLOCK 2212 NT
LUBE OIL PUMP
TURBINE
C LVR
P
POWER DISTRIBUTION BOX 324
GLAND SEAL LEAK-OFF 534
HP & FW DRAIN MAINS 534
AUXILIARY EXHAUST
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
251 COMBUSTION AIR SYSTEM



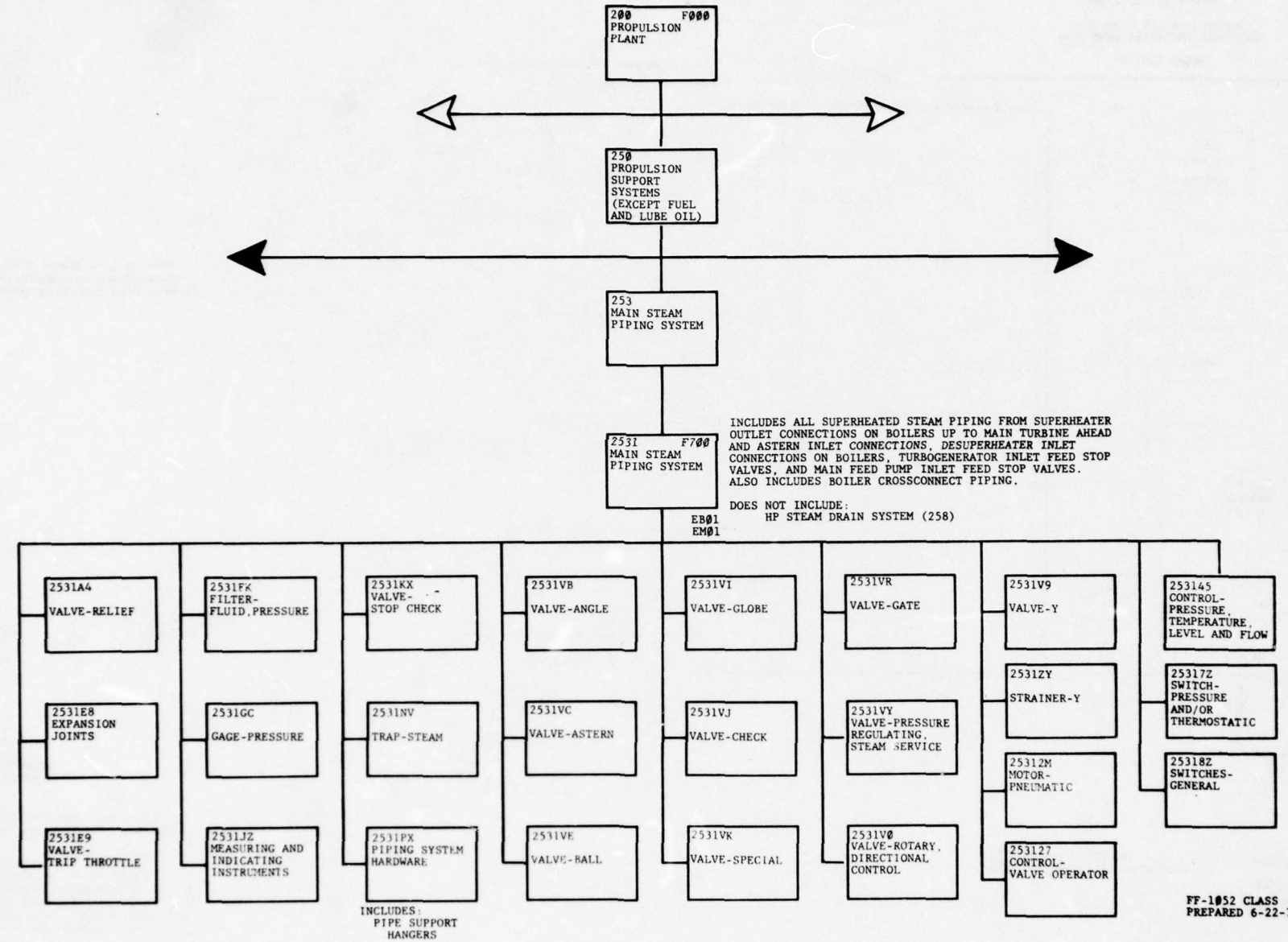
FF-1052 CLASS
PREPARED 6-22-77

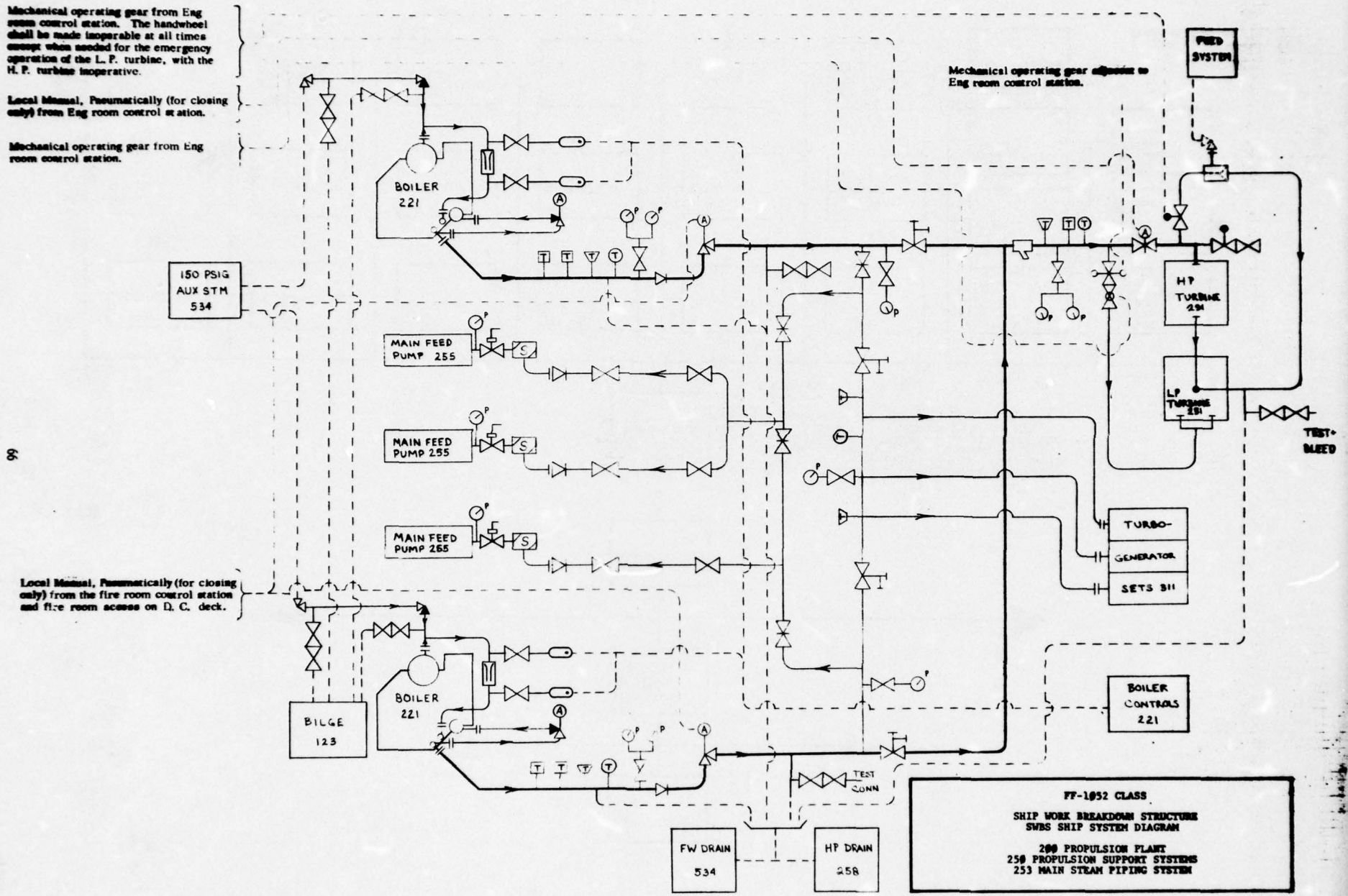


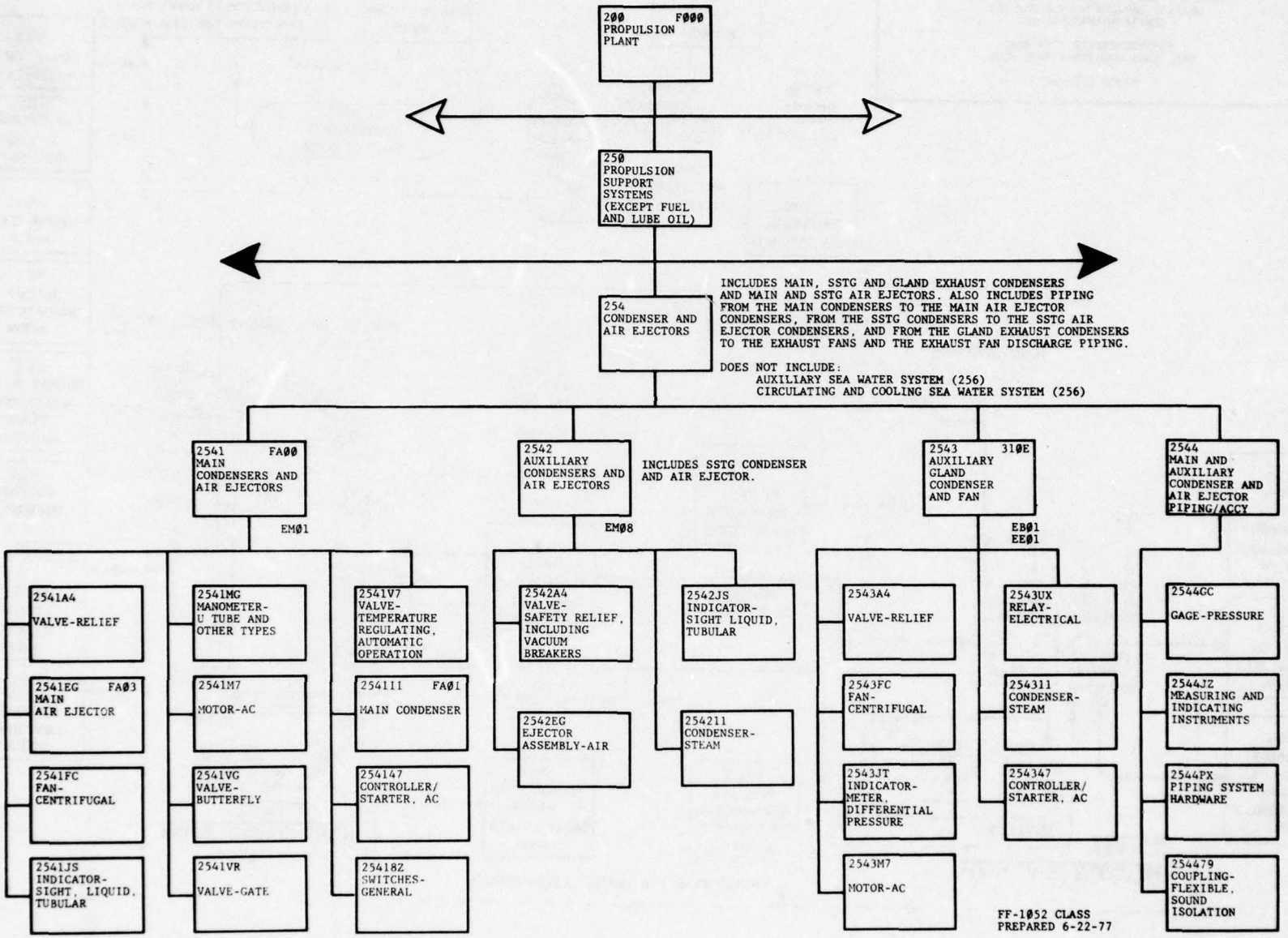
FF-1052 CLASS

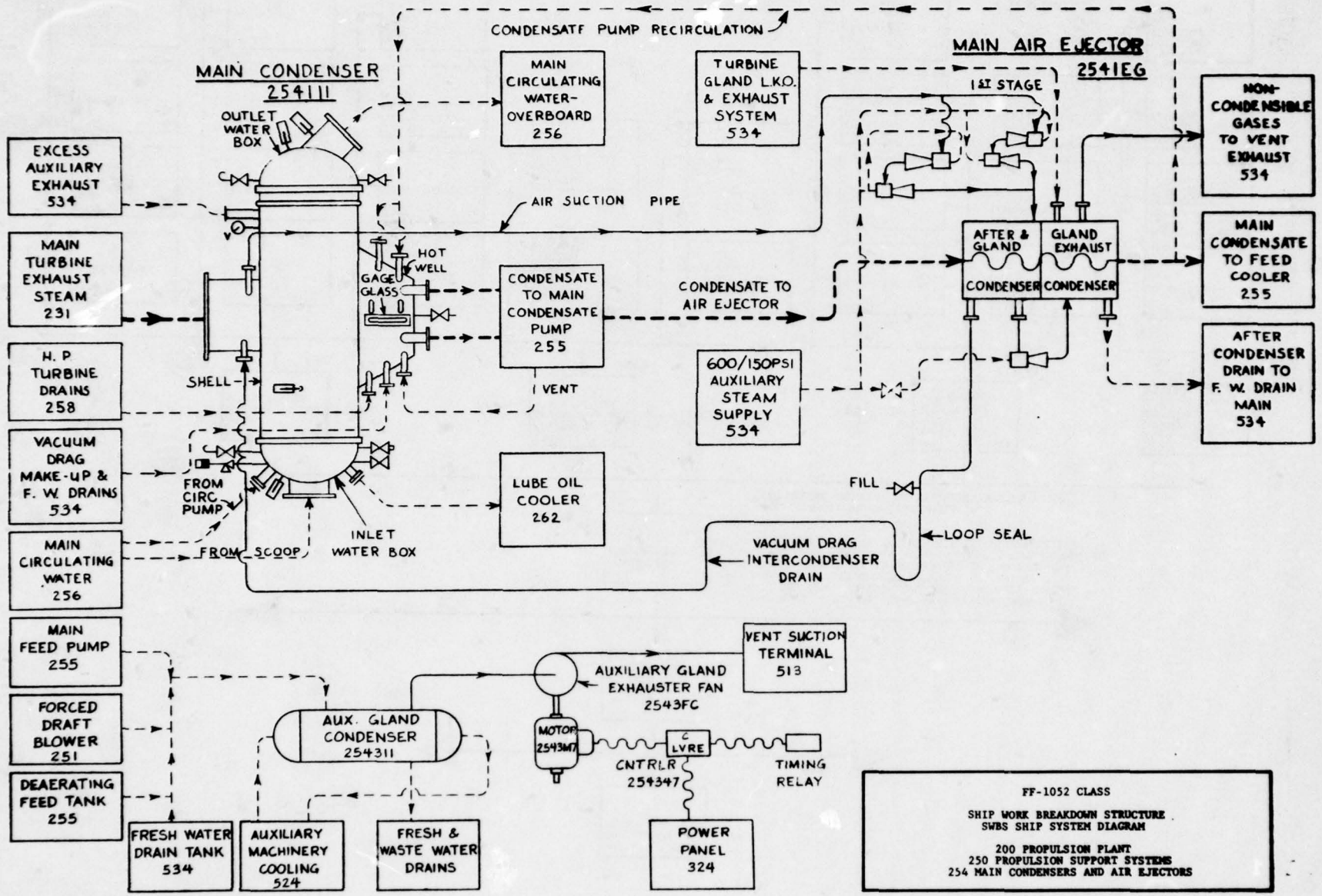
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

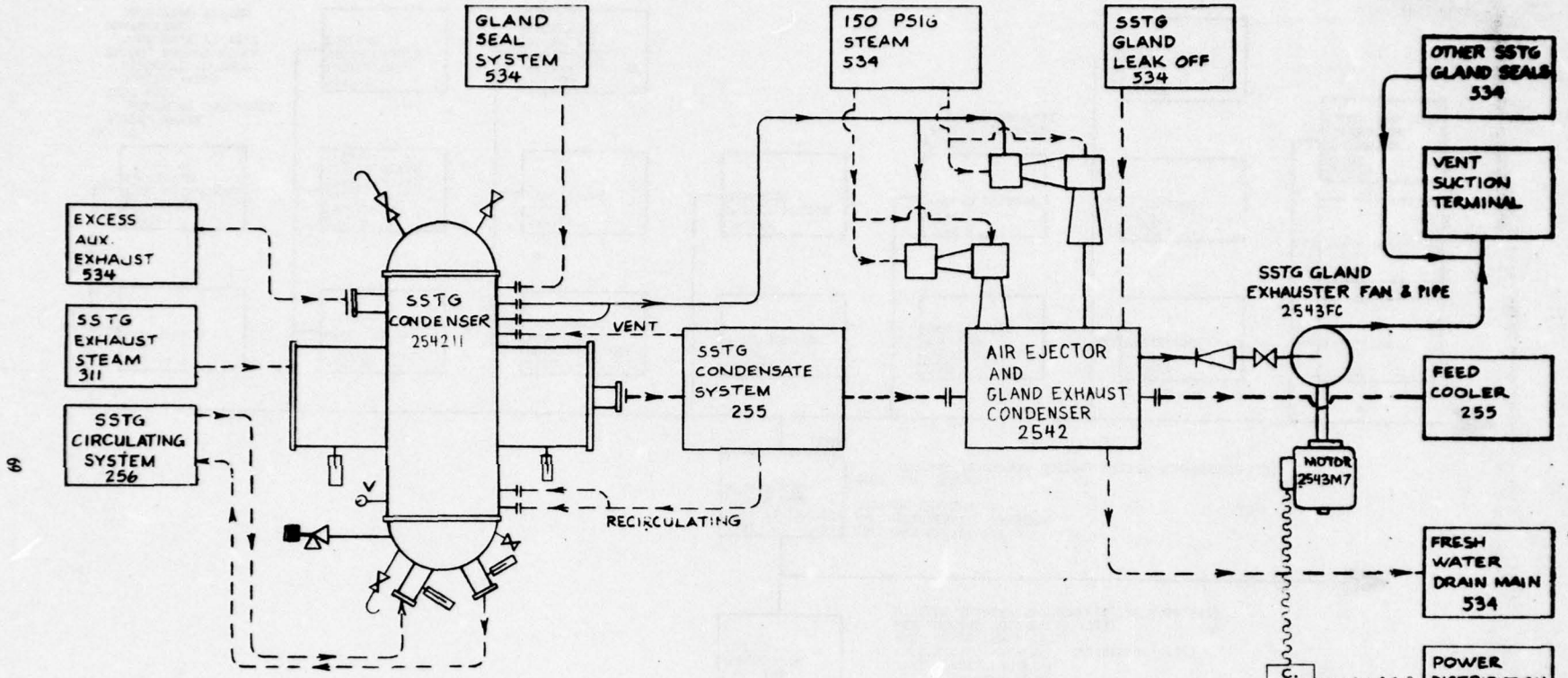
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
252 PROPULSION CONTROL SYSTEM


200 F000
PROPULSION PLANT
250
PROPULSION SUPPORT SYSTEMS (EXCEPT FUEL AND LUBE OIL)
253
MAIN STEAM PIPING SYSTEM
2531 F700
MAIN STEAM PIPING SYSTEM
INCLUDES ALL SUPERHEATED STEAM PIPING FROM SUPERHEATER OUTLET CONNECTIONS ON BOILERS UP TO MAIN TURBINE AHEAD AND ASTERN INLET CONNECTIONS, DESUPERHEATER INLET CONNECTIONS ON BOILERS, TURBOGENERATOR INLET FEED STOP VALVES, AND MAIN FEED PUMP INLET FEED STOP VALVES. ALSO INCLUDES BOILER CROSSCONNECT PIPING.
DOES NOT INCLUDE:
HP STEAM DRAIN SYSTEM (258)
EB01
EM01
2531A4
VALVE-RELIEF
2531E8
EXPANSION JOINTS
2531E9
VALVE-TRIP THROTTLE
2531FK
FILTER-FLUID, PRESSURE
2531GC
GAGE-PRESSURE
2531JZ
MEASURING AND INDICATING INSTRUMENTS
2531KX
VALVE-STOP CHECK
2531NV
TRAP-STEAM
2531PX
PIPING SYSTEM HARDWARE
INCLUDES:
PIPE SUPPORT HANGERS
2531VB
VALVE-ANGLE
2531VC
VALVE-ASTERN
2531VE
VALVE-BALL
2531VI
VALVE-GLOBE
2531VJ
VALVE-CHECK
2531VK
VALVE-SPECIAL
2531VR
VALVE-GATE
2531VY
VALVE-PRESSURE REGULATING, STEAM SERVICE
2531V0
VALVE-ROTARY, DIRECTIONAL CONTROL
2531V9
VALVE-Y
2531ZY
STRAINER-Y
25312M
MOTOR-PNEUMATIC
253127
CONTROL-VALVE OPERATOR
253145
CONTROL-PRESSURE, TEMPERATURE, LEVEL AND FLOW
25317Z
SWITCH-PRESSURE AND/OR THERMOSTATIC
25318Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 6-22-77


Mechanical operating gear from Eng room control station. The handwheel shall be made inoperable at all times except when needed for the emergency operation of the L. P. turbine, with the H. P. turbine inoperative.
Local Manual, Pneumatically (for closing only) from Eng room control station.
Mechanical operating gear from Eng room control station.
Mechanical operating gear adjacent to Eng room control station.
FEED SYSTEM
BOILER 221
150 PSIG AUX STM 534
MAIN FEED PUMP 255
MAIN FEED PUMP 255
MAIN FEED PUMP 255
HP TURBINE 291
LP TURBINE 291
TEST+ BLEED
TURBO-GENERATOR SETS 311
Local Manual, Pneumatically (for closing only) from the fire room control station and fire room access on D. C. deck.
BILGE 123
BOILER 221
BOILER CONTROLS 221
TEST CONN
FW DRAIN 534
HP DRAIN 258
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
253 MAIN STEAM PIPING SYSTEM


200 F000
PROPULSION PLANT
250
PROPULSION SUPPORT SYSTEMS (EXCEPT FUEL AND LUBE OIL)
254
CONDENSER AND AIR EJECTORS
INCLUDES MAIN, SSTG AND GLAND EXHAUST CONDENSERS AND MAIN AND SSTG AIR EJECTORS. ALSO INCLUDES PIPING FROM THE MAIN CONDENSERS TO THE MAIN AIR EJECTOR CONDENSERS, FROM THE SSTG CONDENSERS TO THE SSTG AIR EJECTOR CONDENSERS, AND FROM THE GLAND EXHAUST CONDENSERS TO THE EXHAUST FANS AND THE EXHAUST FAN DISCHARGE PIPING.
DOES NOT INCLUDE:
AUXILIARY SEA WATER SYSTEM (256)
CIRCULATING AND COOLING SEA WATER SYSTEM (256)
2541 FA00
MAIN CONDENSERS AND AIR EJECTORS
EM01
2541A4
VALVE-RELIEF
2541EG FA03
MAIN AIR EJECTOR
2541FC
FAN-CENTRIFUGAL
2541JS
INDICATOR-SIGHT, LIQUID, TUBULAR
2541MG
MANOMETER-U TUBE AND OTHER TYPES
2541M7
MOTOR-AC
2541VG
VALVE-BUTTERFLY
2541VR
VALVE-GATE
2541V7
VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
254111 FA01
MAIN CONDENSER
254147
CONTROLLER/STARTER, AC
25418Z
SWITCHES-GENERAL
2542
AUXILIARY CONDENSERS AND AIR EJECTORS
INCLUDES SSTG CONDENSER AND AIR EJECTOR.
EM08
2542A4
VALVE-SAFETY RELIEF, INCLUDING VACUUM BREAKERS
2542EG
EJECTOR ASSEMBLY-AIR
2542JS
INDICATOR-SIGHT LIQUID, TUBULAR
254211
CONDENSER-STEAM
2543 310E
AUXILIARY GLAND CONDENSER AND FAN
EB01
EE01
2543A4
VALVE-RELIEF
2543FC
FAN-CENTRIFUGAL
2543JT
INDICATOR-METER, DIFFERENTIAL PRESSURE
2543M7
MOTOR-AC
2543UX
RELAY-ELECTRICAL
254311
CONDENSER-STEAM
254347
CONTROLLER/STARTER, AC
2544
MAIN AND AUXILIARY CONDENSER AND AIR EJECTOR PIPING/ACCY
2544GC
GAGE-PRESSURE
2544JZ
MEASURING AND INDICATING INSTRUMENTS
2544PX
PIPING SYSTEM HARDWARE
254479
COUPLING-FLEXIBLE, SOUND ISOLATION
FF-1052 CLASS
PREPARED 6-22-77

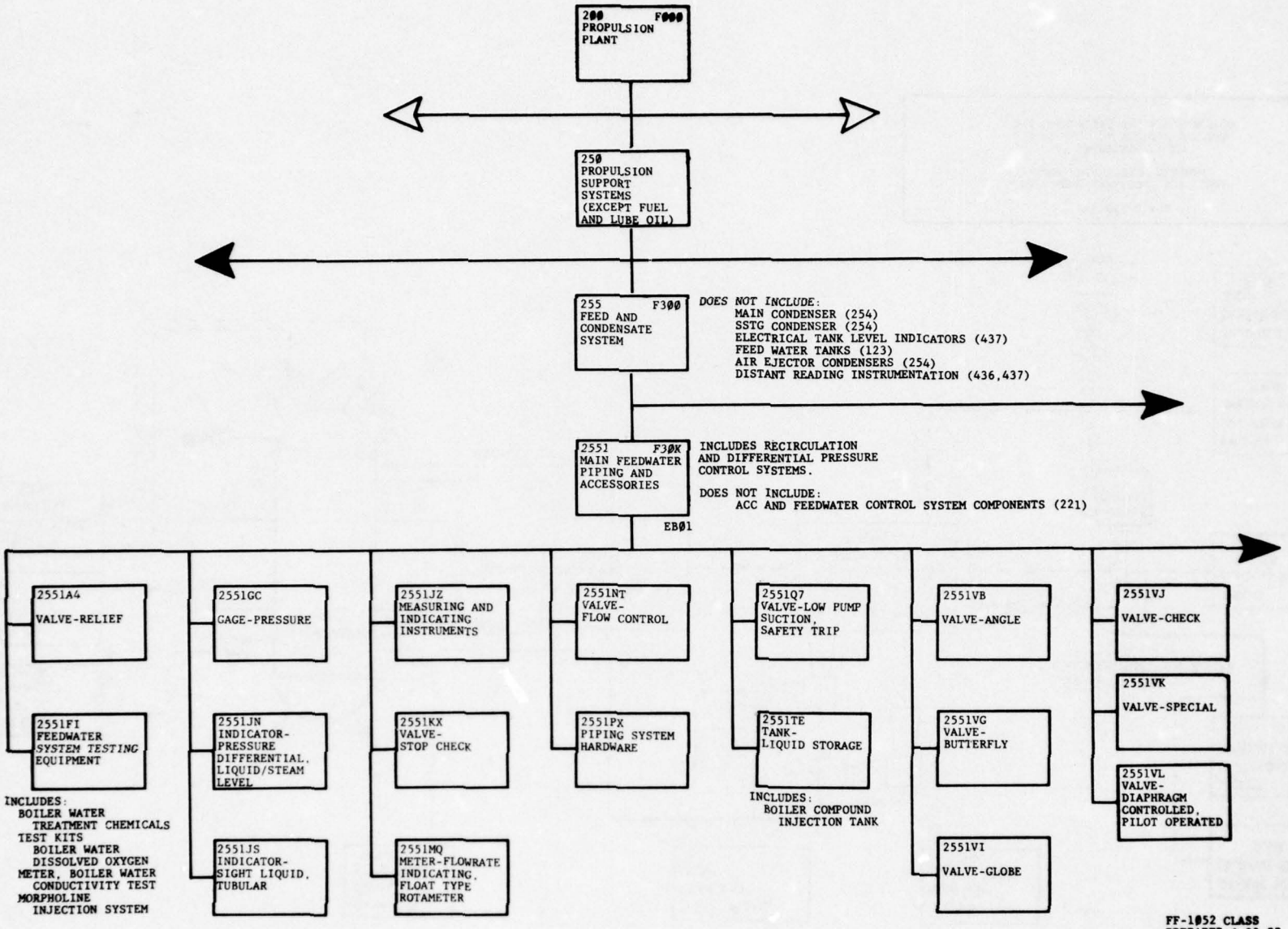

MAIN CONDENSER
254111
CONDENSATE PUMP RECIRCULATION
MAIN AIR EJECTOR
2541EG
MAIN CIRCULATING WATER-OVERBOARD 256
TURBINE GLAND L.K.O. & EXHAUST SYSTEM 534
1&I STAGE
NON-CONDENSIBLE GASES TO VENT EXHAUST 534
OUTLET WATER BOX
EXCESS AUXILIARY EXHAUST 534
AIR SUCTION PIPE
MAIN TURBINE EXHAUST STEAM 231
HOT WELL
GAGE GLASS
CONDENSATE TO MAIN CONDENSATE PUMP 255
CONDENSATE TO AIR EJECTOR
AFTER & GLAND CONDENSER
GLAND EXHAUST CONDENSER
MAIN CONDENSATE TO FEED COOLER 255
H. P TURBINE DRAINS 258
SHELL
VENT
600/150PSI AUXILIARY STEAM SUPPLY 534
AFTER CONDENSER DRAIN TO F. W. DRAIN MAIN 534
VACUUM DRAG MAKE-UP & F. W. DRAINS 534
FROM CIRC PUMP
LUBE OIL COOLER 262
FILL
MAIN CIRCULATING WATER 256
FROM SCOOP
INLET WATER BOX
LOOP SEAL
VACUUM DRAG INTERCONDENSER DRAIN
MAIN FEED PUMP 255
VENT SUCTION TERMINAL 513
AUXILIARY GLAND EXHAUSTER FAN 2543FC
FORCED DRAFT BLOWER 251
AUX. GLAND CONDENSER 254311
MOTOR 2543M7
LVRE
CNTRLR 254347
TIMING RELAY
DEAERATING FEED TANK 255
FRESH WATER DRAIN TANK 534
AUXILIARY MACHINERY COOLING 524
FRESH & WASTE WATER DRAINS
POWER PANEL 324
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
254 MAIN CONDENSERS AND AIR EJECTORS



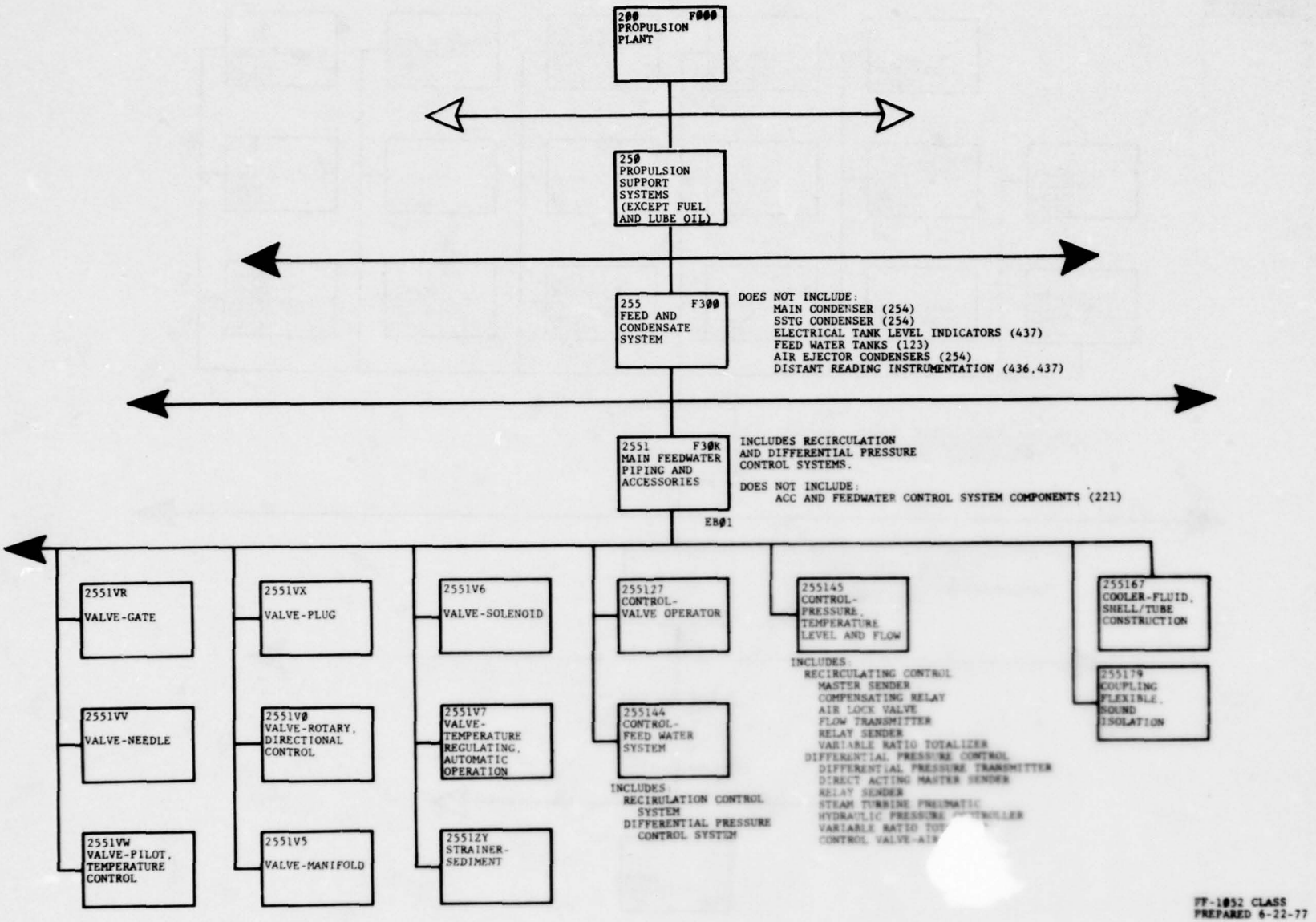
FF-1052 CLASS

SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

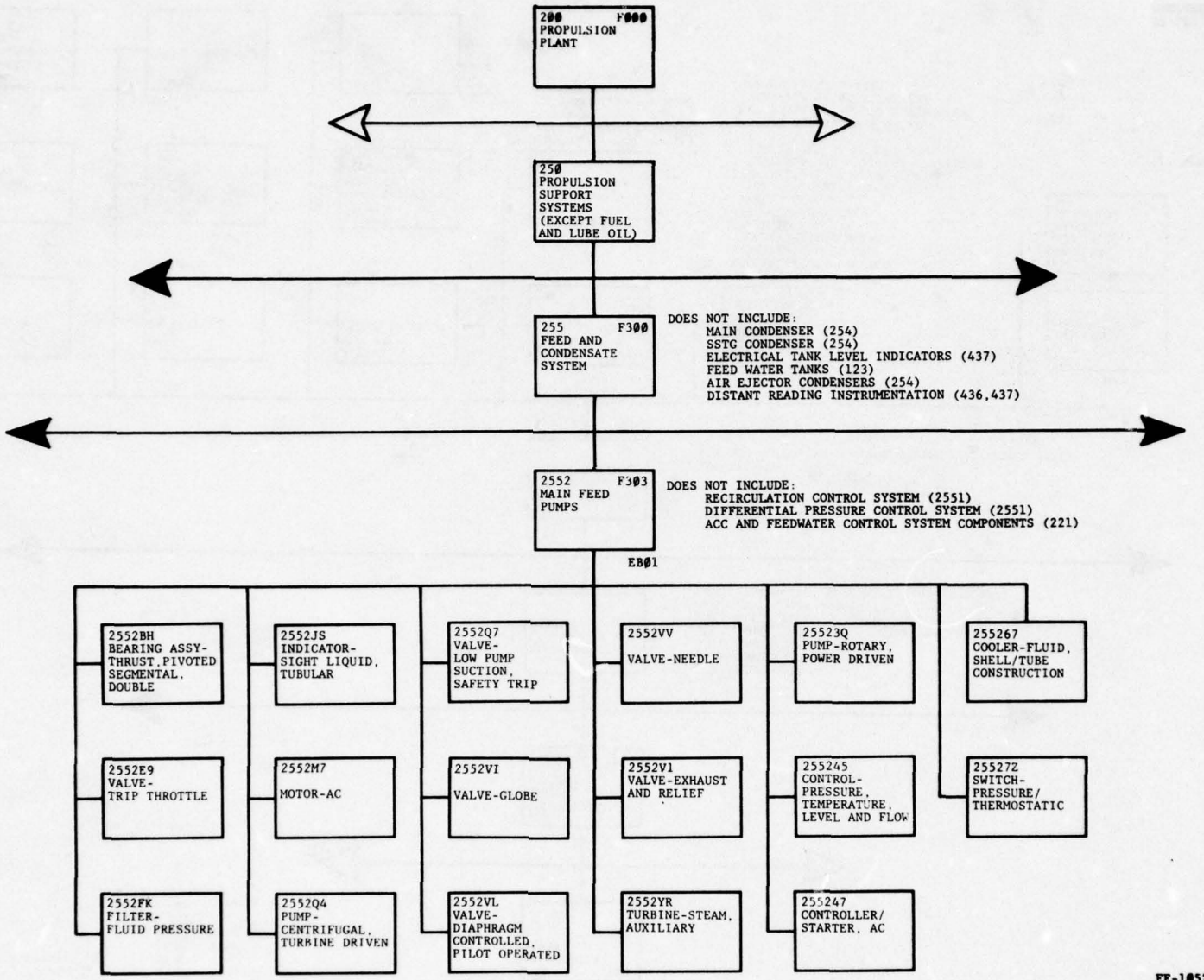
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
254 CONDENSERS AND AIR EJECTORS



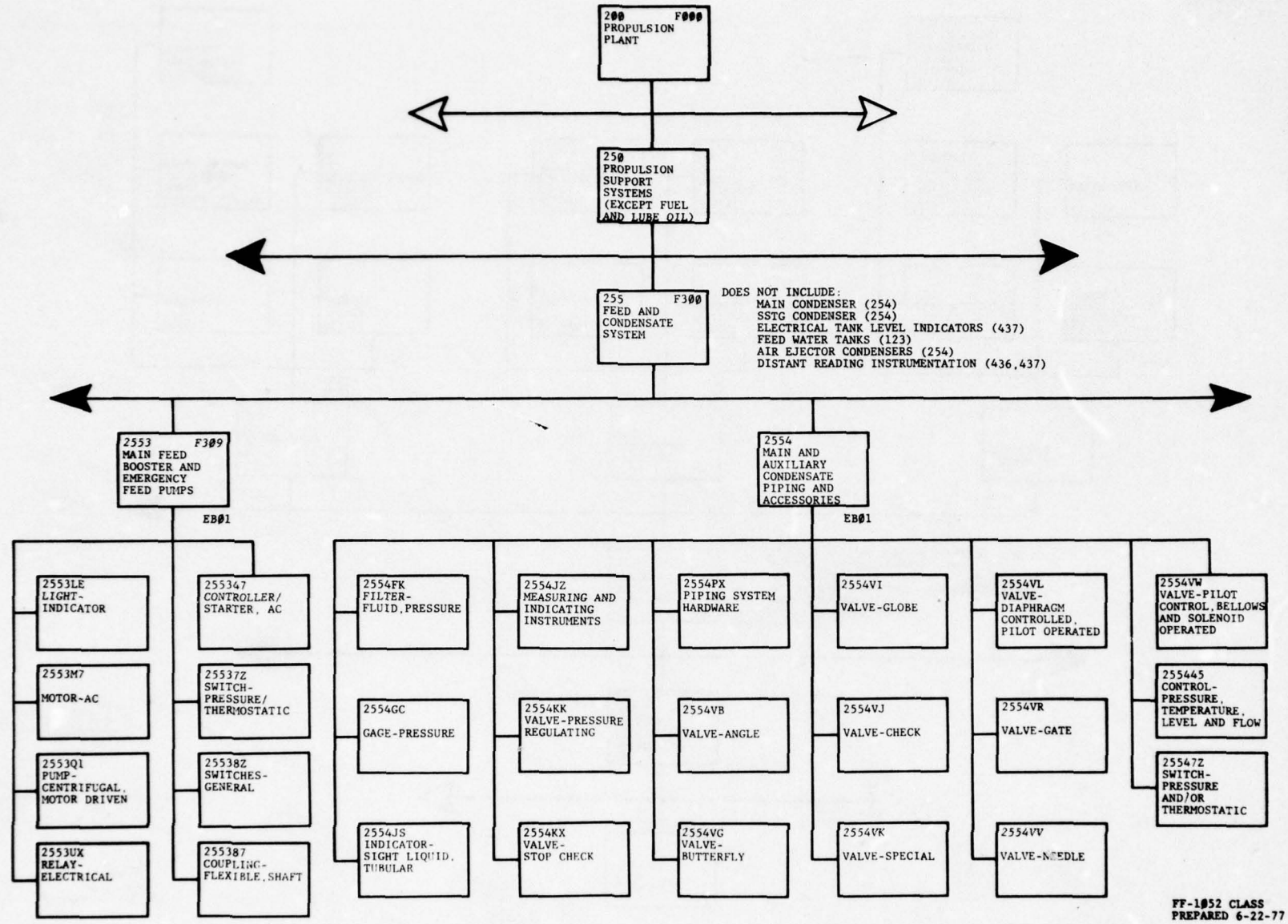
FF-1052 CLASS
PREPARED 6-22-77

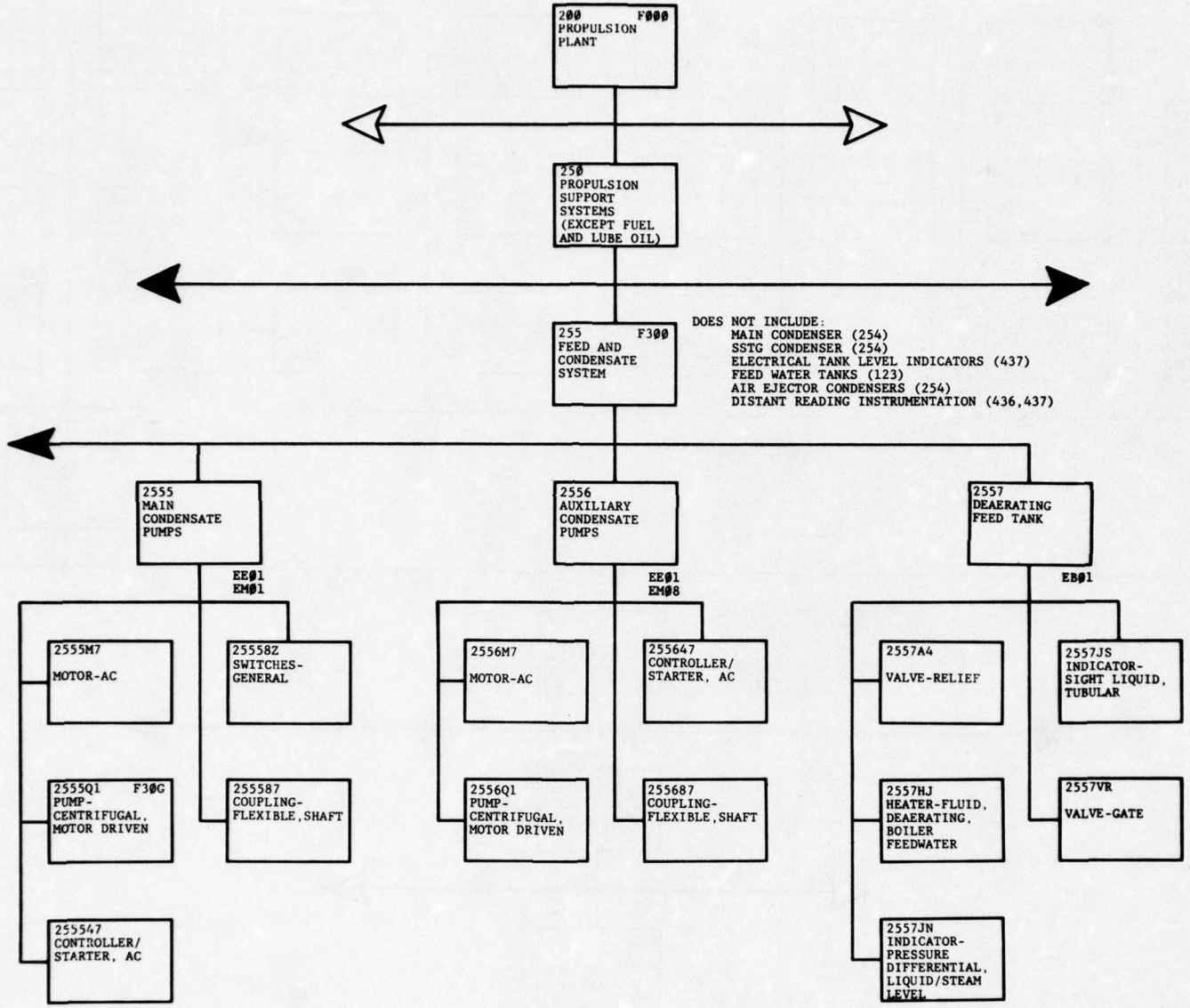


FF-1052 CLASS
PREPARED 6-22-77

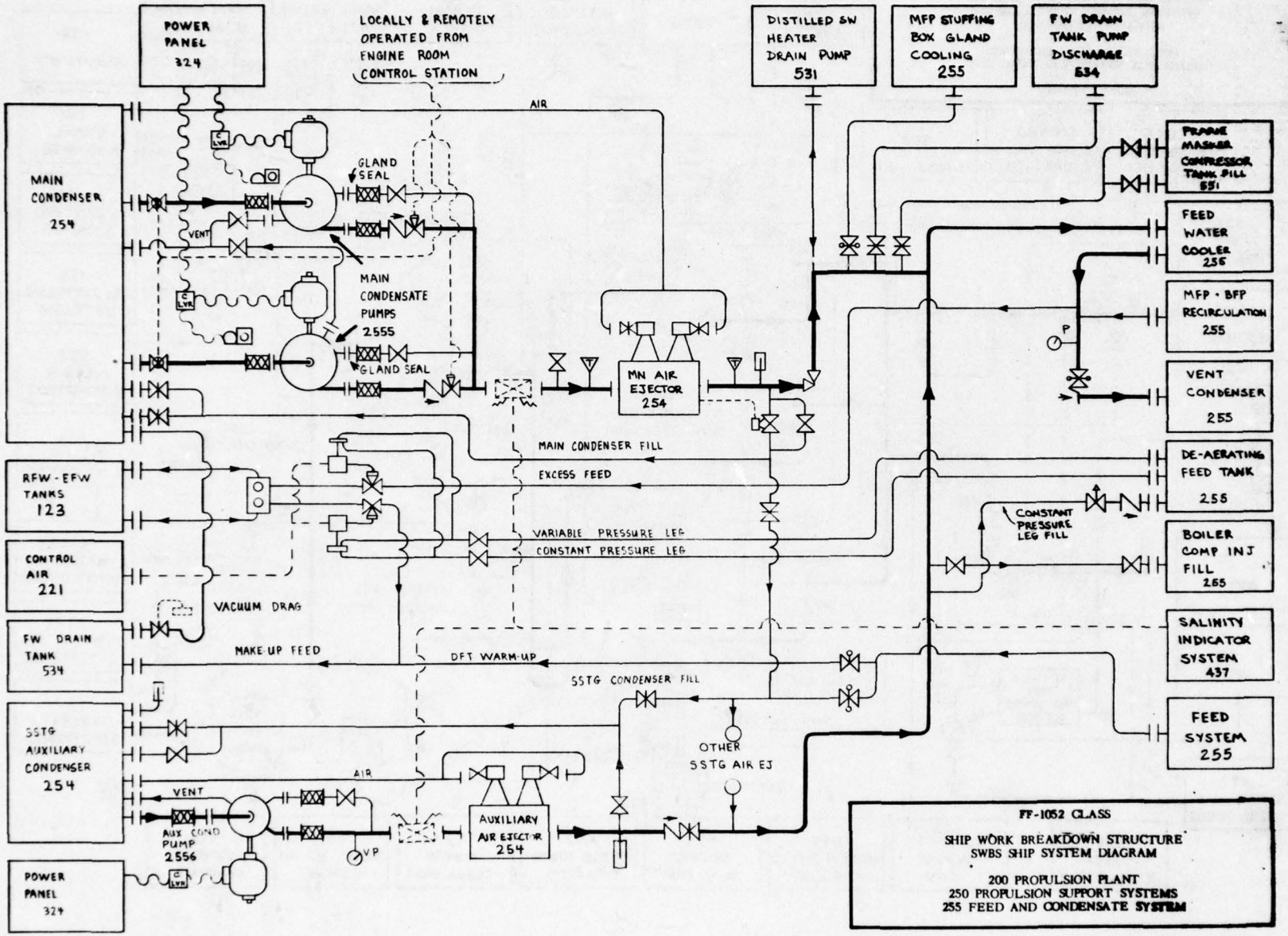


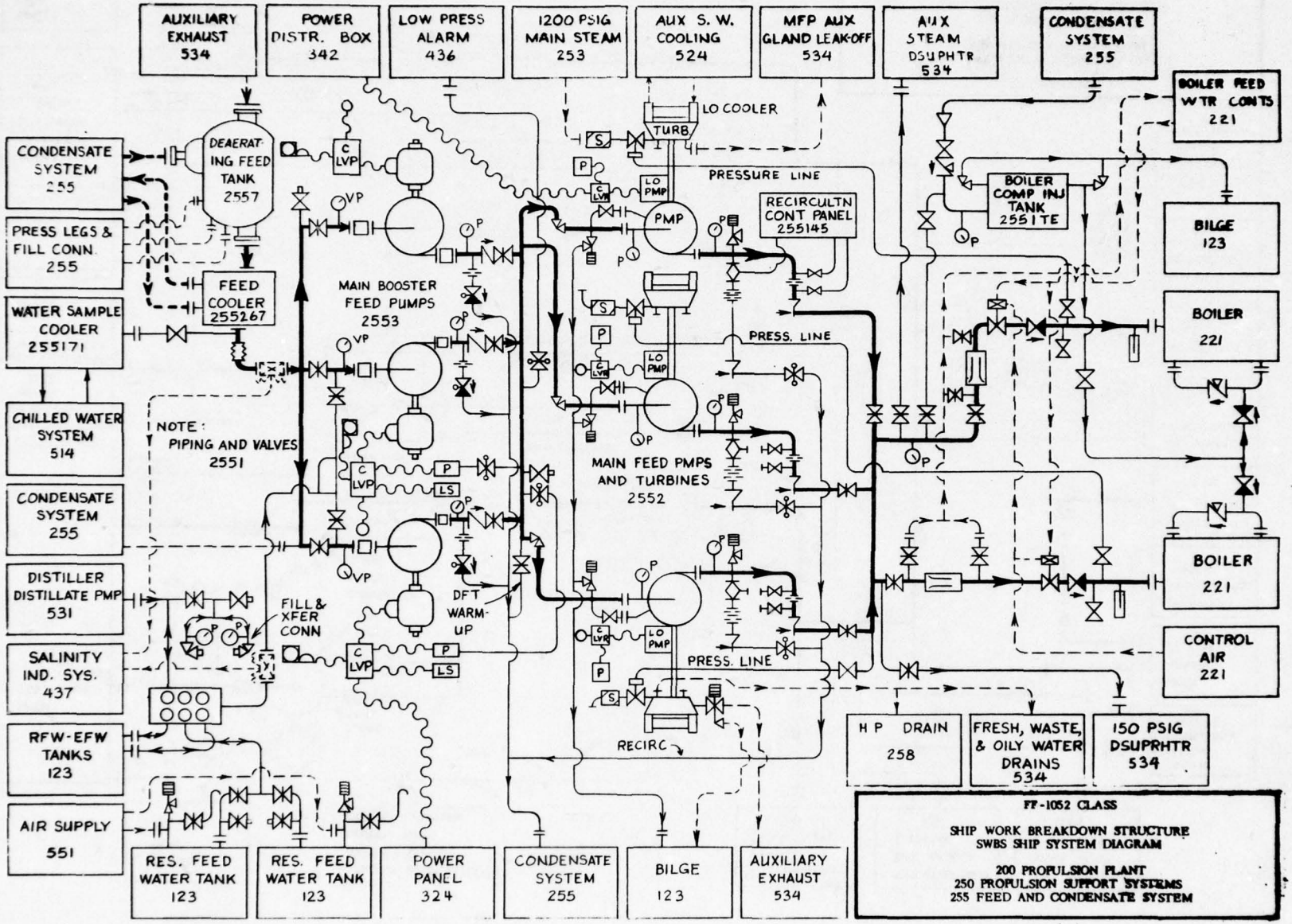
FF-1052 CLASS
PREPARED 6-22-77

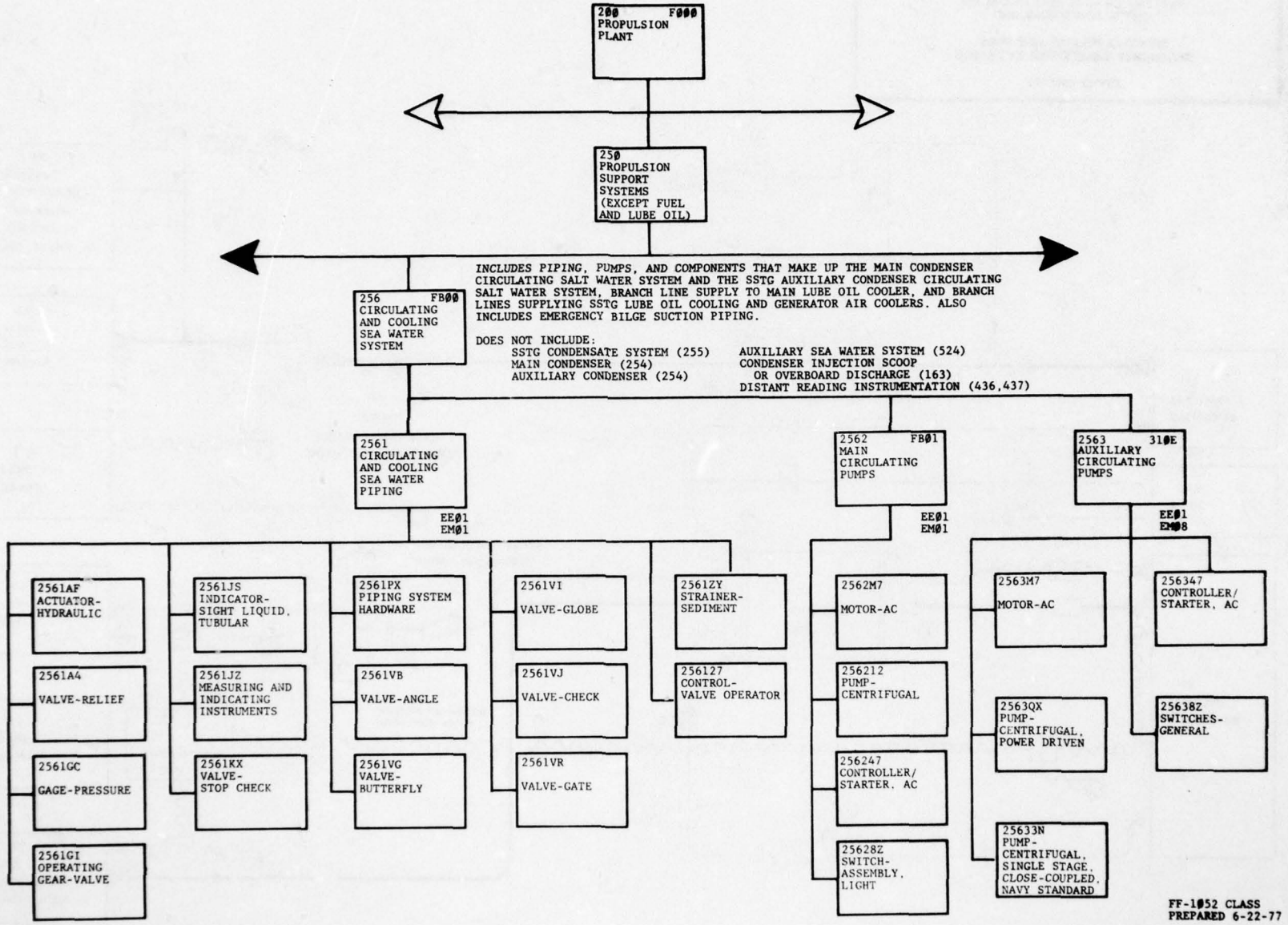

200 F000
PROPULSION PLANT
250
PROPULSION SUPPORT SYSTEMS (EXCEPT FUEL AND LUBE OIL)
255 F300
FEED AND CONDENSATE SYSTEM
DOES NOT INCLUDE:
MAIN CONDENSER (254)
SSTG CONDENSER (254)
ELECTRICAL TANK LEVEL INDICATORS (437)
FEED WATER TANKS (123)
AIR EJECTOR CONDENSERS (254)
DISTANT READING INSTRUMENTATION (436,437)
2553 F309
MAIN FEED BOOSTER AND EMERGENCY FEED PUMPS
EB01
2553LE LIGHT-INDICATOR
2553M7 MOTOR-AC
2553Q1 PUMP-CENTRIFUGAL, MOTOR DRIVEN
2553UX RELAY-ELECTRICAL
255347 CONTROLLER/STARTER, AC
25537Z SWITCH-PRESSURE/THERMOSTATIC
25538Z SWITCHES-GENERAL
255387 COUPLING-FLEXIBLE, SHAFT
2554 MAIN AND AUXILIARY CONDENSATE PIPING AND ACCESSORIES
EB01
2554FK FILTER-FLUID, PRESSURE
2554GC GAGE-PRESSURE
2554JS INDICATOR-SIGHT LIQUID, TUBULAR
2554JZ MEASURING AND INDICATING INSTRUMENTS
2554KK VALVE-PRESSURE REGULATING
2554KX VALVE-STOP CHECK
2554PX PIPING SYSTEM HARDWARE
2554VB VALVE-ANGLE
2554VG VALVE-BUTTERFLY
2554VI VALVE-GLOBE
2554VJ VALVE-CHECK
2554VK VALVE-SPECIAL
2554VL VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
2554VR VALVE-GATE
2554VV VALVE-NEEDLE
2554VW VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
255445 CONTROL-PRESSURE, TEMPERATURE, LEVEL AND FLOW
25547Z SWITCH-PRESSURE AND/OR THERMOSTATIC
FF-1052 CLASS
PREPARED 6-22-77

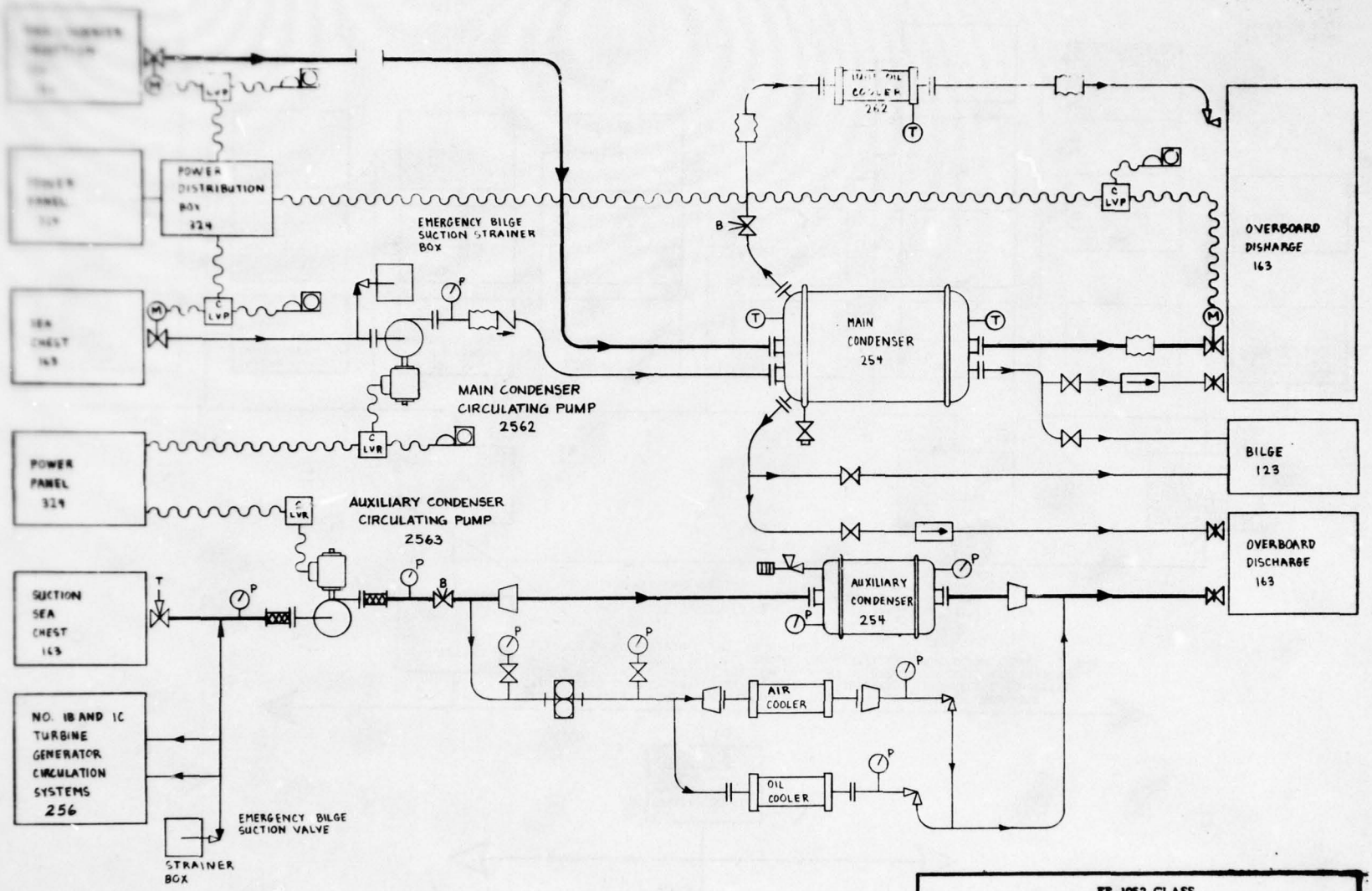


FF-1052 CLASS
PREPARED 6-22-77


POWER PANEL 324
LOCALLY & REMOTELY OPERATED FROM ENGINE ROOM CONTROL STATION
DISTILLED SW HEATER DRAIN PUMP 531
MFP STUFFING BOX GLAND COOLING 255
FW DRAIN TANK PUMP DISCHARGE 534
AIR
MAIN CONDENSER 254
GLAND SEAL
VENT
MAIN CONDENSATE PUMPS 2555
GLAND SEAL
MN AIR EJECTOR 254
PROPULSION MASTER COMPRESSOR TANK FILL 551
FEED WATER COOLER 256
MFP - BFP RECIRCULATION 255
P
VENT CONDENSER 255
MAIN CONDENSER FILL
EXCESS FEED
RFW - EFW TANKS 123
DE-AERATING FEED TANK 255
CONSTANT PRESSURE LEG FILL
VARIABLE PRESSURE LEG
CONSTANT PRESSURE LEG
BOILER COMP INJ FILL 265
CONTROL AIR 221
VACUUM DRAG
SALINITY INDICATOR SYSTEM 437
FW DRAIN TANK 534
MAKE-UP FEED
DFT WARM-UP
SSTG CONDENSER FILL
FEED SYSTEM 255
SSTG AUXILIARY CONDENSER 254
OTHER SSTG AIR EJ
AIR
VENT
AUX COND PUMP 2556
VP
AUXILIARY AIR EJECTOR 254
POWER PANEL 324
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
255 FEED AND CONDENSATE SYSTEM


AUXILIARY EXHAUST 534
POWER DISTR. BOX 342
LOW PRESS ALARM 436
1200 PSIG MAIN STEAM 253
AUX S. W. COOLING 524
MFP AUX GLAND LEAK-OFF 534
AUX STEAM DSUPHTR 534
CONDENSATE SYSTEM 255
BOILER FEED WTR CONTS 221
CONDENSATE SYSTEM 255
PRESS LEGS & FILL CONN. 255
WATER SAMPLE COOLER 255171
CHILLED WATER SYSTEM 514
CONDENSATE SYSTEM 255
DISTILLER DISTILLATE PMP 531
SALINITY IND. SYS. 437
RFW-EFW TANKS 123
AIR SUPPLY 551
DEAERATING FEED TANK 2557
FEED COOLER 255267
MAIN BOOSTER FEED PUMPS 2553
NOTE: PIPING AND VALVES 2551
FILL & XFER CONN
DFT WARM-UP
LO COOLER
TURB
PRESSURE LINE
RECIRCULTN CONT PANEL 255145
PMP
PRESS. LINE
MAIN FEED PMPS AND TURBINES 2552
RECIRC
BOILER COMP INJ TANK 2551TE
BILGE 123
BOILER 221
BOILER 221
BOILER 221
CONTROL AIR 221
H P DRAIN 258
FRESH, WASTE, & OILY WATER DRAINS 534
150 PSIG DSUPRHTR 534
RES. FEED WATER TANK 123
RES. FEED WATER TANK 123
POWER PANEL 324
CONDENSATE SYSTEM 255
BILGE 123
AUXILIARY EXHAUST 534
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
255 FEED AND CONDENSATE SYSTEM

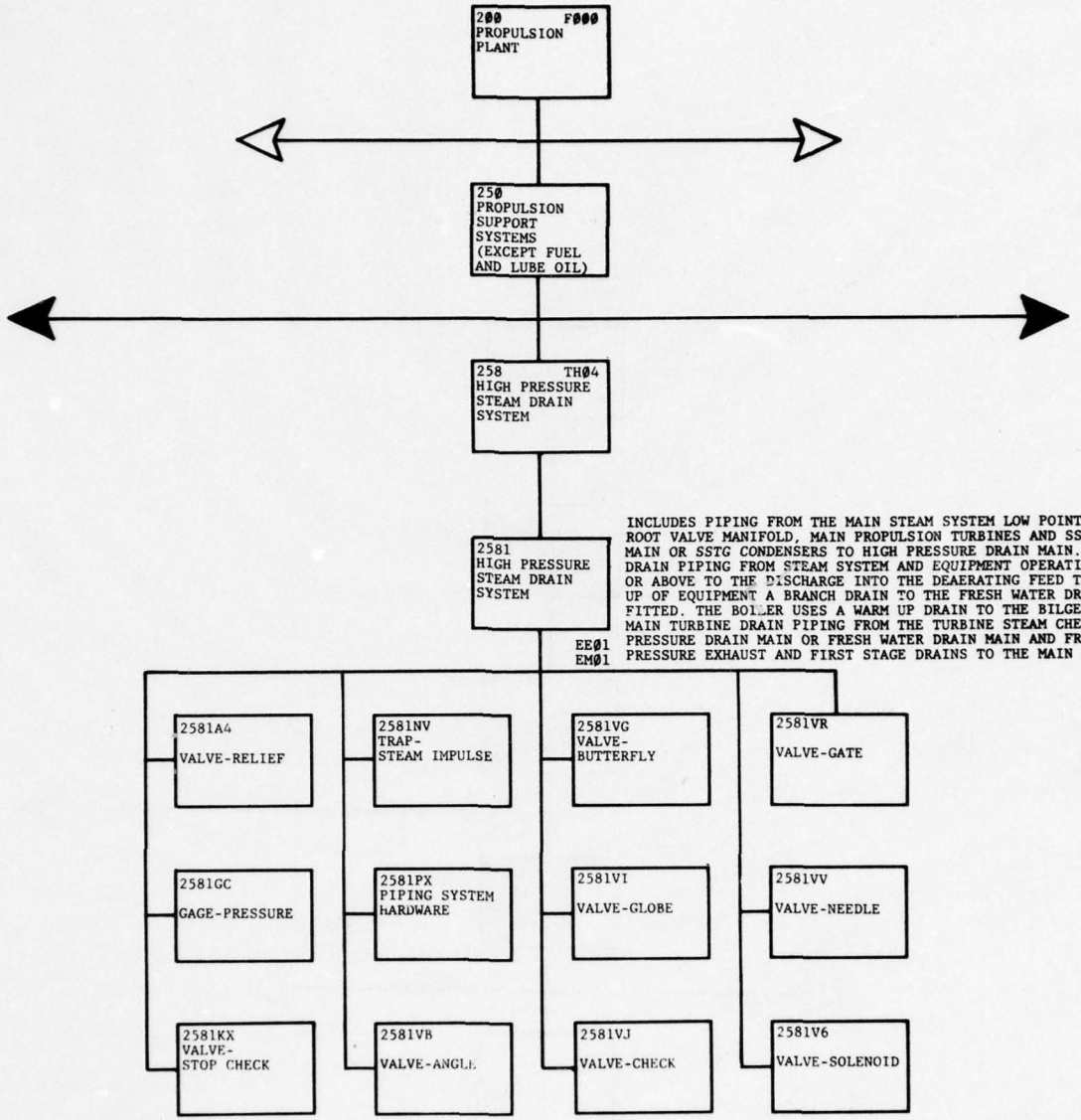

200 F000
PROPULSION PLANT
250
PROPULSION SUPPORT SYSTEMS (EXCEPT FUEL AND LUBE OIL)
INCLUDES PIPING, PUMPS, AND COMPONENTS THAT MAKE UP THE MAIN CONDENSER CIRCULATING SALT WATER SYSTEM AND THE SSTG AUXILIARY CONDENSER CIRCULATING SALT WATER SYSTEM, BRANCH LINE SUPPLY TO MAIN LUBE OIL COOLER, AND BRANCH LINES SUPPLYING SSTG LUBE OIL COOLING AND GENERATOR AIR COOLERS. ALSO INCLUDES EMERGENCY BILGE SUCTION PIPING.
DOES NOT INCLUDE:
SSTG CONDENSATE SYSTEM (255)
MAIN CONDENSER (254)
AUXILIARY CONDENSER (254)
AUXILIARY SEA WATER SYSTEM (524)
CONDENSER INJECTION SCOOP OR OVERBOARD DISCHARGE (163)
DISTANT READING INSTRUMENTATION (436,437)
256 FB00
CIRCULATING AND COOLING SEA WATER SYSTEM
2561
CIRCULATING AND COOLING SEA WATER PIPING
EE01
EM01
2562 FB01
MAIN CIRCULATING PUMPS
EE01
EM01
2563 310E
AUXILIARY CIRCULATING PUMPS
EE01
EM08
2561AF
ACTUATOR-HYDRAULIC
2561A4
VALVE-RELIEF
2561GC
GAGE-PRESSURE
2561GI
OPERATING GEAR-VALVE
2561JS
INDICATOR-SIGHT LIQUID, TUBULAR
2561JZ
MEASURING AND INDICATING INSTRUMENTS
2561KX
VALVE-STOP CHECK
2561PX
PIPING SYSTEM HARDWARE
2561VB
VALVE-ANGLE
2561VG
VALVE-BUTTERFLY
2561VI
VALVE-GLOBE
2561VJ
VALVE-CHECK
2561VR
VALVE-GATE
2561ZY
STRAINER-SEDIMENT
256127
CONTROL-VALVE OPERATOR
2562M7
MOTOR-AC
256212
PUMP-CENTRIFUGAL
256247
CONTROLLER/STARTER, AC
25628Z
SWITCH-ASSEMBLY, LIGHT
2563M7
MOTOR-AC
2563QX
PUMP-CENTRIFUGAL, POWER DRIVEN
25633N
PUMP-CENTRIFUGAL, SINGLE STAGE, CLOSE-COUPLED, NAVY STANDARD
256347
CONTROLLER/STARTER, AC
25638Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 6-22-77



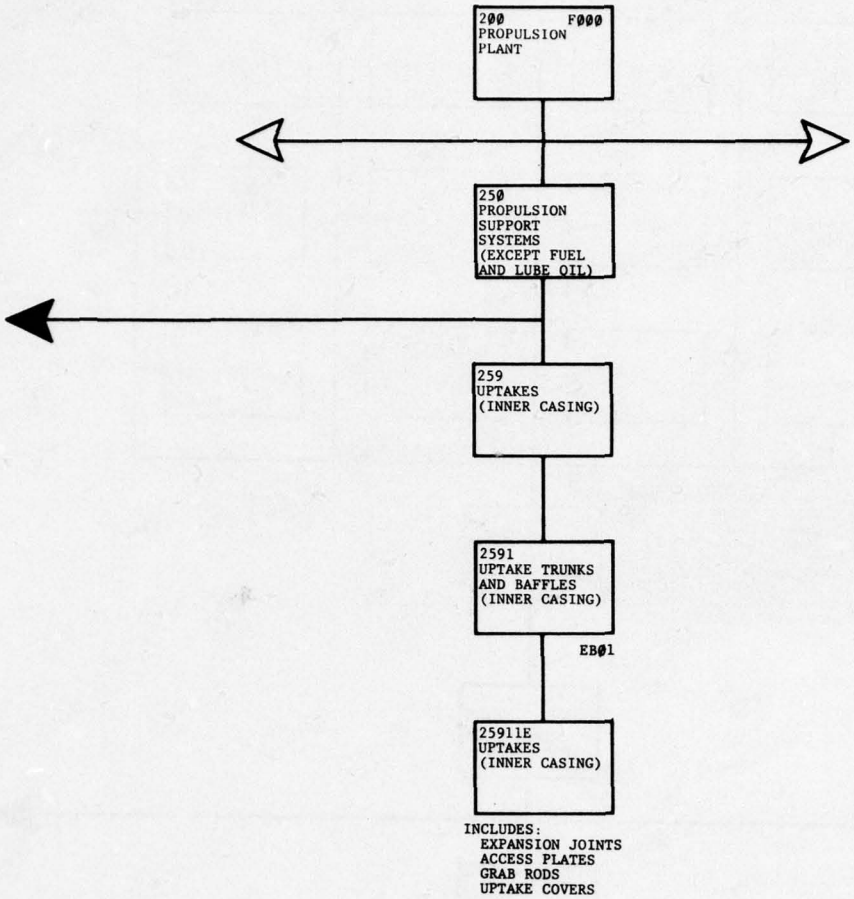
FF-1052 CLASS

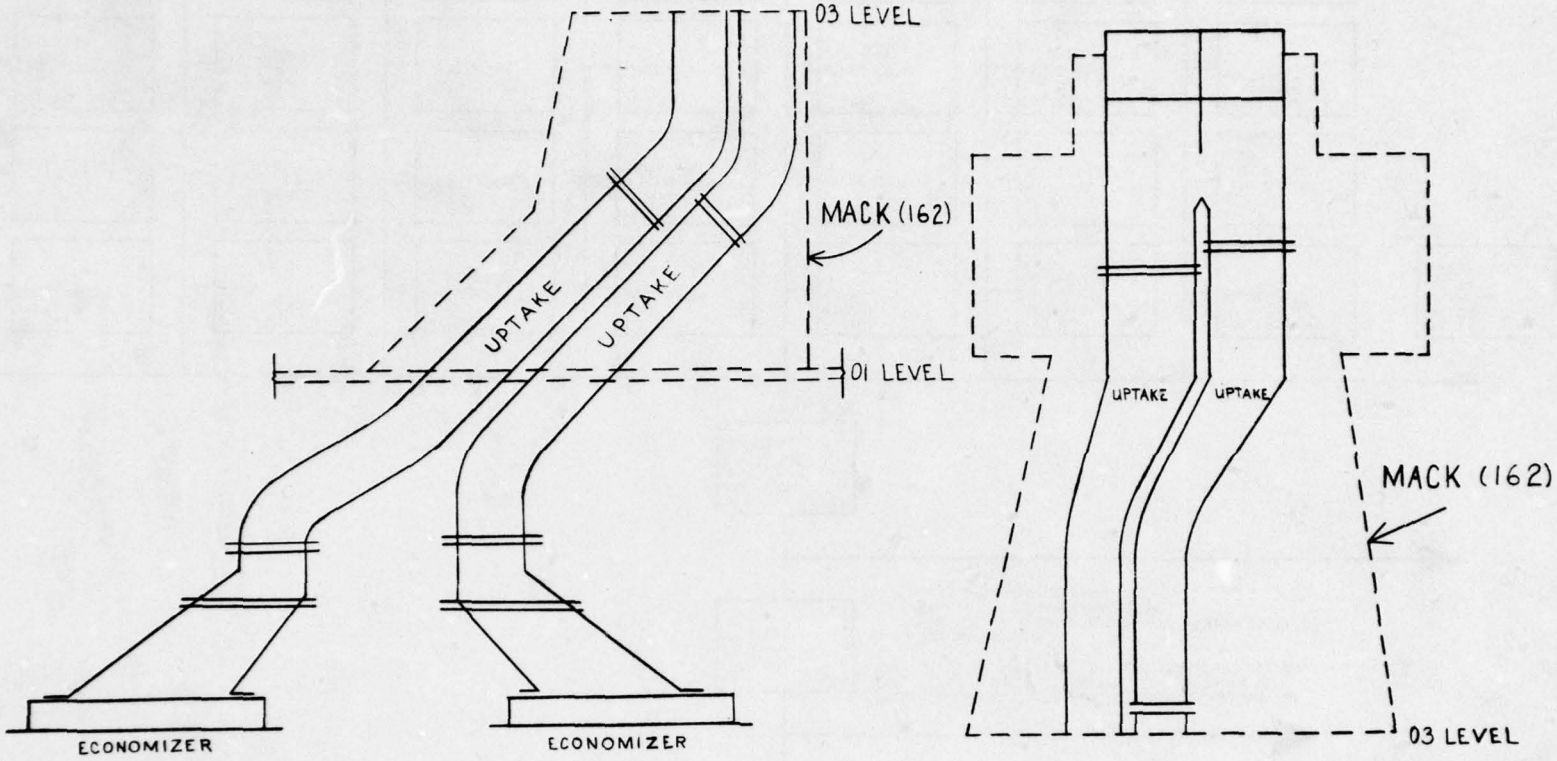
SHIP WORK BREAKDOWN STRUCTURE.
SWBS SHIP SYSTEM DIAGRAM

200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
256 CIRCULATING AND COOLING WATER SEA SYSTEMS



FF-1052 CLASS
PREPARED 6-22-77


200 F000
PROPULSION PLANT
250
PROPULSION SUPPORT SYSTEMS (EXCEPT FUEL AND LUBE OIL)
259
UPTAKES (INNER CASING)
2591
UPTAKE TRUNKS AND BAFFLES (INNER CASING)
EB01
25911E
UPTAKES (INNER CASING)
INCLUDES:
EXPANSION JOINTS
ACCESS PLATES
GRAB RODS
UPTAKE COVERS

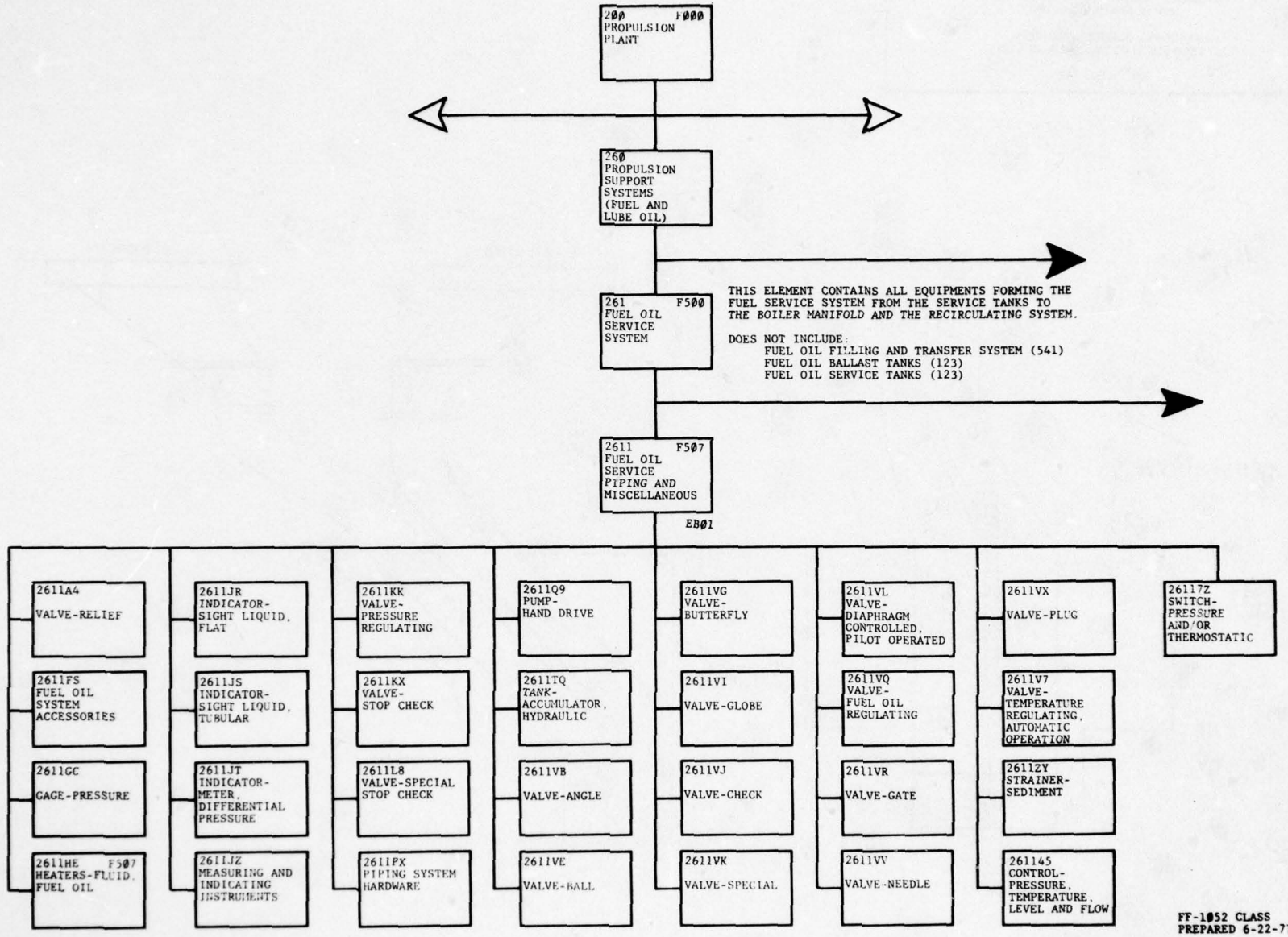


259 UPTAKES

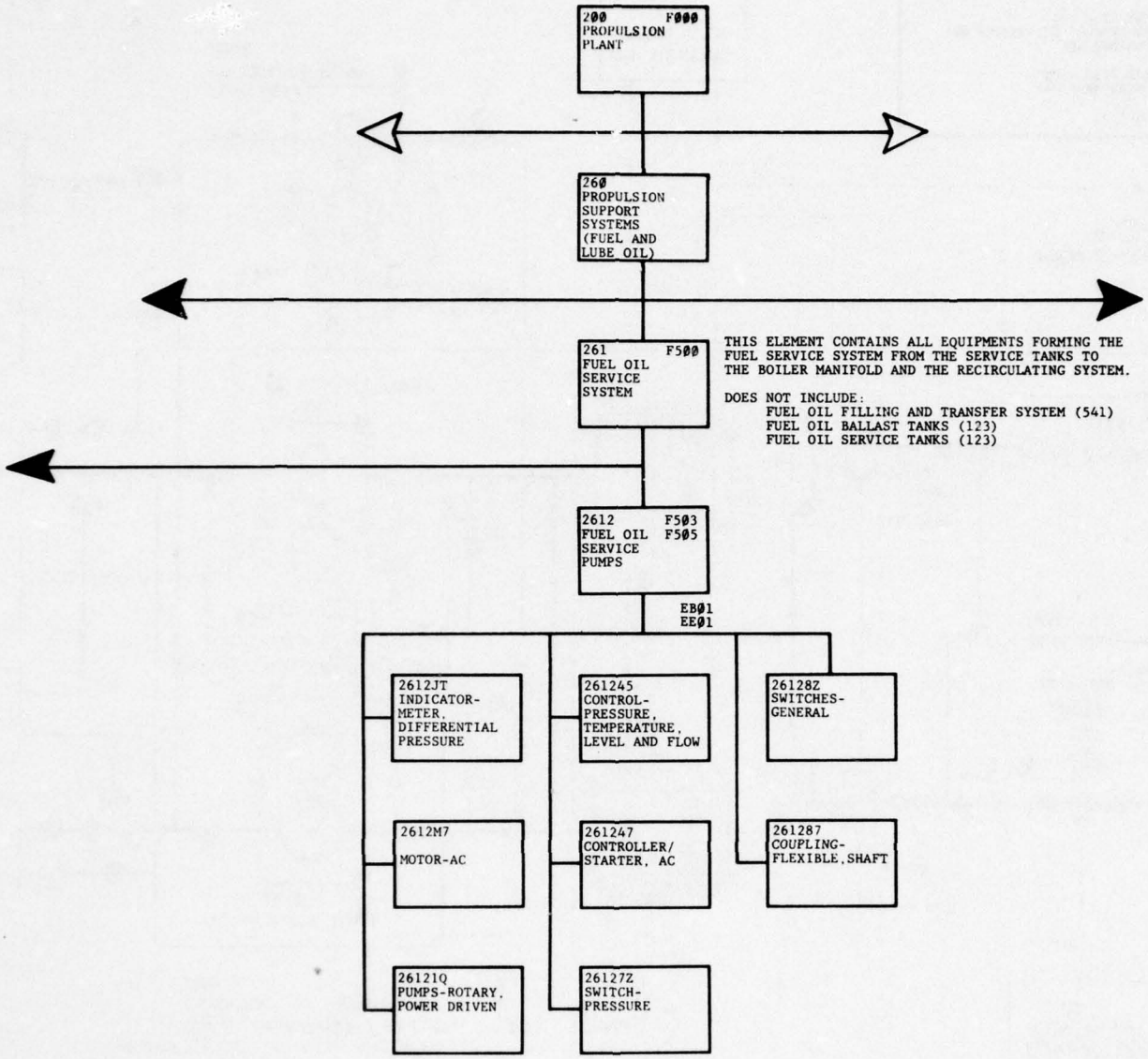
FF-1052 CLASS

SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

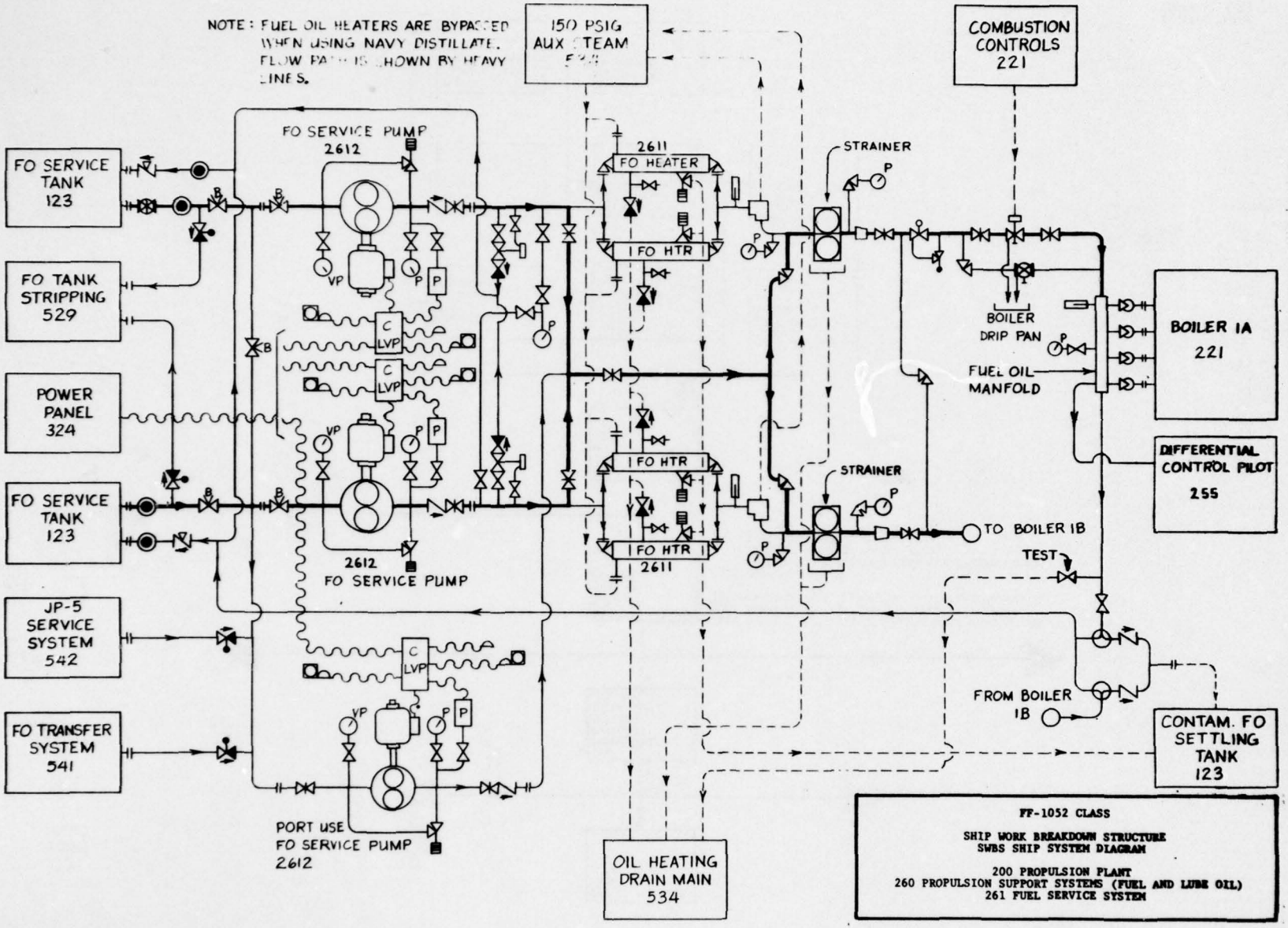
200 PROPULSION PLANT
250 PROPULSION SUPPORT SYSTEMS
259 UPTAKES (INNER CASING)

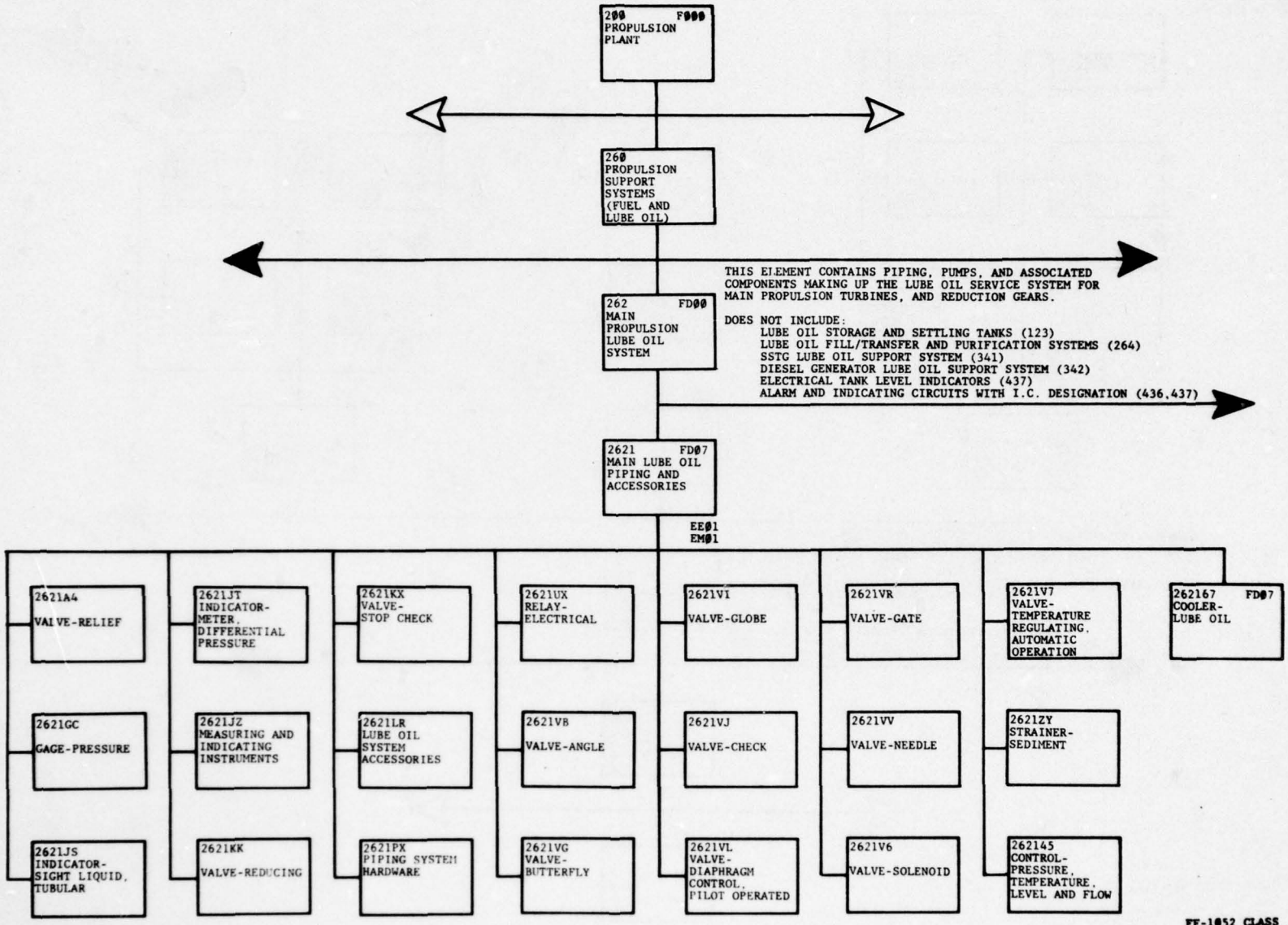


FF-1052 CLASS
PREPARED 6-22-77

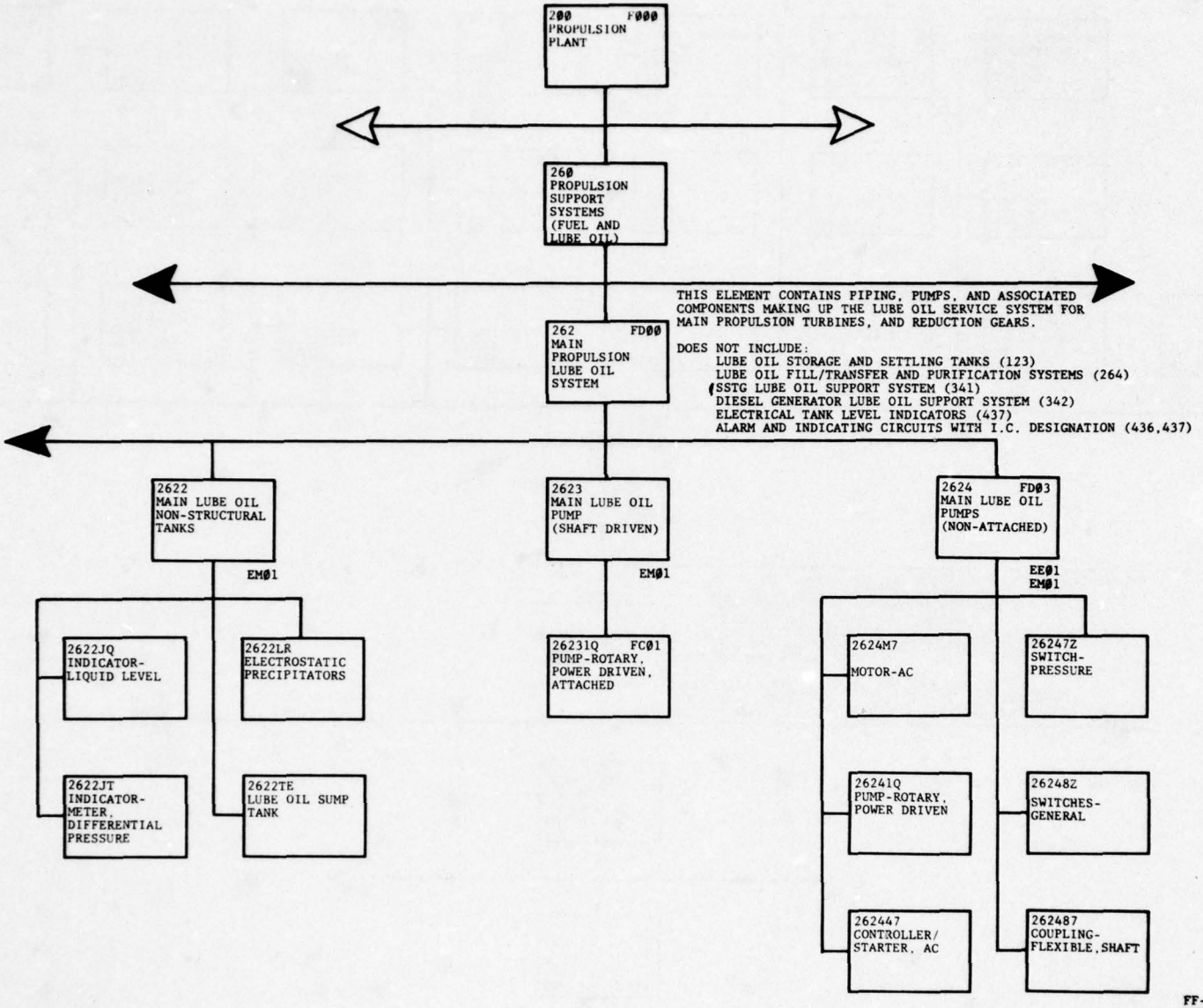


FF-1052 CLASS
PREPARED 6-22-77

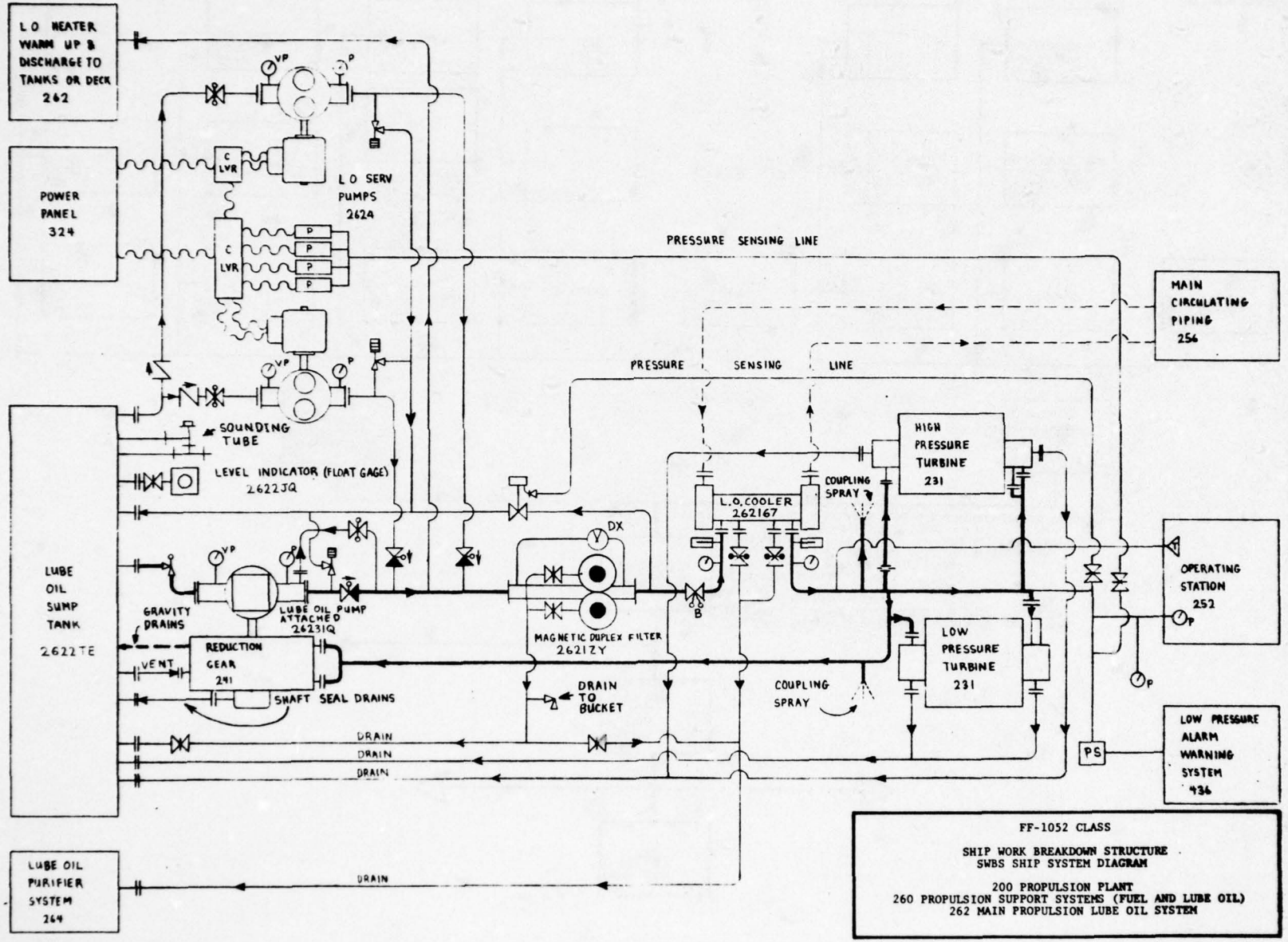

NOTE: FUEL OIL HEATERS ARE BYPASSED WHEN USING NAVY DISTILLATE. FLOW PATH IS SHOWN BY HEAVY LINES.
150 PSIG AUX STEAM
COMBUSTION CONTROLS 221
FO SERVICE TANK 123
FO TANK STRIPPING 529
POWER PANEL 324
FO SERVICE TANK 123
JP-5 SERVICE SYSTEM 542
FO TRANSFER SYSTEM 541
FO SERVICE PUMP 2612
2612 FO SERVICE PUMP
PORT USE FO SERVICE PUMP 2612
2611 FO HEATER
FO HTR
FO HTR
FO HTR 2611
STRAINER
STRAINER
BOILER DRIP PAN
FUEL OIL MANFOLD
BOILER 1A 221
DIFFERENTIAL CONTROL PILOT 255
TO BOILER 1B
TEST
FROM BOILER 1B
CONTAM. FO SETTLING TANK 123
OIL HEATING DRAIN MAIN 534
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
260 PROPULSION SUPPORT SYSTEMS (FUEL AND LUBE OIL)
261 FUEL SERVICE SYSTEM



FF-1052 CLASS
PREPARED 6-22-77



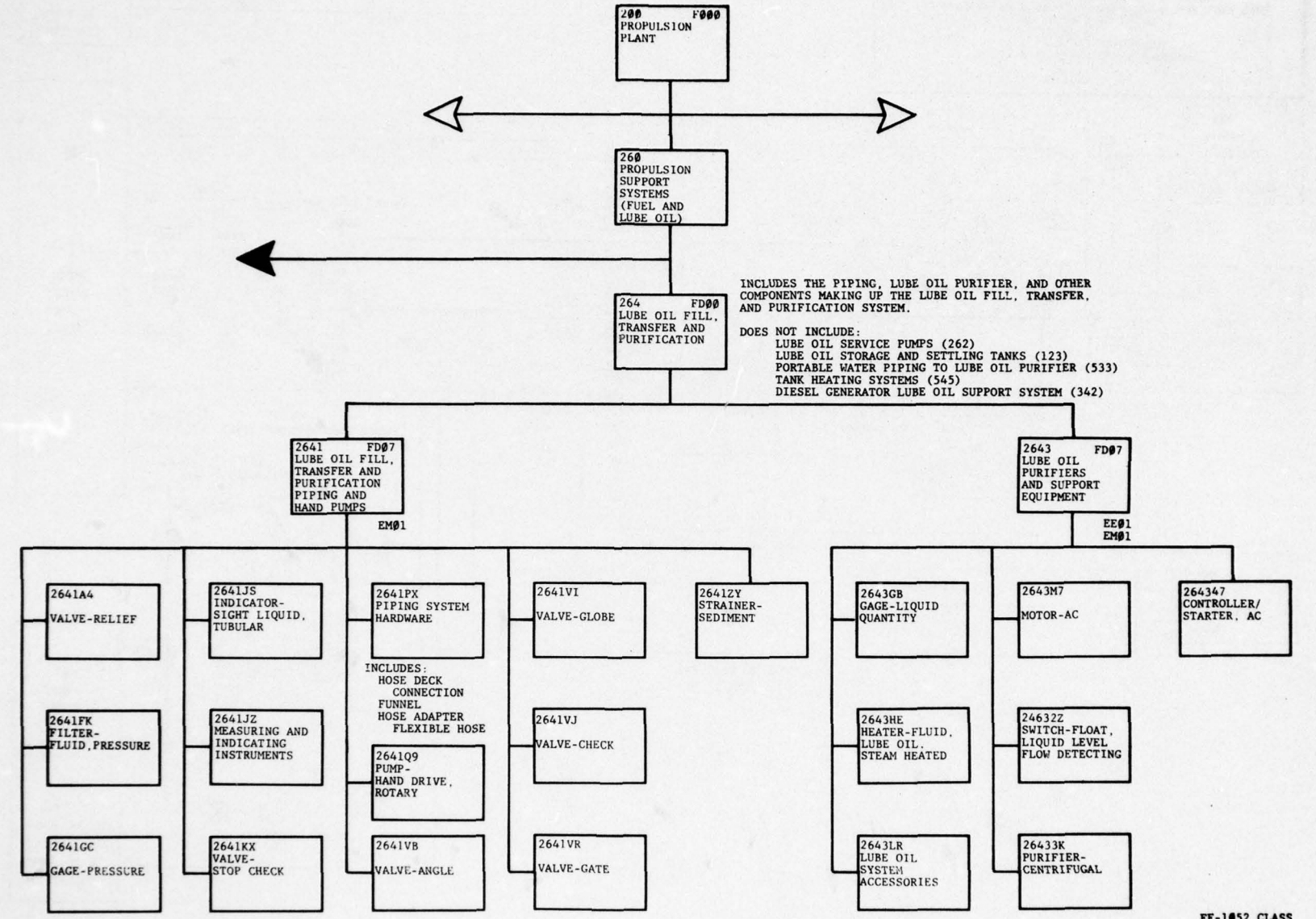
FF-1052 CLASS
PREPARED 6-22-77



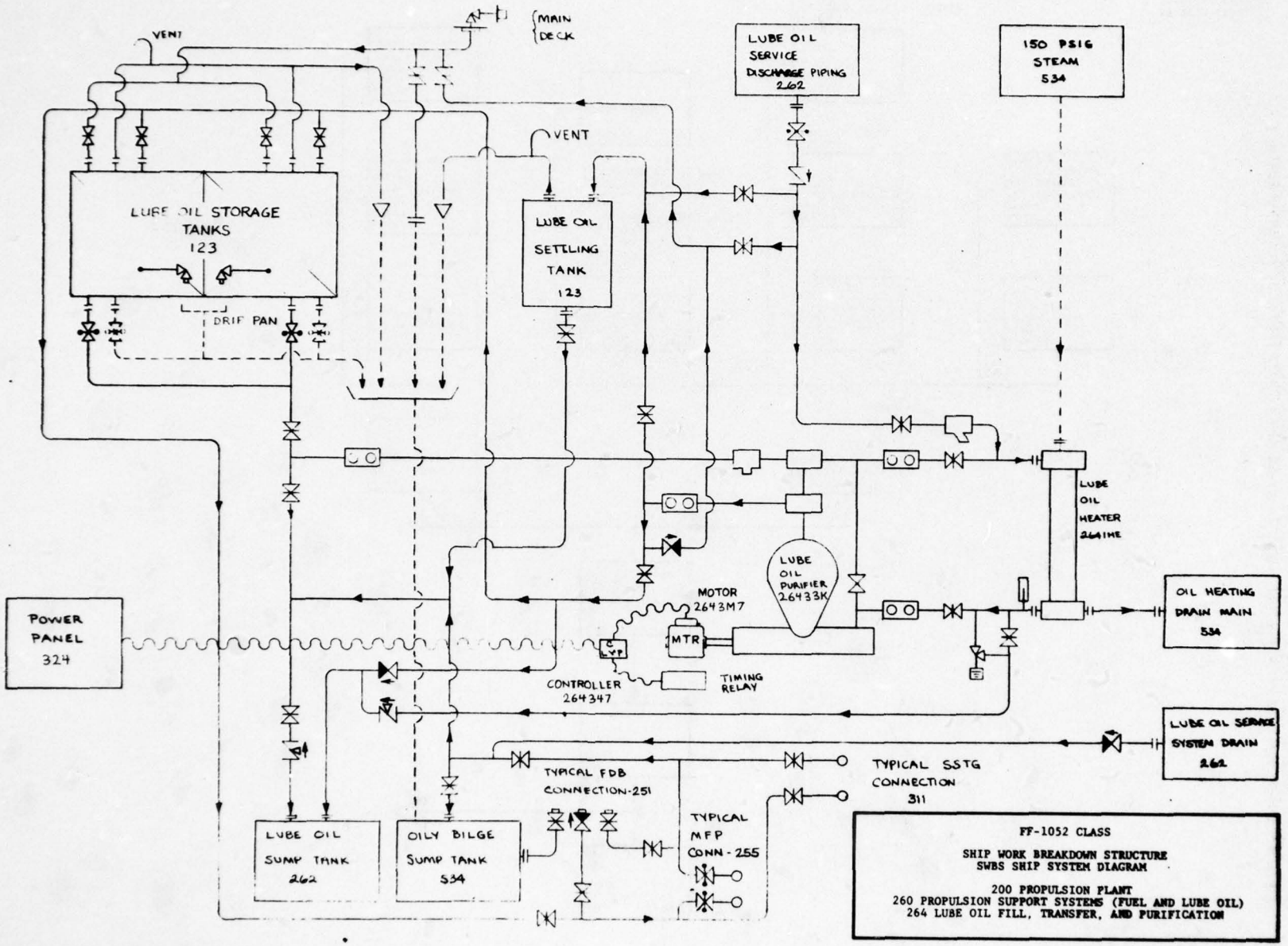
FF-1052 CLASS

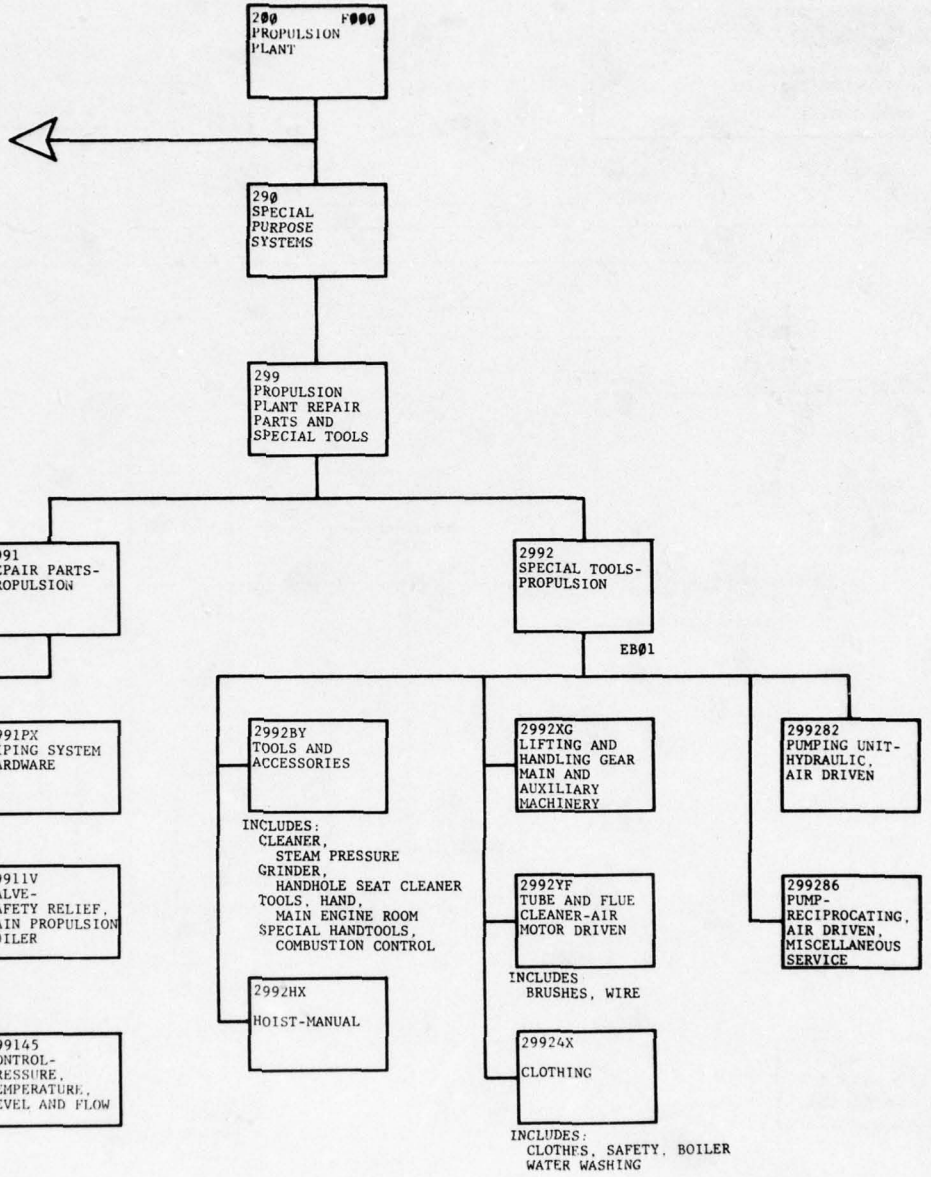
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

200 PROPULSION PLANT
260 PROPULSION SUPPORT SYSTEMS (FUEL AND LUBE OIL)
262 MAIN PROPULSION LUBE OIL SYSTEM

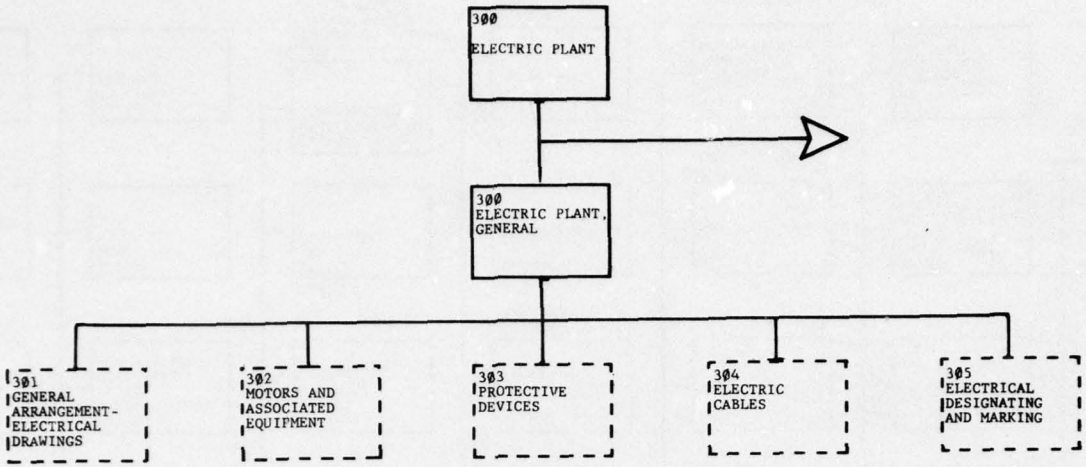


FF-1052 CLASS
PREPARED 6-22-77


VENT
MAIN DECK
LUBE OIL SERVICE DISCHARGE PIPING 262
150 PSIG STEAM 534
VENT
LUBE OIL STORAGE TANKS 123
LUBE OIL SETTLING TANK 123
DRIP PAN
LUBE OIL HEATER 264 IHE
LUBE OIL PURIFIER 26433K
MOTOR 2643M7
MTR
POWER PANEL 324
CONTROLLER 264347
TIMING RELAY
OIL HEATING DRAIN MAIN 534
LUBE OIL SERVICE SYSTEM DRAIN 262
TYPICAL FDB CONNECTION-251
TYPICAL SSTG CONNECTION 311
TYPICAL MFP CONN-255
LUBE OIL SUMP TANK 262
OILY BILGE SUMP TANK 534
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
200 PROPULSION PLANT
260 PROPULSION SUPPORT SYSTEMS (FUEL AND LUBE OIL)
264 LUBE OIL FILL, TRANSFER, AND PURIFICATION



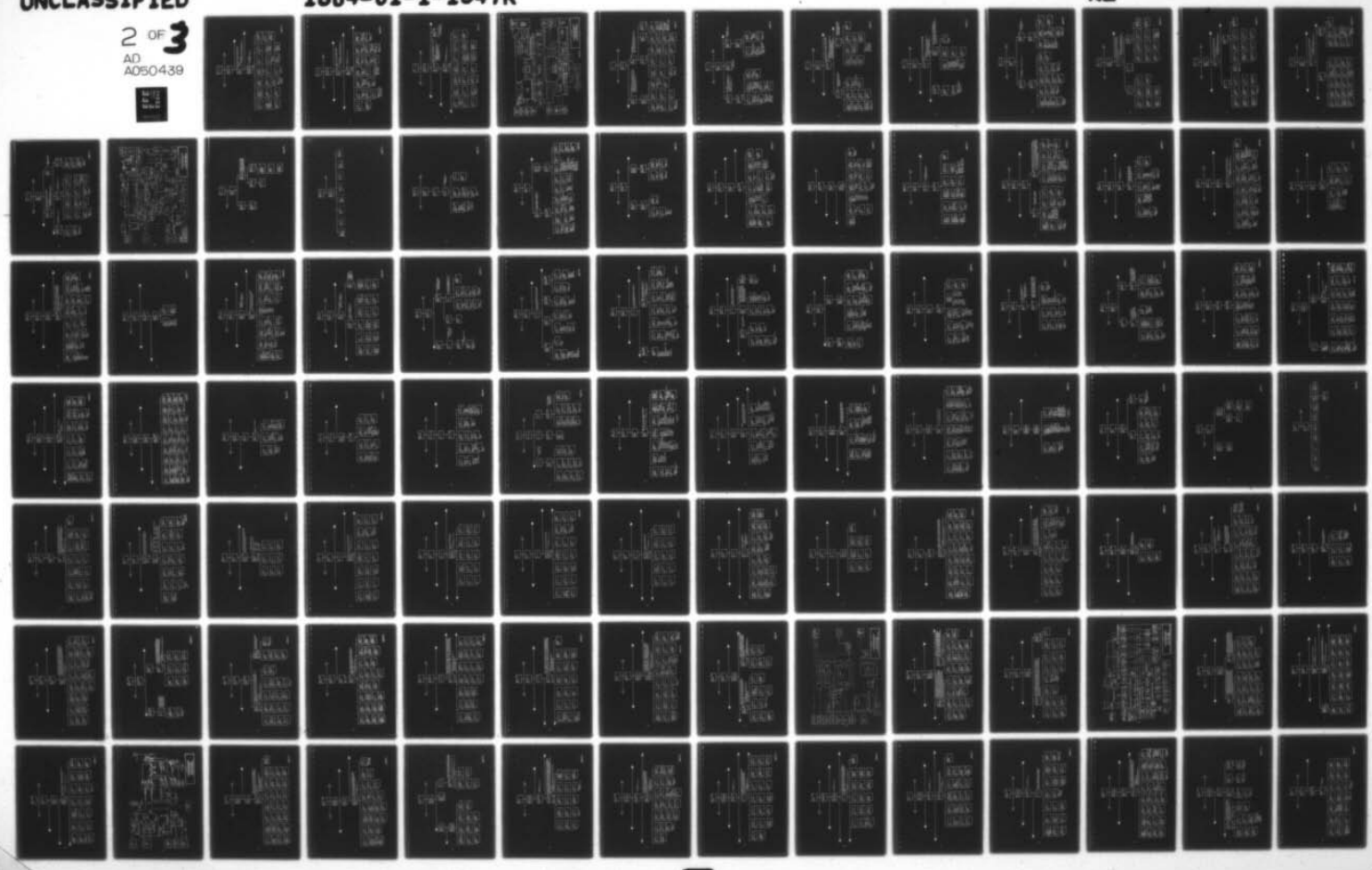
FF-1Ø52 CLASS
PREPARED 6-22-77



FF-1052 CLASS
PREPARED 7-22-77

AD-A050 439 ARINC RESEARCH CORP ANNAPOLIS MD F/G 13/10
SHIP SYSTEMS DEFINITION AND INDEX (SWBS STAGING DIAGRAMS) FOR F--ETC(U)
OCT 76 N00140-76-D-0813
UNCLASSIFIED 1804-01-1-1547R NL

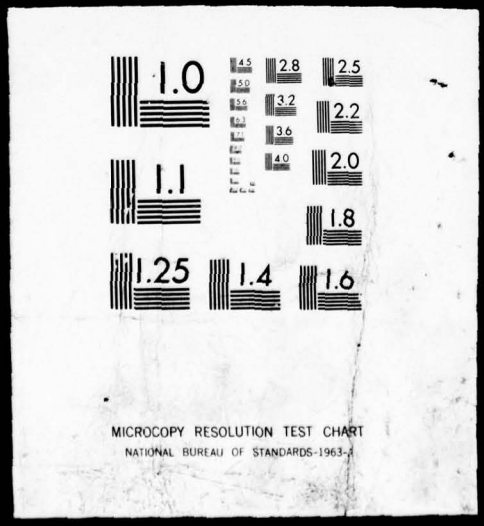
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A050439

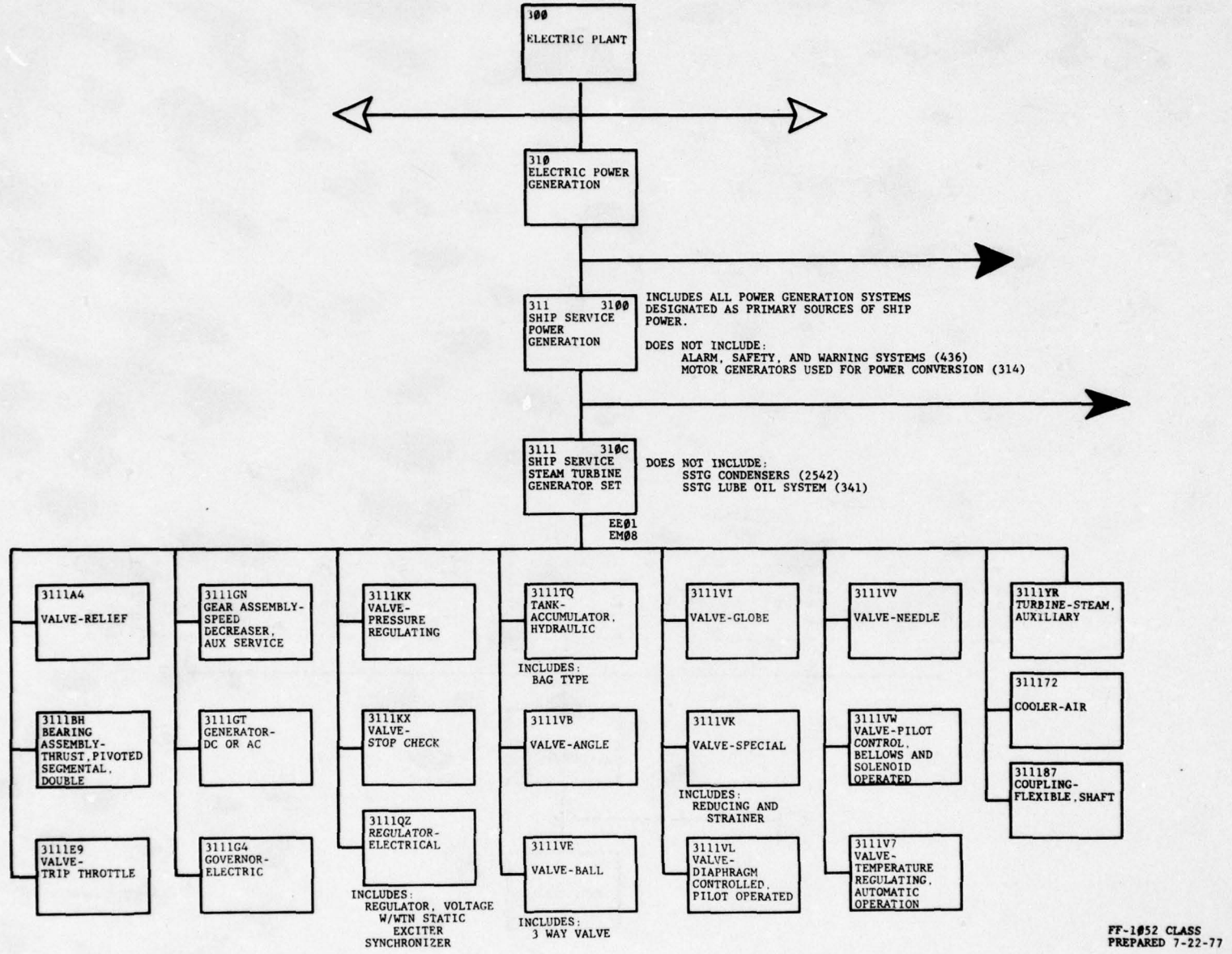


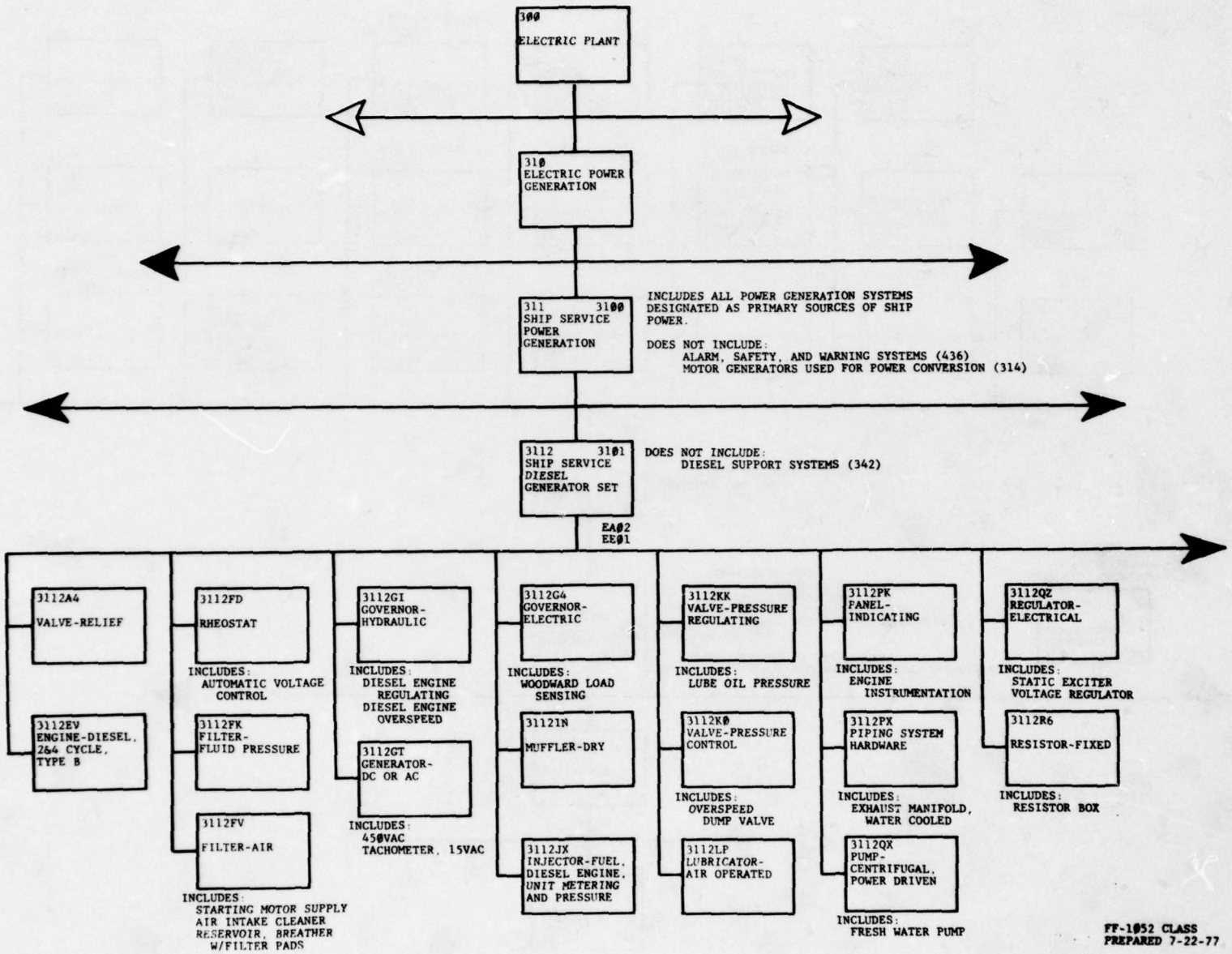
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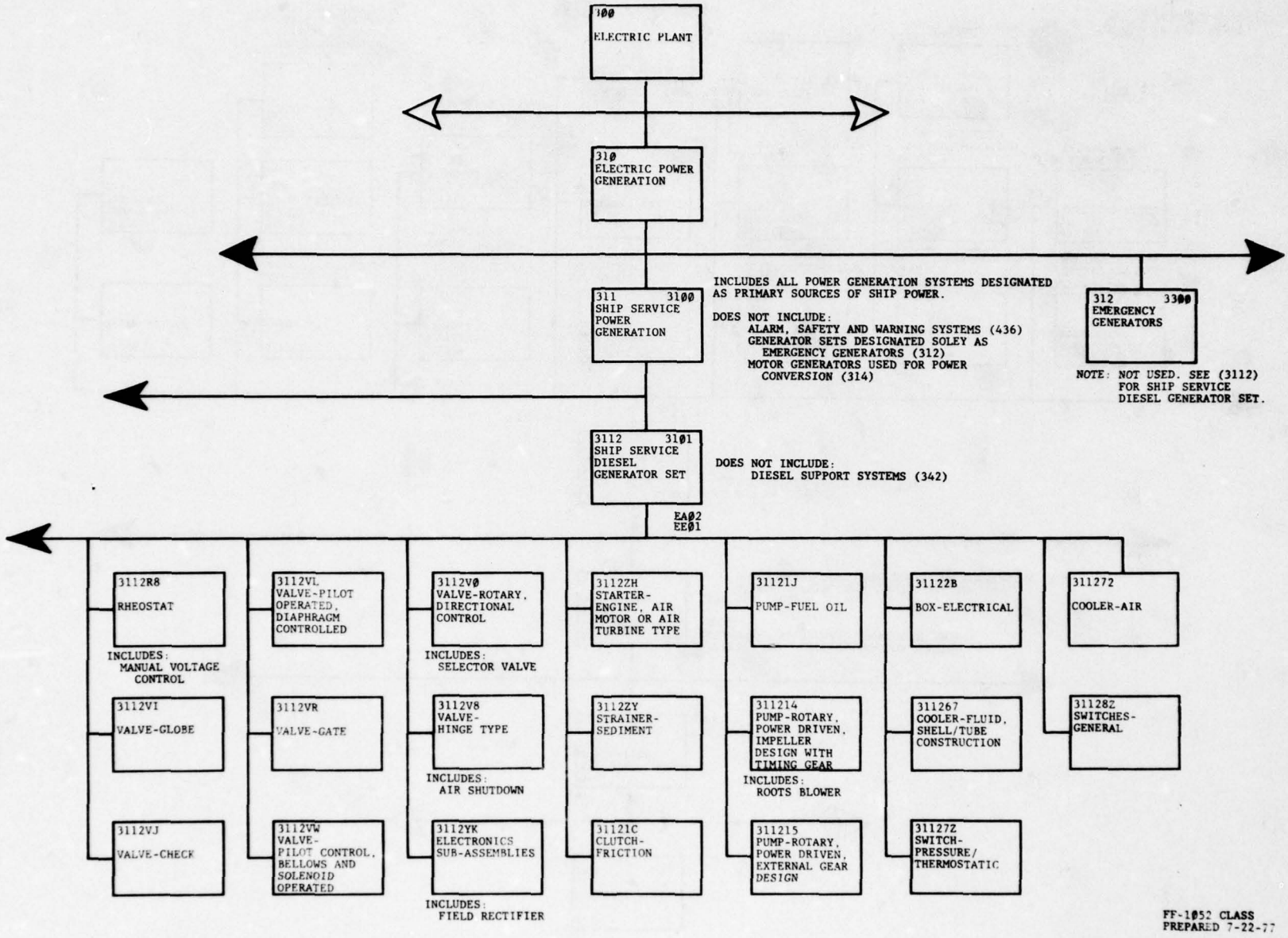
2 OF 3

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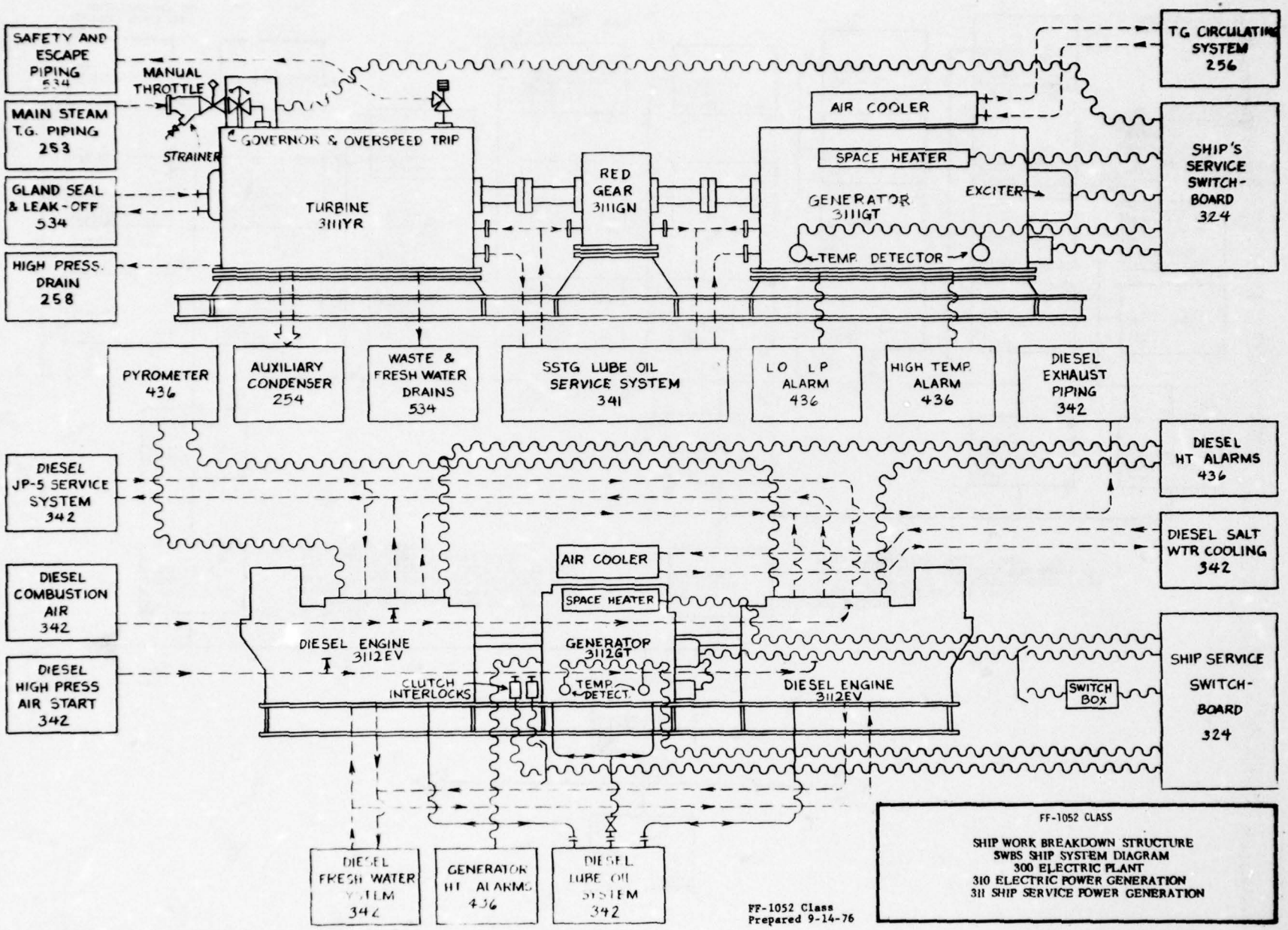


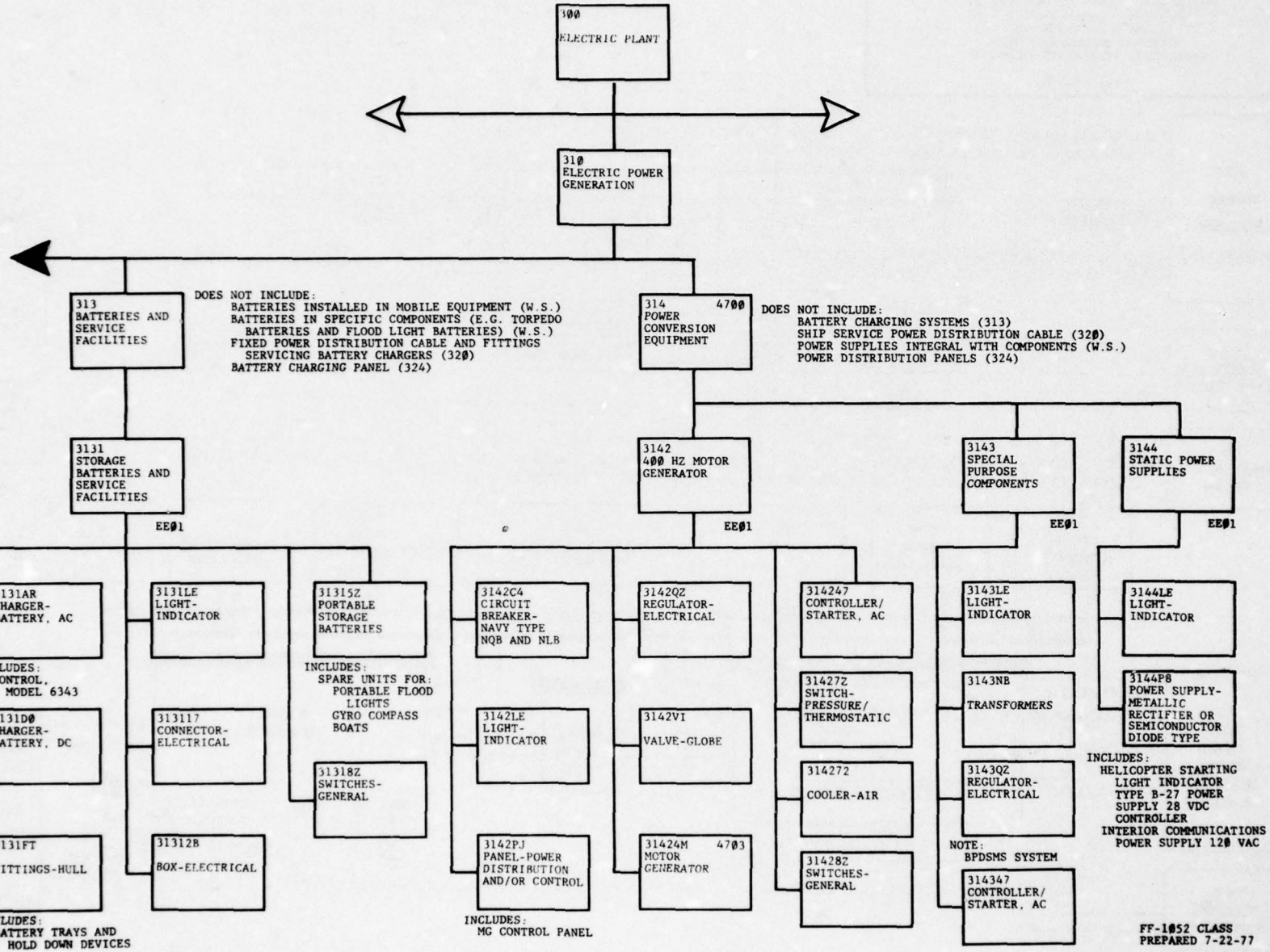

300
ELECTRIC PLANT
310
ELECTRIC POWER GENERATION
311 3100
SHIP SERVICE POWER GENERATION
INCLUDES ALL POWER GENERATION SYSTEMS DESIGNATED AS PRIMARY SOURCES OF SHIP POWER.
DOES NOT INCLUDE:
ALARM, SAFETY, AND WARNING SYSTEMS (436)
MOTOR GENERATORS USED FOR POWER CONVERSION (314)
3111 310C
SHIP SERVICE STEAM TURBINE GENERATOR SET
DOES NOT INCLUDE:
SSTG CONDENSERS (2542)
SSTG LUBE OIL SYSTEM (341)
EE01
EM08
3111A4
VALVE-RELIEF
3111BH
BEARING ASSEMBLY-THRUST, PIVOTED SEGMENTAL, DOUBLE
3111E9
VALVE-TRIP THROTTLE
3111GN
GEAR ASSEMBLY-SPEED DECREASER, AUX SERVICE
3111GT
GENERATOR-DC OR AC
3111G4
GOVERNOR-ELECTRIC
3111KK
VALVE-PRESSURE REGULATING
3111KX
VALVE-STOP CHECK
3111QZ
REGULATOR-ELECTRICAL
INCLUDES:
REGULATOR, VOLTAGE W/WTN STATIC EXCITER SYNCHRONIZER
3111TQ
TANK-ACCUMULATOR, HYDRAULIC
INCLUDES:
BAG TYPE
3111VB
VALVE-ANGLE
3111VE
VALVE-BALL
INCLUDES:
3 WAY VALVE
3111VI
VALVE-GLOBE
3111VK
VALVE-SPECIAL
INCLUDES:
REDUCING AND STRAINER
3111VL
VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
3111VV
VALVE-NEEDLE
3111VW
VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
3111V7
VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
3111YR
TURBINE-STEAM, AUXILIARY
311172
COOLER-AIR
311187
COUPLING-FLEXIBLE, SHAFT
FF-1052 CLASS
PREPARED 7-22-77

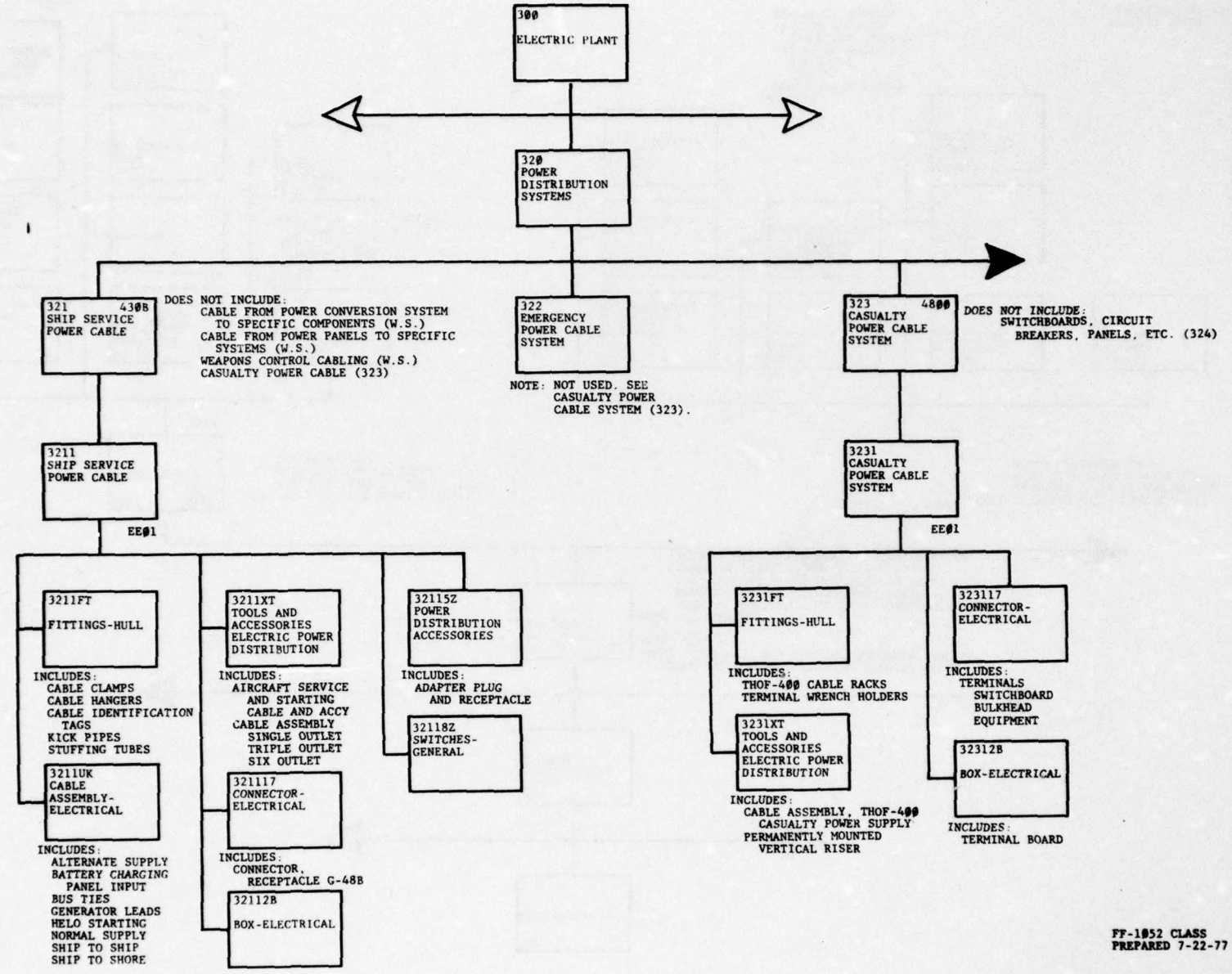

300
ELECTRIC PLANT
310
ELECTRIC POWER GENERATION
311 3100
SHIP SERVICE POWER GENERATION
INCLUDES ALL POWER GENERATION SYSTEMS DESIGNATED AS PRIMARY SOURCES OF SHIP POWER.
DOES NOT INCLUDE:
ALARM, SAFETY, AND WARNING SYSTEMS (436)
MOTOR GENERATORS USED FOR POWER CONVERSION (314)
3112 3101
SHIP SERVICE DIESEL GENERATOR SET
DOES NOT INCLUDE:
DIESEL SUPPORT SYSTEMS (342)
EA02
EE01
3112A4
VALVE-RELIEF
3112EV
ENGINE-DIESEL, 2&4 CYCLE, TYPE B
3112FD
RHEOSTAT
INCLUDES:
AUTOMATIC VOLTAGE CONTROL
3112FK
FILTER-FLUID PRESSURE
3112FV
FILTER-AIR
INCLUDES:
STARTING MOTOR SUPPLY AIR INTAKE CLEANER RESERVOIR, BREATHER W/FILTER PADS
3112GI
GOVERNOR-HYDRAULIC
INCLUDES:
DIESEL ENGINE REGULATING
DIESEL ENGINE OVERSPEED
3112GT
GENERATOR-DC OR AC
INCLUDES:
450VAC
TACHOMETER, 15VAC
3112G4
GOVERNOR-ELECTRIC
INCLUDES:
WOODWARD LOAD SENSING
31121N
MUFFLER-DRY
3112JX
INJECTOR-FUEL, DIESEL ENGINE, UNIT METERING AND PRESSURE
3112KK
VALVE-PRESSURE REGULATING
INCLUDES:
LUBE OIL PRESSURE
3112K0
VALVE-PRESSURE CONTROL
INCLUDES:
OVERSPEED DUMP VALVE
3112LP
LUBRICATOR-AIR OPERATED
3112PK
PANEL-INDICATING
INCLUDES:
ENGINE INSTRUMENTATION
3112PX
PIPING SYSTEM HARDWARE
INCLUDES:
EXHAUST MANIFOLD, WATER COOLED
3112QX
PUMP-CENTRIFUGAL, POWER DRIVEN
INCLUDES:
FRESH WATER PUMP
3112QZ
REGULATOR-ELECTRICAL
INCLUDES:
STATIC EXCITER VOLTAGE REGULATOR
3112R6
RESISTOR-FIXED
INCLUDES:
RESISTOR BOX
FF-1052 CLASS
PREPARED 7-22-77



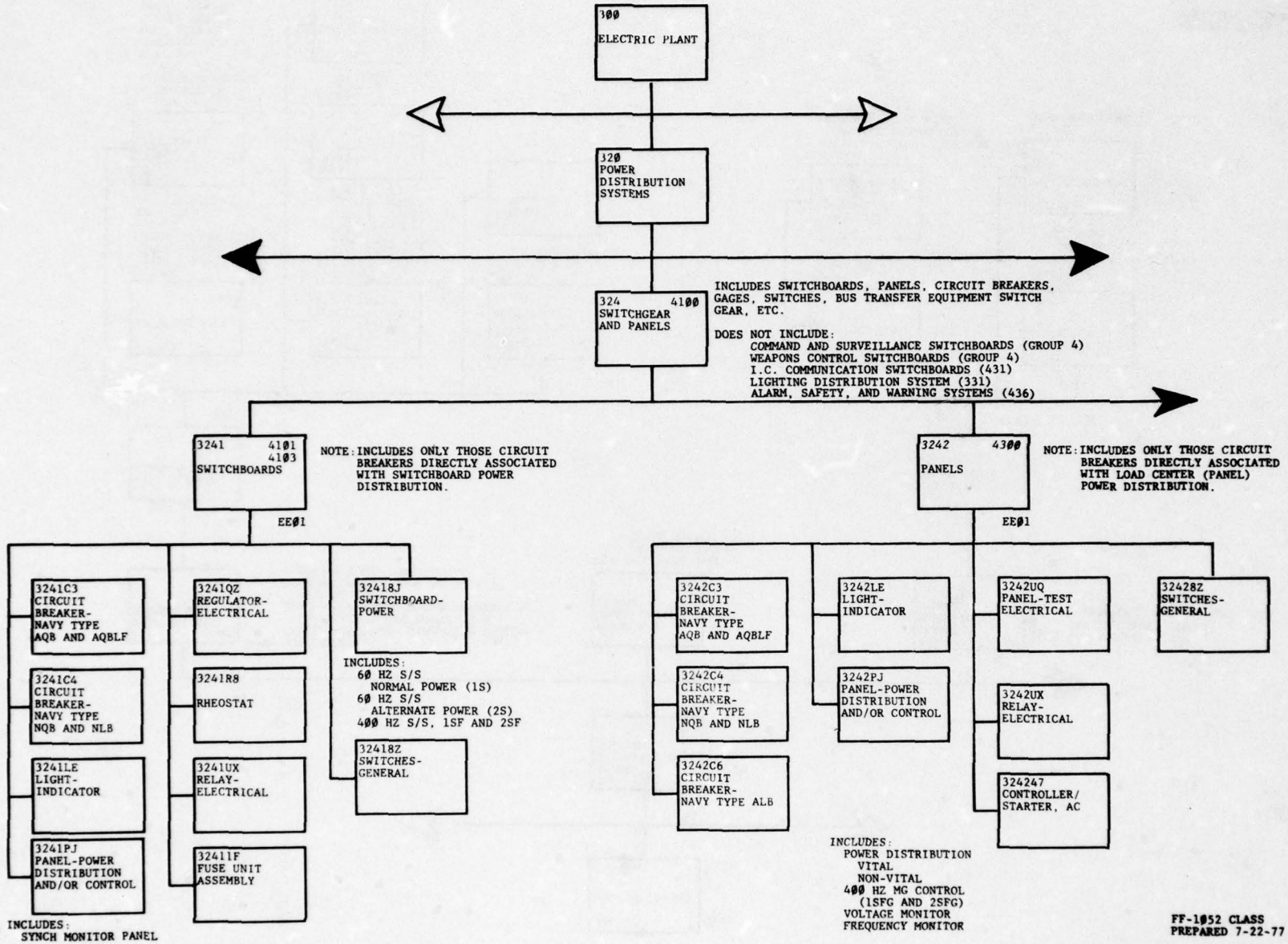
FF-1052 CLASS
PREPARED 7-22-77

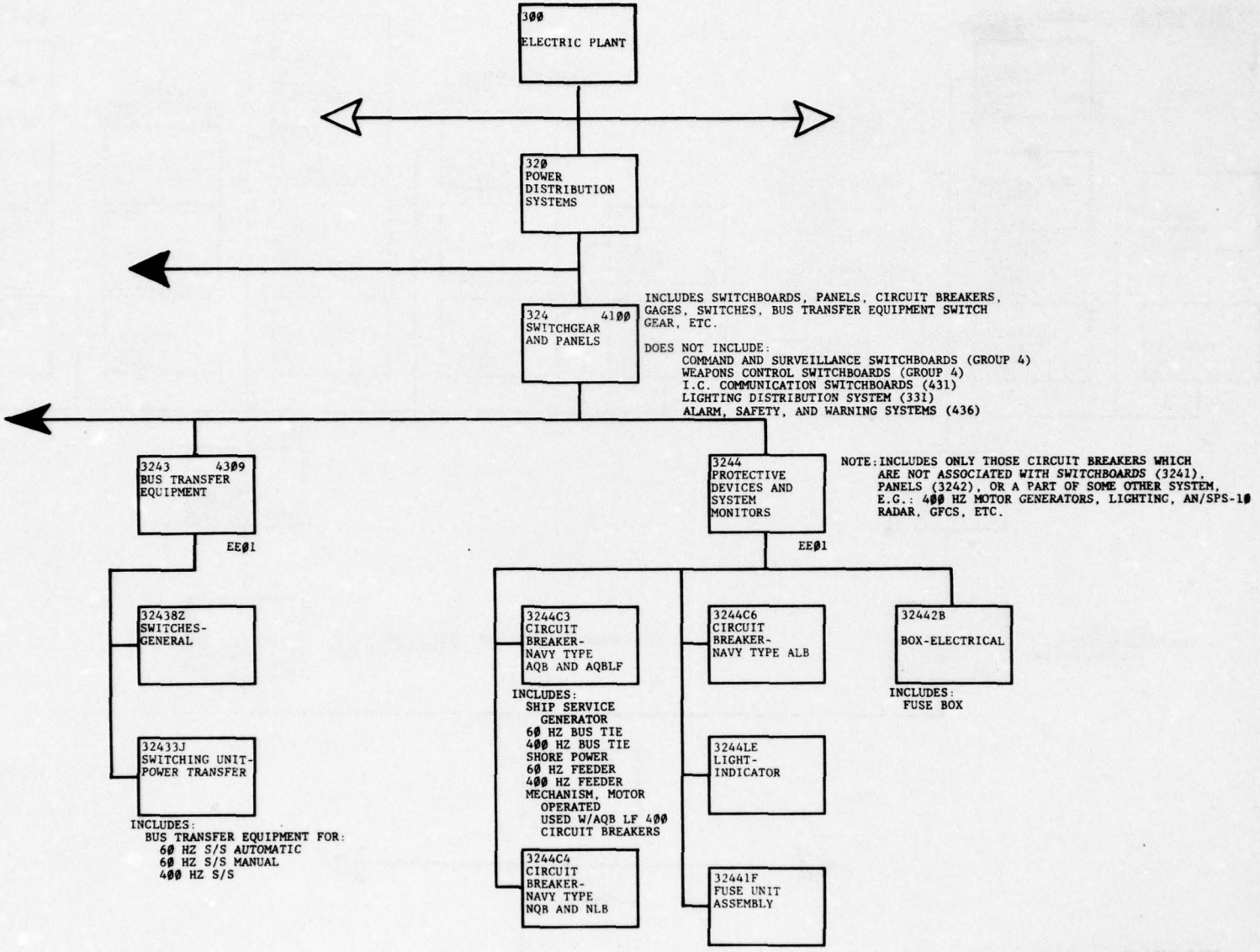

SAFETY AND ESCAPE PIPING 534
MANUAL THROTTLE
MAIN STEAM T.G. PIPING 253
STRAINER
GOVERNOR & OVERSPEED TRIP
GLAND SEAL & LEAK-OFF 534
TURBINE 3111YR
HIGH PRESS. DRAIN 258
RED GEAR 3111GN
AIR COOLER
SPACE HEATER
GENERATOR 3111GT
EXCITER
TEMP. DETECTOR
T.G. CIRCULATING SYSTEM 256
SHIP'S SERVICE SWITCH-BOARD 324
PYROMETER 436
AUXILIARY CONDENSER 254
WASTE & FRESH WATER DRAINS 534
SSTG LUBE OIL SERVICE SYSTEM 341
LO LP ALARM 436
HIGH TEMP ALARM 436
DIESEL EXHAUST PIPING 342
DIESEL HT ALARMS 436
DIESEL JP-5 SERVICE SYSTEM 342
DIESEL SALT WTR COOLING 342
DIESEL COMBUSTION AIR 342
AIR COOLER
SPACE HEATER
DIESEL ENGINE 3112EV
GENERATOR 3112GT
DIESEL HIGH PRESS AIR START 342
CLUTCH INTERLOCKS
TEMP. DETECT.
DIESEL ENGINE 3112EV
SWITCH BOX
SHIP SERVICE SWITCH-BOARD 324
DIESEL FRESH WATER SYSTEM 342
GENERATOR HT ALARMS 436
DIESEL LUBE OIL SYSTEM 342
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
300 ELECTRIC PLANT
310 ELECTRIC POWER GENERATION
311 SHIP SERVICE POWER GENERATION
FF-1052 Class
Prepared 9-14-76


100
ELECTRIC PLANT
310
ELECTRIC POWER GENERATION
313
BATTERIES AND SERVICE FACILITIES
DOES NOT INCLUDE:
BATTERIES INSTALLED IN MOBILE EQUIPMENT (W.S.)
BATTERIES IN SPECIFIC COMPONENTS (E.G. TORPEDO BATTERIES AND FLOOD LIGHT BATTERIES) (W.S.)
FIXED POWER DISTRIBUTION CABLE AND FITTINGS
SERVICING BATTERY CHARGERS (320)
BATTERY CHARGING PANEL (324)
314 4700
POWER CONVERSION EQUIPMENT
DOES NOT INCLUDE:
BATTERY CHARGING SYSTEMS (313)
SHIP SERVICE POWER DISTRIBUTION CABLE (320)
POWER SUPPLIES INTEGRAL WITH COMPONENTS (W.S.)
POWER DISTRIBUTION PANELS (324)
3131
STORAGE BATTERIES AND SERVICE FACILITIES
EE01
3142
400 HZ MOTOR GENERATOR
EE01
3143
SPECIAL PURPOSE COMPONENTS
EE01
3144
STATIC POWER SUPPLIES
EE01
3131AR
CHARGER-BATTERY, AC
INCLUDES:
CONTROL, MODEL 6343
3131D0
CHARGER-BATTERY, DC
3131FT
FITTINGS-HULL
INCLUDES:
BATTERY TRAYS AND HOLD DOWN DEVICES
3131LE
LIGHT-INDICATOR
313117
CONNECTOR-ELECTRICAL
31312B
BOX-ELECTRICAL
31315Z
PORTABLE STORAGE BATTERIES
INCLUDES:
SPARE UNITS FOR:
PORTABLE FLOOD LIGHTS
GYRO COMPASS
BOATS
31318Z
SWITCHES-GENERAL
3142C4
CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
3142LE
LIGHT-INDICATOR
3142PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
MG CONTROL PANEL
3142QZ
REGULATOR-ELECTRICAL
3142VI
VALVE-GLOBE
31424M 4703
MOTOR GENERATOR
314247
CONTROLLER/STARTER, AC
31427Z
SWITCH-PRESSURE/THERMOSTATIC
314272
COOLER-AIR
31428Z
SWITCHES-GENERAL
3143LE
LIGHT-INDICATOR
3143NB
TRANSFORMERS
3143QZ
REGULATOR-ELECTRICAL
NOTE:
BPDSMS SYSTEM
314347
CONTROLLER/STARTER, AC
3144LE
LIGHT-INDICATOR
3144PB
POWER SUPPLY-METALLIC RECTIFIER OR SEMICONDUCTOR DIODE TYPE
INCLUDES:
HELICOPTER STARTING LIGHT INDICATOR TYPE B-27 POWER SUPPLY 28 VDC CONTROLLER
INTERIOR COMMUNICATIONS POWER SUPPLY 120 VAC
FF-1052 CLASS
PREPARED 7-22-77

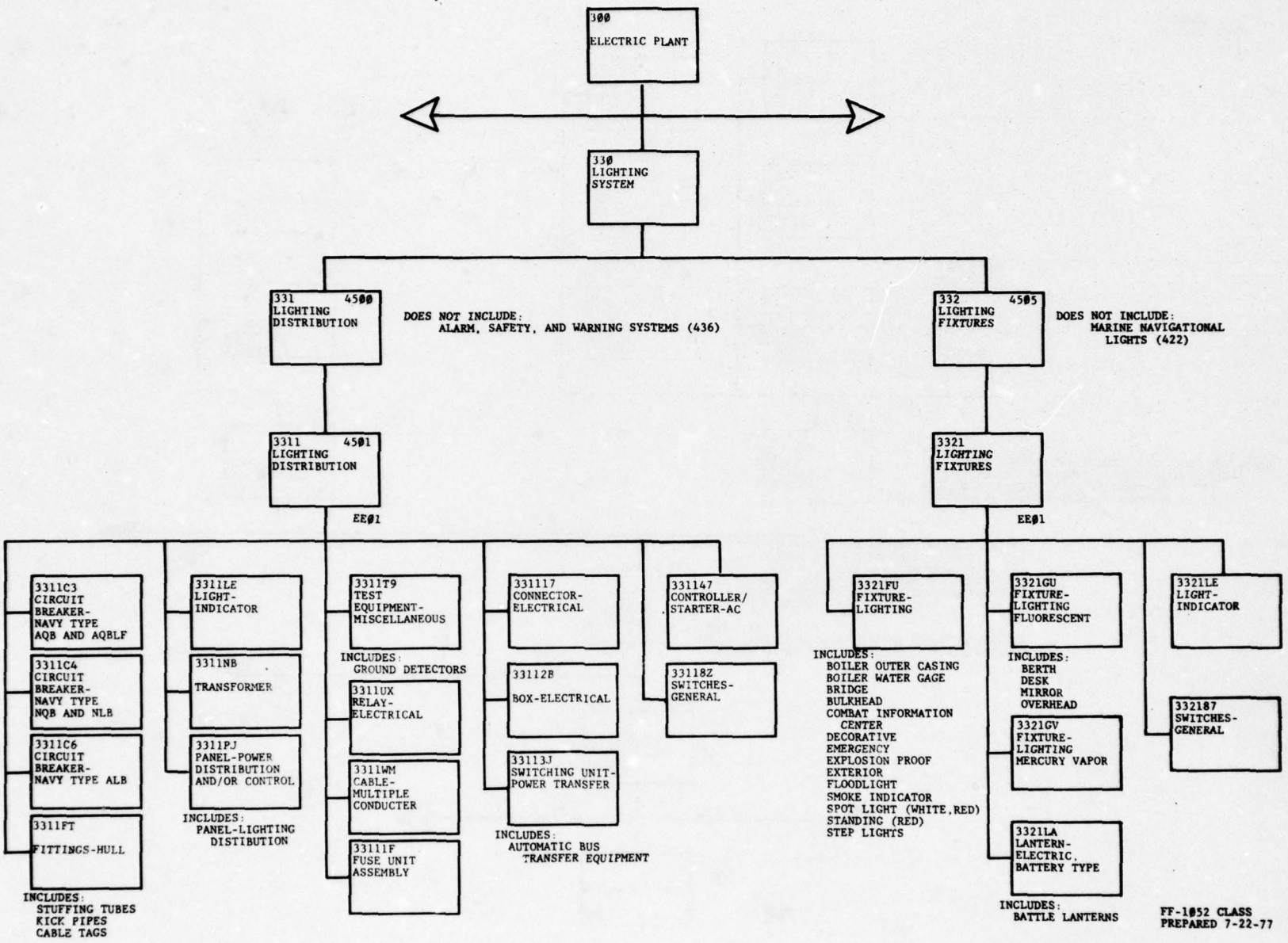


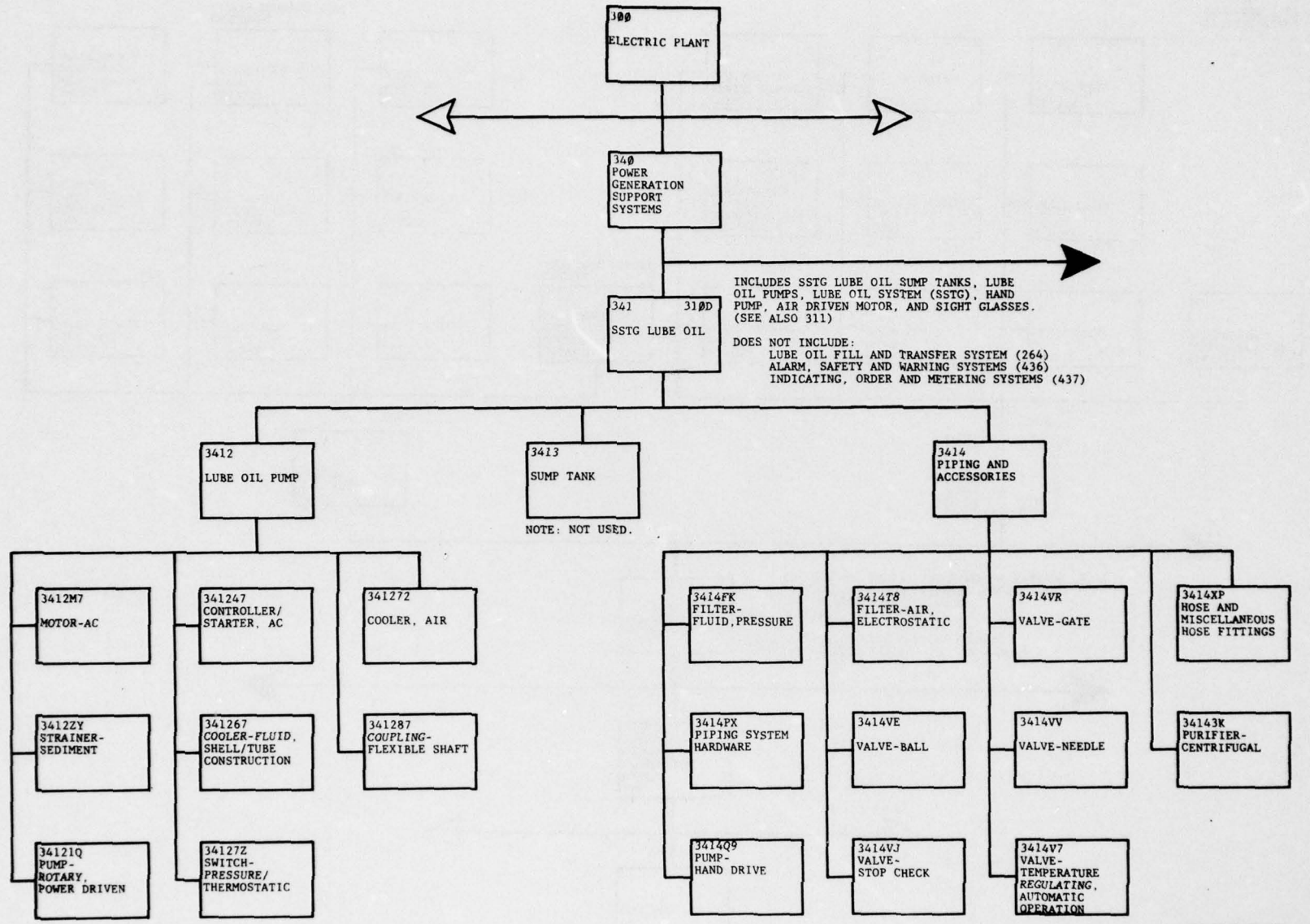
FF-1052 CLASS
PREPARED 7-22-77


300
ELECTRIC PLANT
320
POWER
DISTRIBUTION
SYSTEMS
324 4100
SWITCHGEAR
AND PANELS
INCLUDES SWITCHBOARDS, PANELS, CIRCUIT BREAKERS, GAGES, SWITCHES, BUS TRANSFER EQUIPMENT SWITCH GEAR, ETC.
DOES NOT INCLUDE:
COMMAND AND SURVEILLANCE SWITCHBOARDS (GROUP 4)
WEAPONS CONTROL SWITCHBOARDS (GROUP 4)
I.C. COMMUNICATION SWITCHBOARDS (431)
LIGHTING DISTRIBUTION SYSTEM (331)
ALARM, SAFETY, AND WARNING SYSTEMS (436)
3241 4101 4103
SWITCHBOARDS
NOTE: INCLUDES ONLY THOSE CIRCUIT BREAKERS DIRECTLY ASSOCIATED WITH SWITCHBOARD POWER DISTRIBUTION.
EE01
3242 4300
PANELS
NOTE: INCLUDES ONLY THOSE CIRCUIT BREAKERS DIRECTLY ASSOCIATED WITH LOAD CENTER (PANEL) POWER DISTRIBUTION.
EE01
3241C3
CIRCUIT BREAKER-NAVY TYPE AQB AND AQBLF
3241C4
CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
3241LE
LIGHT-INDICATOR
3241PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
SYNCH MONITOR PANEL
3241QZ
REGULATOR-ELECTRICAL
3241R8
RHEOSTAT
3241UX
RELAY-ELECTRICAL
32411F
FUSE UNIT ASSEMBLY
32418J
SWITCHBOARD-POWER
INCLUDES:
60 HZ S/S
NORMAL POWER (1S)
60 HZ S/S
ALTERNATE POWER (2S)
400 HZ S/S, 1SF AND 2SF
32418Z
SWITCHES-GENERAL
3242C3
CIRCUIT BREAKER-NAVY TYPE AQB AND AQBLF
3242C4
CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
3242C6
CIRCUIT BREAKER-NAVY TYPE ALB
3242LE
LIGHT-INDICATOR
3242PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
POWER DISTRIBUTION
VITAL
NON-VITAL
400 HZ MG CONTROL
(1SFG AND 2SFG)
VOLTAGE MONITOR
FREQUENCY MONITOR
3242UQ
PANEL-TEST ELECTRICAL
3242UX
RELAY-ELECTRICAL
324247
CONTROLLER/STARTER, AC
32428Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77

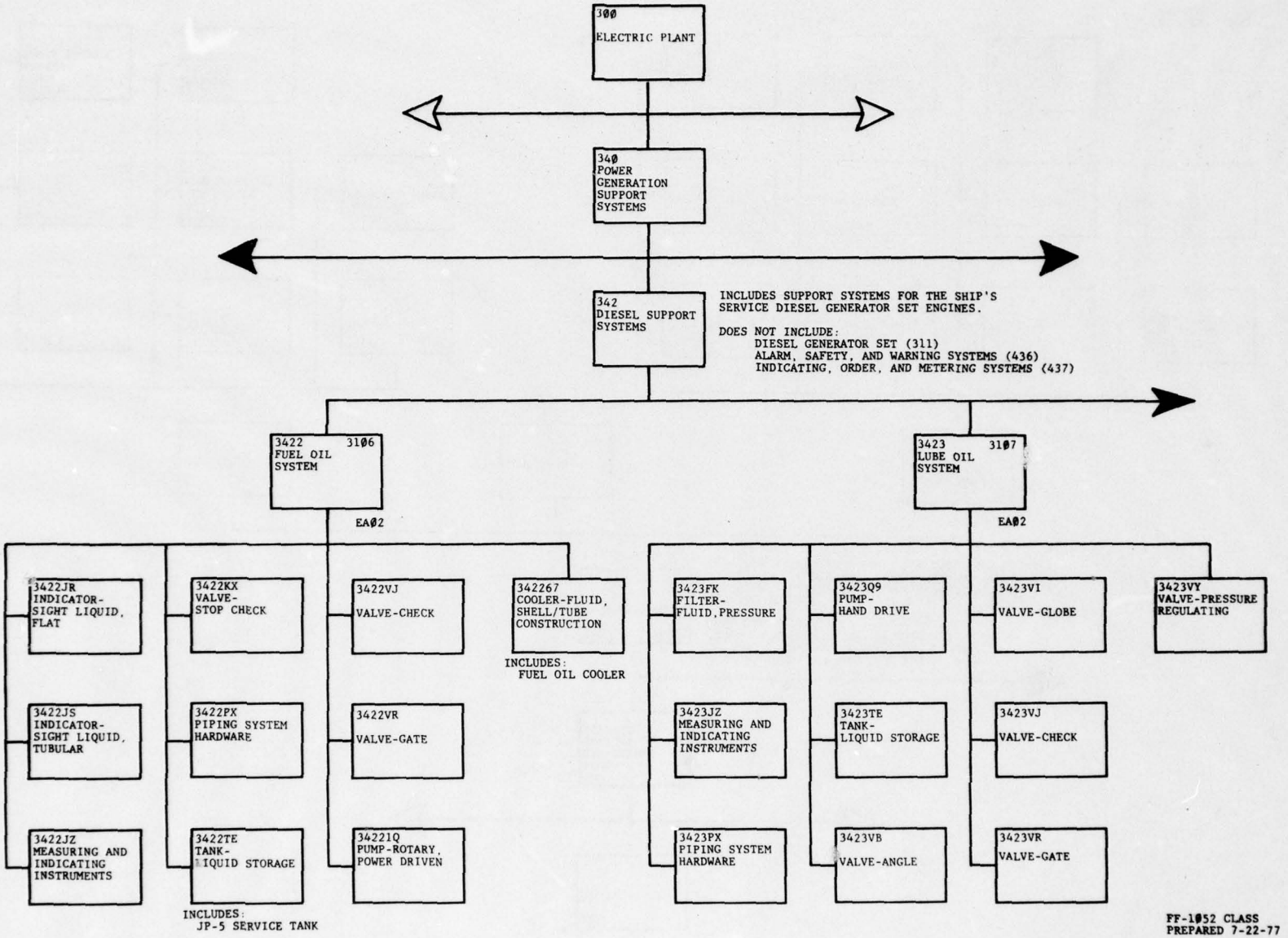


FF-1052 CLASS
PREPARED 7-22-77

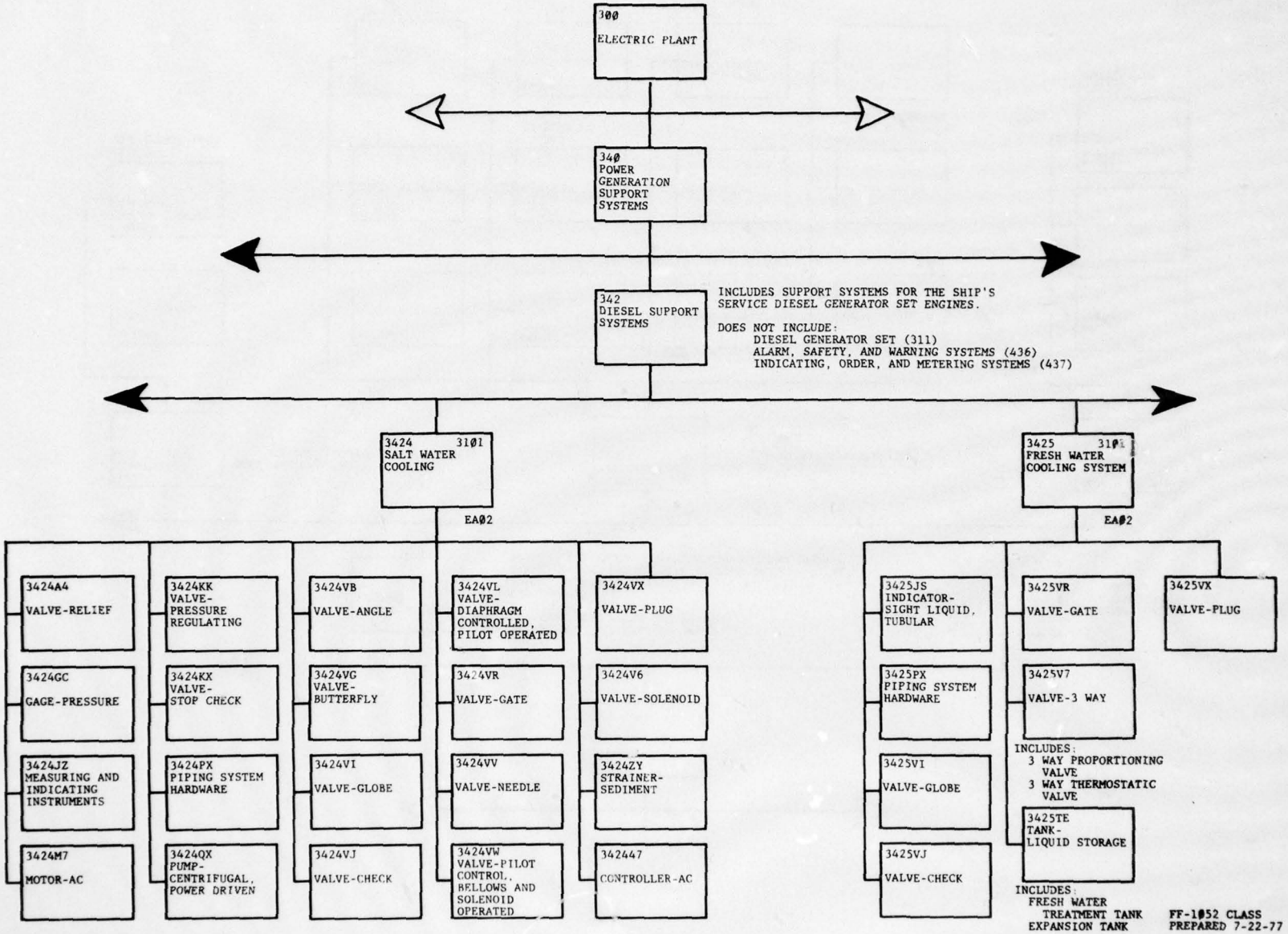

300
ELECTRIC PLANT
330
LIGHTING SYSTEM
331 4500
LIGHTING DISTRIBUTION
DOES NOT INCLUDE:
ALARM, SAFETY, AND WARNING SYSTEMS (436)
332 4505
LIGHTING FIXTURES
DOES NOT INCLUDE:
MARINE NAVIGATIONAL LIGHTS (422)
3311 4501
LIGHTING DISTRIBUTION
EE01
3321
LIGHTING FIXTURES
EE01
3311C3
CIRCUIT BREAKER-NAVY TYPE AQB AND AQBLF
3311C4
CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
3311C6
CIRCUIT BREAKER-NAVY TYPE ALB
3311FT
FITTINGS-HULL
INCLUDES:
STUFFING TUBES
KICK PIPES
CABLE TAGS
3311LE
LIGHT-INDICATOR
3311NB
TRANSFORMER
3311PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
PANEL-LIGHTING DISTIBUTION
3311T9
TEST EQUIPMENT-MISCELLANEOUS
INCLUDES:
GROUND DETECTORS
3311UX
RELAY-ELECTRICAL
3311WM
CABLE-MULTIPLE CONDUCTER
33111F
FUSE UNIT ASSEMBLY
331117
CONNECTOR-ELECTRICAL
33112B
BOX-ELECTRICAL
33113J
SWITCHING UNIT-POWER TRANSFER
INCLUDES:
AUTOMATIC BUS TRANSFER EQUIPMENT
331147
CONTROLLER/STARTER-AC
33118Z
SWITCHES-GENERAL
3321FU
FIXTURE-LIGHTING
INCLUDES:
BOILER OUTER CASING
BOILER WATER GAGE
BRIDGE
BULKHEAD
COMBAT INFORMATION CENTER
DECORATIVE
EMERGENCY
EXPLOSION PROOF
EXTERIOR
FLOODLIGHT
SMOKE INDICATOR
SPOT LIGHT (WHITE,RED)
STANDING (RED)
STEP LIGHTS
3321GU
FIXTURE-LIGHTING FLUORESCENT
INCLUDES:
BERTH
DESK
MIRROR
OVERHEAD
3321GV
FIXTURE-LIGHTING MERCURY VAPOR
3321LA
LANTERN-ELECTRIC, BATTERY TYPE
INCLUDES:
BATTLE LANTERNS
3321LE
LIGHT-INDICATOR
332187
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77

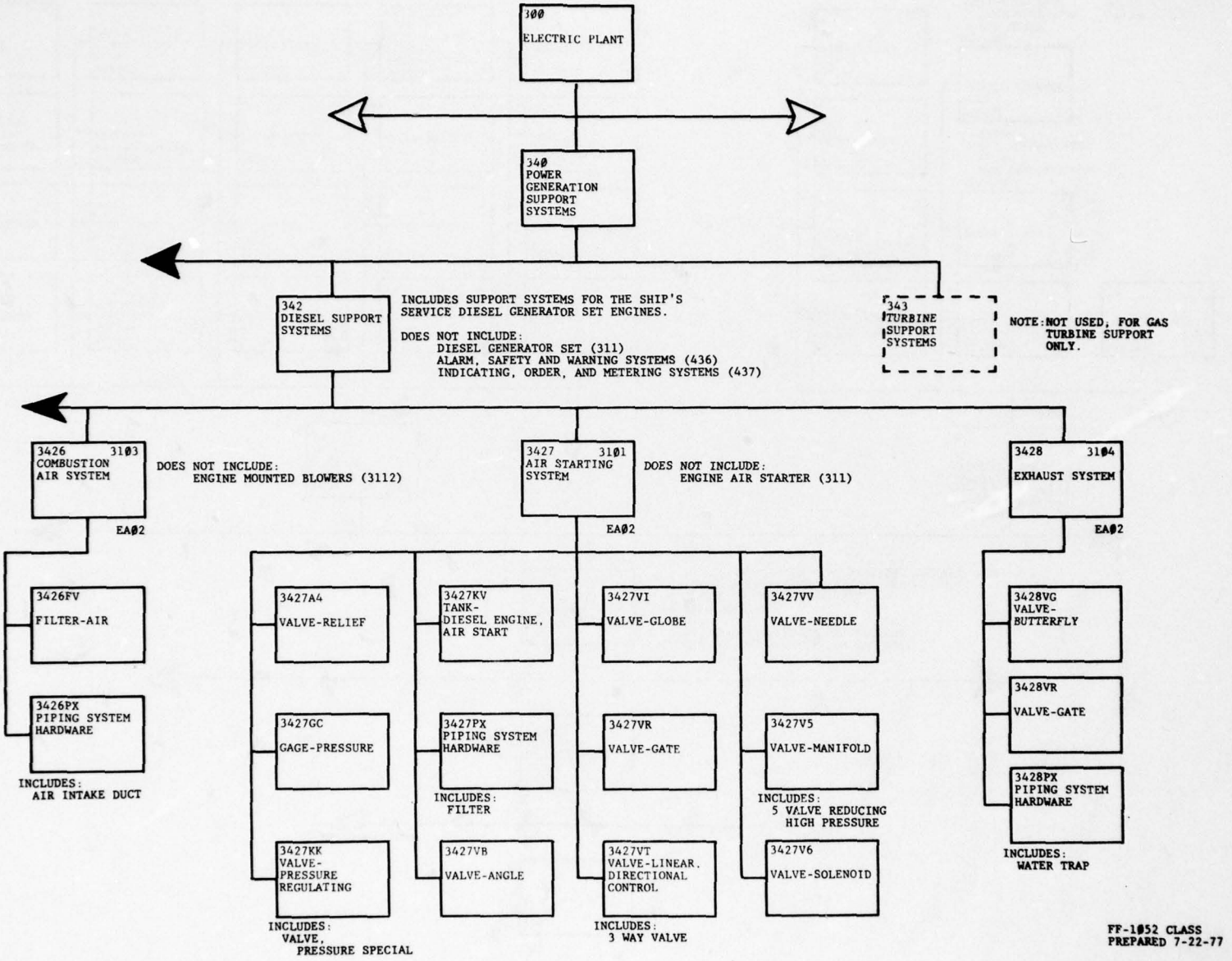


FF-1052 CLASS
PREPARED 7-22-77

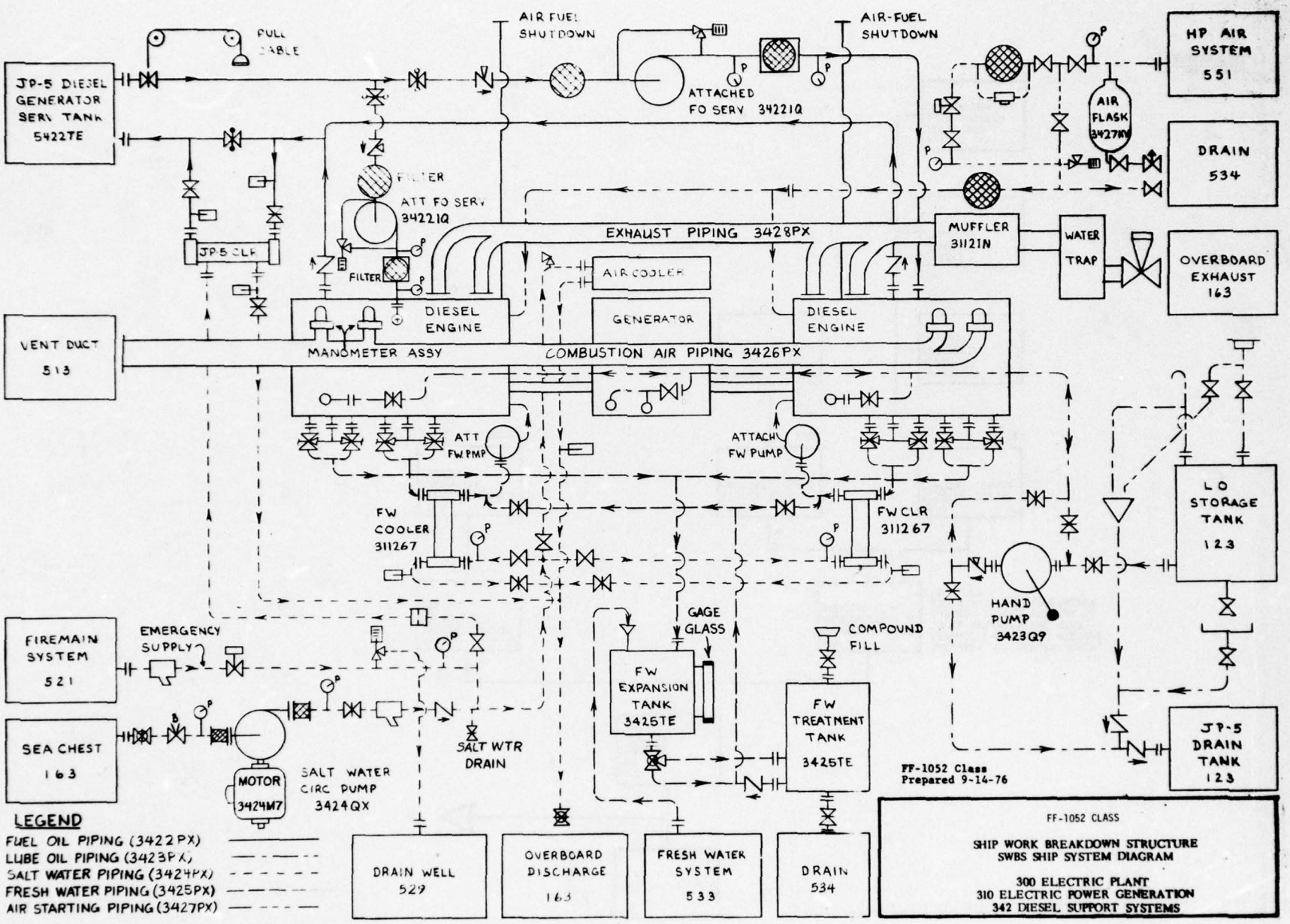


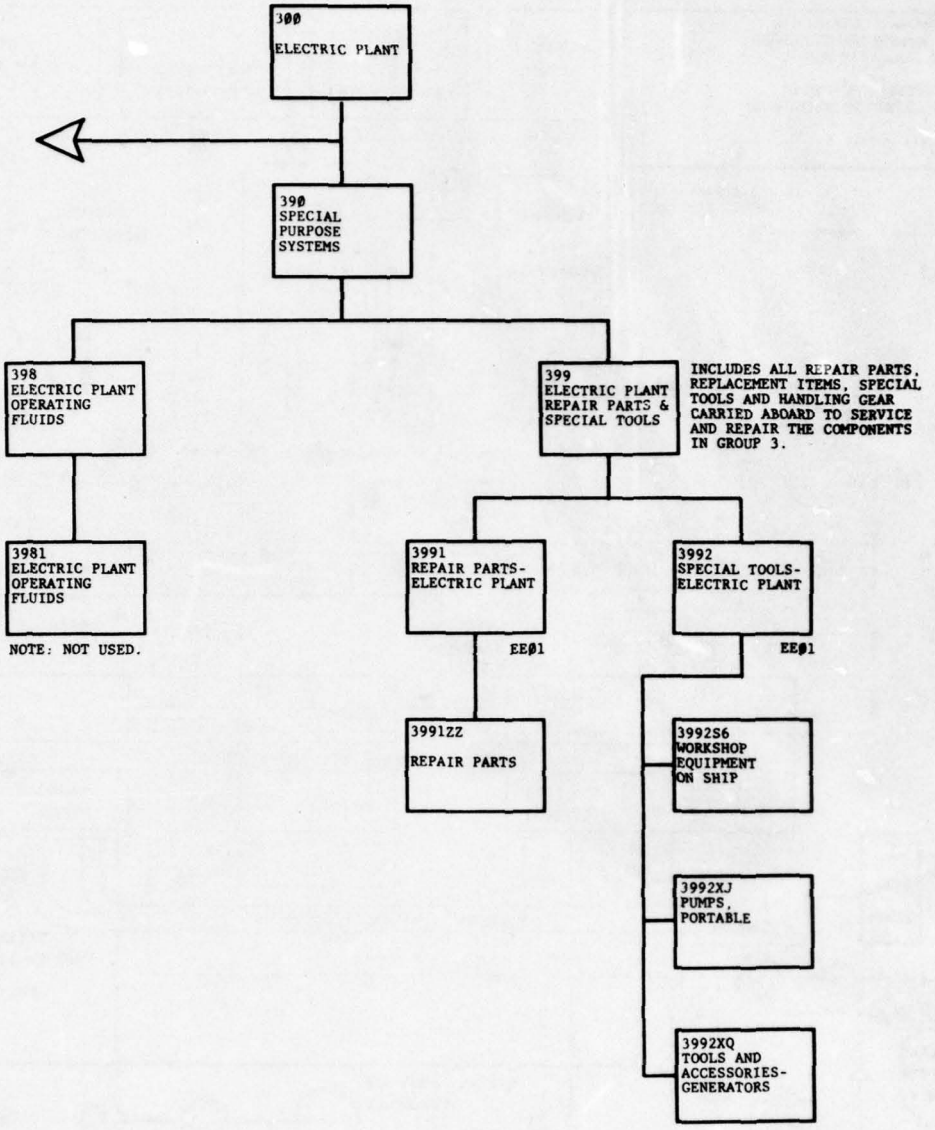
FF-1052 CLASS
PREPARED 7-22-77


300
ELECTRIC PLANT
340
POWER GENERATION SUPPORT SYSTEMS
342
DIESEL SUPPORT SYSTEMS
INCLUDES SUPPORT SYSTEMS FOR THE SHIP'S SERVICE DIESEL GENERATOR SET ENGINES.
DOES NOT INCLUDE:
DIESEL GENERATOR SET (311)
ALARM, SAFETY, AND WARNING SYSTEMS (436)
INDICATING, ORDER, AND METERING SYSTEMS (437)
3424 3101
SALT WATER COOLING
EA02
3424A4
VALVE-RELIEF
3424GC
GAGE-PRESSURE
3424JZ
MEASURING AND INDICATING INSTRUMENTS
3424M7
MOTOR-AC
3424KK
VALVE-PRESSURE REGULATING
3424KX
VALVE-STOP CHECK
3424PX
PIPING SYSTEM HARDWARE
3424QX
PUMP-CENTRIFUGAL, POWER DRIVEN
3424VB
VALVE-ANGLE
3424VG
VALVE-BUTTERFLY
3424VI
VALVE-GLOBE
3424VJ
VALVE-CHECK
3424VL
VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
3424VR
VALVE-GATE
3424VV
VALVE-NEEDLE
3424VW
VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
3424VX
VALVE-PLUG
3424V6
VALVE-SOLENOID
3424ZY
STRAINER-SEDIMENT
342447
CONTROLLER-AC
3425 3101
FRESH WATER COOLING SYSTEM
EA02
3425JS
INDICATOR-SIGHT LIQUID, TUBULAR
3425PX
PIPING SYSTEM HARDWARE
3425VI
VALVE-GLOBE
3425VJ
VALVE-CHECK
3425VR
VALVE-GATE
3425V7
VALVE-3 WAY
INCLUDES:
3 WAY PROPORTIONING VALVE
3 WAY THERMOSTATIC VALVE
3425TE
TANK-LIQUID STORAGE
INCLUDES:
FRESH WATER TREATMENT TANK
EXPANSION TANK
3425VX
VALVE-PLUG
FF-1052 CLASS
PREPARED 7-22-77

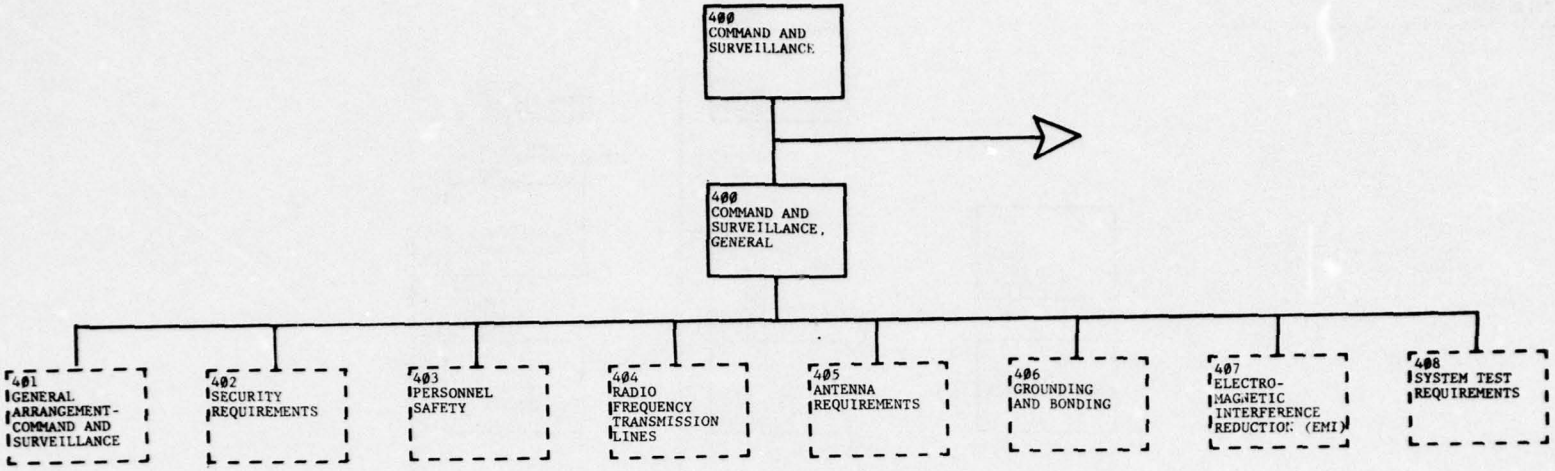


FF-1052 CLASS
PREPARED 7-22-77

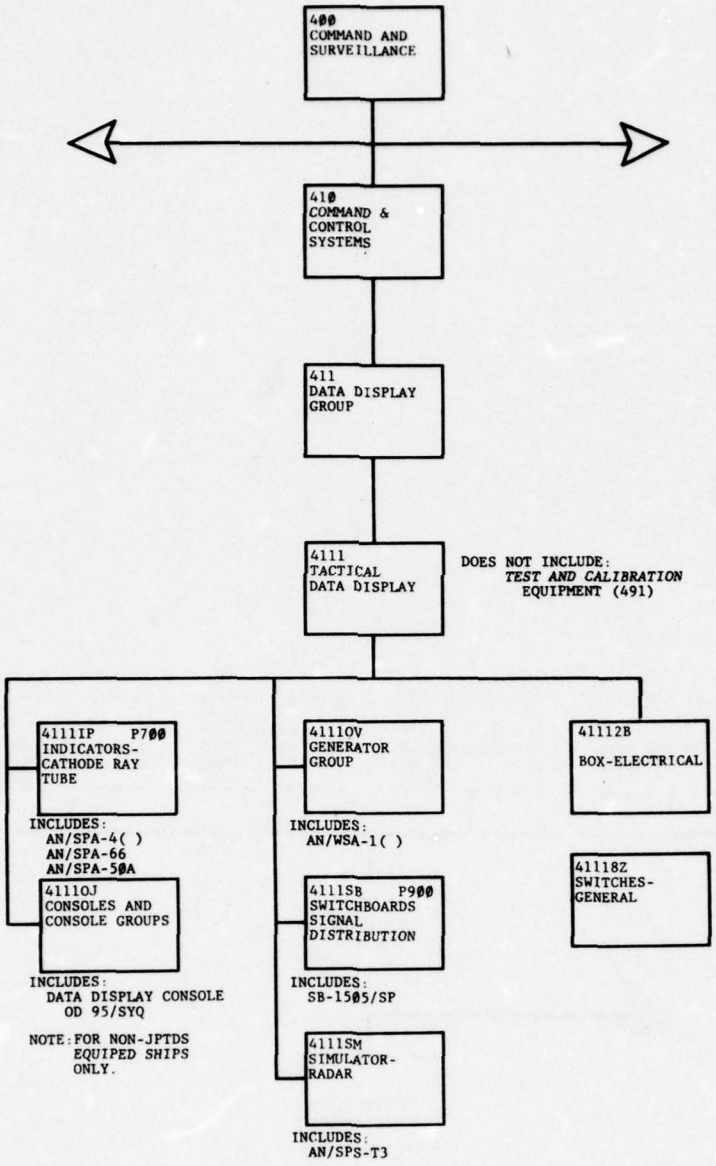

JP-5 DIESEL GENERATOR SERV TANK 5422TE
PULL CABLE
AIR FUEL SHUTDOWN
ATTACHED FO SERV 34221Q
AIR-FUEL SHUTDOWN
HP AIR SYSTEM 551
AIR FLASK 3427MX
DRAIN 534
FILTER
ATT FO SERV 34221Q
JP-5 CLR
FILTER
EXHAUST PIPING 3428PX
MUFFLER 31121N
WATER TRAP
OVERBOARD EXHAUST 163
AIR COOLER
GENERATOR
DIESEL ENGINE
DIESEL ENGINE
VENT DUCT 513
MANOMETER ASSY
COMBUSTION AIR PIPING 3426PX
ATT FW PMP
ATTACH FW PUMP
FW COOLER 311267
FW CLR 311267
LO STORAGE TANK 123
HAND PUMP 3423Q9
FIREMAIN SYSTEM 521
EMERGENCY SUPPLY
GAGE GLASS
COMPOUND FILL
FW EXPANSION TANK 3425TE
FW TREATMENT TANK 3425TE
JP-5 DRAIN TANK 123
SEA CHEST 163
MOTOR 3424M7
SALT WATER CIRC PUMP 3424QX
SALT WTR DRAIN
FF-1052 Class
Prepared 9-14-76
LEGEND
FUEL OIL PIPING (3422PX)
LUBE OIL PIPING (3423PX)
SALT WATER PIPING (3424PX)
FRESH WATER PIPING (3425PX)
AIR STARTING PIPING (3427PX)
DRAIN WELL 529
OVERBOARD DISCHARGE 163
FRESH WATER SYSTEM 533
DRAIN 534
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
300 ELECTRIC PLANT
310 ELECTRIC POWER GENERATION
342 DIESEL SUPPORT SYSTEMS



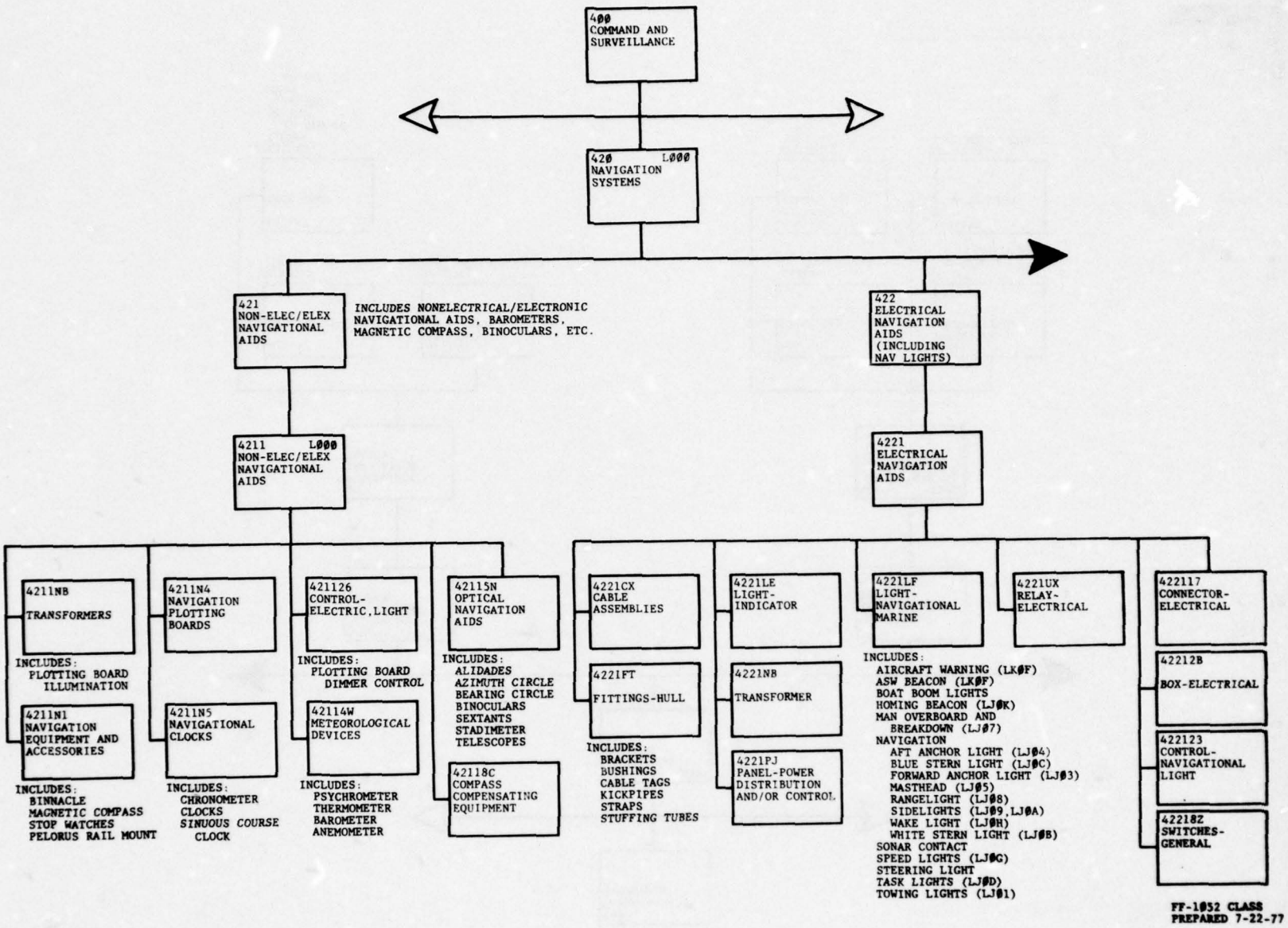
FF-1052 CLASS
PREPARED 7-22-77

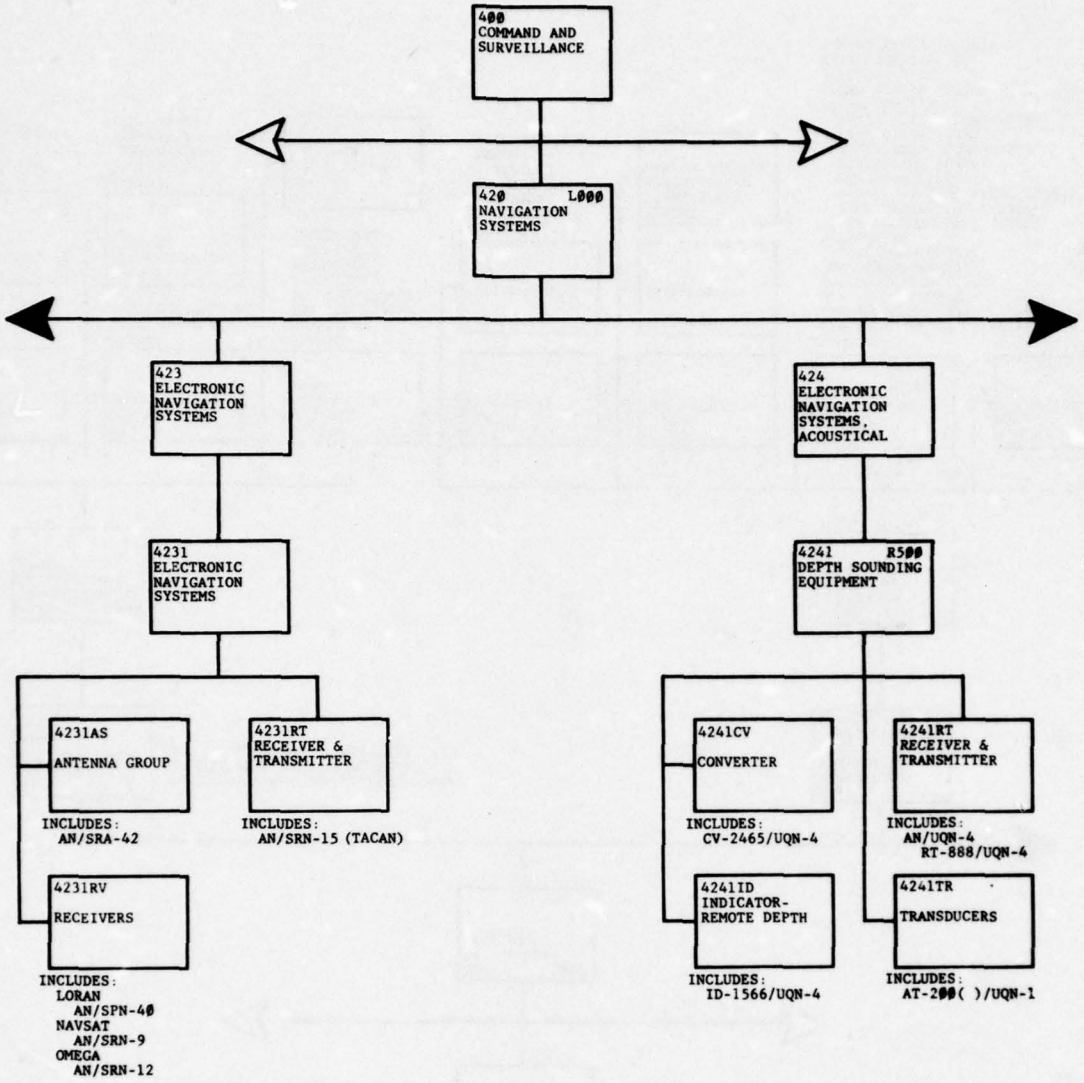


FF-1052 CLASS
PREPARED 7-22-77

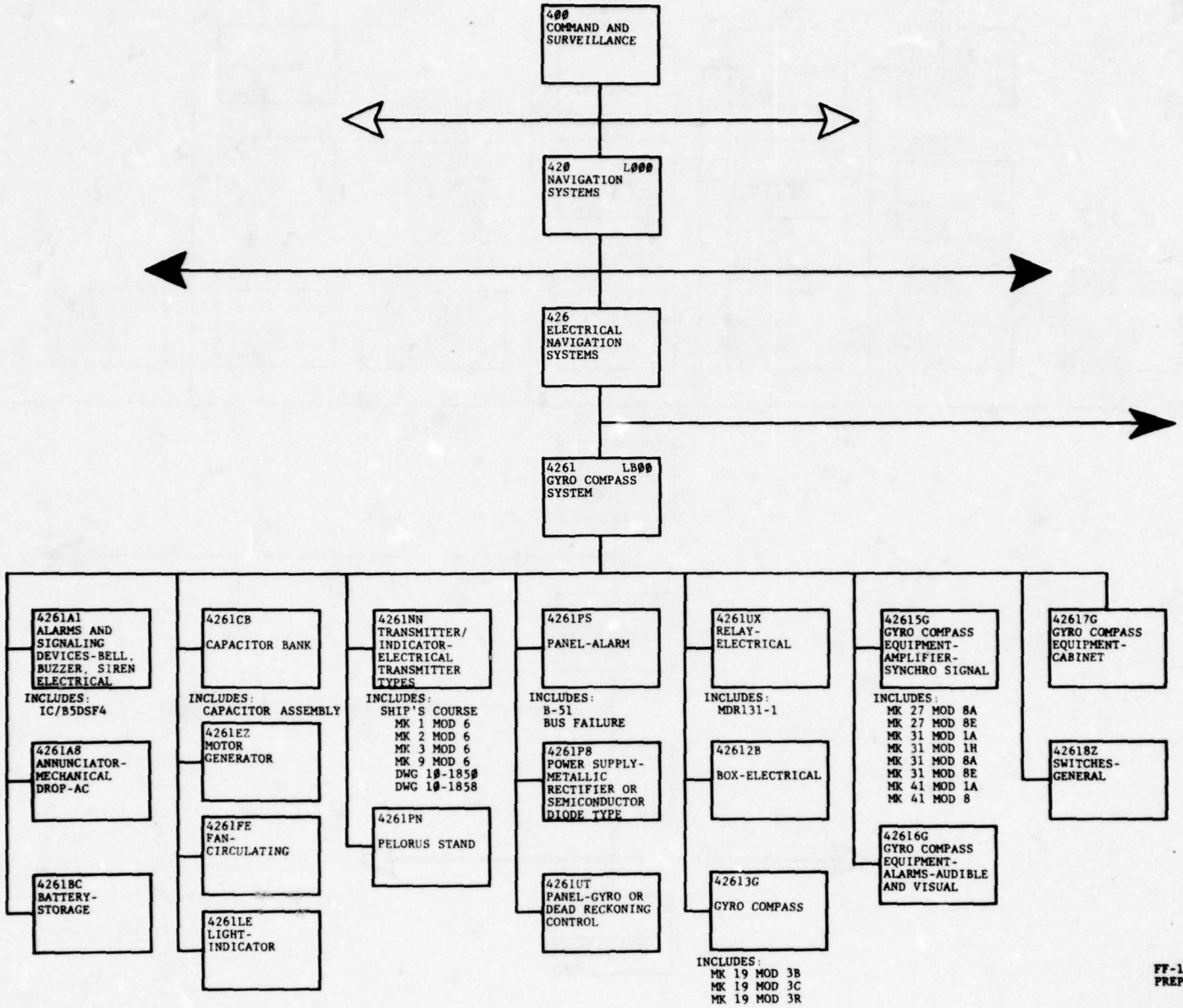


FF-1052 CLASS
PREPARED 7-22-77

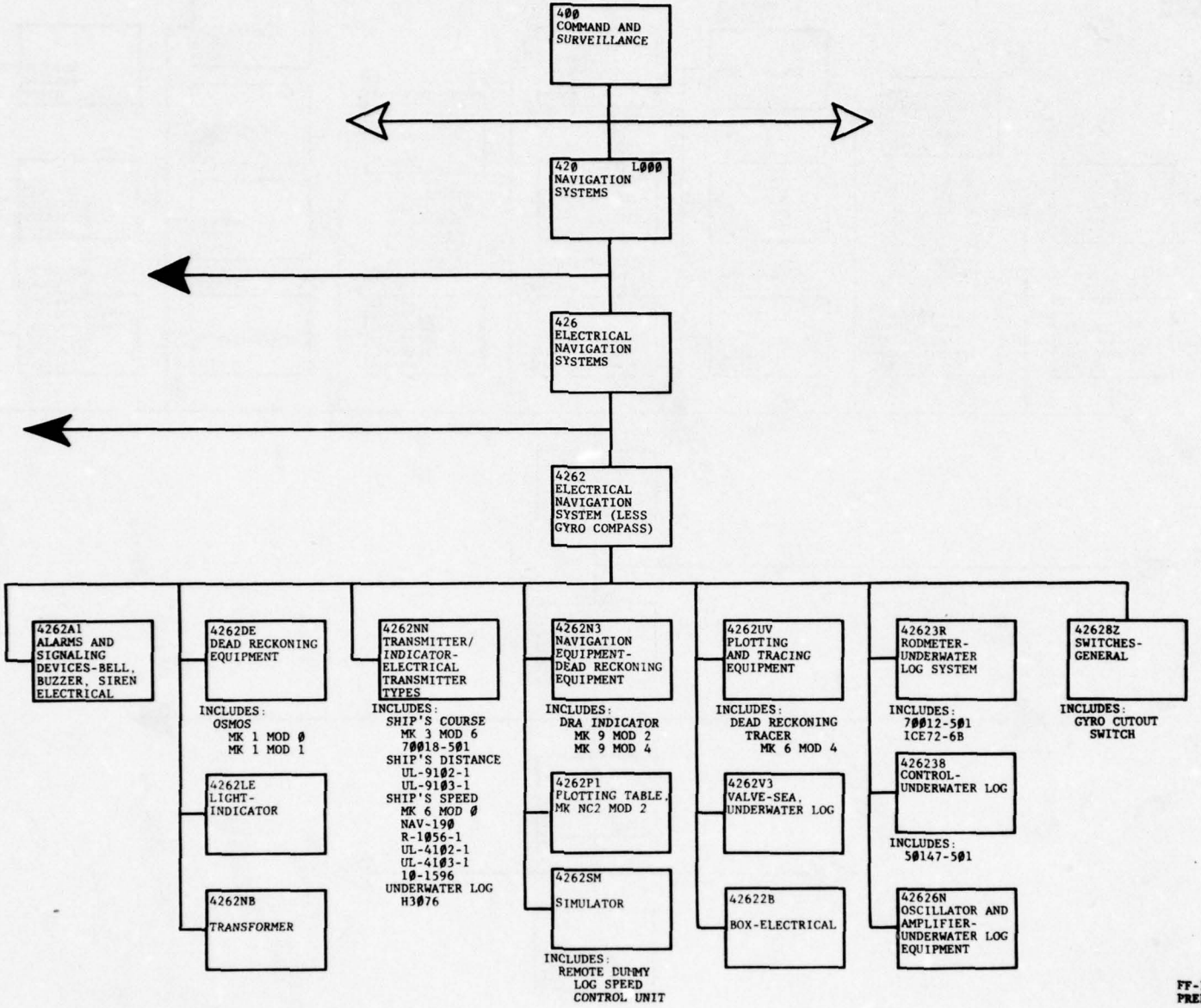

400
COMMAND AND SURVEILLANCE
420 L000
NAVIGATION SYSTEMS
421
NON-ELEC/ELEX NAVIGATIONAL AIDS
INCLUDES NONELECTRICAL/ELECTRONIC NAVIGATIONAL AIDS, BAROMETERS, MAGNETIC COMPASS, BINOCULARS, ETC.
422
ELECTRICAL NAVIGATION AIDS (INCLUDING NAV LIGHTS)
4211 L000
NON-ELEC/ELEX NAVIGATIONAL AIDS
4221
ELECTRICAL NAVIGATION AIDS
4211NB
TRANSFORMERS
INCLUDES:
PLOTTING BOARD ILLUMINATION
4211N1
NAVIGATION EQUIPMENT AND ACCESSORIES
INCLUDES:
BINNACLE
MAGNETIC COMPASS
STOP WATCHES
PELORUS RAIL MOUNT
4211N4
NAVIGATION PLOTTING BOARDS
4211N5
NAVIGATIONAL CLOCKS
INCLUDES:
CHRONOMETER
CLOCKS
SINUOUS COURSE CLOCK
421126
CONTROL-ELECTRIC,LIGHT
INCLUDES:
PLOTTING BOARD DIMMER CONTROL
42114W
METEOROLOGICAL DEVICES
INCLUDES:
PSYCHROMETER
THERMOMETER
BAROMETER
ANEMOMETER
42115N
OPTICAL NAVIGATION AIDS
INCLUDES:
ALIDADES
AZIMUTH CIRCLE
BEARING CIRCLE
BINOCULARS
SEXTANTS
STADIMETER
TELESCOPES
42118C
COMPASS COMPENSATING EQUIPMENT
4221CX
CABLE ASSEMBLIES
4221FT
FITTINGS-HULL
INCLUDES:
BRACKETS
BUSHINGS
CABLE TAGS
KICKPIPES
STRAPS
STUFFING TUBES
4221LE
LIGHT-INDICATOR
4221NB
TRANSFORMER
4221PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
4221LF
LIGHT-NAVIGATIONAL MARINE
INCLUDES:
AIRCRAFT WARNING (LKØF)
ASW BEACON (LKØF)
BOAT BOOM LIGHTS
HOMING BEACON (LJØK)
MAN OVERBOARD AND BREAKDOWN (LJØ7)
NAVIGATION
AFT ANCHOR LIGHT (LJØ4)
BLUE STERN LIGHT (LJØC)
FORWARD ANCHOR LIGHT (LJØ3)
MASTHEAD (LJØ5)
RANGELIGHT (LJØ8)
SIDELIGHTS (LJØ9,LJØA)
WAKE LIGHT (LJØH)
WHITE STERN LIGHT (LJØB)
SONAR CONTACT
SPEED LIGHTS (LJØG)
STEERING LIGHT
TASK LIGHTS (LJØD)
TOWING LIGHTS (LJØ1)
4221UX
RELAY-ELECTRICAL
422117
CONNECTOR-ELECTRICAL
42212B
BOX-ELECTRICAL
422123
CONTROL-NAVIGATIONAL LIGHT
422182
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77



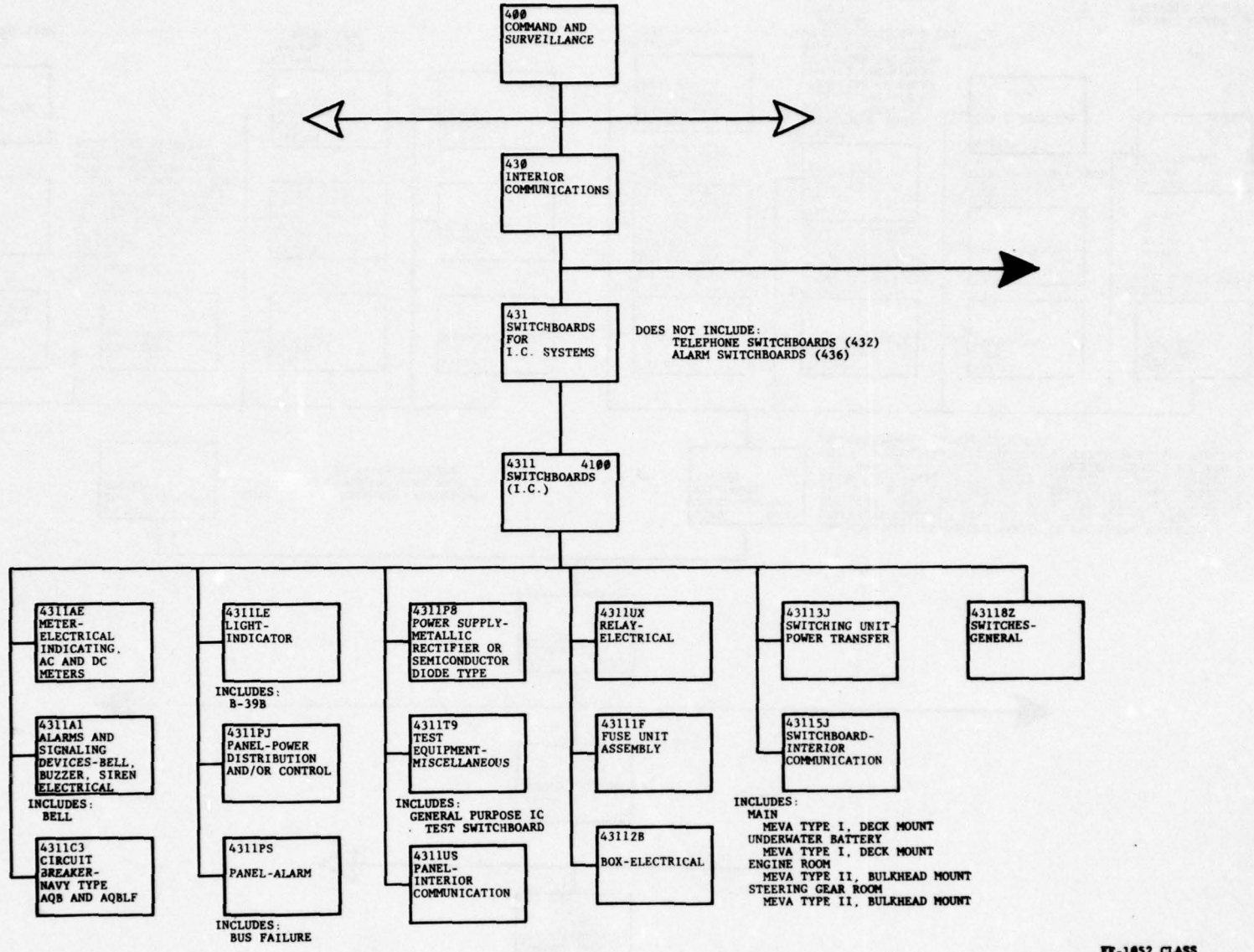
FF-1052 CLASS
PREPARED 7-22-77



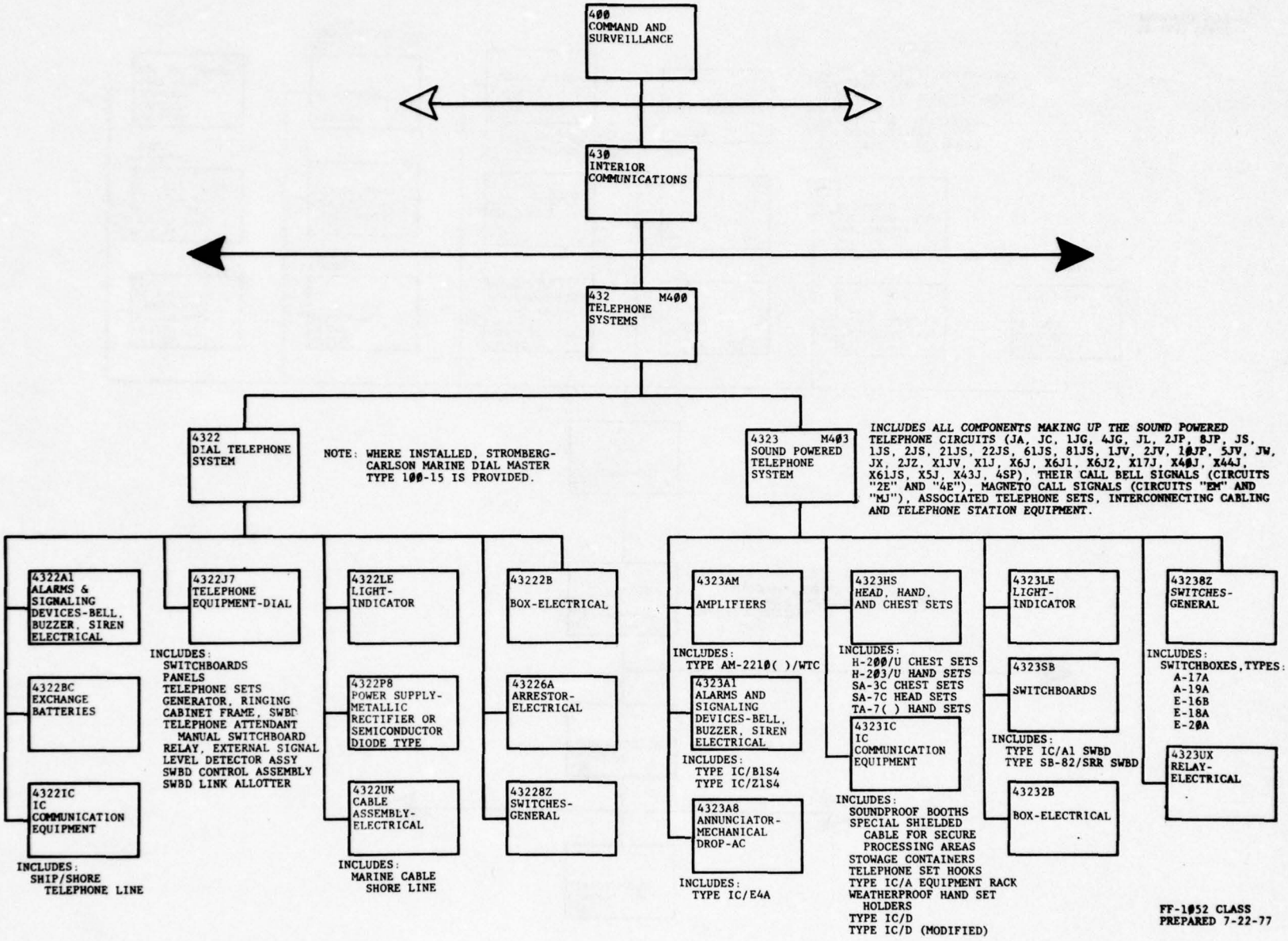
FF-1052 CLASS
PREPARED 7-22-77

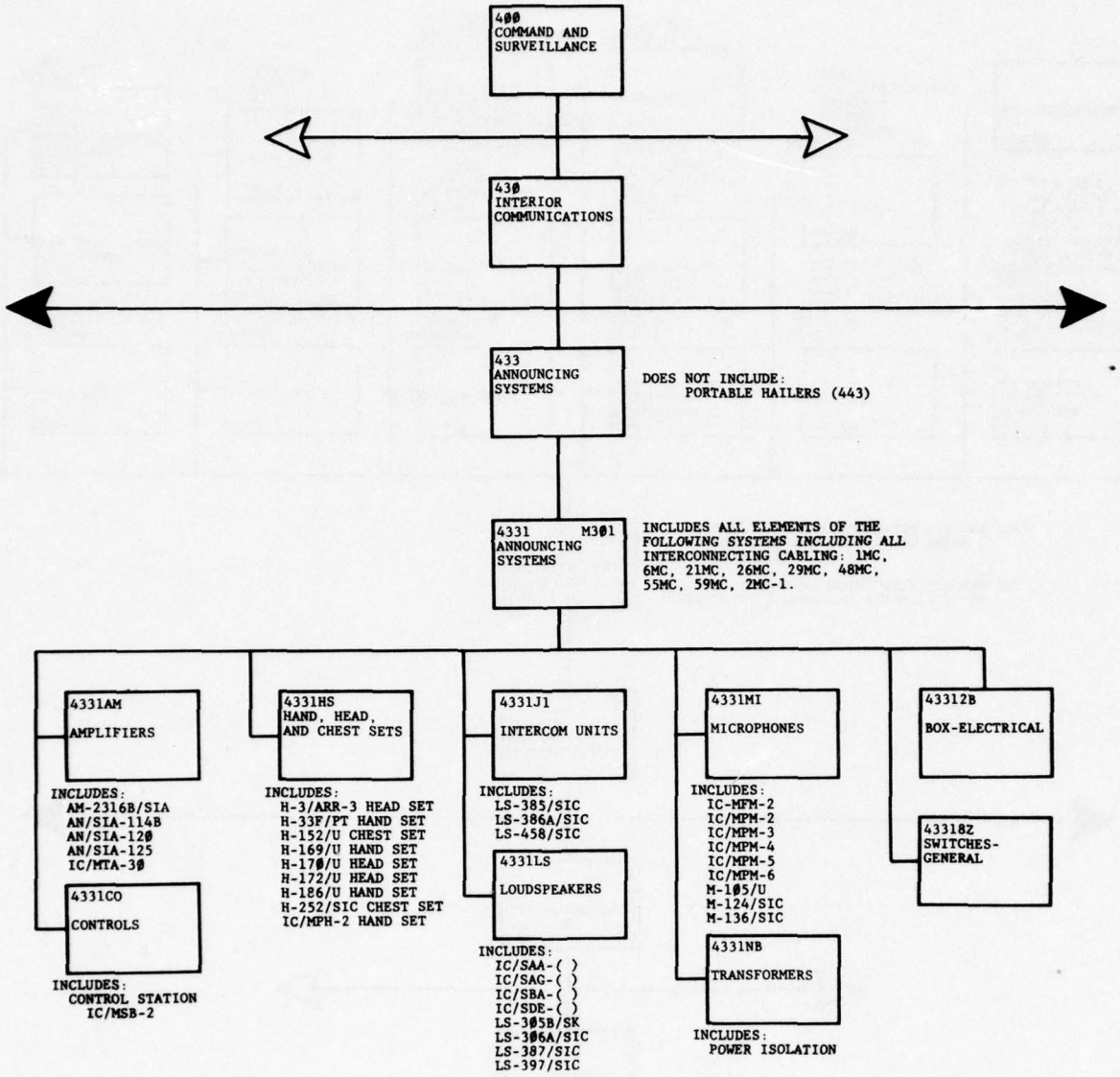


FF-1052 CLASS
PREPARED 7-22-77

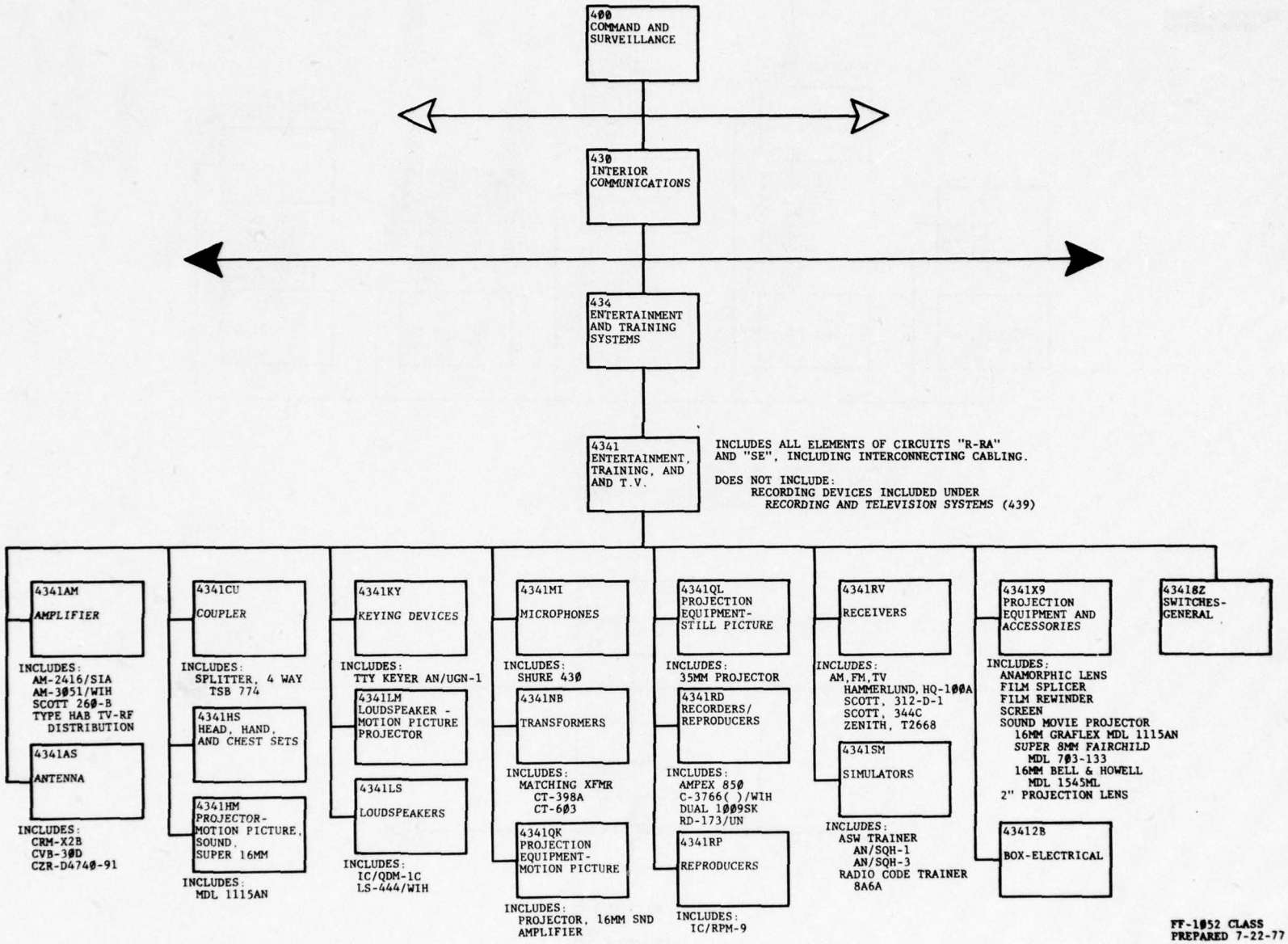


FF-1052 CLASS
PREPARED 7-22-77

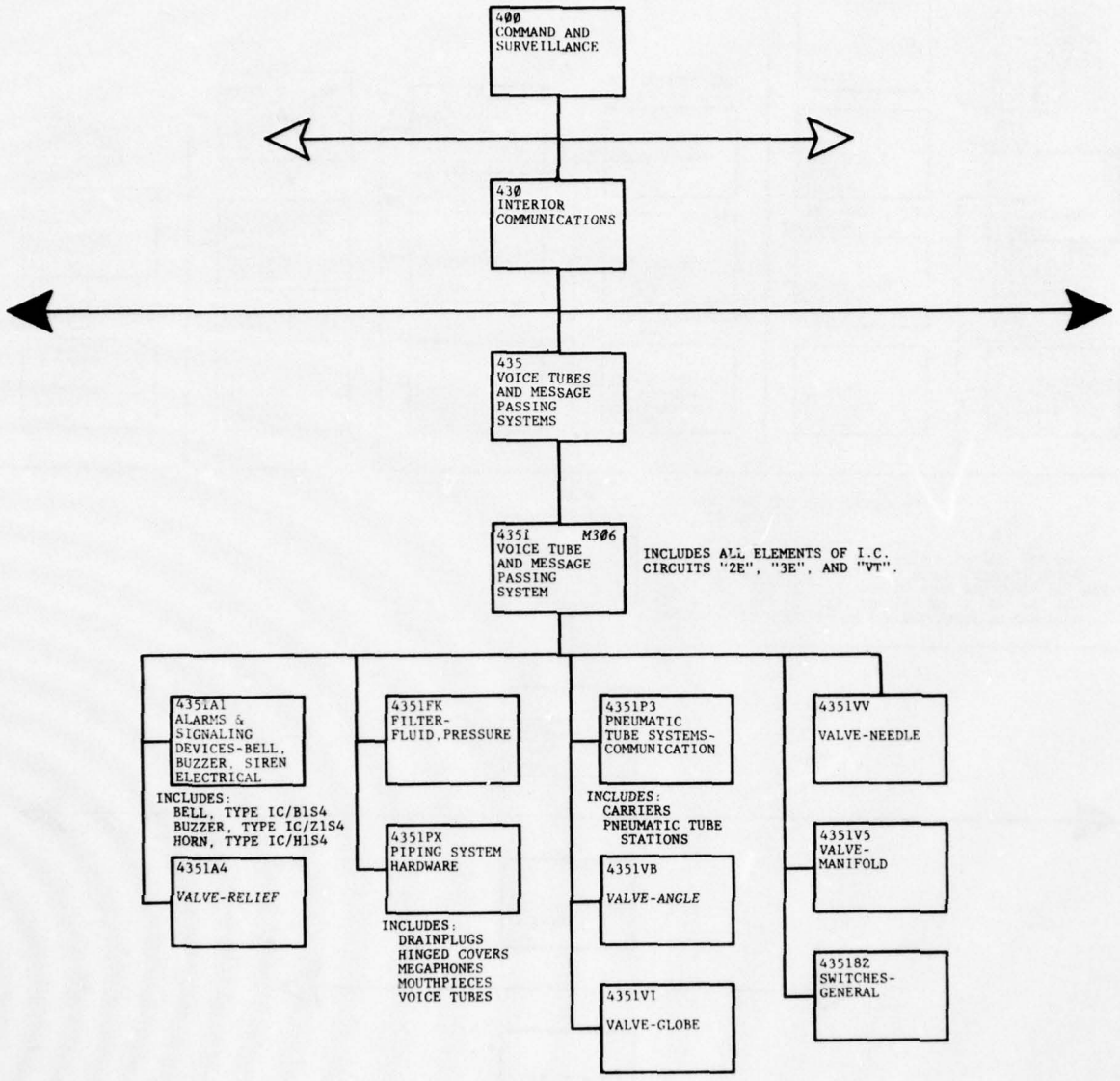

400
COMMAND AND SURVEILLANCE
430
INTERIOR COMMUNICATIONS
432 M400
TELEPHONE SYSTEMS
4322
DIAL TELEPHONE SYSTEM
NOTE: WHERE INSTALLED, STROMBERG-CARLSON MARINE DIAL MASTER TYPE 100-15 IS PROVIDED.
4323 M403
SOUND POWERED TELEPHONE SYSTEM
INCLUDES ALL COMPONENTS MAKING UP THE SOUND POWERED TELEPHONE CIRCUITS (JA, JC, 1JG, 4JG, JL, 2JP, 8JP, JS, 1JS, 2JS, 21JS, 22JS, 61JS, 81JS, 1JV, 2JV, 10JP, 5JV, JW, JX, 2JZ, X1JV, X1J, X6J, X6J1, X6J2, X17J, X40J, X44J, X61JS, X5J, X43J, 4SP), THEIR CALL BELL SIGNALS (CIRCUITS "2E" AND "4E"), MAGNETO CALL SIGNALS (CIRCUITS "EM" AND "MJ"), ASSOCIATED TELEPHONE SETS, INTERCONNECTING CABLING AND TELEPHONE STATION EQUIPMENT.
4322A1
ALARMS & SIGNALING DEVICES-BELL, BUZZER, SIREN ELECTRICAL
4322BC
EXCHANGE BATTERIES
4322IC
IC COMMUNICATION EQUIPMENT
INCLUDES:
SHIP/SHORE TELEPHONE LINE
4322J7
TELEPHONE EQUIPMENT-DIAL
INCLUDES:
SWITCHBOARDS
PANELS
TELEPHONE SETS
GENERATOR, RINGING
CABINET FRAME, SWBD
TELEPHONE ATTENDANT MANUAL SWITCHBOARD
RELAY, EXTERNAL SIGNAL LEVEL DETECTOR ASSY
SWBD CONTROL ASSEMBLY
SWBD LINK ALLOTTER
4322LE
LIGHT-INDICATOR
4322P8
POWER SUPPLY-METALLIC RECTIFIER OR SEMICONDUCTOR DIODE TYPE
4322UK
CABLE ASSEMBLY-ELECTRICAL
INCLUDES:
MARINE CABLE SHORE LINE
43222B
BOX-ELECTRICAL
43226A
ARRESTOR-ELECTRICAL
43228Z
SWITCHES-GENERAL
4323AM
AMPLIFIERS
INCLUDES:
TYPE AM-2210( )/WTC
4323A1
ALARMS AND SIGNALING DEVICES-BELL, BUZZER, SIREN ELECTRICAL
INCLUDES:
TYPE IC/B1S4
TYPE IC/Z1S4
4323A8
ANNUNCIATOR-MECHANICAL DROP-AC
INCLUDES:
TYPE IC/E4A
4323HS
HEAD, HAND, AND CHEST SETS
INCLUDES:
H-200/U CHEST SETS
H-203/U HAND SETS
SA-3C CHEST SETS
SA-7C HEAD SETS
TA-7( ) HAND SETS
4323IC
IC COMMUNICATION EQUIPMENT
INCLUDES:
SOUNDPROOF BOOTHS
SPECIAL SHIELDED CABLE FOR SECURE PROCESSING AREAS
STOWAGE CONTAINERS
TELEPHONE SET HOOKS
TYPE IC/A EQUIPMENT RACK
WEATHERPROOF HAND SET HOLDERS
TYPE IC/D
TYPE IC/D (MODIFIED)
4323LE
LIGHT-INDICATOR
4323SB
SWITCHBOARDS
INCLUDES:
TYPE IC/A1 SWBD
TYPE SB-82/SRR SWBD
43232B
BOX-ELECTRICAL
43238Z
SWITCHES-GENERAL
INCLUDES:
SWITCHBOXES, TYPES:
A-17A
A-19A
E-16B
E-18A
E-20A
4323UX
RELAY-ELECTRICAL
FF-1052 CLASS
PREPARED 7-22-77



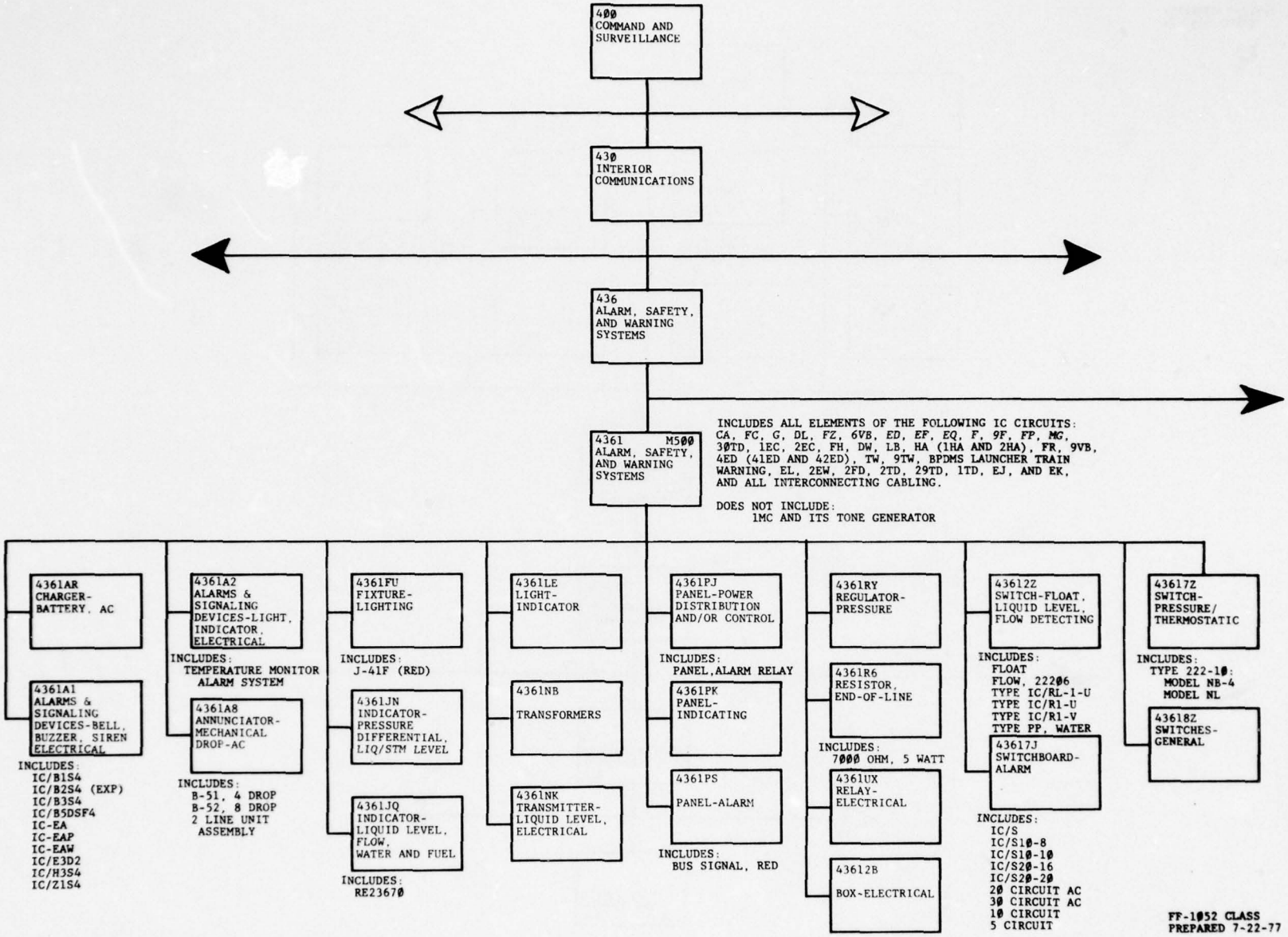
FF-1052 CLASS
PREPARED 7-22-77

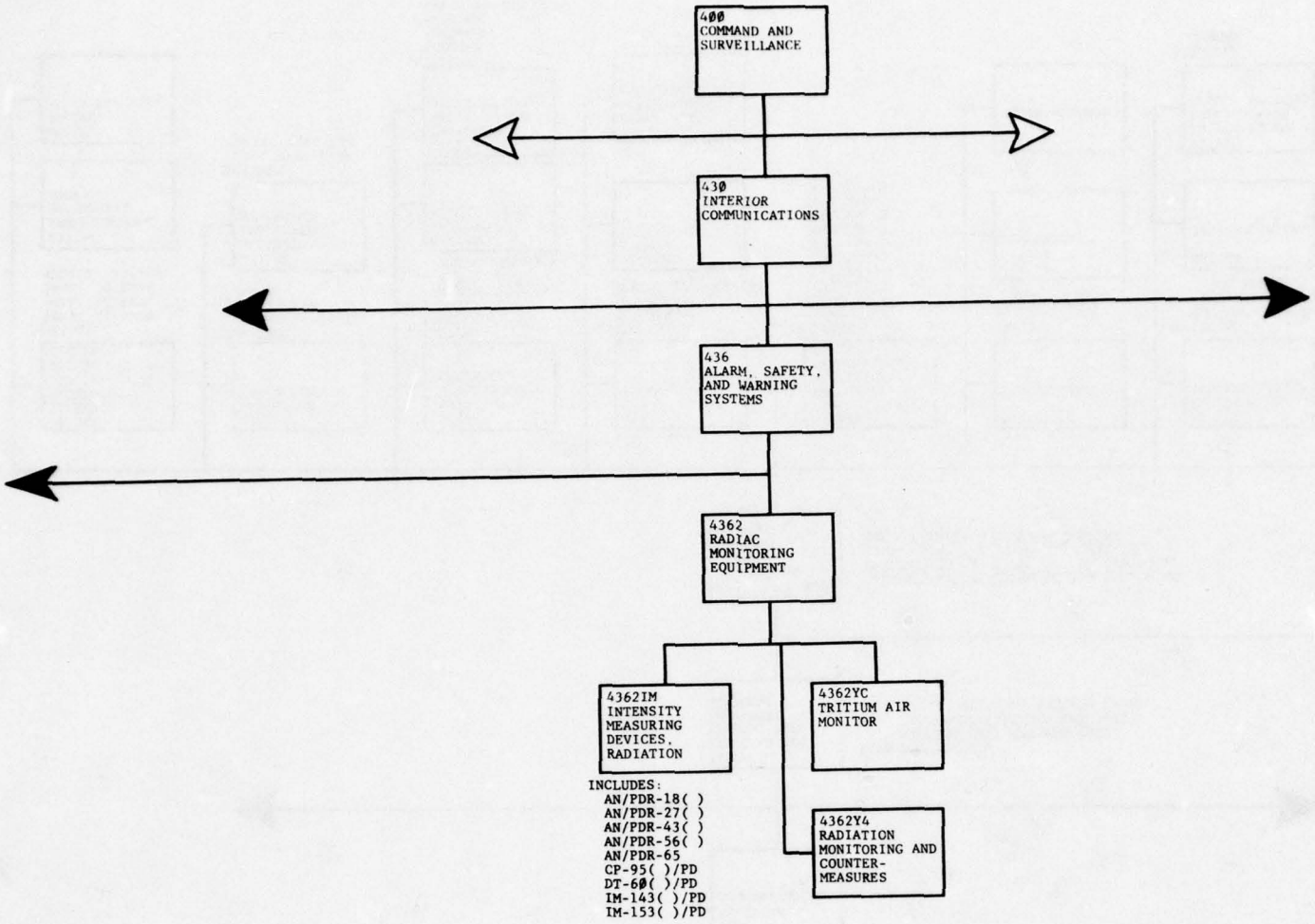


FF-1052 CLASS
PREPARED 7-22-77

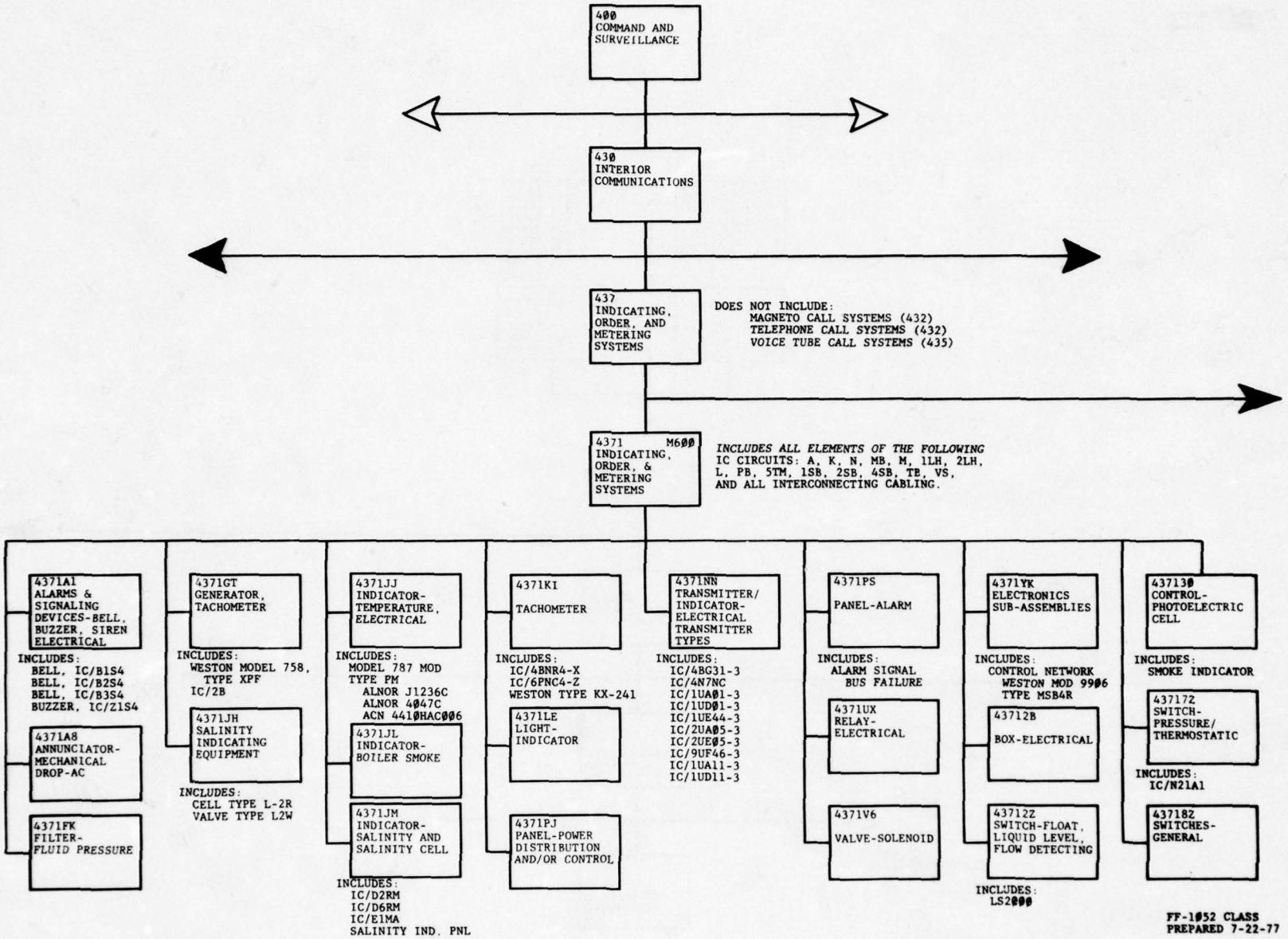


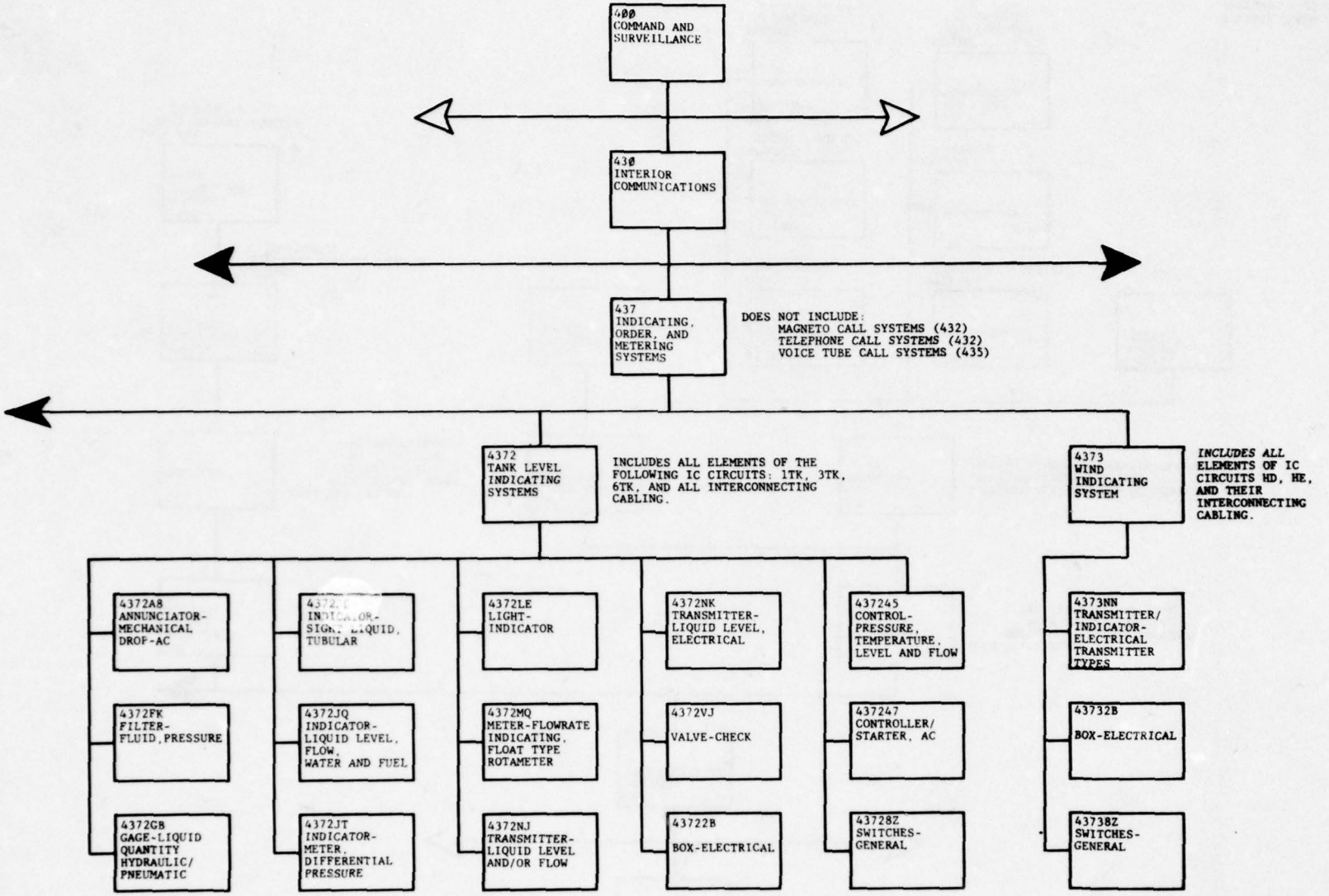
FF-1052 CLASS
PREPARED 7-22-77


400
COMMAND AND SURVEILLANCE
430
INTERIOR COMMUNICATIONS
436
ALARM, SAFETY, AND WARNING SYSTEMS
4361 M500
ALARM, SAFETY, AND WARNING SYSTEMS
INCLUDES ALL ELEMENTS OF THE FOLLOWING IC CIRCUITS:
CA, FC, G, DL, FZ, 6VB, ED, EF, EQ, F, 9F, FP, MG, 30TD, 1EC, 2EC, FH, DW, LB, HA (1HA AND 2HA), FR, 9VB, 4ED (41ED AND 42ED), TW, 9TW, BPDMS LAUNCHER TRAIN WARNING, EL, 2EW, 2FD, 2TD, 29TD, 1TD, EJ, AND EK, AND ALL INTERCONNECTING CABLING.
DOES NOT INCLUDE:
1MC AND ITS TONE GENERATOR
4361AR
CHARGER-BATTERY, AC
4361A1
ALARMS & SIGNALING DEVICES-BELL, BUZZER, SIREN ELECTRICAL
INCLUDES:
IC/B1S4
IC/B2S4 (EXP)
IC/B3S4
IC/B5DSF4
IC-EA
IC-EAP
IC-EAW
IC/E3D2
IC/H3S4
IC/Z1S4
4361A2
ALARMS & SIGNALING DEVICES-LIGHT, INDICATOR, ELECTRICAL
INCLUDES:
TEMPERATURE MONITOR ALARM SYSTEM
4361A8
ANNUNCIATOR-MECHANICAL DROP-AC
INCLUDES:
B-51, 4 DROP
B-52, 8 DROP
2 LINE UNIT ASSEMBLY
4361FU
FIXTURE-LIGHTING
INCLUDES:
J-41F (RED)
4361JN
INDICATOR-PRESSURE DIFFERENTIAL, LIQ/STM LEVEL
4361JQ
INDICATOR-LIQUID LEVEL, FLOW, WATER AND FUEL
INCLUDES:
RE23670
4361LE
LIGHT-INDICATOR
4361NB
TRANSFORMERS
4361NK
TRANSMITTER-LIQUID LEVEL, ELECTRICAL
4361PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
PANEL, ALARM RELAY
4361PK
PANEL-INDICATING
4361PS
PANEL-ALARM
INCLUDES:
BUS SIGNAL, RED
4361RY
REGULATOR-PRESSURE
4361R6
RESISTOR, END-OF-LINE
INCLUDES:
7000 OHM, 5 WATT
4361UX
RELAY-ELECTRICAL
43612B
BOX-ELECTRICAL
43612Z
SWITCH-FLOAT, LIQUID LEVEL, FLOW DETECTING
INCLUDES:
FLOAT
FLOW, 22206
TYPE IC/RL-1-U
TYPE IC/R1-U
TYPE IC/R1-V
TYPE PP, WATER
43617J
SWITCHBOARD-ALARM
INCLUDES:
IC/S
IC/S10-8
IC/S10-10
IC/S20-16
IC/S20-20
20 CIRCUIT AC
30 CIRCUIT AC
10 CIRCUIT
5 CIRCUIT
43617Z
SWITCH-PRESSURE/THERMOSTATIC
INCLUDES:
TYPE 222-10:
MODEL NB-4
MODEL NL
43618Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77

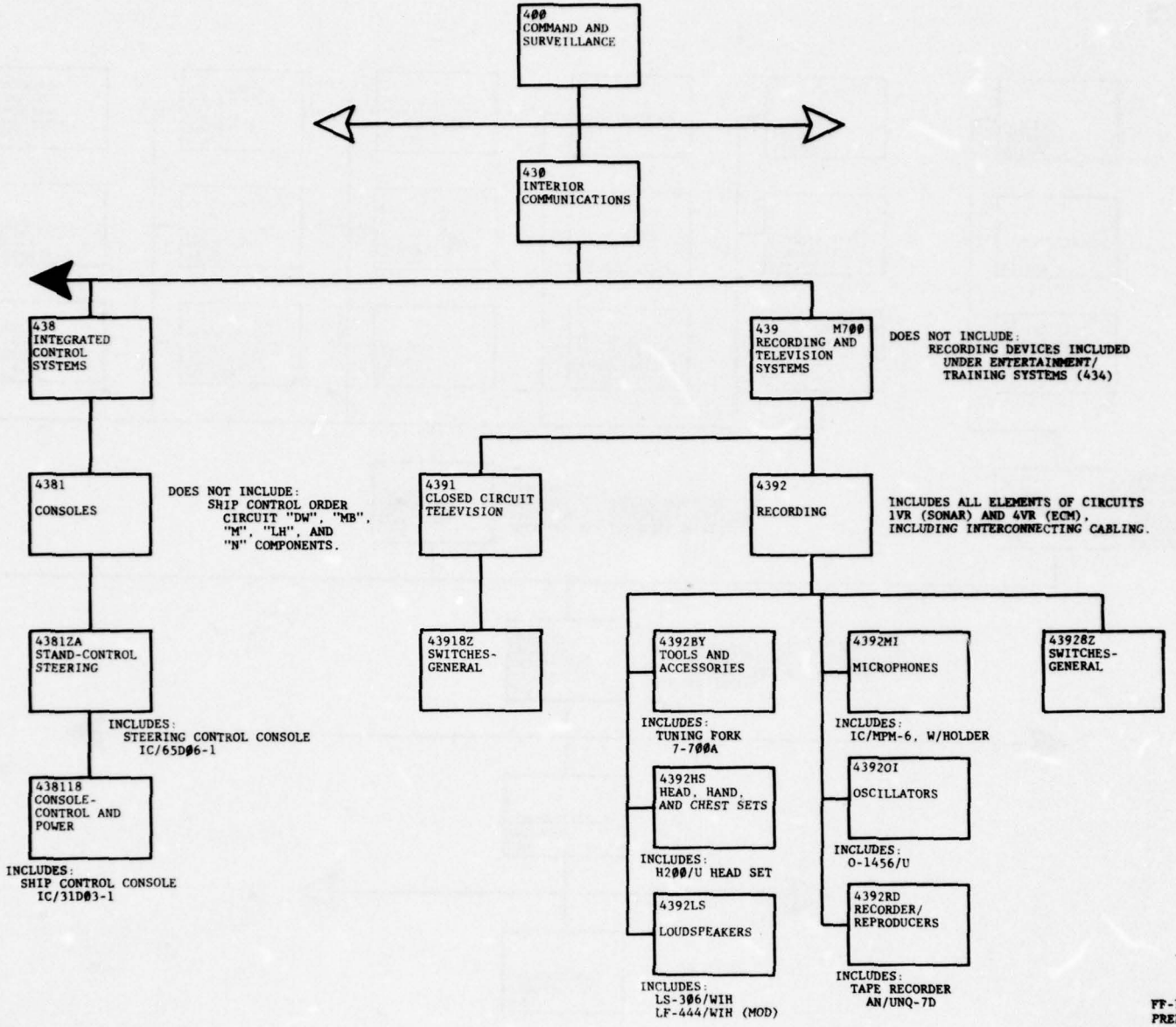


FF-1052 CLASS
PREPARED 7-22-77

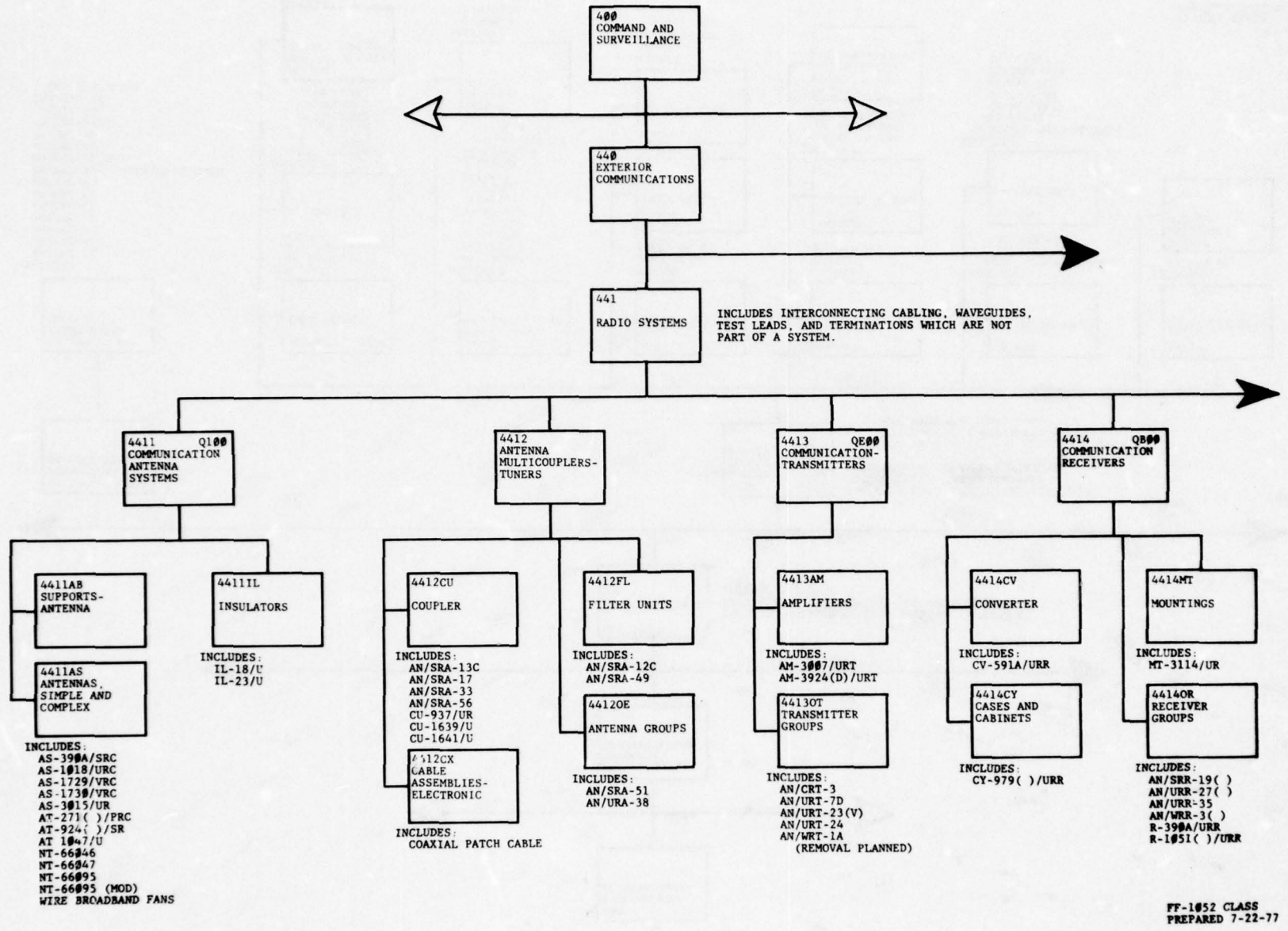

400
COMMAND AND SURVEILLANCE
430
INTERIOR COMMUNICATIONS
437
INDICATING, ORDER, AND METERING SYSTEMS
DOES NOT INCLUDE:
MAGNETO CALL SYSTEMS (432)
TELEPHONE CALL SYSTEMS (432)
VOICE TUBE CALL SYSTEMS (435)
4371 M600
INDICATING, ORDER, & METERING SYSTEMS
INCLUDES ALL ELEMENTS OF THE FOLLOWING
IC CIRCUITS: A, K, N, MB, M, 1LH, 2LH, L, PB, 5TM, 1SB, 2SB, 4SB, TB, VS, AND ALL INTERCONNECTING CABLING.
4371A1
ALARMS & SIGNALING DEVICES-BELL, BUZZER, SIREN ELECTRICAL
INCLUDES:
BELL, IC/B1S4
BELL, IC/B2S4
BELL, IC/B3S4
BUZZER, IC/Z1S4
4371A8
ANNUNCIATOR-MECHANICAL DROP-AC
4371FK
FILTER-FLUID PRESSURE
4371GT
GENERATOR, TACHOMETER
INCLUDES:
WESTON MODEL 758, TYPE XPF
IC/2B
4371JH
SALINITY INDICATING EQUIPMENT
INCLUDES:
CELL TYPE L-2R
VALVE TYPE L2W
4371JJ
INDICATOR-TEMPERATURE, ELECTRICAL
INCLUDES:
MODEL 787 MOD TYPE PM
ALNOR J1236C
ALNOR 4047C
ACN 4410HAC006
4371JL
INDICATOR-BOILER SMOKE
4371JM
INDICATOR-SALINITY AND SALINITY CELL
INCLUDES:
IC/D2RM
IC/D6RM
IC/E1MA
SALINITY IND. PNL
4371KI
TACHOMETER
INCLUDES:
IC/4BNR4-X
IC/6PNC4-Z
WESTON TYPE KX-241
4371LE
LIGHT-INDICATOR
4371PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
4371NN
TRANSMITTER/INDICATOR-ELECTRICAL TRANSMITTER TYPES
INCLUDES:
IC/4BG31-3
IC/4N7NC
IC/1UA01-3
IC/1UD01-3
IC/1UE44-3
IC/2UA05-3
IC/2UE05-3
IC/9UF46-3
IC/1UA11-3
IC/1UD11-3
4371PS
PANEL-ALARM
INCLUDES:
ALARM SIGNAL BUS FAILURE
4371UX
RELAY-ELECTRICAL
4371V6
VALVE-SOLENOID
4371YK
ELECTRONICS SUB-ASSEMBLIES
INCLUDES:
CONTROL NETWORK WESTON MOD 9906 TYPE MSB4R
43712B
BOX-ELECTRICAL
43712Z
SWITCH-FLOAT, LIQUID LEVEL, FLOW DETECTING
INCLUDES:
LS2000
43713Q
CONTROL-PHOTOELECTRIC CELL
INCLUDES:
SMOKE INDICATOR
43717Z
SWITCH-PRESSURE/THERMOSTATIC
INCLUDES:
IC/N21A1
43718Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77



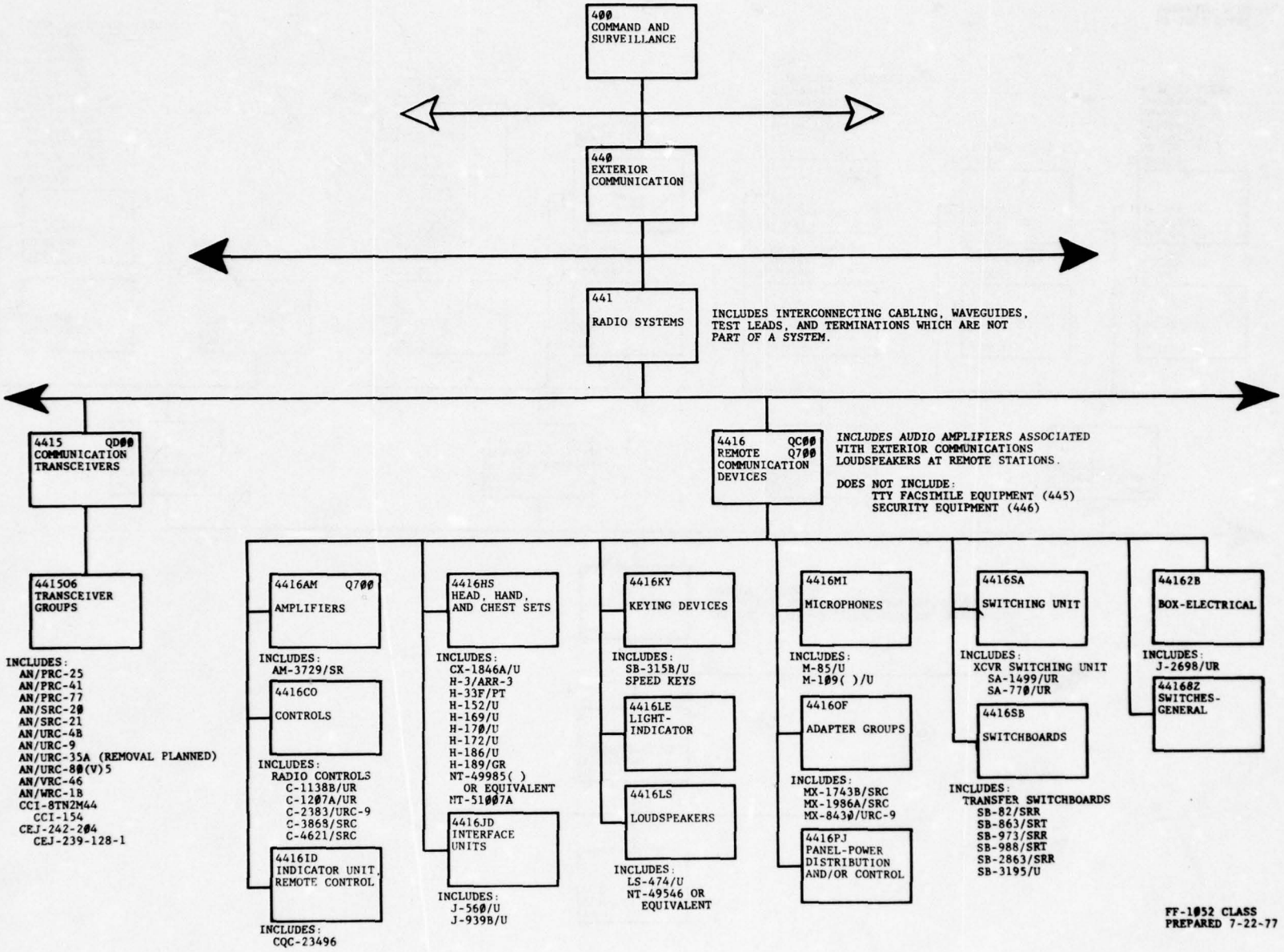
FF-1052 CLASS
PREPARED 7-22-77

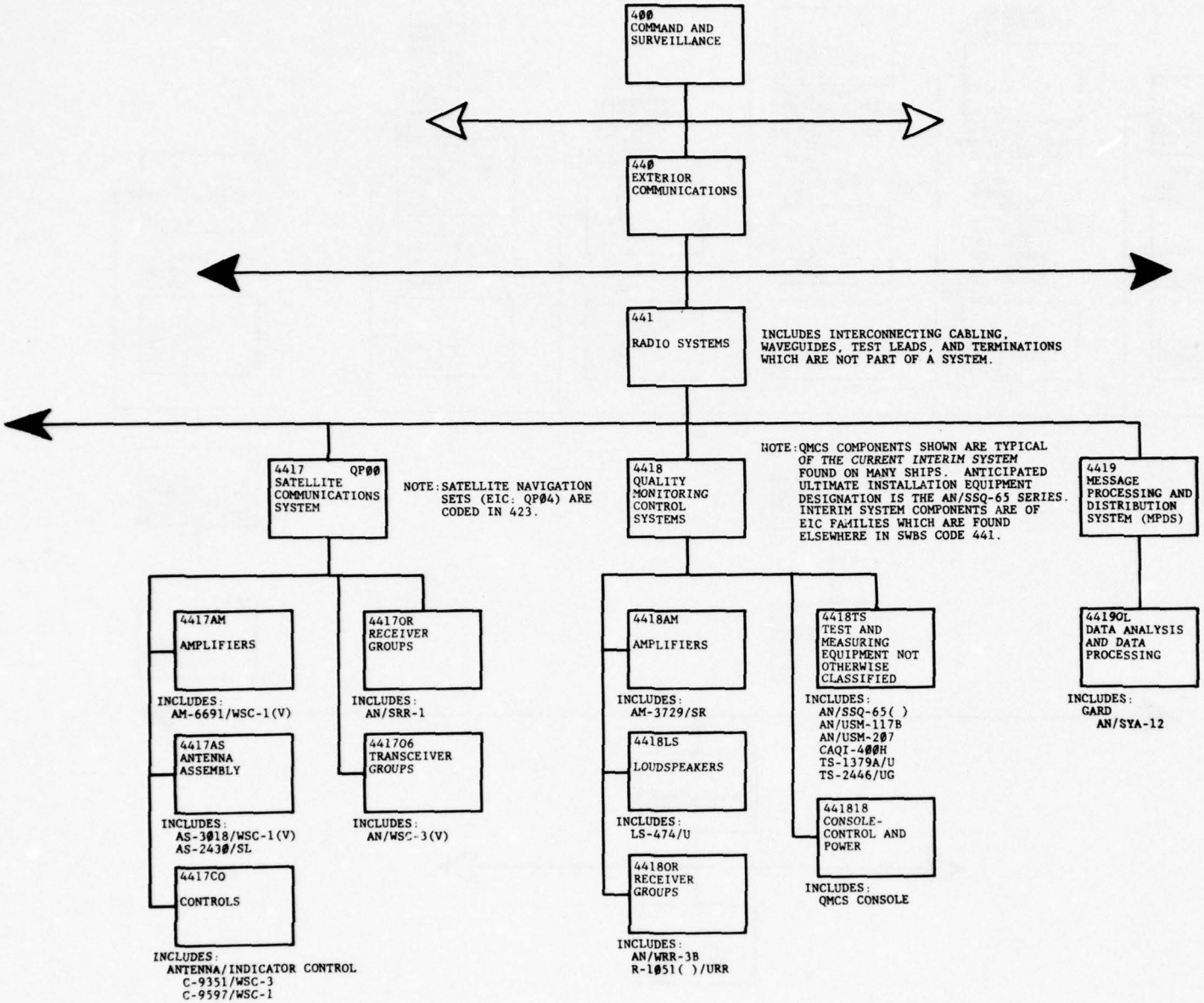


FF-1052 CLASS
PREPARED 7-22-77

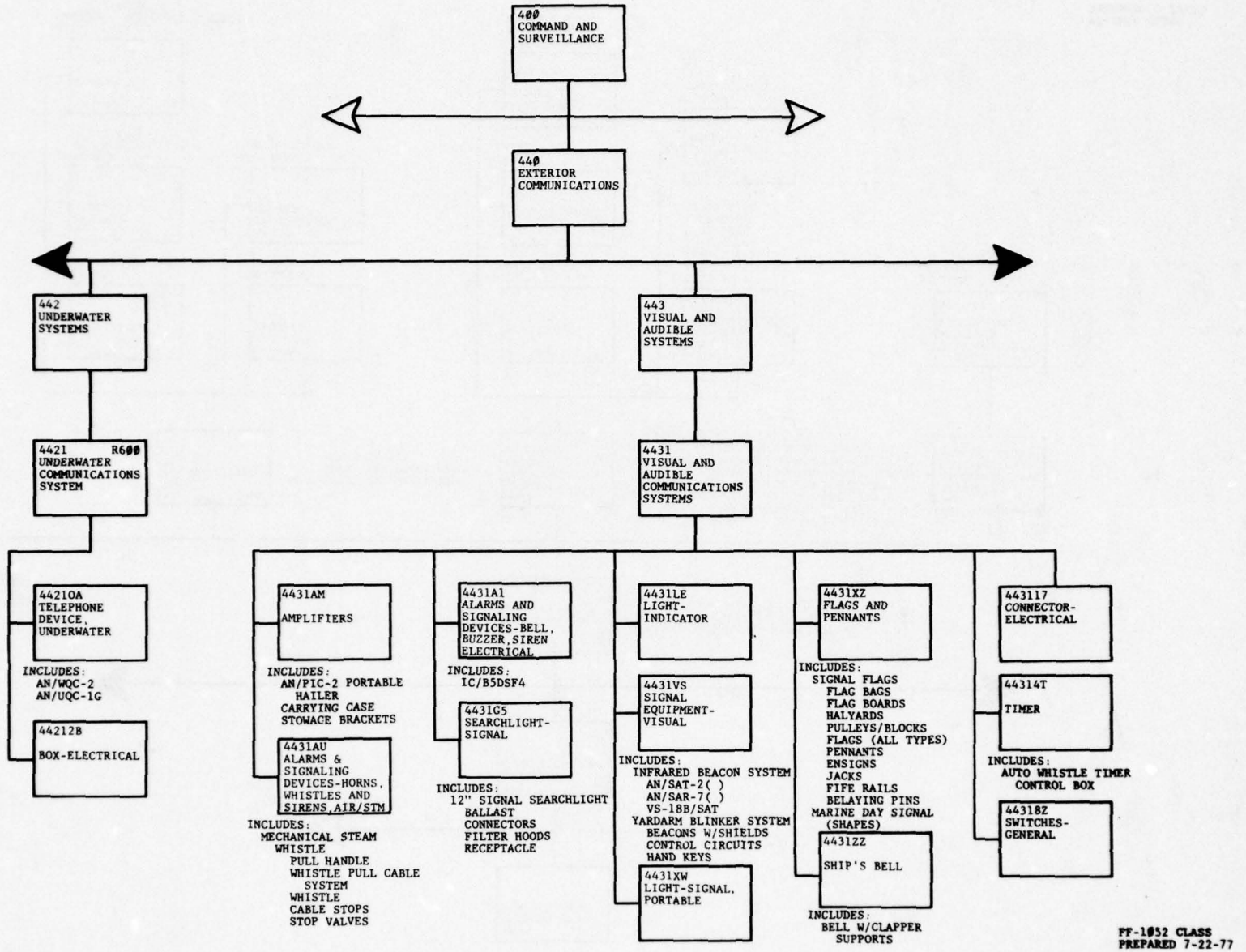


FF-1052 CLASS
PREPARED 7-22-77

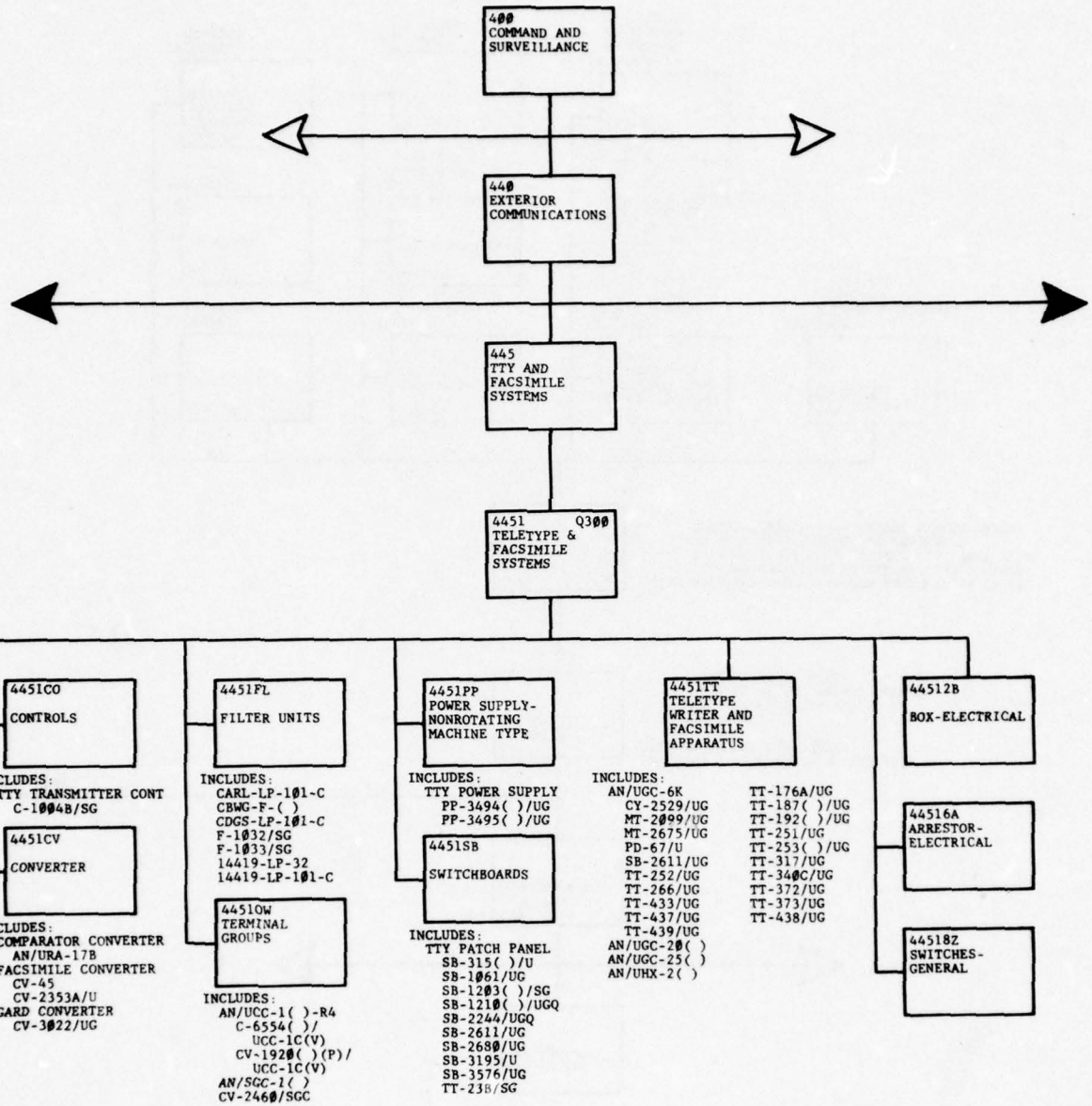

400
COMMAND AND SURVEILLANCE
440
EXTERIOR COMMUNICATION
441
RADIO SYSTEMS
INCLUDES INTERCONNECTING CABLING, WAVEGUIDES, TEST LEADS, AND TERMINATIONS WHICH ARE NOT PART OF A SYSTEM.
4415 QD00
COMMUNICATION TRANSCEIVERS
4416 QC00
REMOTE Q700
COMMUNICATION DEVICES
INCLUDES AUDIO AMPLIFIERS ASSOCIATED WITH EXTERIOR COMMUNICATIONS LOUDSPEAKERS AT REMOTE STATIONS.
DOES NOT INCLUDE:
TTY FACSIMILE EQUIPMENT (445)
SECURITY EQUIPMENT (446)
441506
TRANSCEIVER GROUPS
INCLUDES:
AN/PRC-25
AN/PRC-41
AN/PRC-77
AN/SRC-20
AN/SRC-21
AN/URC-4B
AN/URC-9
AN/URC-35A (REMOVAL PLANNED)
AN/URC-80(V)5
AN/VRC-46
AN/WRC-1B
CCI-8TN2M44
CCI-154
CEJ-242-204
CEJ-239-128-1
4416AM Q700
AMPLIFIERS
INCLUDES:
AM-3729/SR
4416CO
CONTROLS
INCLUDES:
RADIO CONTROLS
C-1138B/UR
C-1207A/UR
C-2383/URC-9
C-3868/SRC
C-4621/SRC
4416ID
INDICATOR UNIT, REMOTE CONTROL
INCLUDES:
CQC-23496
4416HS
HEAD, HAND, AND CHEST SETS
INCLUDES:
CX-1846A/U
H-3/ARR-3
H-33F/PT
H-152/U
H-169/U
H-170/U
H-172/U
H-186/U
H-189/GR
NT-49985( )
OR EQUIVALENT
NT-51007A
4416JD
INTERFACE UNITS
INCLUDES:
J-560/U
J-939B/U
4416KY
KEYING DEVICES
INCLUDES:
SB-315B/U
SPEED KEYS
4416LE
LIGHT-INDICATOR
4416LS
LOUDSPEAKERS
INCLUDES:
LS-474/U
NT-49546 OR EQUIVALENT
4416MI
MICROPHONES
INCLUDES:
M-85/U
M-109( )/U
4416OF
ADAPTER GROUPS
INCLUDES:
MX-1743B/SRC
MX-1986A/SRC
MX-8430/URC-9
4416PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
4416SA
SWITCHING UNIT
INCLUDES:
XCVR SWITCHING UNIT
SA-1499/UR
SA-770/UR
4416SB
SWITCHBOARDS
INCLUDES:
TRANSFER SWITCHBOARDS
SB-82/SRR
SB-863/SRT
SB-973/SRR
SB-988/SRT
SB-2863/SRR
SB-3195/U
44162B
BOX-ELECTRICAL
INCLUDES:
J-2698/UR
44168Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-22-77



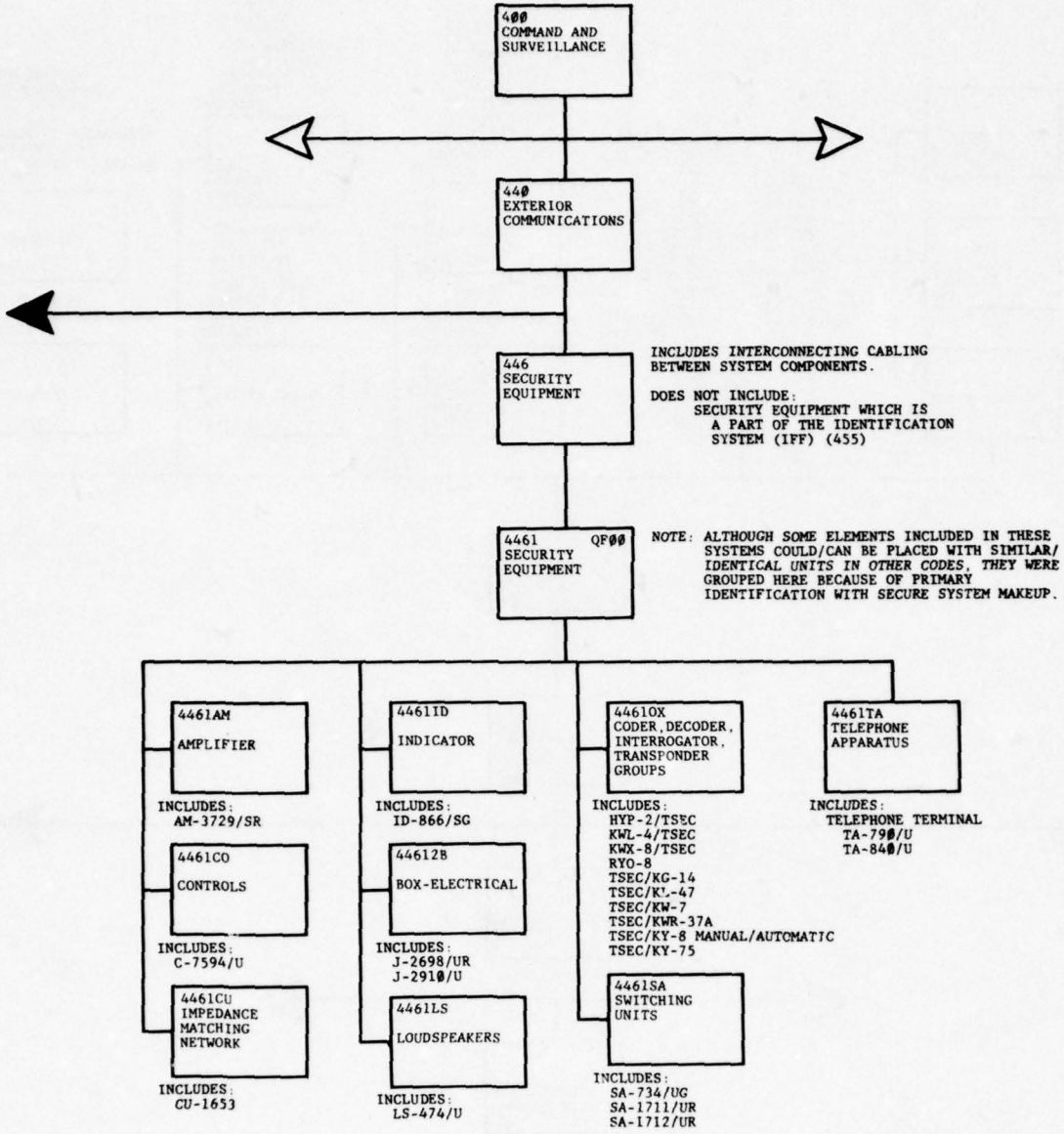
FF-1052 CLASS
PREPARED 7-22-77



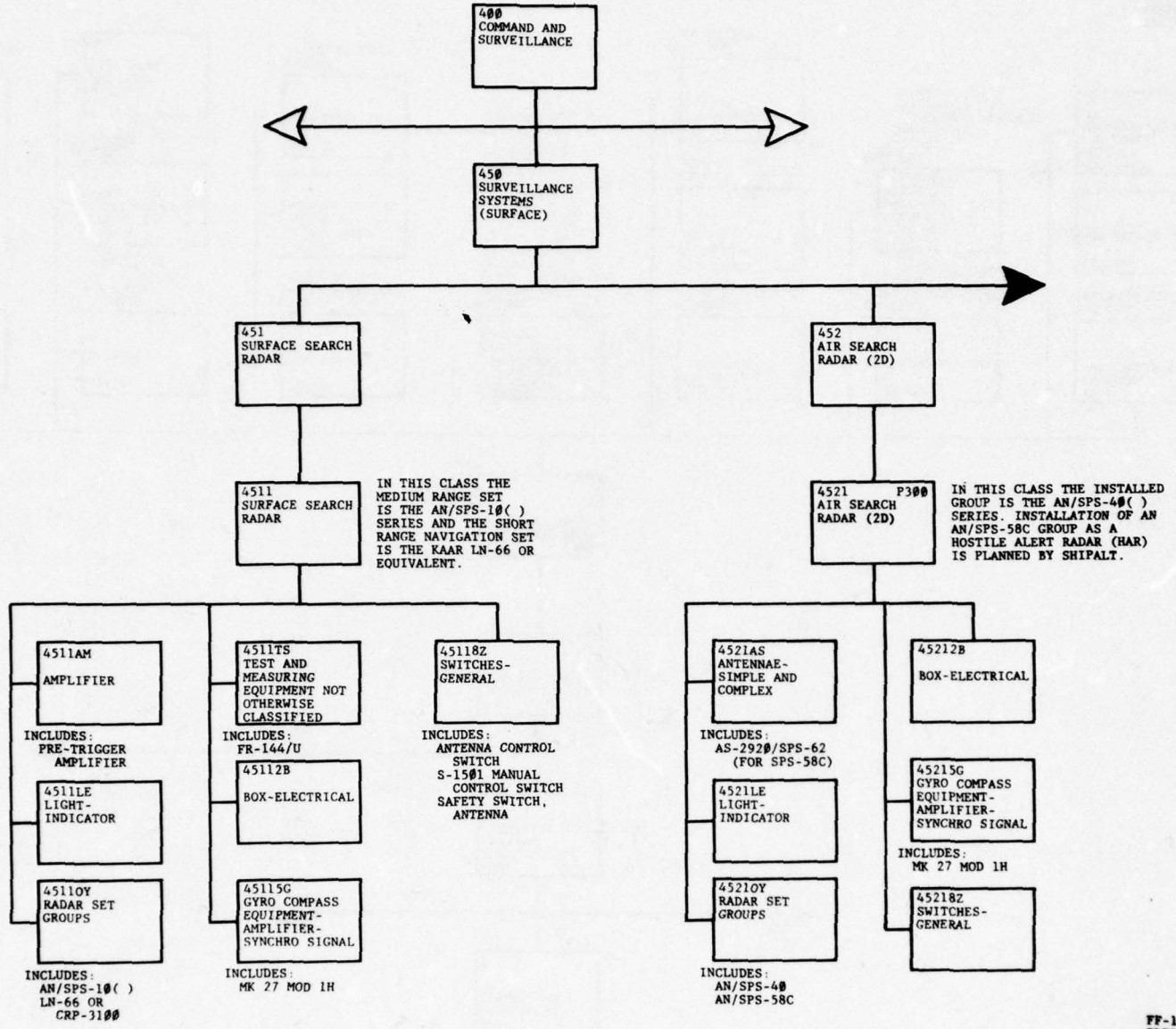
FF-1052 CLASS
PREPARED 7-22-77



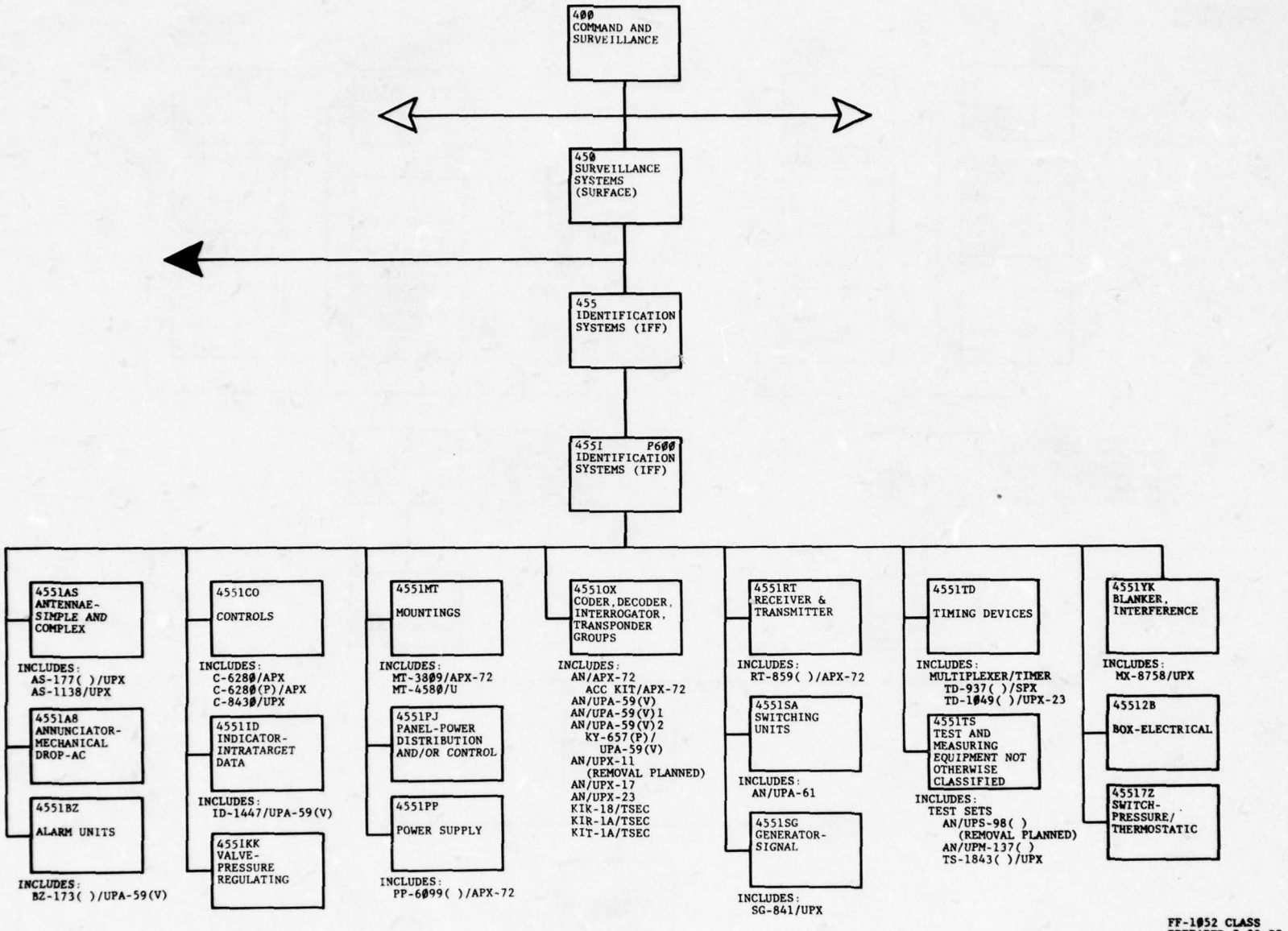
FF-1052 CLASS
PREPARED 7-22-77



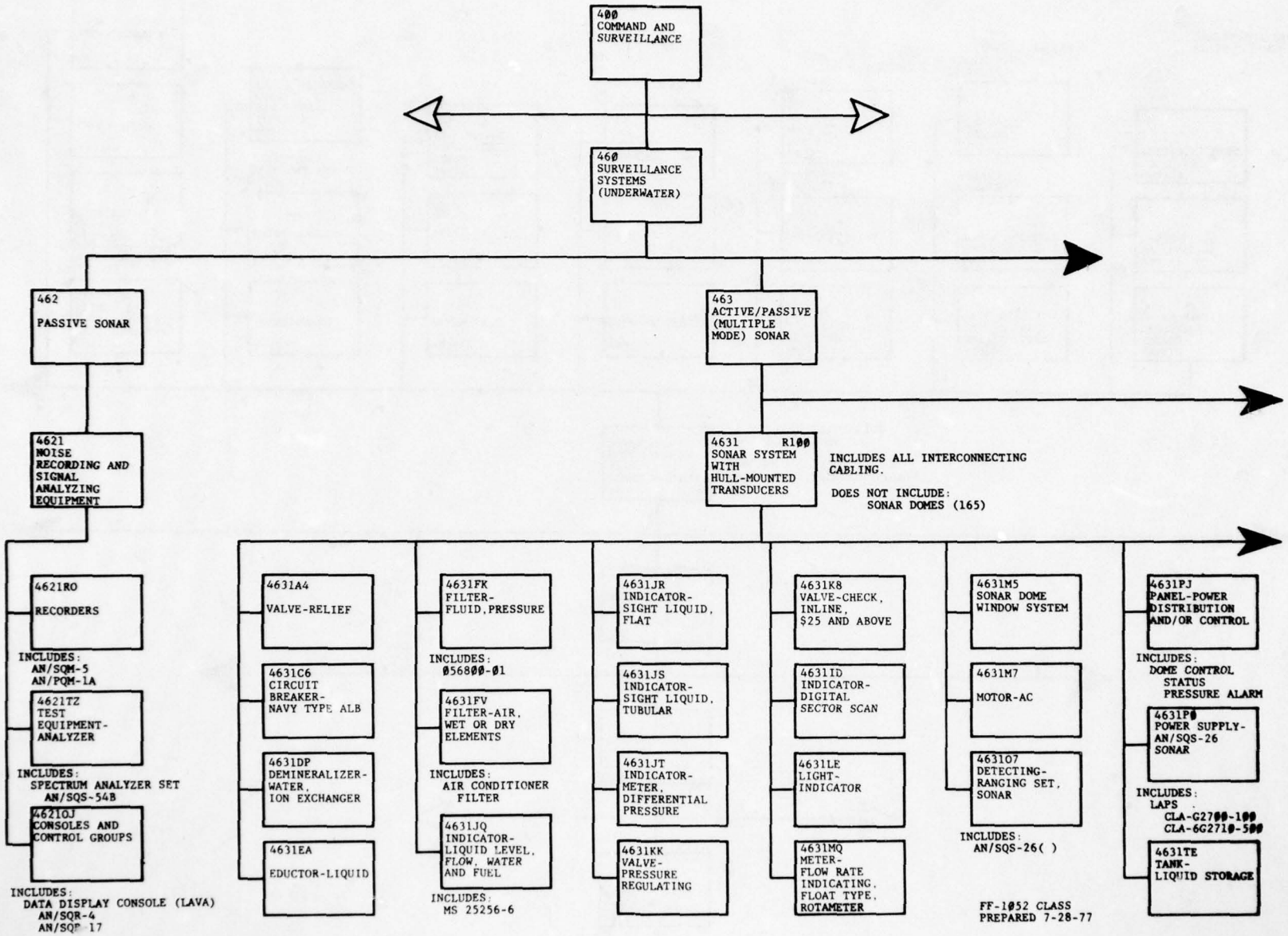
FF-1052 CLASS
PREPARED 7-28-77

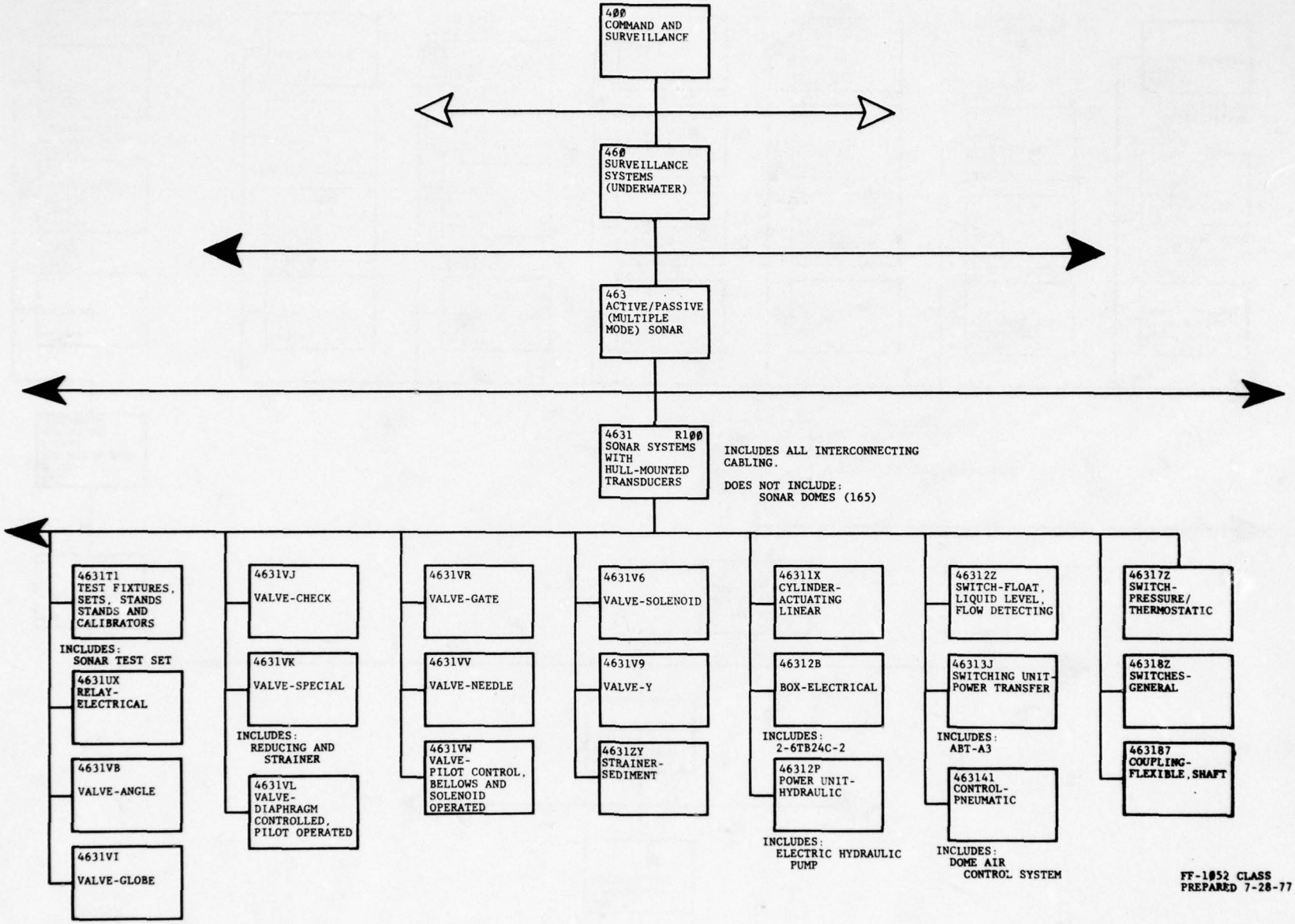


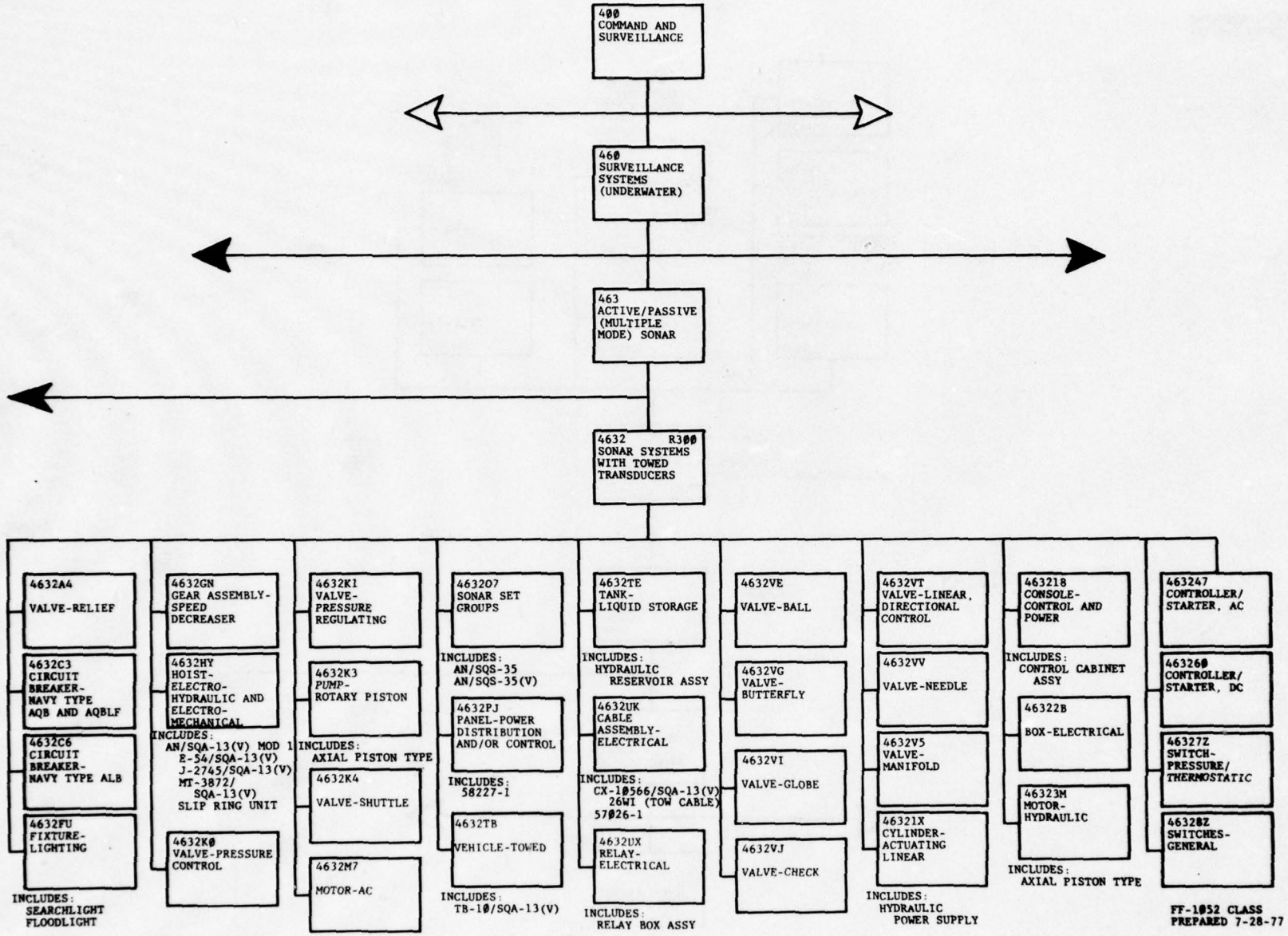
FF-1052 CLASS
PREPARED 7-28-77

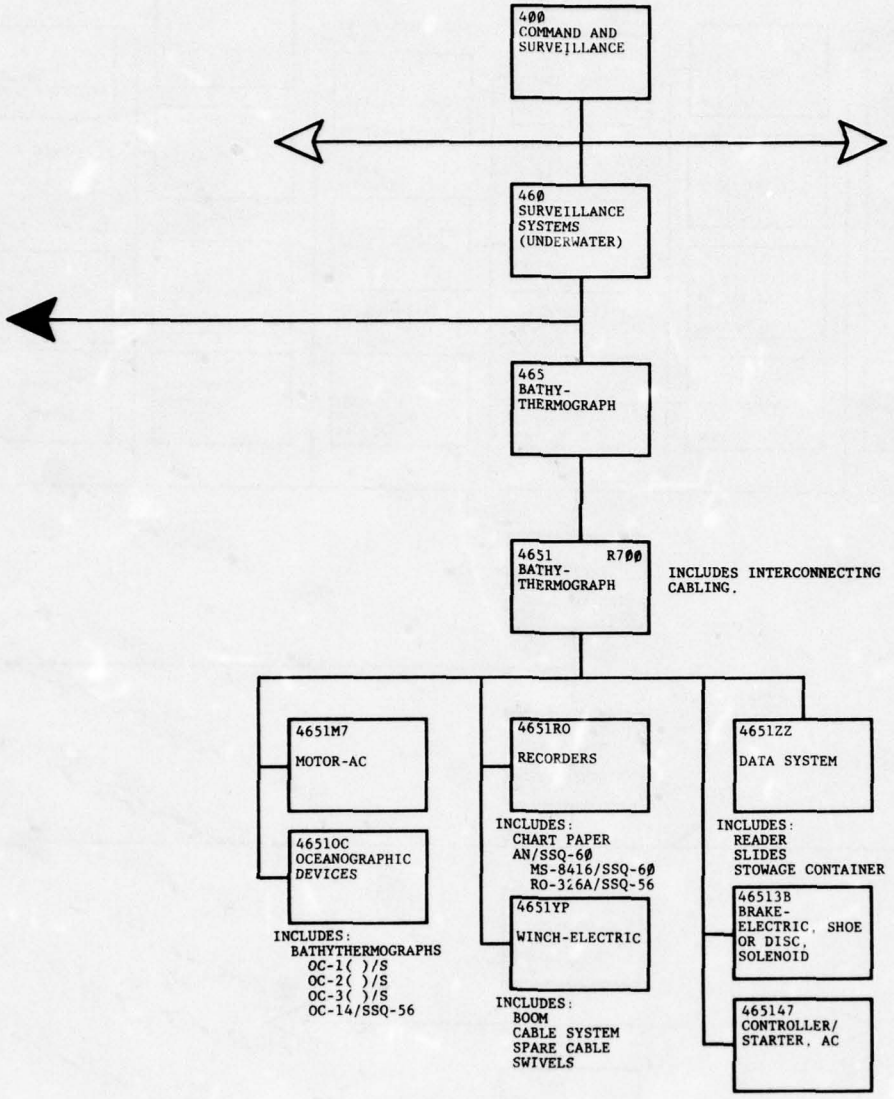


FF-1052 CLASS
PREPARED 7-28-77

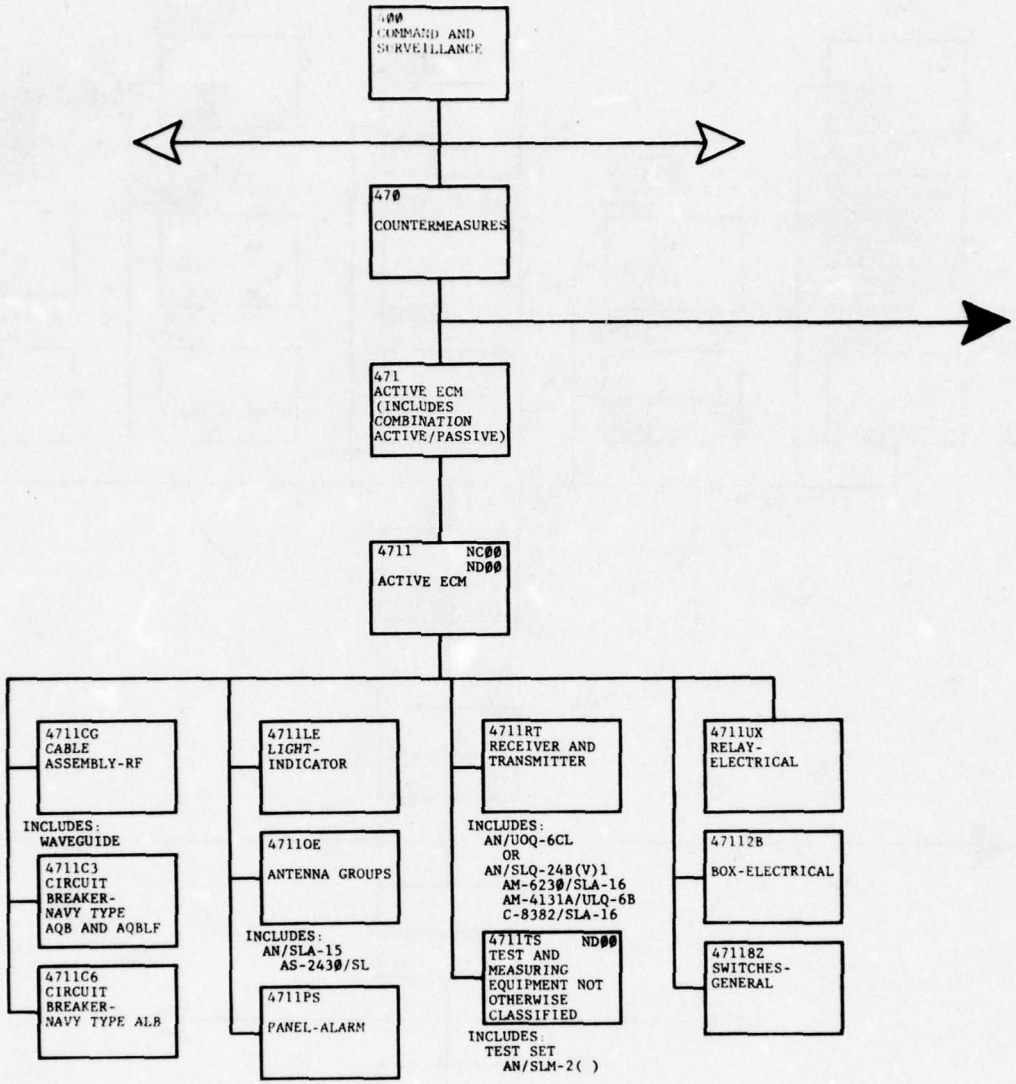

400
COMMAND AND SURVEILLANCE
460
SURVEILLANCE SYSTEMS (UNDERWATER)
462
PASSIVE SONAR
463
ACTIVE/PASSIVE (MULTIPLE MODE) SONAR
4621
NOISE RECORDING AND SIGNAL ANALYZING EQUIPMENT
4631 R100
SONAR SYSTEM WITH HULL-MOUNTED TRANSDUCERS
INCLUDES ALL INTERCONNECTING CABLING.
DOES NOT INCLUDE:
SONAR DOMES (165)
4621RO
RECORDERS
INCLUDES:
AN/SQM-5
AN/PQM-1A
4621TZ
TEST EQUIPMENT-ANALYZER
INCLUDES:
SPECTRUM ANALYZER SET AN/SQS-54B
4621OJ
CONSOLES AND CONTROL GROUPS
INCLUDES:
DATA DISPLAY CONSOLE (LAVA)
AN/SQR-4
AN/SQR-17
4631A4
VALVE-RELIEF
4631C6
CIRCUIT BREAKER-NAVY TYPE ALB
4631DP
DEMINERALIZER-WATER, ION EXCHANGER
4631EA
EDUCTOR-LIQUID
4631FK
FILTER-FLUID, PRESSURE
INCLUDES:
056800-01
4631FV
FILTER-AIR, WET OR DRY ELEMENTS
INCLUDES:
AIR CONDITIONER FILTER
4631JQ
INDICATOR-LIQUID LEVEL, FLOW, WATER AND FUEL
INCLUDES:
MS 25256-6
4631JR
INDICATOR-SIGHT LIQUID, FLAT
4631JS
INDICATOR-SIGHT LIQUID, TUBULAR
4631JT
INDICATOR-METER, DIFFERENTIAL PRESSURE
4631KK
VALVE-PRESSURE REGULATING
4631K8
VALVE-CHECK, INLINE, $25 AND ABOVE
4631ID
INDICATOR-DIGITAL SECTOR SCAN
4631LE
LIGHT-INDICATOR
4631MQ
METER-FLOW RATE INDICATING, FLOAT TYPE, ROTAMETER
4631M5
SONAR DOME WINDOW SYSTEM
4631M7
MOTOR-AC
463107
DETECTING-RANGING SET, SONAR
INCLUDES:
AN/SQS-26( )
4631PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
DOME CONTROL STATUS PRESSURE ALARM
4631P0
POWER SUPPLY-AN/SQS-26 SONAR
INCLUDES:
LAPS
CLA-G2700-100
CLA-6G2710-500
4631TE
TANK-LIQUID STORAGE
FF-1052 CLASS
PREPARED 7-28-77


400
COMMAND AND SURVEILLANCE
460
SURVEILLANCE SYSTEMS (UNDERWATER)
463
ACTIVE/PASSIVE (MULTIPLE MODE) SONAR
4631 R100
SONAR SYSTEMS WITH HULL-MOUNTED TRANSDUCERS
INCLUDES ALL INTERCONNECTING CABLING.
DOES NOT INCLUDE:
SONAR DOMES (165)
4631T1
TEST FIXTURES, SETS, STANDS STANDS AND CALIBRATORS
INCLUDES:
SONAR TEST SET
4631UX
RELAY-ELECTRICAL
4631VB
VALVE-ANGLE
4631VI
VALVE-GLOBE
4631VJ
VALVE-CHECK
4631VK
VALVE-SPECIAL
INCLUDES:
REDUCING AND STRAINER
4631VL
VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
4631VR
VALVE-GATE
4631VV
VALVE-NEEDLE
4631VW
VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
4631V6
VALVE-SOLENOID
4631V9
VALVE-Y
4631ZY
STRAINER-SEDIMENT
46311X
CYLINDER-ACTUATING LINEAR
46312B
BOX-ELECTRICAL
INCLUDES:
2-6TB24C-2
46312P
POWER UNIT-HYDRAULIC
INCLUDES:
ELECTRIC HYDRAULIC PUMP
46312Z
SWITCH-FLOAT, LIQUID LEVEL, FLOW DETECTING
46313J
SWITCHING UNIT-POWER TRANSFER
INCLUDES:
ABT-A3
463141
CONTROL-PNEUMATIC
INCLUDES:
DOME AIR CONTROL SYSTEM
46317Z
SWITCH-PRESSURE/THERMOSTATIC
46318Z
SWITCHES-GENERAL
463187
COUPLING-FLEXIBLE, SHAFT
FF-1052 CLASS
PREPARED 7-28-77

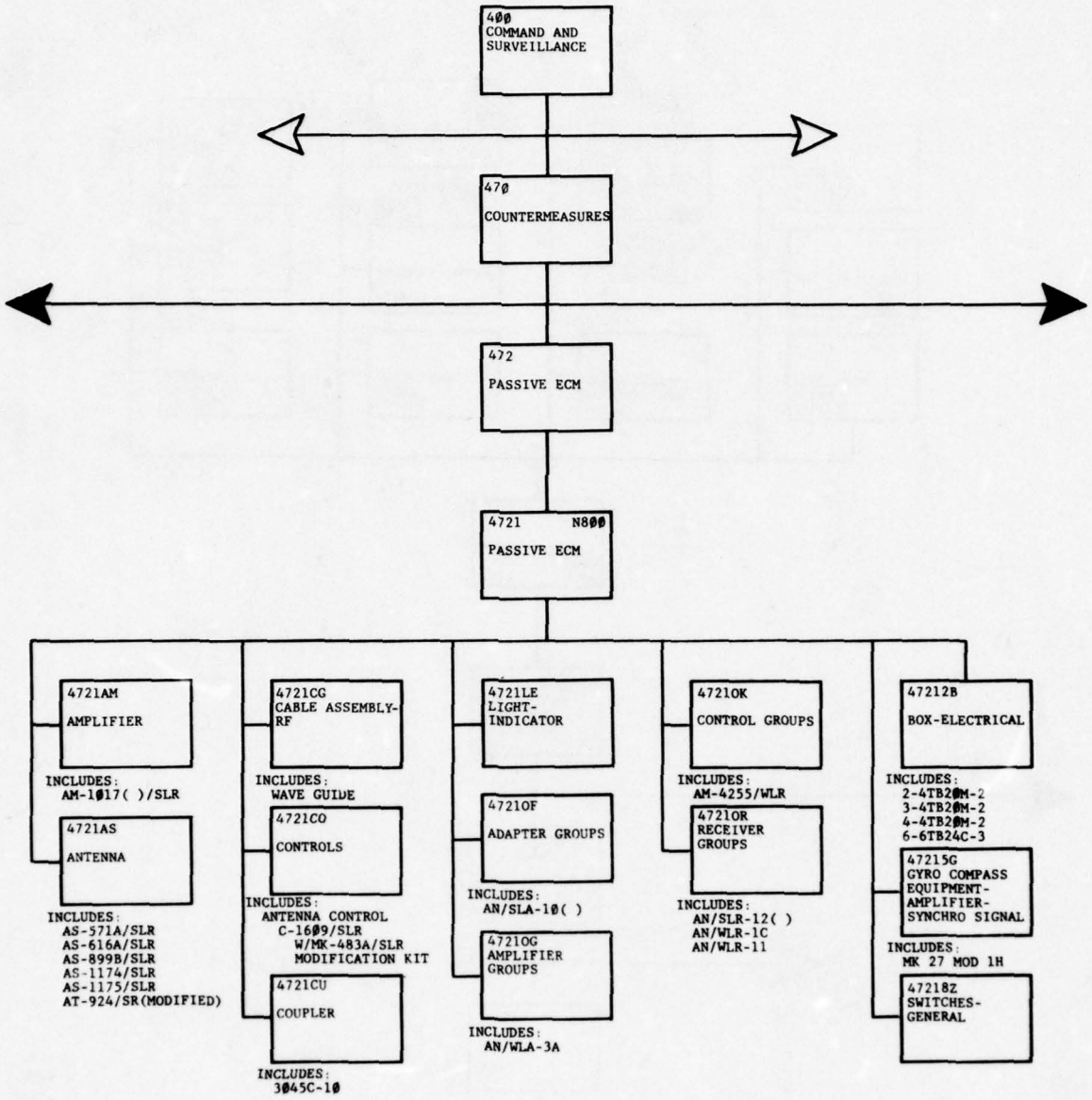

400
COMMAND AND SURVEILLANCE
460
SURVEILLANCE SYSTEMS (UNDERWATER)
463
ACTIVE/PASSIVE (MULTIPLE MODE) SONAR
4632 R300
SONAR SYSTEMS WITH TOWED TRANSDUCERS
4632A4
VALVE-RELIEF
4632C3
CIRCUIT BREAKER-NAVY TYPE AQB AND AQBLF
4632C6
CIRCUIT BREAKER-NAVY TYPE ALB
4632FU
FIXTURE-LIGHTING
INCLUDES:
SEARCHLIGHT
FLOODLIGHT
4632GN
GEAR ASSEMBLY-SPEED DECREASER
4632HY
HOIST-ELECTRO-HYDRAULIC AND ELECTRO-MECHANICAL
INCLUDES:
AN/SQA-13(V) MOD 1
E-54/SQA-13(V)
J-2745/SQA-13(V)
MT-3872/SQA-13(V)
SLIP RING UNIT
4632K0
VALVE-PRESSURE CONTROL
4632K1
VALVE-PRESSURE REGULATING
4632K3
PUMP-ROTARY PISTON
INCLUDES:
AXIAL PISTON TYPE
4632K4
VALVE-SHUTTLE
4632M7
MOTOR-AC
463207
SONAR SET GROUPS
INCLUDES:
AN/SQS-35
AN/SQS-35(V)
4632PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
58227-1
4632TB
VEHICLE-TOWED
INCLUDES:
TB-10/SQA-13(V)
4632TE
TANK-LIQUID STORAGE
INCLUDES:
HYDRAULIC RESERVOIR ASSY
4632UK
CABLE ASSEMBLY-ELECTRICAL
INCLUDES:
CX-10566/SQA-13(V)
26WI (TOW CABLE)
57026-1
4632UX
RELAY-ELECTRICAL
INCLUDES:
RELAY BOX ASSY
4632VE
VALVE-BALL
4632VG
VALVE-BUTTERFLY
4632VI
VALVE-GLOBE
4632VJ
VALVE-CHECK
4632VT
VALVE-LINEAR, DIRECTIONAL CONTROL
4632VV
VALVE-NEEDLE
4632V5
VALVE-MANIFOLD
46321X
CYLINDER-ACTUATING LINEAR
INCLUDES:
HYDRAULIC POWER SUPPLY
463218
CONSOLE-CONTROL AND POWER
INCLUDES:
CONTROL CABINET ASSY
46322B
BOX-ELECTRICAL
46323M
MOTOR-HYDRAULIC
INCLUDES:
AXIAL PISTON TYPE
463247
CONTROLLER/STARTER, AC
463260
CONTROLLER/STARTER, DC
46327Z
SWITCH-PRESSURE/THERMOSTATIC
46328Z
SWITCHES-GENERAL
FF-1052 CLASS
PREPARED 7-28-77



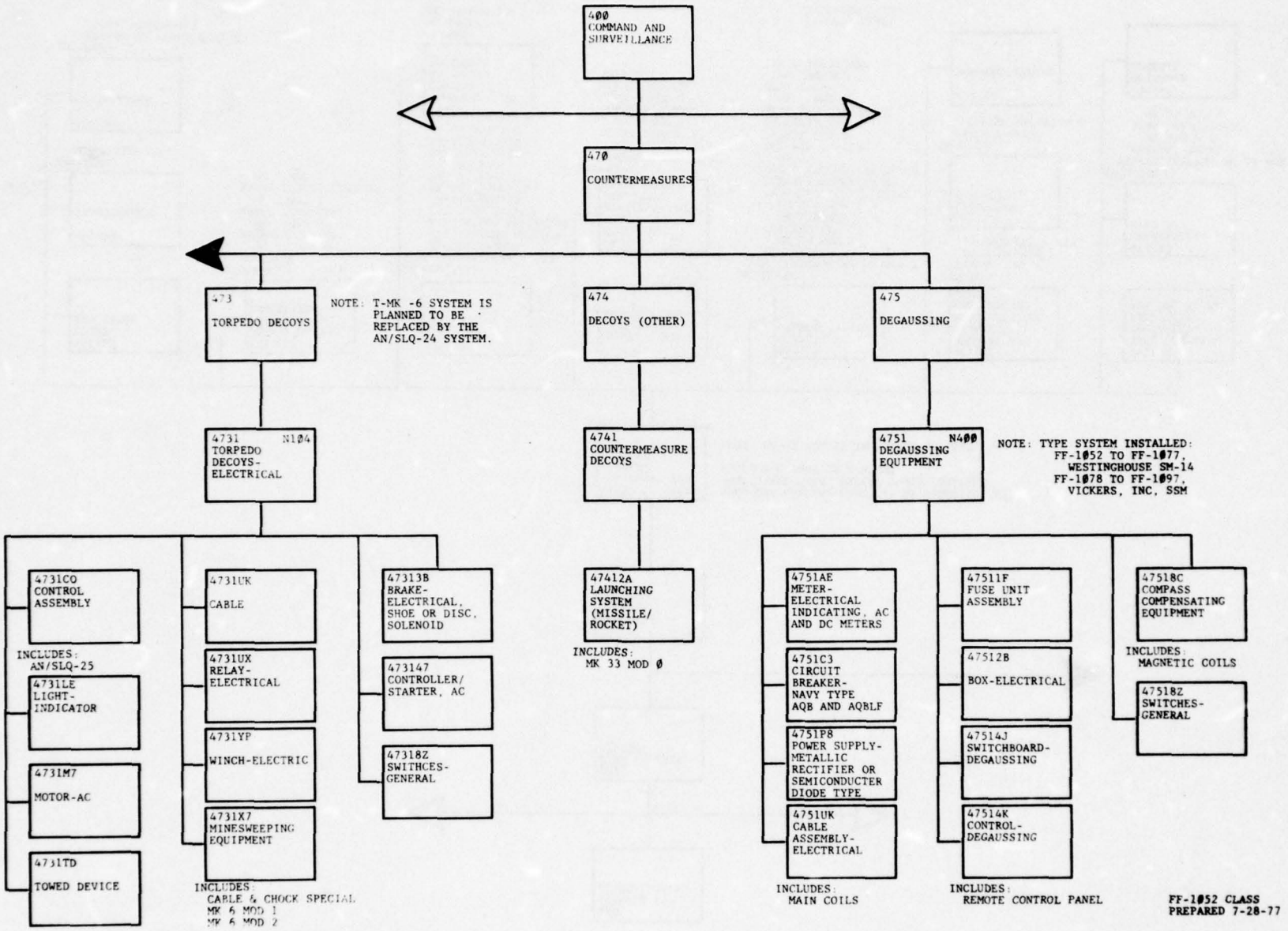
FF-1052 CLASS
PREPARED 7-28-77



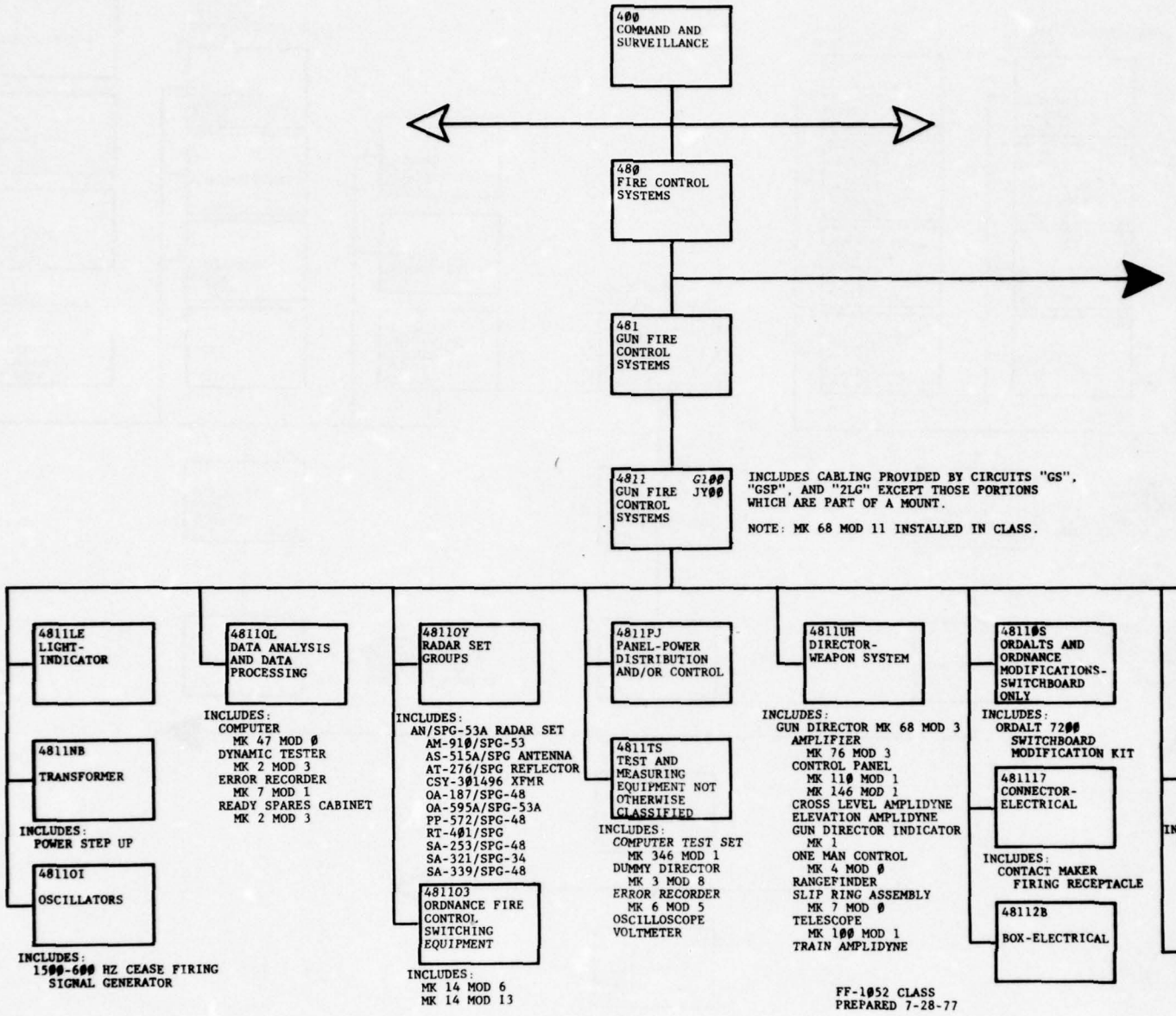
FF-1052 CLASS
PREPARED 7-28-77

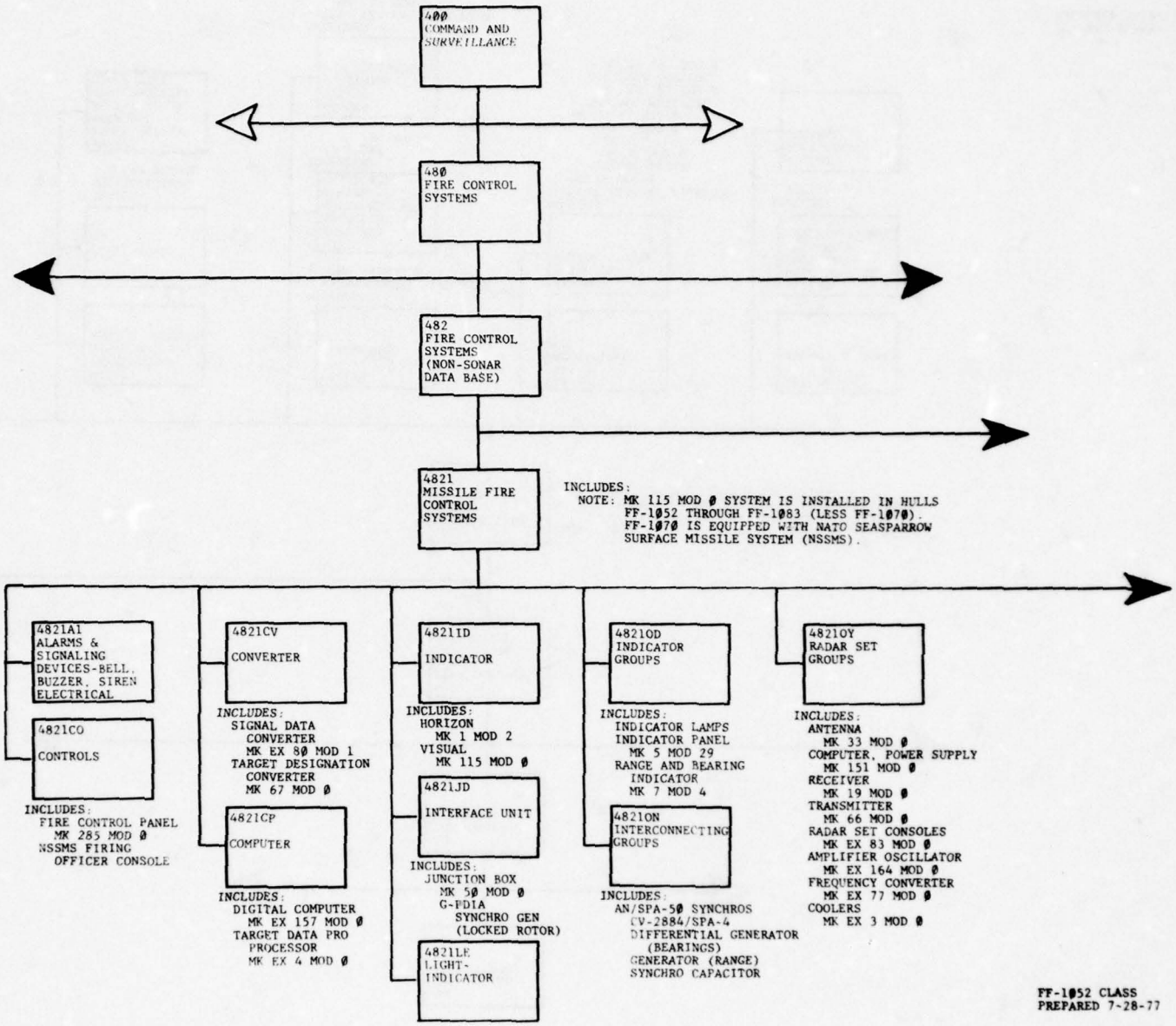


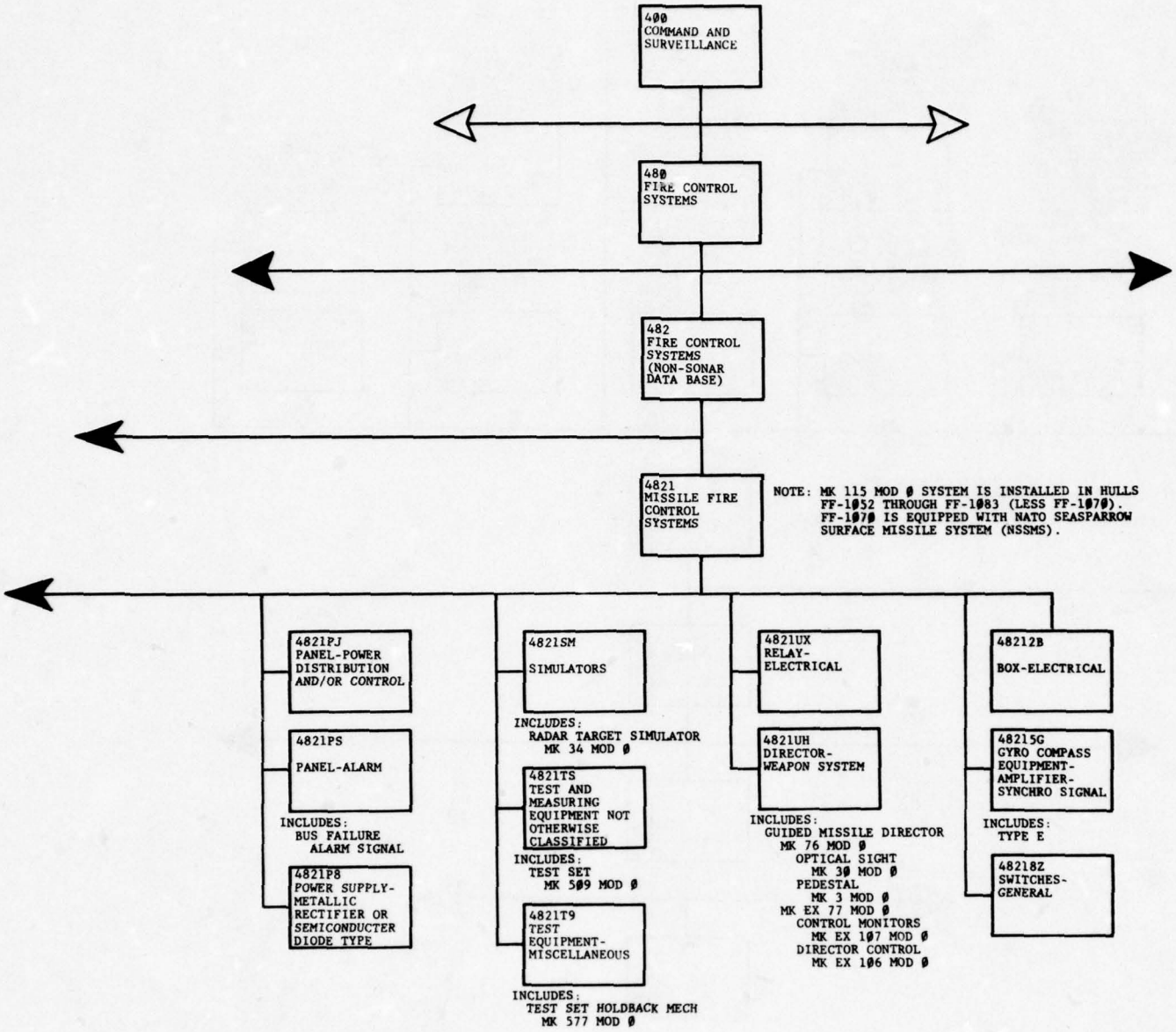
FF-1052 CLASS
PREPARED 7-28-77



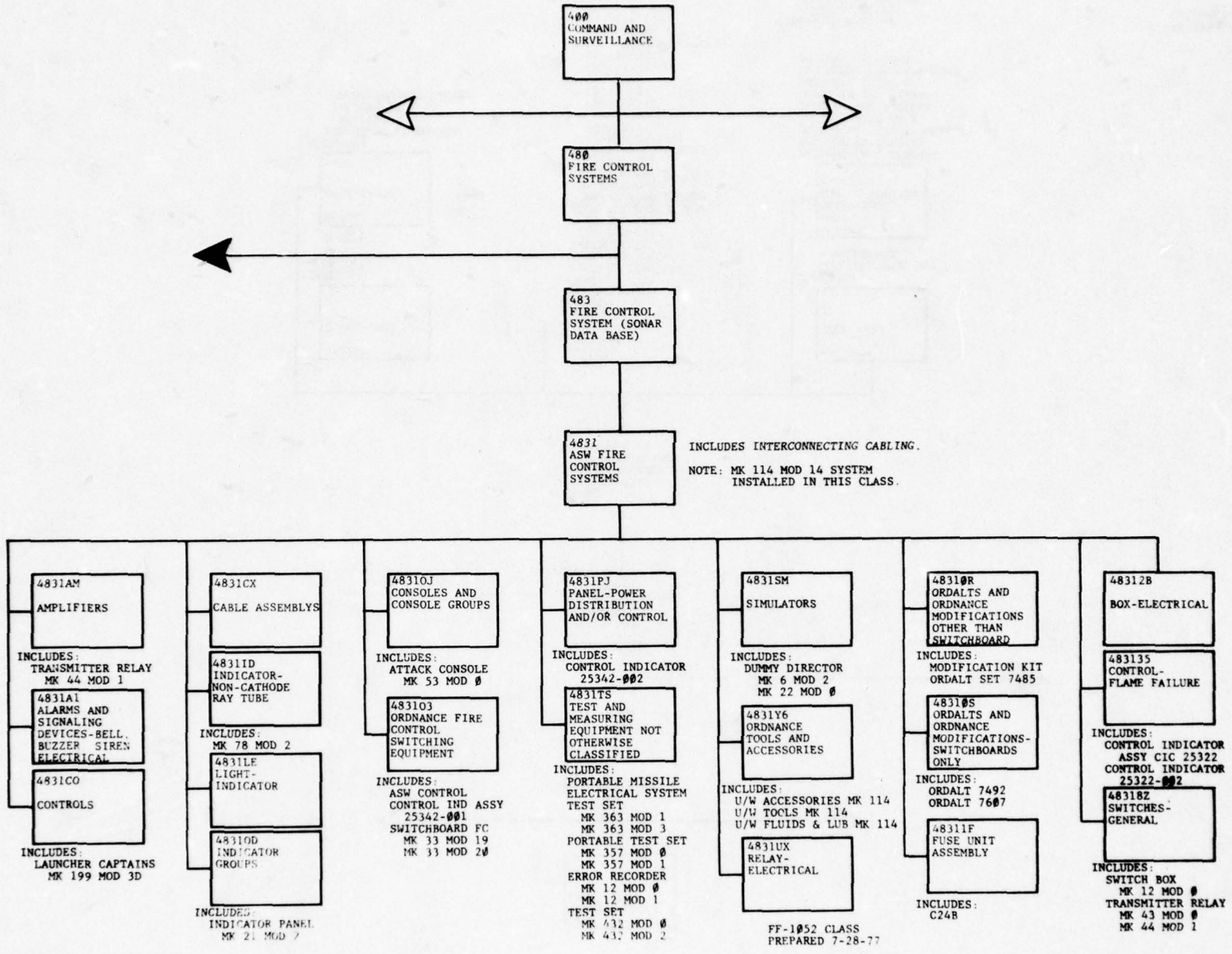
FF-1052 CLASS
PREPARED 7-28-77

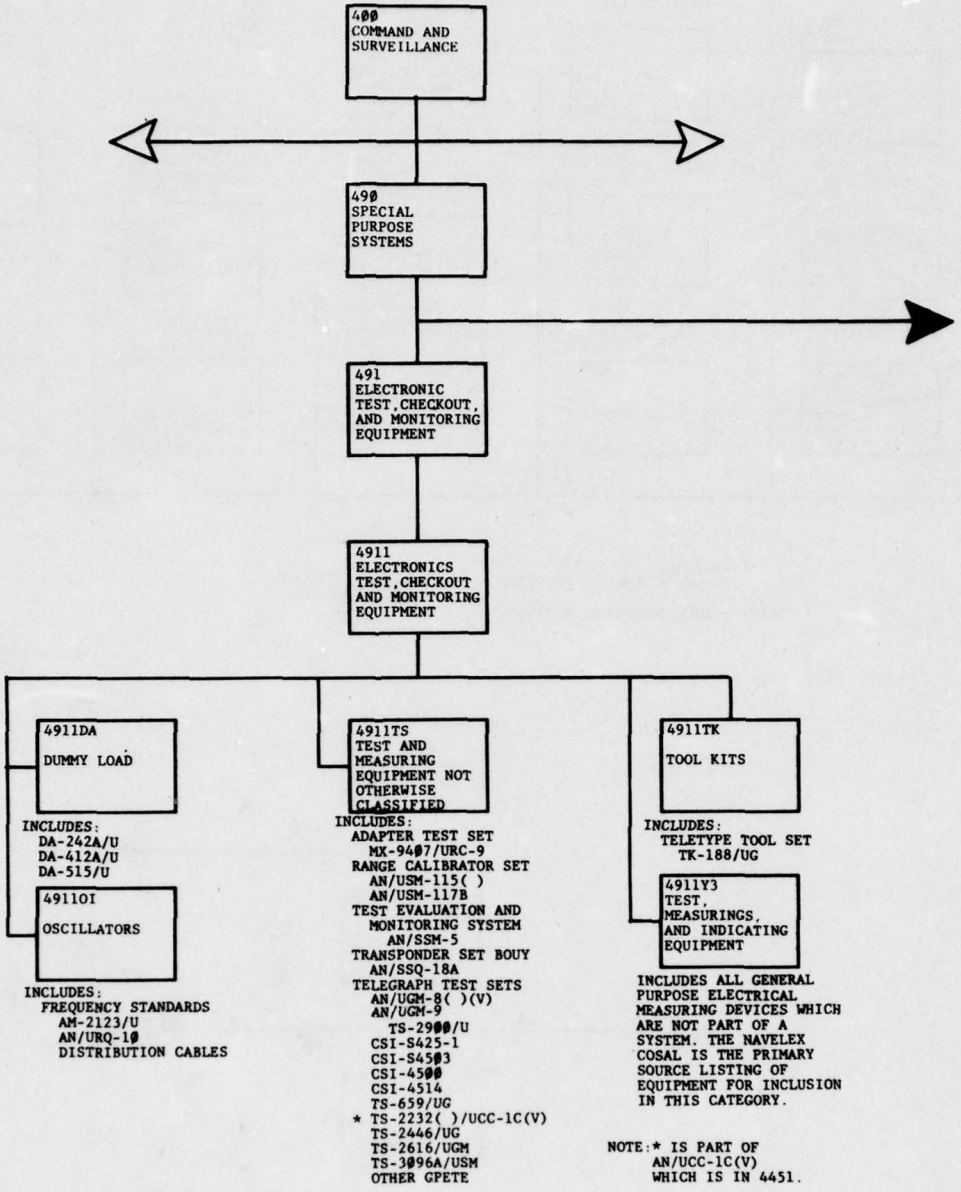

400
COMMAND AND SURVEILLANCE
480
FIRE CONTROL SYSTEMS
481
GUN FIRE CONTROL SYSTEMS
4811 G100 JY00
GUN FIRE CONTROL SYSTEMS
INCLUDES CABLING PROVIDED BY CIRCUITS "GS", "GSP", AND "2LG" EXCEPT THOSE PORTIONS WHICH ARE PART OF A MOUNT.
NOTE: MK 68 MOD 11 INSTALLED IN CLASS.
4811LE LIGHT-INDICATOR
4811NB TRANSFORMER
INCLUDES: POWER STEP UP
48110I OSCILLATORS
INCLUDES: 1500-600 HZ CEASE FIRING SIGNAL GENERATOR
4811OL DATA ANALYSIS AND DATA PROCESSING
INCLUDES: COMPUTER MK 47 MOD 0 DYNAMIC TESTER MK 2 MOD 3 ERROR RECORDER MK 7 MOD 1 READY SPARES CABINET MK 2 MOD 3
4811OY RADAR SET GROUPS
INCLUDES: AN/SPG-53A RADAR SET AM-910/SPG-53 AS-515A/SPG ANTENNA AT-276/SPG REFLECTOR CSY-301496 XFMR OA-187/SPG-48 OA-595A/SPG-53A PP-572/SPG-48 RT-401/SPG SA-253/SPG-48 SA-321/SPG-34 SA-339/SPG-48
481103 ORDNANCE FIRE CONTROL SWITCHING EQUIPMENT
INCLUDES: MK 14 MOD 6 MK 14 MOD 13
4811PJ PANEL-POWER DISTRIBUTION AND/OR CONTROL
4811TS TEST AND MEASURING EQUIPMENT NOT OTHERWISE CLASSIFIED
INCLUDES: COMPUTER TEST SET MK 346 MOD 1 DUMMY DIRECTOR MK 3 MOD 8 ERROR RECORDER MK 6 MOD 5 OSCILLOSCOPE VOLTMETER
4811UH DIRECTOR-WEAPON SYSTEM
INCLUDES: GUN DIRECTOR MK 68 MOD 3 AMPLIFIER MK 76 MOD 3 CONTROL PANEL MK 110 MOD 1 MK 146 MOD 1 CROSS LEVEL AMPLIDYNE ELEVATION AMPLIDYNE GUN DIRECTOR INDICATOR MK 1 ONE MAN CONTROL MK 4 MOD 0 RANGEFINDER SLIP RING ASSEMBLY MK 7 MOD 0 TELESCOPE MK 100 MOD 1 TRAIN AMPLIDYNE
FF-1052 CLASS PREPARED 7-28-77
4811OS ORDALTS AND ORDNANCE MODIFICATIONS-SWITCHBOARD ONLY
INCLUDES: ORDALT 7200 SWITCHBOARD MODIFICATION KIT
481117 CONNECTOR-ELECTRICAL
INCLUDES: CONTACT MAKER FIRING RECEPTACLE
48112B BOX-ELECTRICAL
48115G GYRO COMPASS EQUIPMENT-AMPLIFIER-SYNCHRO SIGNAL
48118S STABILIZER-GYRO
INCLUDES: STABLE ELEMENT MK 16 MOD 2 CONTROL PANEL MK 156 MOD 2 RATE TRANSMITTER MK 36 MOD 2
48116Z SWITCHES-GENERAL

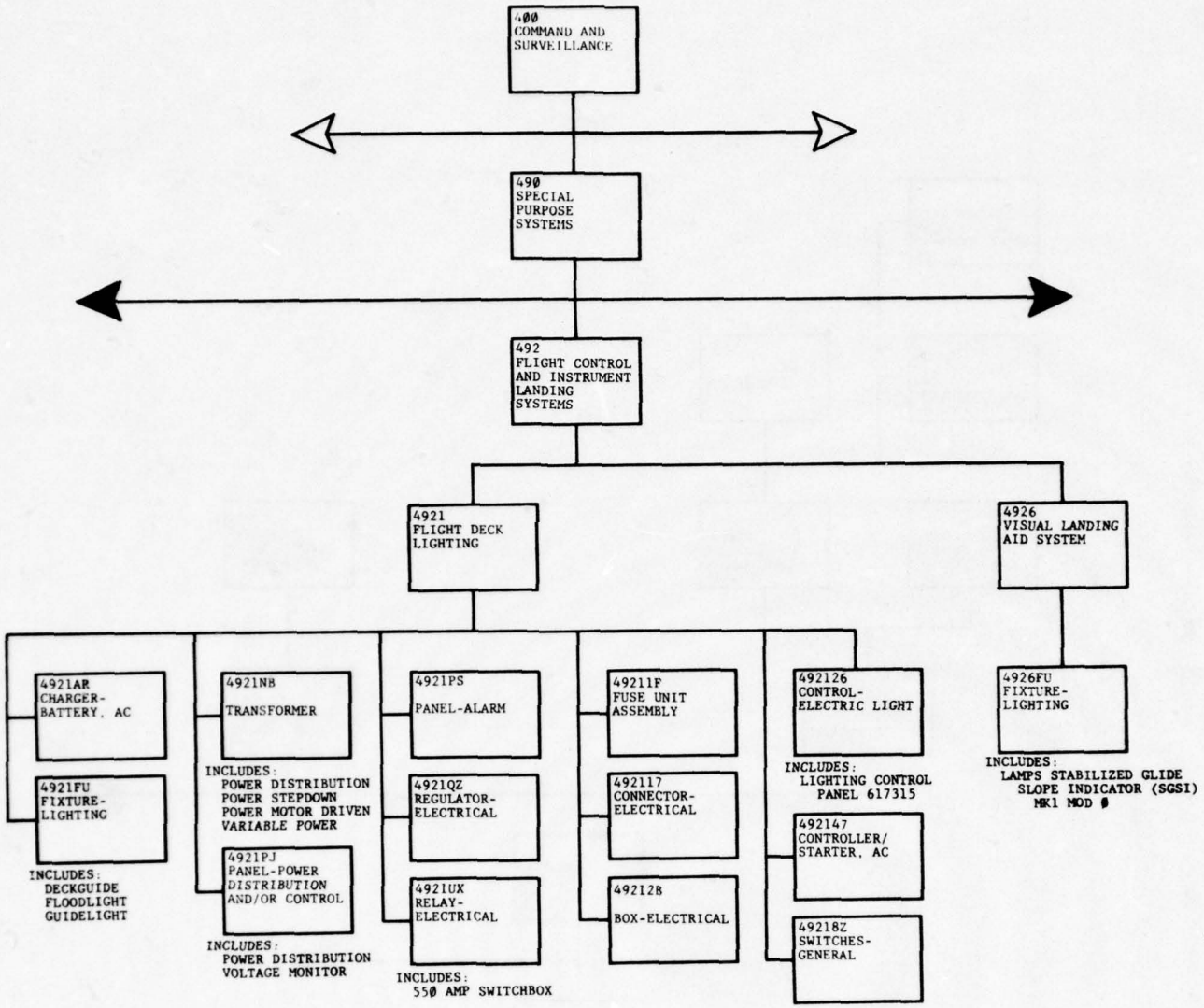

400
COMMAND AND SURVEILLANCE
480
FIRE CONTROL SYSTEMS
482
FIRE CONTROL SYSTEMS (NON-SONAR DATA BASE)
4821
MISSILE FIRE CONTROL SYSTEMS
INCLUDES:
NOTE: MK 115 MOD 0 SYSTEM IS INSTALLED IN HULLS FF-1052 THROUGH FF-1083 (LESS FF-1070). FF-1070 IS EQUIPPED WITH NATO SEASPARROW SURFACE MISSILE SYSTEM (NSSMS).
4821A1
ALARMS & SIGNALING DEVICES-BELL, BUZZER, SIREN ELECTRICAL
4821CO
CONTROLS
INCLUDES:
FIRE CONTROL PANEL MK 285 MOD 0
NSSMS FIRING OFFICER CONSOLE
4821CV
CONVERTER
INCLUDES:
SIGNAL DATA CONVERTER MK EX 80 MOD 1
TARGET DESIGNATION CONVERTER MK 67 MOD 0
4821CP
COMPUTER
INCLUDES:
DIGITAL COMPUTER MK EX 157 MOD 0
TARGET DATA PRO PROCESSOR MK EX 4 MOD 0
4821ID
INDICATOR
INCLUDES:
HORIZON MK 1 MOD 2
VISUAL MK 115 MOD 0
4821JD
INTERFACE UNIT
INCLUDES:
JUNCTION BOX MK 50 MOD 0
G-PDIA SYNCHRO GEN (LOCKED ROTOR)
4821LE
LIGHT-INDICATOR
4821OD
INDICATOR GROUPS
INCLUDES:
INDICATOR LAMPS
INDICATOR PANEL MK 5 MOD 29
RANGE AND BEARING INDICATOR MK 7 MOD 4
4821ON
INTERCONNECTING GROUPS
INCLUDES:
AN/SPA-50 SYNCHROS
CV-2884/SPA-4 DIFFERENTIAL GENERATOR (BEARINGS)
GENERATOR (RANGE)
SYNCHRO CAPACITOR
4821OY
RADAR SET GROUPS
INCLUDES:
ANTENNA MK 33 MOD 0
COMPUTER, POWER SUPPLY MK 151 MOD 0
RECEIVER MK 19 MOD 0
TRANSMITTER MK 66 MOD 0
RADAR SET CONSOLES MK EX 83 MOD 0
AMPLIFIER OSCILLATOR MK EX 164 MOD 0
FREQUENCY CONVERTER MK EX 77 MOD 0
COOLERS MK EX 3 MOD 0
FF-1052 CLASS
PREPARED 7-28-77



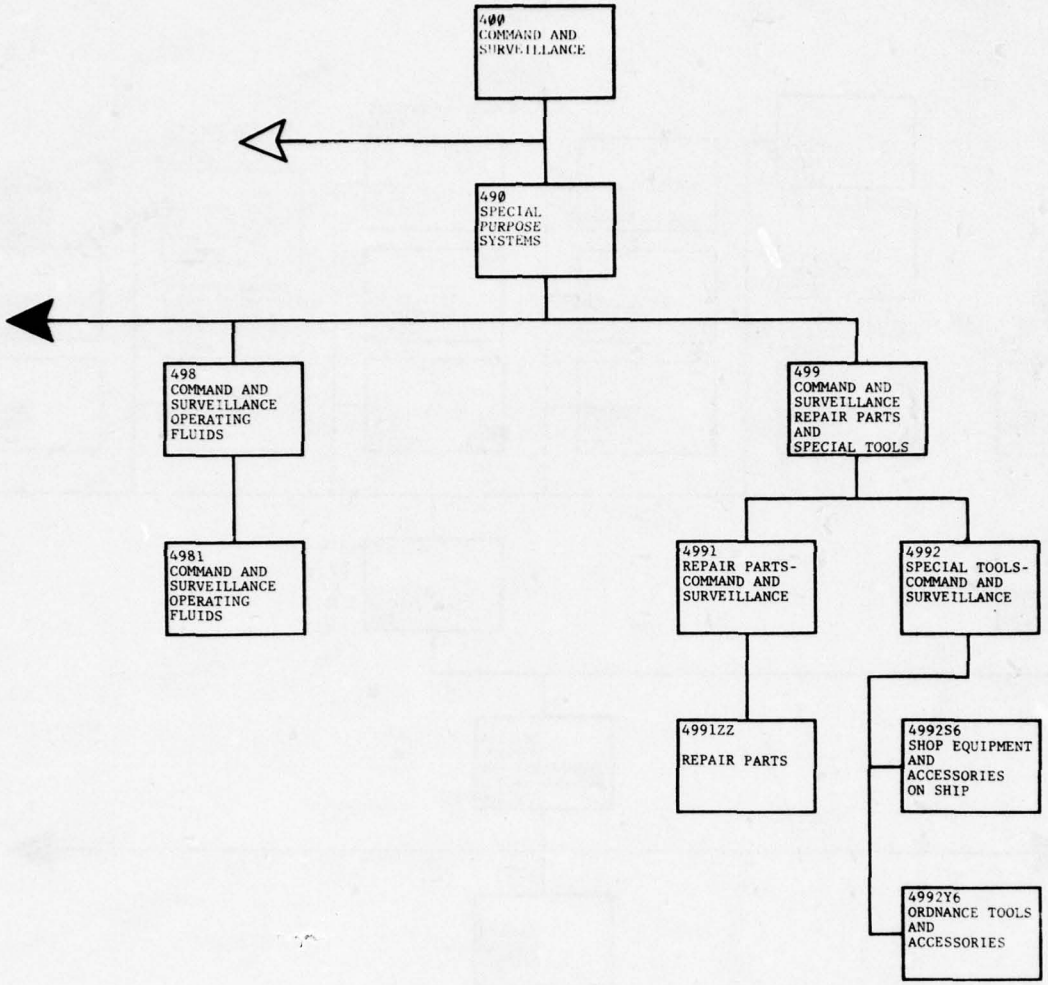
FF-1052 CLASS
PREPARED 7-28-77


400
COMMAND AND SURVEILLANCE
480
FIRE CONTROL SYSTEMS
483
FIRE CONTROL SYSTEM (SONAR DATA BASE)
4831
ASW FIRE CONTROL SYSTEMS
INCLUDES INTERCONNECTING CABLING.
NOTE: MK 114 MOD 14 SYSTEM INSTALLED IN THIS CLASS.
4831AM
AMPLIFIERS
INCLUDES:
TRANSMITTER RELAY MK 44 MOD 1
4831A1
ALARMS AND SIGNALING DEVICES-BELL, BUZZER SIREN ELECTRICAL
4831CO
CONTROLS
INCLUDES:
LAUNCHER CAPTAINS MK 199 MOD 3D
4831CX
CABLE ASSEMBLYS
4831ID
INDICATOR-NON-CATHODE RAY TUBE
INCLUDES:
MK 78 MOD 2
4831LE
LIGHT-INDICATOR
4831OD
INDICATOR GROUPS
INCLUDES:
INDICATOR PANEL MK 21 MOD 7
4831OJ
CONSOLES AND CONSOLE GROUPS
INCLUDES:
ATTACK CONSOLE MK 53 MOD 0
4831O3
ORDNANCE FIRE CONTROL SWITCHING EQUIPMENT
INCLUDES:
ASW CONTROL CONTROL IND ASSY 25342-001
SWITCHBOARD FC MK 33 MOD 19
MK 33 MOD 20
4831PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
INCLUDES:
CONTROL INDICATOR 25342-002
4831TS
TEST AND MEASURING EQUIPMENT NOT OTHERWISE CLASSIFIED
INCLUDES:
PORTABLE MISSILE ELECTRICAL SYSTEM TEST SET
MK 363 MOD 1
MK 363 MOD 3
PORTABLE TEST SET
MK 357 MOD 0
MK 357 MOD 1
ERROR RECORDER
MK 12 MOD 0
MK 12 MOD 1
TEST SET
MK 432 MOD 0
MK 432 MOD 2
4831SM
SIMULATORS
INCLUDES:
DUMMY DIRECTOR MK 6 MOD 2
MK 22 MOD 0
4831Y6
ORDNANCE TOOLS AND ACCESSORIES
INCLUDES:
U/W ACCESSORIES MK 114
U/W TOOLS MK 114
U/W FLUIDS & LUB MK 114
4831UX
RELAY-ELECTRICAL
FF-1052 CLASS PREPARED 7-28-77
48310R
ORDALTS AND ORDNANCE MODIFICATIONS OTHER THAN SWITCHBOARD
INCLUDES:
MODIFICATION KIT ORDALT SET 7485
48310S
ORDALTS AND ORDNANCE MODIFICATIONS-SWITCHBOARDS ONLY
INCLUDES:
ORDALT 7492
ORDALT 7607
48311F
FUSE UNIT ASSEMBLY
INCLUDES:
C24B
48312B
BOX-ELECTRICAL
483135
CONTROL-FLAME FAILURE
INCLUDES:
CONTROL INDICATOR ASSY CIC 25322
CONTROL INDICATOR 25322-002
48318Z
SWITCHES-GENERAL
INCLUDES:
SWITCH BOX MK 12 MOD 0
TRANSMITTER RELAY MK 43 MOD 0
MK 44 MOD 1

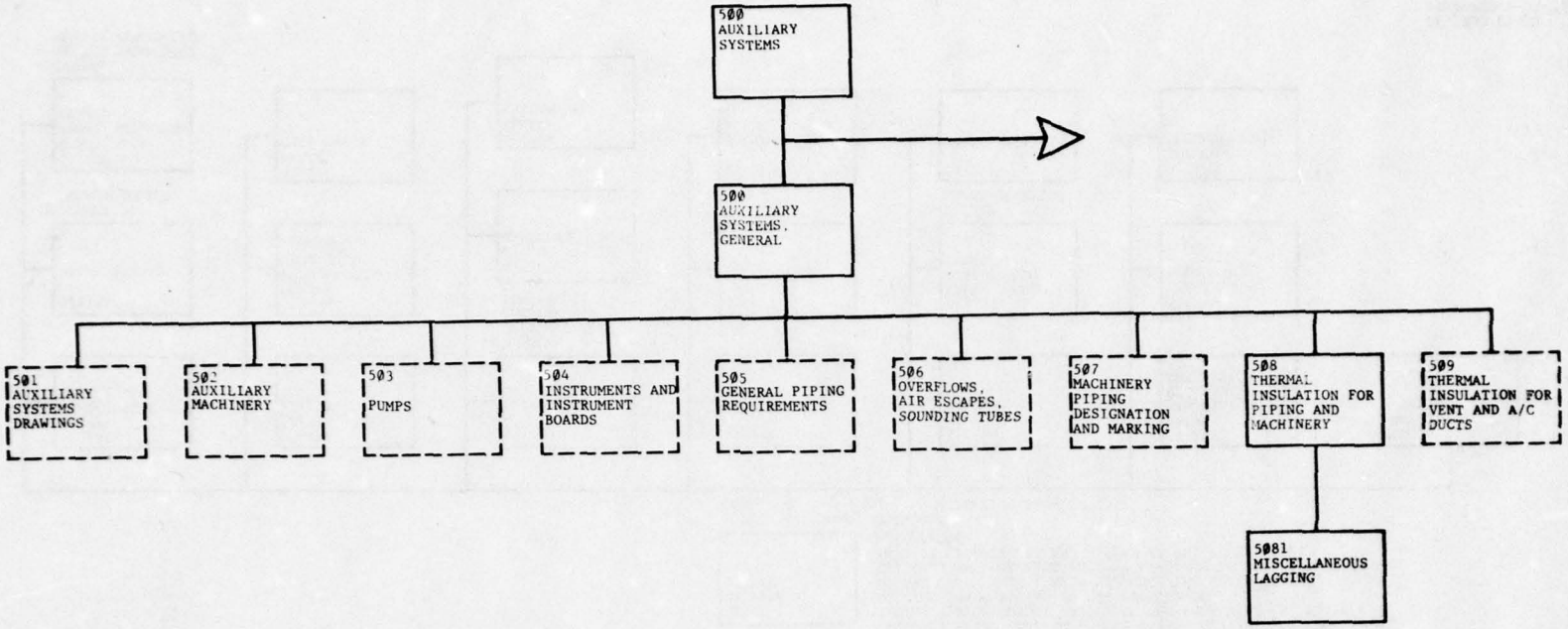

400
COMMAND AND SURVEILLANCE
490
SPECIAL PURPOSE SYSTEMS
491
ELECTRONIC TEST, CHECKOUT, AND MONITORING EQUIPMENT
4911
ELECTRONICS TEST, CHECKOUT AND MONITORING EQUIPMENT
4911DA
DUMMY LOAD
INCLUDES:
DA-242A/U
DA-412A/U
DA-515/U
49110I
OSCILLATORS
INCLUDES:
FREQUENCY STANDARDS
AM-2123/U
AN/URQ-10
DISTRIBUTION CABLES
4911TS
TEST AND MEASURING EQUIPMENT NOT OTHERWISE CLASSIFIED
INCLUDES:
ADAPTER TEST SET
MX-9407/URC-9
RANGE CALIBRATOR SET
AN/USM-115( )
AN/USM-117B
TEST EVALUATION AND MONITORING SYSTEM
AN/SSM-5
TRANSPONDER SET BOUY
AN/SSQ-18A
TELEGRAPH TEST SETS
AN/UGM-8( )(V)
AN/UGM-9
TS-2900/U
CSI-S425-1
CSI-S4503
CSI-4500
CSI-4514
TS-659/UG
* TS-2232( )/UCC-1C(V)
TS-2446/UG
TS-2616/UGM
TS-3096A/USM
OTHER GPETE
4911TK
TOOL KITS
INCLUDES:
TELETYPE TOOL SET
TK-188/UG
4911Y3
TEST, MEASURINGS, AND INDICATING EQUIPMENT
INCLUDES ALL GENERAL PURPOSE ELECTRICAL MEASURING DEVICES WHICH ARE NOT PART OF A SYSTEM. THE NAVELEX COSAL IS THE PRIMARY SOURCE LISTING OF EQUIPMENT FOR INCLUSION IN THIS CATEGORY.
NOTE: * IS PART OF AN/UCC-1C(V) WHICH IS IN 4451.
FF-1052 CLASS
PREPARED 7-28-77



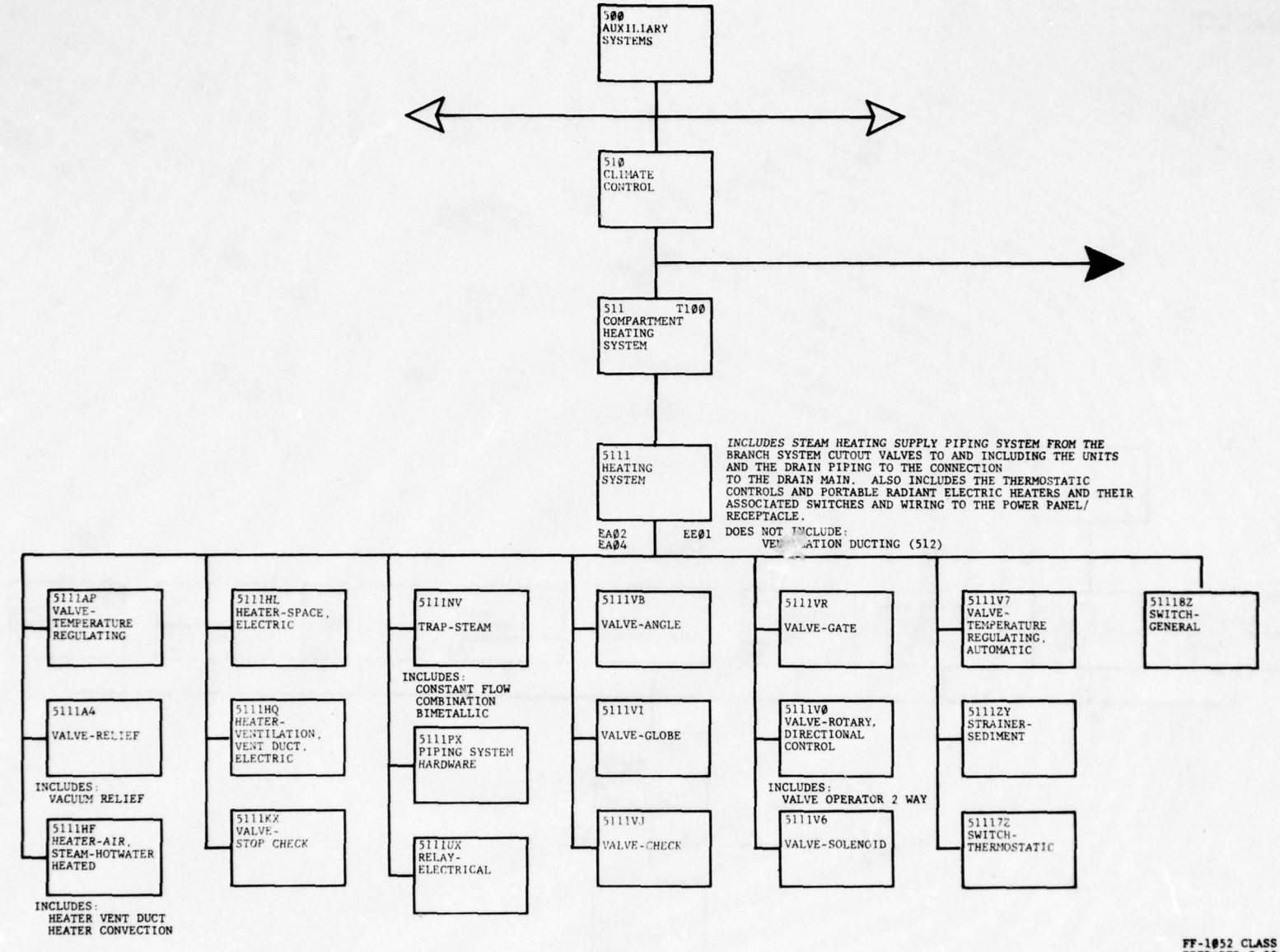
FF-1052 CLASS
PREPARED 7-28-77



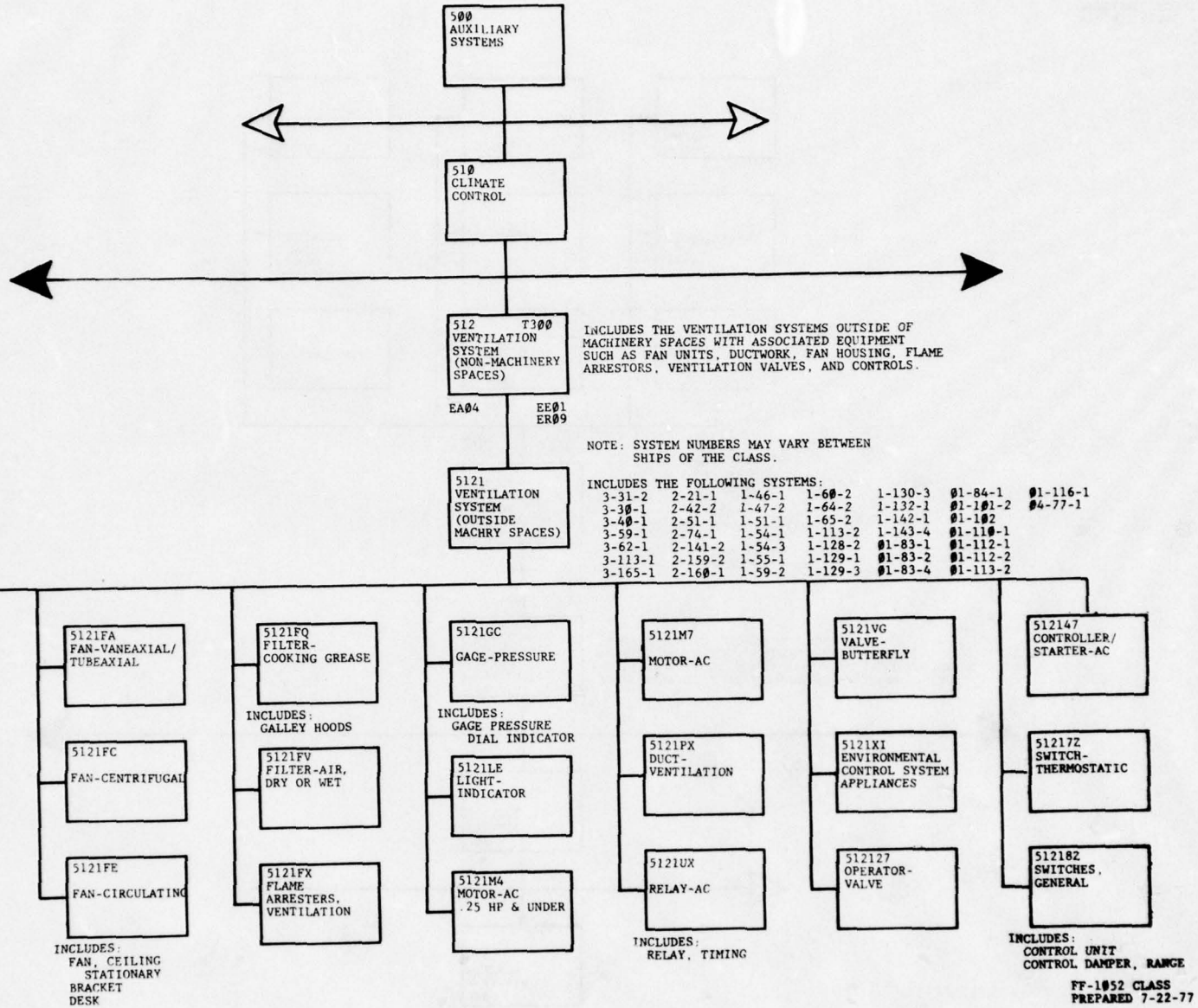
FF-1052 CLASS
PREPARED 7-28-77

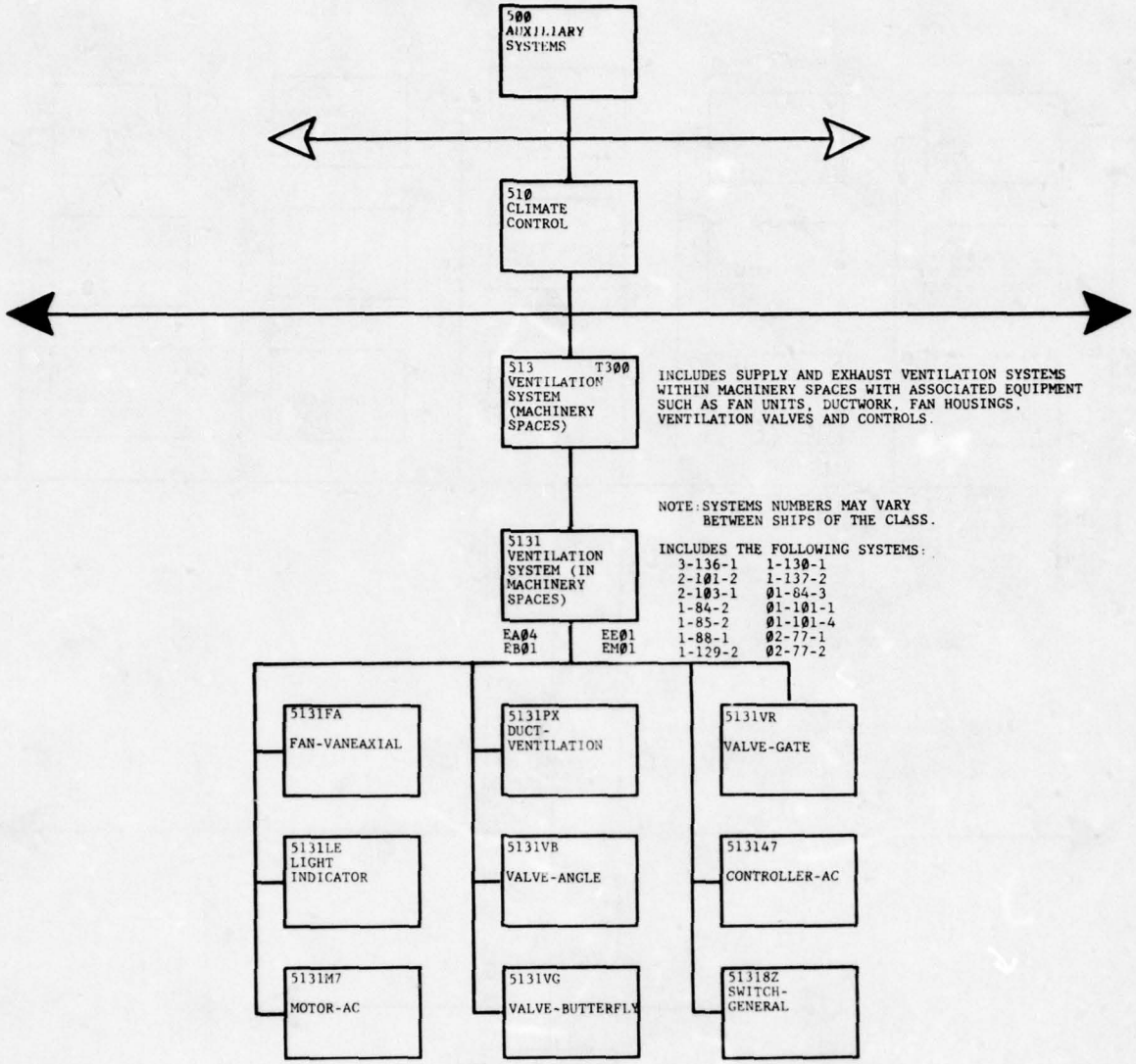


FF-1052 CLASS
PREPARED 7-22-77

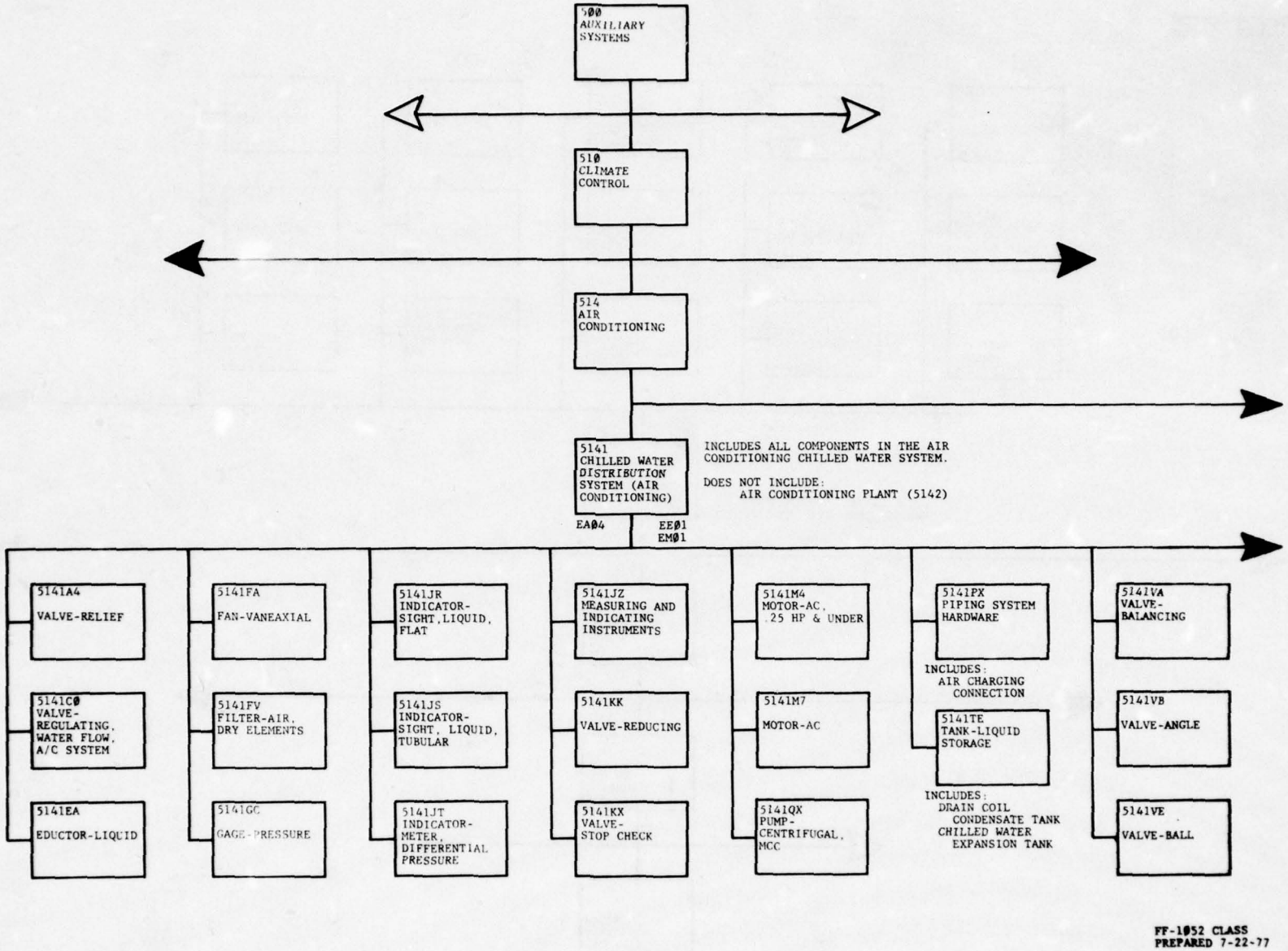


FF-1052 CLASS
PREPARED 7-22-77

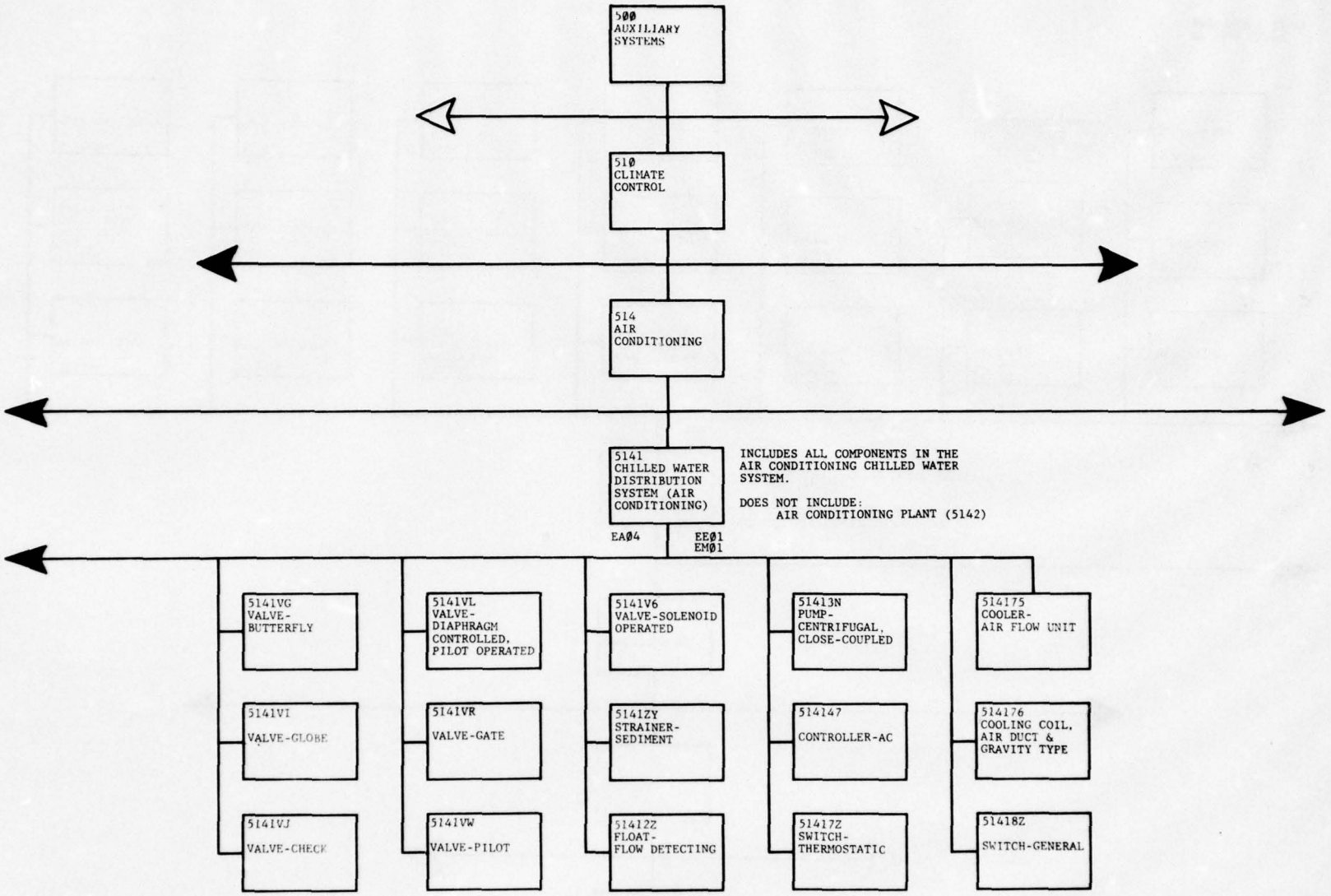

500
AUXILIARY SYSTEMS
510
CLIMATE CONTROL
512 T300
VENTILATION SYSTEM (NON-MACHINERY SPACES)
INCLUDES THE VENTILATION SYSTEMS OUTSIDE OF MACHINERY SPACES WITH ASSOCIATED EQUIPMENT SUCH AS FAN UNITS, DUCTWORK, FAN HOUSING, FLAME ARRESTORS, VENTILATION VALVES, AND CONTROLS.
EA04
EE01
ER09
NOTE: SYSTEM NUMBERS MAY VARY BETWEEN SHIPS OF THE CLASS.
5121
VENTILATION SYSTEM (OUTSIDE MACHRY SPACES)
INCLUDES THE FOLLOWING SYSTEMS:
3-31-2 2-21-1 1-46-1 1-60-2 1-130-3 01-84-1 01-116-1
3-30-1 2-42-2 1-47-2 1-64-2 1-132-1 01-101-2 04-77-1
3-40-1 2-51-1 1-51-1 1-65-2 1-142-1 01-102
3-59-1 2-74-1 1-54-1 1-113-2 1-143-4 01-110-1
3-62-1 2-141-2 1-54-3 1-128-2 01-83-1 01-112-1
3-113-1 2-159-2 1-55-1 1-129-1 01-83-2 01-112-2
3-165-1 2-160-1 1-59-2 1-129-3 01-83-4 01-113-2
5121DJ
DEHUMIDIFIER-DESICCANT, ELECTRIC
5121DK
DEHUMIDIFIER-SPACE, MECHANICAL REFRIGERATION
5121FA
FAN-VANEAXIAL/TUBEAXIAL
5121FC
FAN-CENTRIFUGAL
5121FE
FAN-CIRCULATING
INCLUDES:
FAN, CEILING
STATIONARY
BRACKET
DESK
5121FQ
FILTER-COOKING GREASE
INCLUDES:
GALLEY HOODS
5121FV
FILTER-AIR, DRY OR WET
5121FX
FLAME ARRESTERS, VENTILATION
5121GC
GAGE-PRESSURE
INCLUDES:
GAGE PRESSURE
DIAL INDICATOR
5121LE
LIGHT-INDICATOR
5121M4
MOTOR-AC .25 HP & UNDER
5121M7
MOTOR-AC
5121PX
DUCT-VENTILATION
5121UX
RELAY-AC
INCLUDES:
RELAY, TIMING
5121VG
VALVE-BUTTERFLY
5121XI
ENVIRONMENTAL CONTROL SYSTEM APPLIANCES
512127
OPERATOR-VALVE
512147
CONTROLLER/STARTER-AC
512172
SWITCH-THERMOSTATIC
512182
SWITCHES, GENERAL
INCLUDES:
CONTROL UNIT
CONTROL DAMPER, RANGE
FF-1052 CLASS
PREPARED 7-22-77



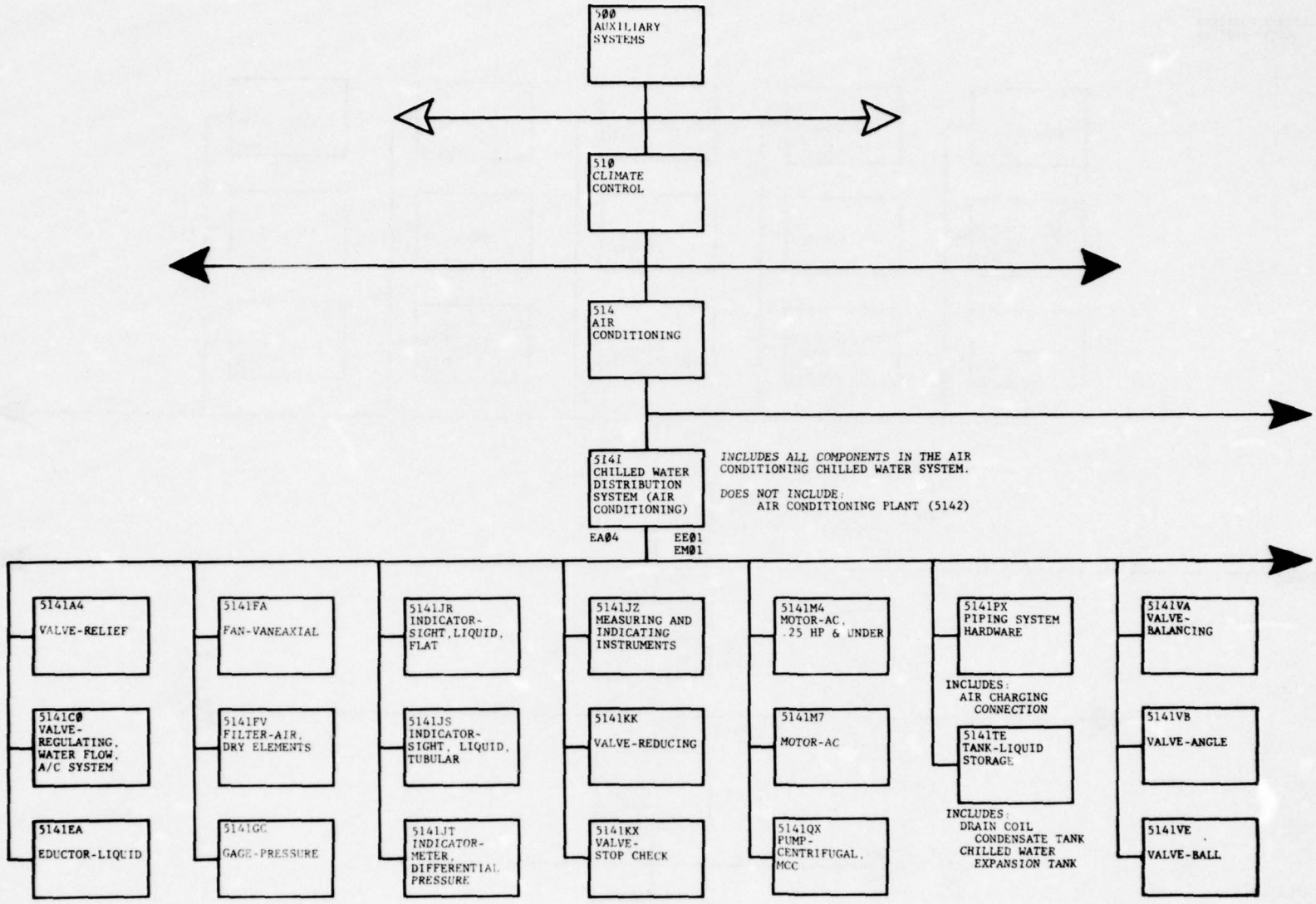
FF-1052 CLASS
PREPARED 7-22-77



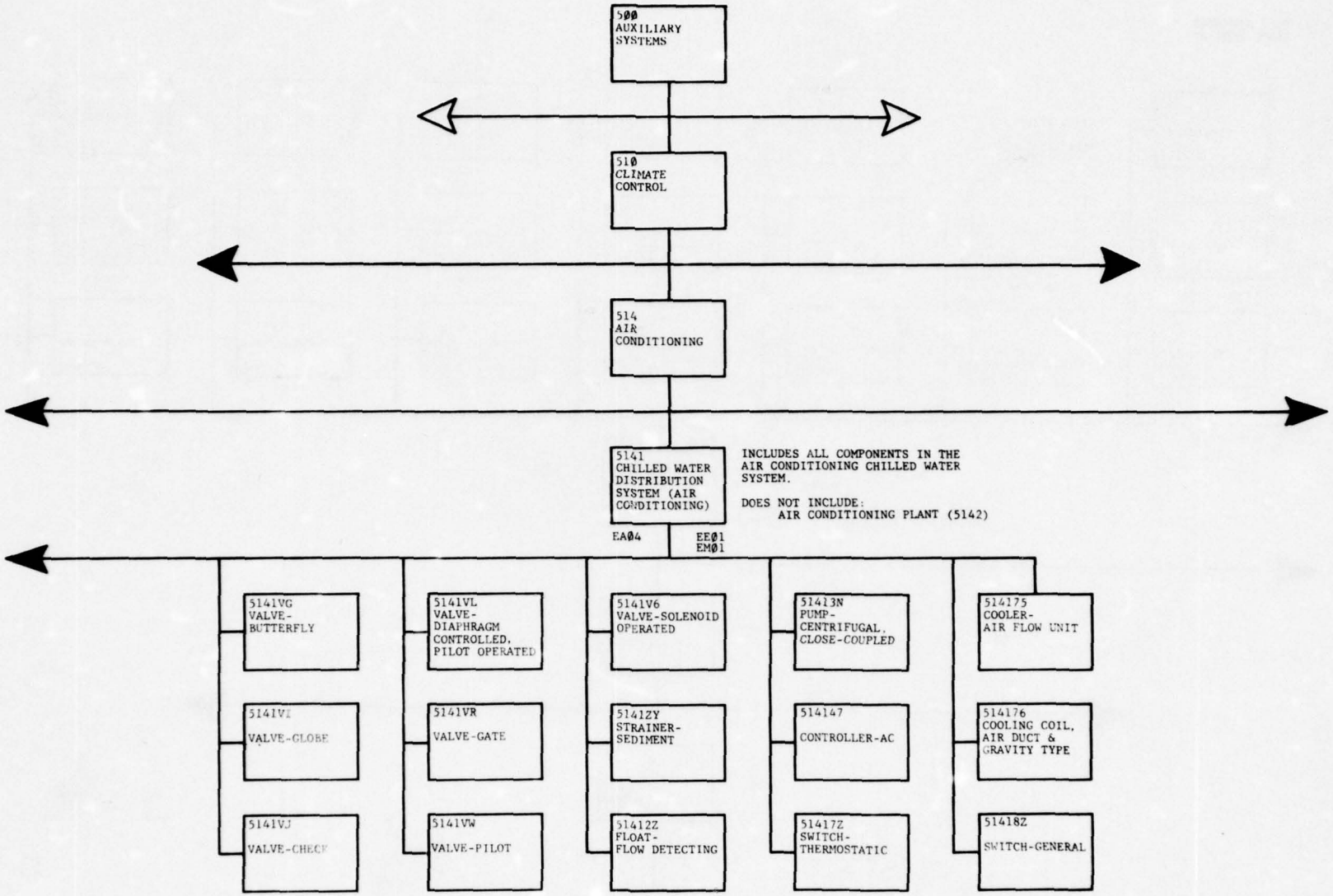
FF-1052 CLASS
PREPARED 7-22-77



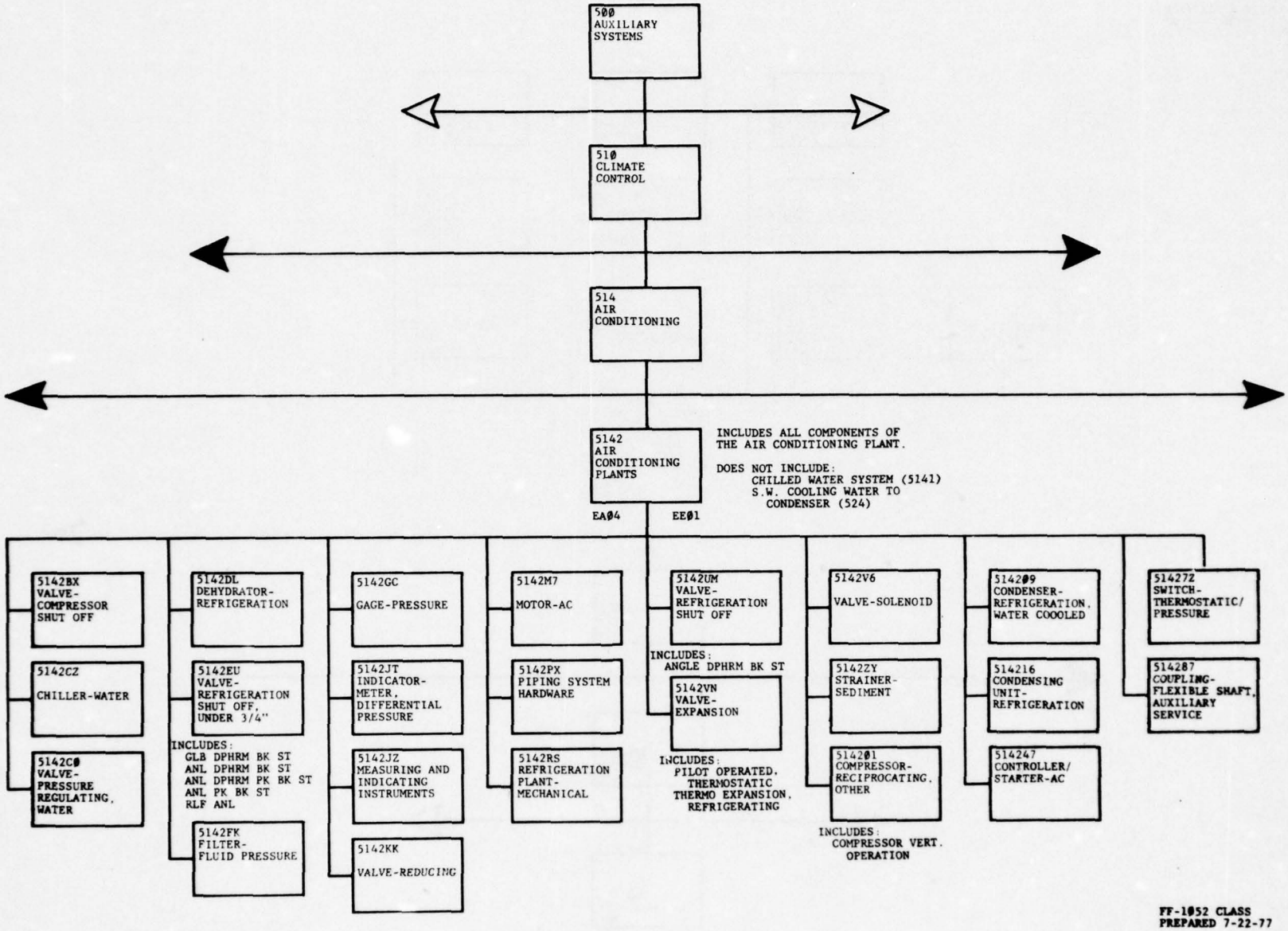
FF-1052 CLASS
PREPARED 7-22-77



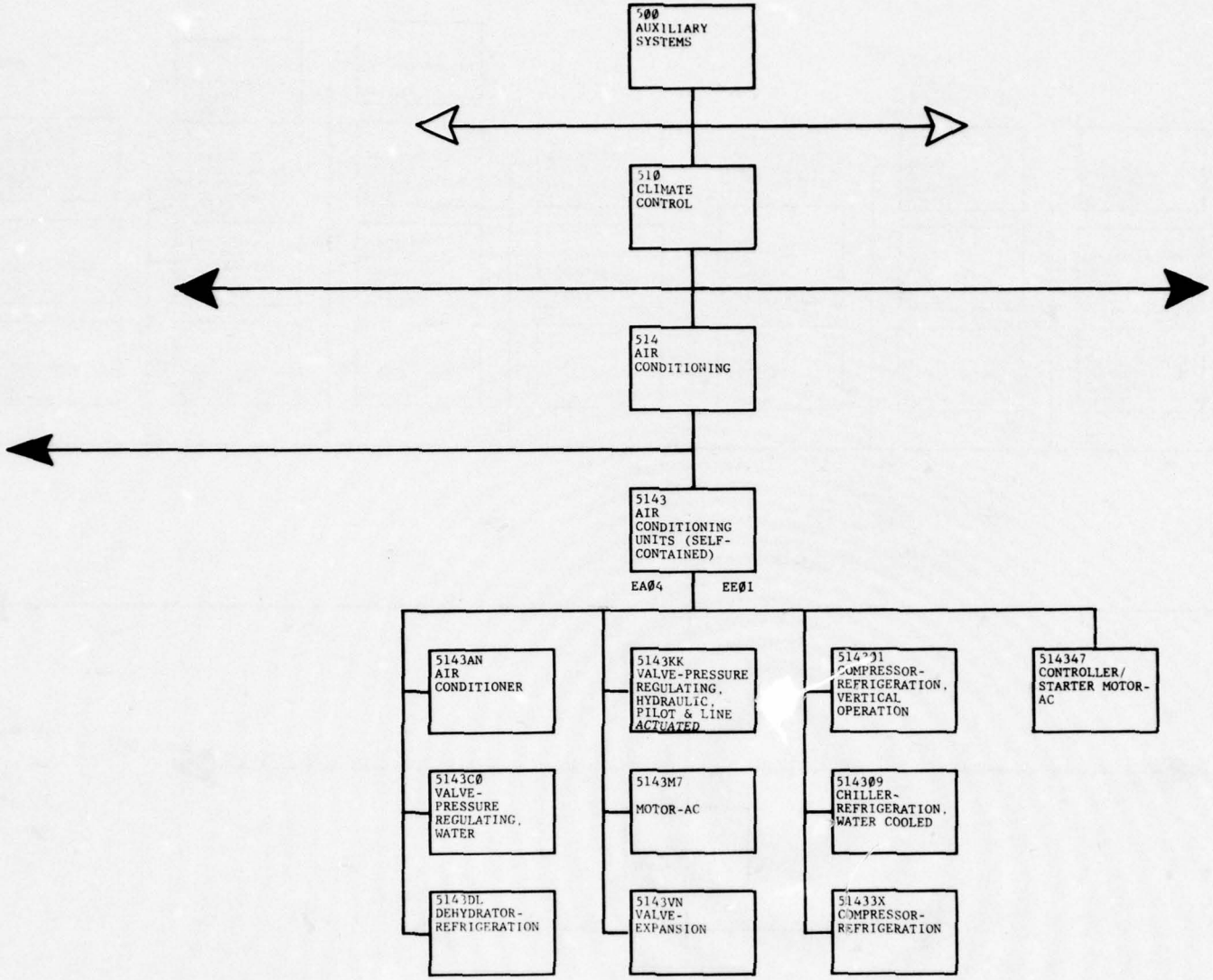
FF-1052 CLASS
PREPARED 7-22-77



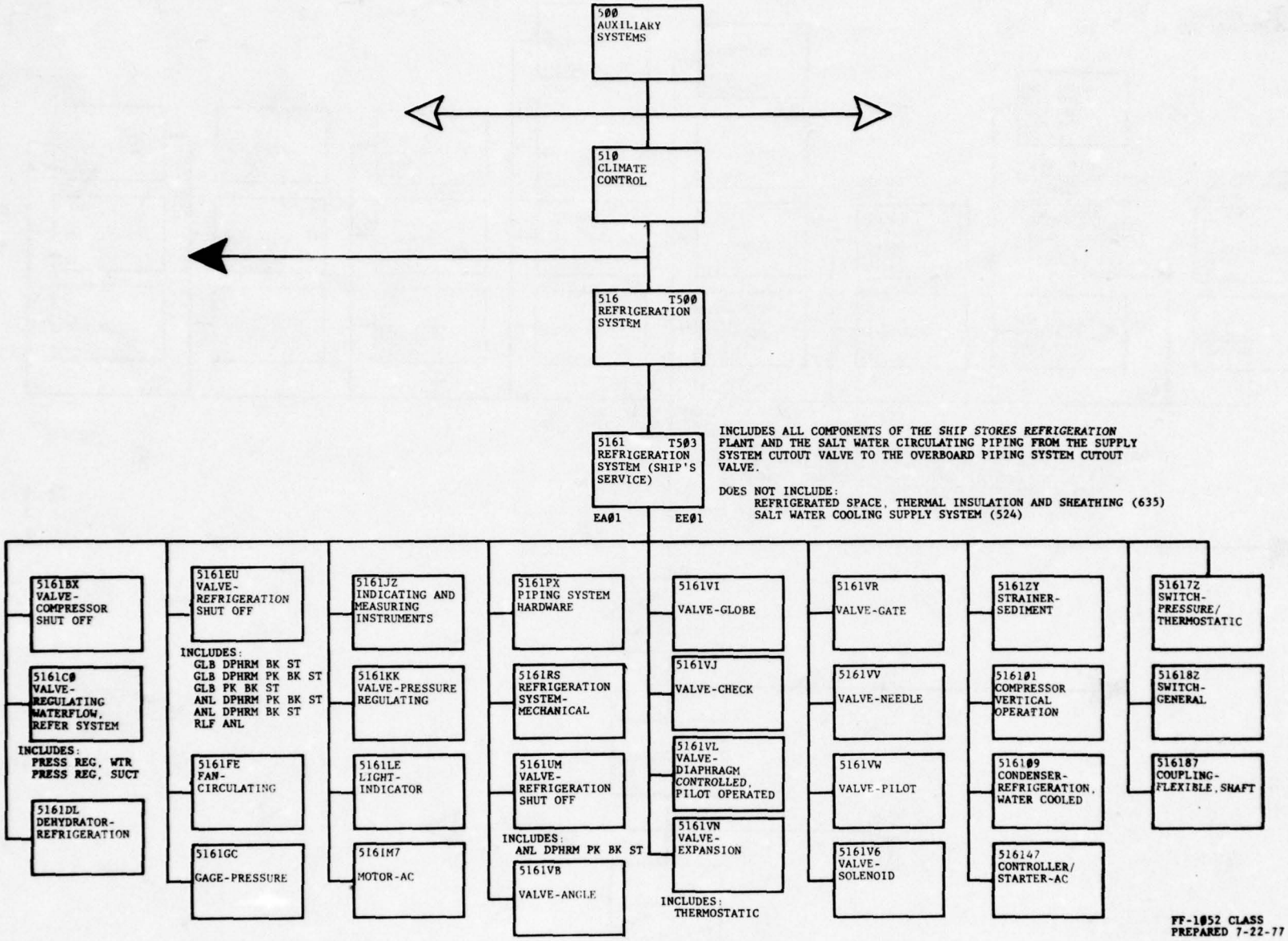
FF-1052 CLASS
PREPARED 7-22-77

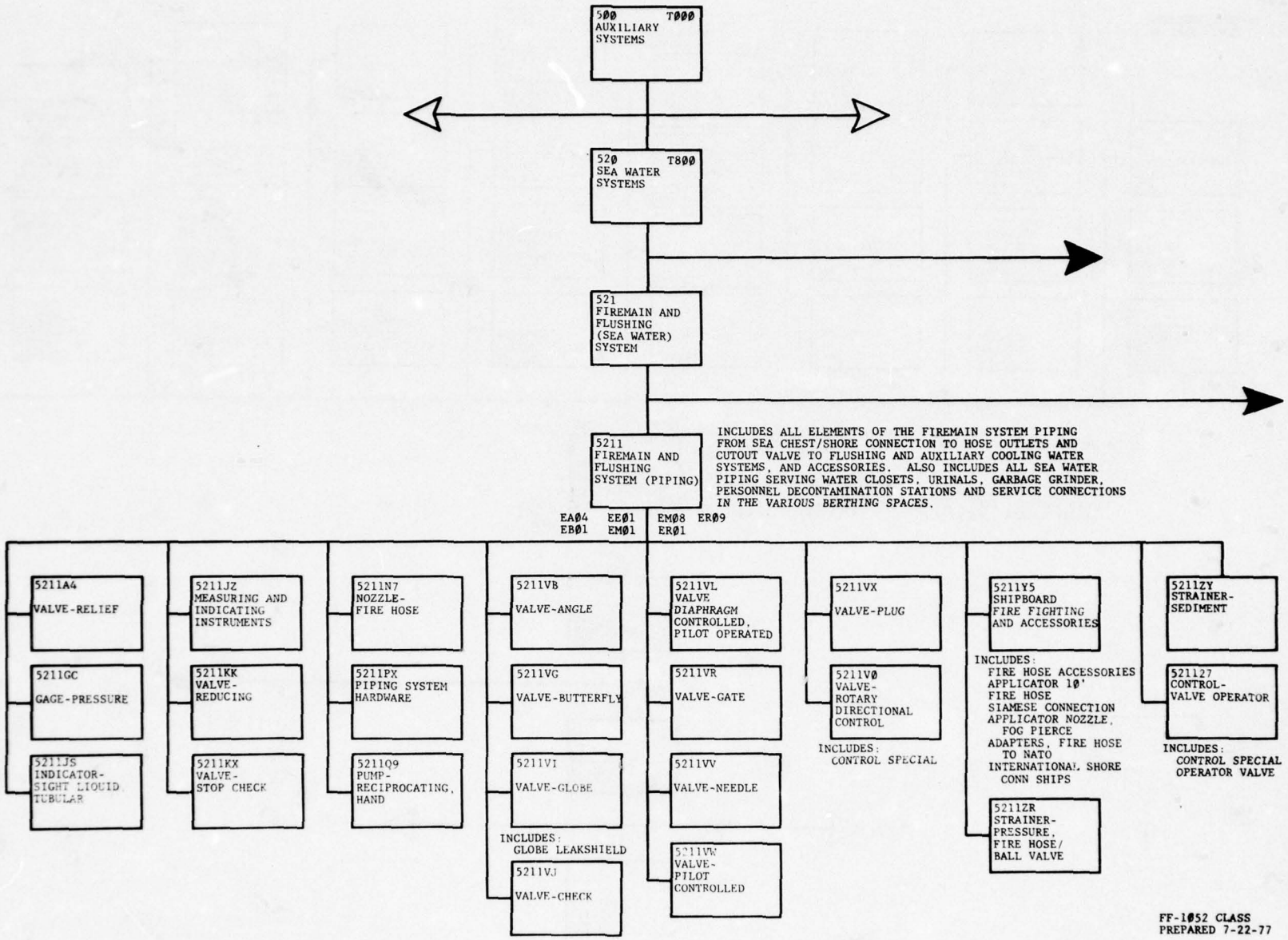


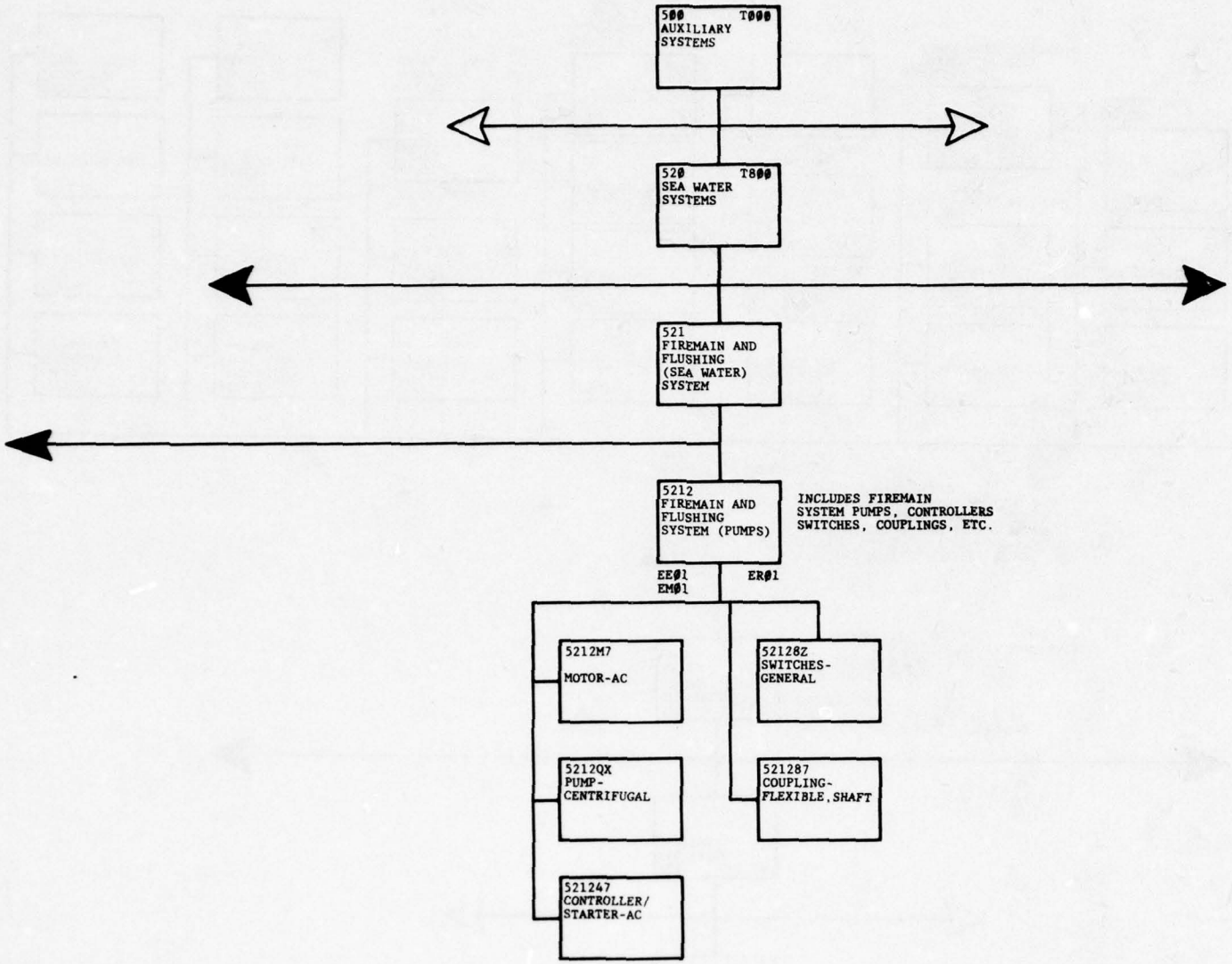
FF-1052 CLASS
PREPARED 7-22-77



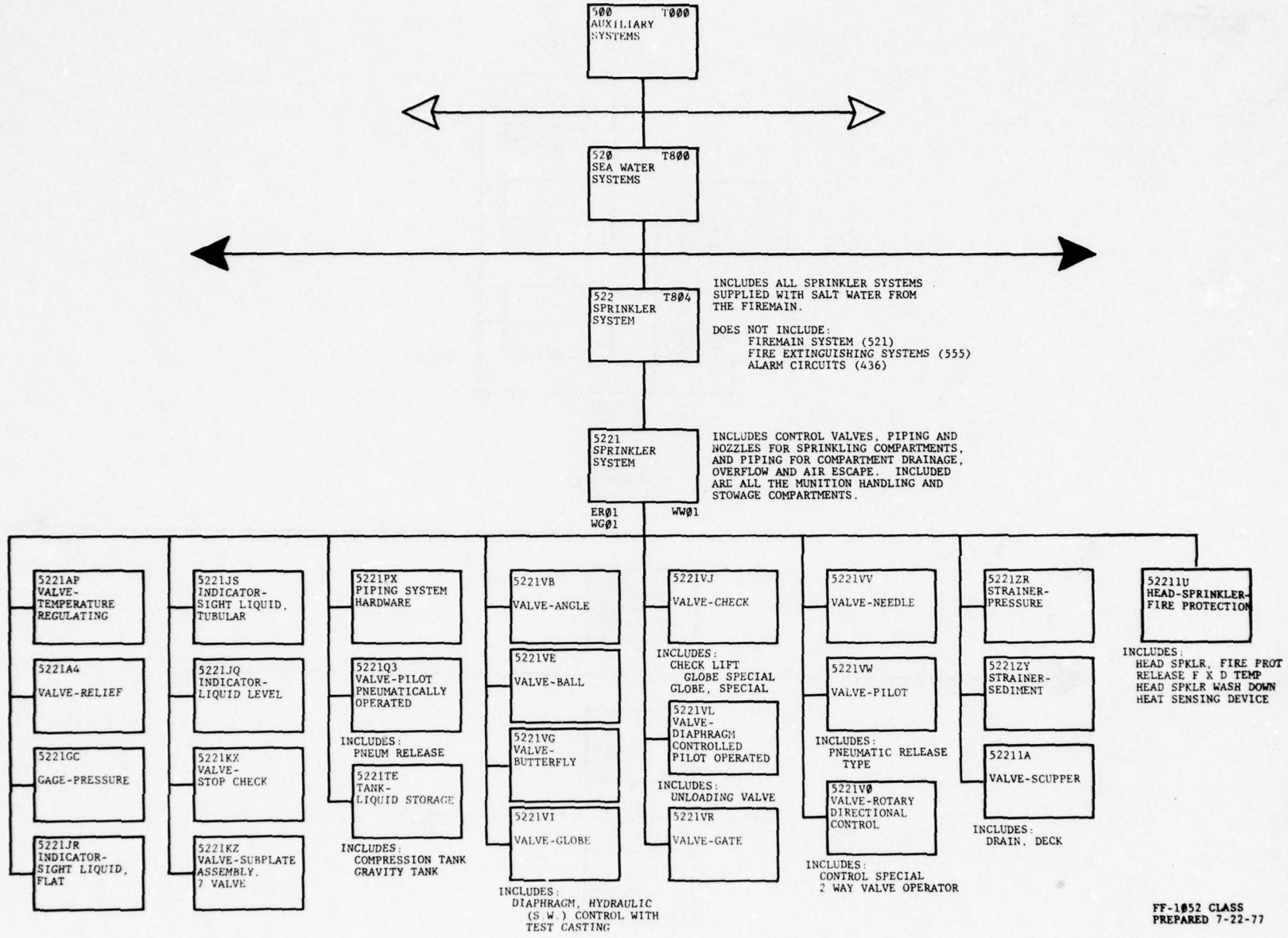
FF-1052 CLASS
PREPARED 7-22-77

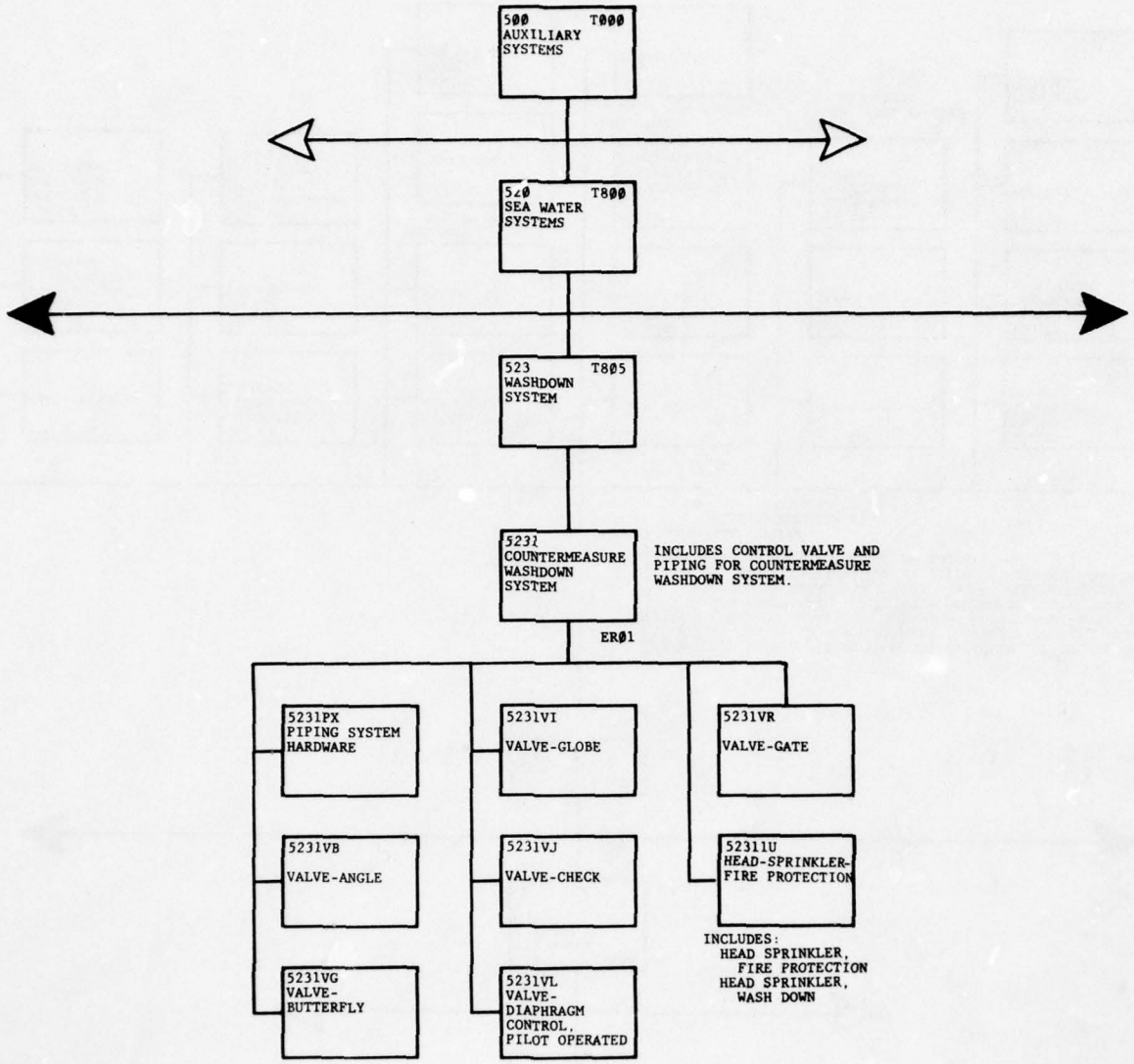

500
AUXILIARY SYSTEMS
510
CLIMATE CONTROL
516 T500
REFRIGERATION SYSTEM
5161 T503
REFRIGERATION SYSTEM (SHIP'S SERVICE)
EA01
EE01
INCLUDES ALL COMPONENTS OF THE SHIP STORES REFRIGERATION PLANT AND THE SALT WATER CIRCULATING PIPING FROM THE SUPPLY SYSTEM CUTOUT VALVE TO THE OVERBOARD PIPING SYSTEM CUTOUT VALVE.
DOES NOT INCLUDE:
REFRIGERATED SPACE, THERMAL INSULATION AND SHEATHING (635)
SALT WATER COOLING SUPPLY SYSTEM (524)
5161BX VALVE-COMPRESSOR SHUT OFF
5161C0 VALVE-REGULATING WATERFLOW, REFER SYSTEM
INCLUDES:
PRESS REG, WTR
PRESS REG, SUCT
5161DL DEHYDRATOR-REFRIGERATION
5161EU VALVE-REFRIGERATION SHUT OFF
INCLUDES:
GLB DPHRM BK ST
GLB DPHRM PK BK ST
GLB PK BK ST
ANL DPHRM PK BK ST
ANL DPHRM BK ST
RLF ANL
5161FE FAN-CIRCULATING
5161GC GAGE-PRESSURE
5161JZ INDICATING AND MEASURING INSTRUMENTS
5161KK VALVE-PRESSURE REGULATING
5161LE LIGHT-INDICATOR
5161M7 MOTOR-AC
5161PX PIPING SYSTEM HARDWARE
5161RS REFRIGERATION SYSTEM-MECHANICAL
5161UM VALVE-REFRIGERATION SHUT OFF
INCLUDES:
ANL DPHRM PK BK ST
5161VB VALVE-ANGLE
5161VI VALVE-GLOBE
5161VJ VALVE-CHECK
5161VL VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
5161VN VALVE-EXPANSION
INCLUDES:
THERMOSTATIC
5161VR VALVE-GATE
5161VV VALVE-NEEDLE
5161VW VALVE-PILOT
5161V6 VALVE-SOLENOID
5161ZY STRAINER-SEDIMENT
5161@1 COMPRESSOR VERTICAL OPERATION
5161@9 CONDENSER-REFRIGERATION, WATER COOLED
516147 CONTROLLER/STARTER-AC
51617Z SWITCH-PRESSURE/THERMOSTATIC
51618Z SWITCH-GENERAL
516187 COUPLING-FLEXIBLE, SHAFT
FF-1052 CLASS
PREPARED 7-22-77


500 T000
AUXILIARY SYSTEMS
520 T800
SEA WATER SYSTEMS
521
FIREMAIN AND FLUSHING (SEA WATER) SYSTEM
5211
FIREMAIN AND FLUSHING SYSTEM (PIPING)
INCLUDES ALL ELEMENTS OF THE FIREMAIN SYSTEM PIPING FROM SEA CHEST/SHORE CONNECTION TO HOSE OUTLETS AND CUTOUT VALVE TO FLUSHING AND AUXILIARY COOLING WATER SYSTEMS, AND ACCESSORIES. ALSO INCLUDES ALL SEA WATER PIPING SERVING WATER CLOSETS, URINALS, GARBAGE GRINDER, PERSONNEL DECONTAMINATION STATIONS AND SERVICE CONNECTIONS IN THE VARIOUS BERTHING SPACES.
EA04 EE01 EM08 ER09
EB01 EM01 ER01
5211A4
VALVE-RELIEF
5211GC
GAGE-PRESSURE
5211JS
INDICATOR-SIGHT LIQUID TUBULAR
5211JZ
MEASURING AND INDICATING INSTRUMENTS
5211KK
VALVE-REDUCING
5211KX
VALVE-STOP CHECK
5211N7
NOZZLE-FIRE HOSE
5211PX
PIPING SYSTEM HARDWARE
5211Q9
PUMP-RECIPROCATING, HAND
5211VB
VALVE-ANGLE
5211VG
VALVE-BUTTERFLY
5211VI
VALVE-GLOBE
INCLUDES: GLOBE LEAKSHIELD
5211VJ
VALVE-CHECK
5211VL
VALVE DIAPHRAGM CONTROLLED, PILOT OPERATED
5211VR
VALVE-GATE
5211VV
VALVE-NEEDLE
5211VW
VALVE-PILOT CONTROLLED
5211VX
VALVE-PLUG
5211VØ
VALVE-ROTARY DIRECTIONAL CONTROL
INCLUDES: CONTROL SPECIAL
5211Y5
SHIPBOARD FIRE FIGHTING AND ACCESSORIES
INCLUDES:
FIRE HOSE ACCESSORIES
APPLICATOR 1Ø'
FIRE HOSE
SIAMESE CONNECTION
APPLICATOR NOZZLE, FOG PIERCE
ADAPTERS, FIRE HOSE TO NATO
INTERNATIONAL SHORE CONN SHIPS
5211ZR
STRAINER-PRESSURE, FIRE HOSE/BALL VALVE
5211ZY
STRAINER-SEDIMENT
521127
CONTROL-VALVE OPERATOR
INCLUDES: CONTROL SPECIAL OPERATOR VALVE
FF-1052 CLASS
PREPARED 7-22-77

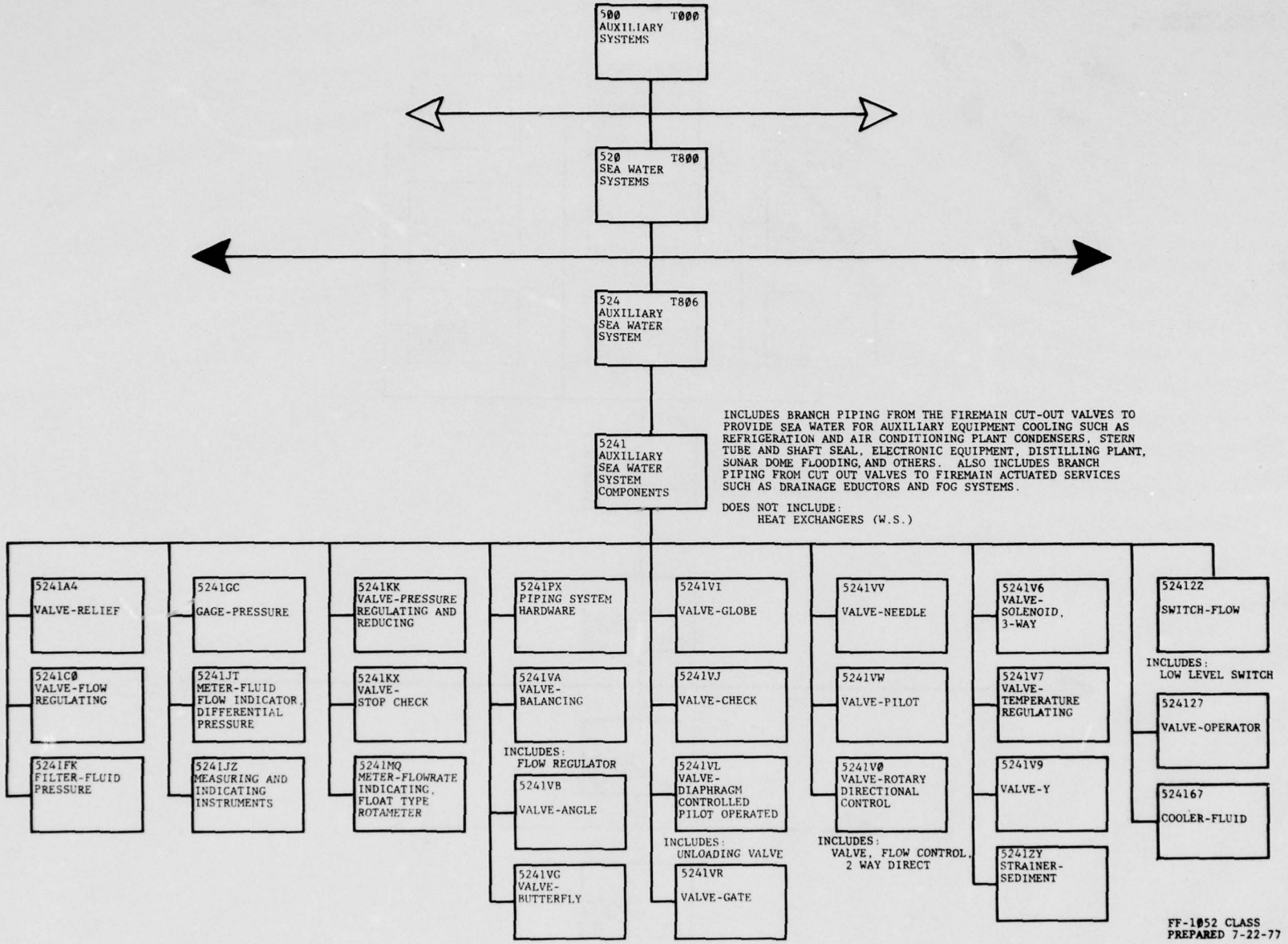


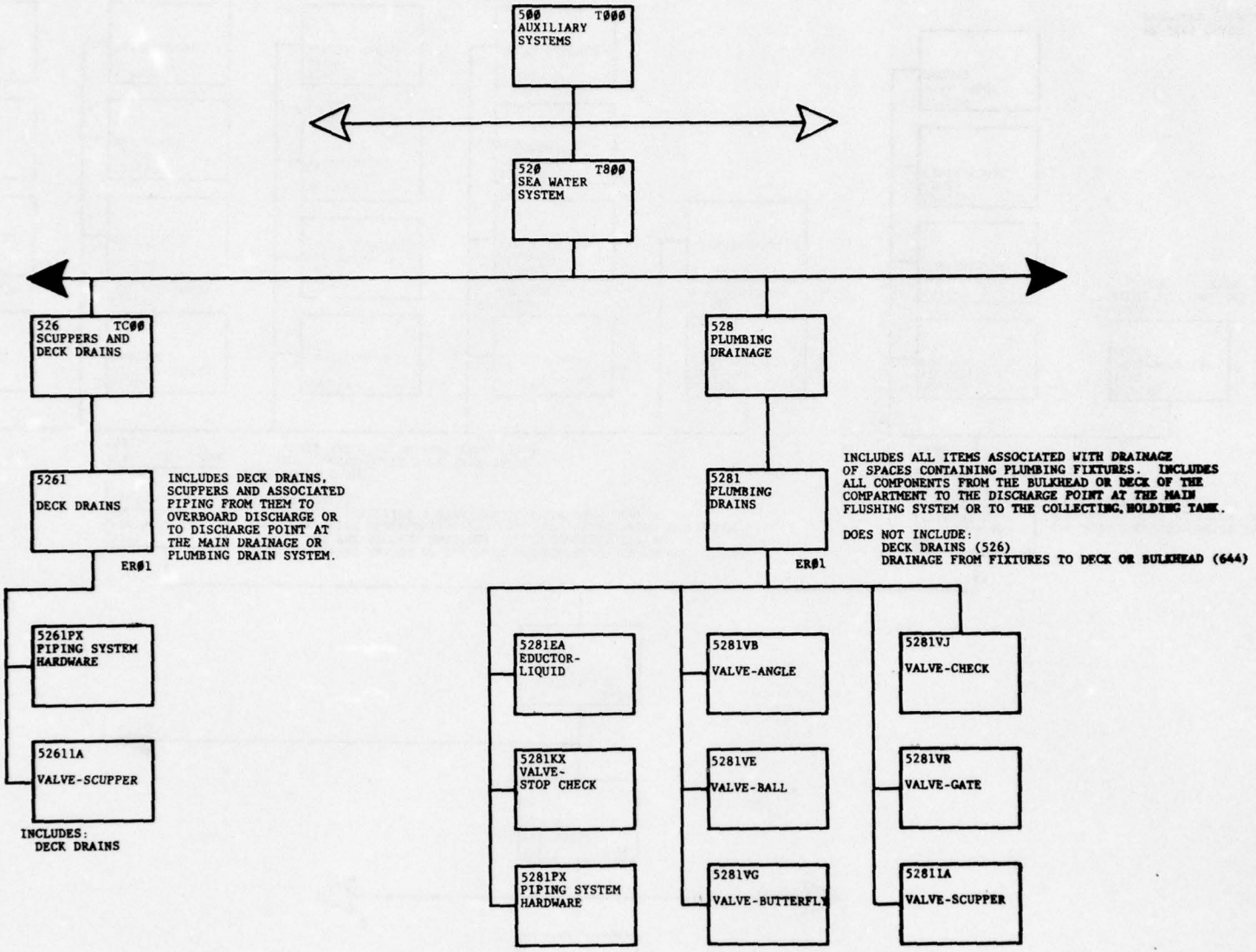
FF-1052 CLASS
PREPARED 7-22-77


500 T000
AUXILIARY SYSTEMS
520 T800
SEA WATER SYSTEMS
522 T804
SPRINKLER SYSTEM
INCLUDES ALL SPRINKLER SYSTEMS SUPPLIED WITH SALT WATER FROM THE FIREMAIN.
DOES NOT INCLUDE:
FIREMAIN SYSTEM (521)
FIRE EXTINGUISHING SYSTEMS (555)
ALARM CIRCUITS (436)
5221
SPRINKLER SYSTEM
INCLUDES CONTROL VALVES, PIPING AND NOZZLES FOR SPRINKLING COMPARTMENTS, AND PIPING FOR COMPARTMENT DRAINAGE, OVERFLOW AND AIR ESCAPE. INCLUDED ARE ALL THE MUNITION HANDLING AND STOWAGE COMPARTMENTS.
ER01
WG01
WW01
5221AP VALVE-TEMPERATURE REGULATING
5221A4 VALVE-RELIEF
5221GC GAGE-PRESSURE
5221JR INDICATOR-SIGHT LIQUID, FLAT
5221JS INDICATOR-SIGHT LIQUID, TUBULAR
5221JQ INDICATOR-LIQUID LEVEL
5221KX VALVE-STOP CHECK
5221KZ VALVE-SUBPLATE ASSEMBLY, 7 VALVE
5221PX PIPING SYSTEM HARDWARE
5221Q3 VALVE-PILOT PNEUMATICALLY OPERATED
INCLUDES: PNEUM RELEASE
5221TE TANK-LIQUID STORAGE
INCLUDES: COMPRESSION TANK GRAVITY TANK
5221VB VALVE-ANGLE
5221VE VALVE-BALL
5221VG VALVE-BUTTERFLY
5221VI VALVE-GLOBE
INCLUDES: DIAPHRAGM, HYDRAULIC (S.W.) CONTROL WITH TEST CASTING
5221VJ VALVE-CHECK
INCLUDES: CHECK LIFT GLOBE SPECIAL GLOBE, SPECIAL
5221VL VALVE-DIAPHRAGM CONTROLLED PILOT OPERATED
INCLUDES: UNLOADING VALVE
5221VR VALVE-GATE
5221VV VALVE-NEEDLE
5221VW VALVE-PILOT
INCLUDES: PNEUMATIC RELEASE TYPE
5221V0 VALVE-ROTARY DIRECTIONAL CONTROL
INCLUDES: CONTROL SPECIAL 2 WAY VALVE OPERATOR
5221ZR STRAINER-PRESSURE
5221ZY STRAINER-SEDIMENT
52211A VALVE-SCUPPER
INCLUDES: DRAIN, DECK
52211U HEAD-SPRINKLER-FIRE PROTECTION
INCLUDES: HEAD SPKLR, FIRE PROT RELEASE F X D TEMP HEAD SPKLR WASH DOWN HEAT SENSING DEVICE
FF-1052 CLASS
PREPARED 7-22-77

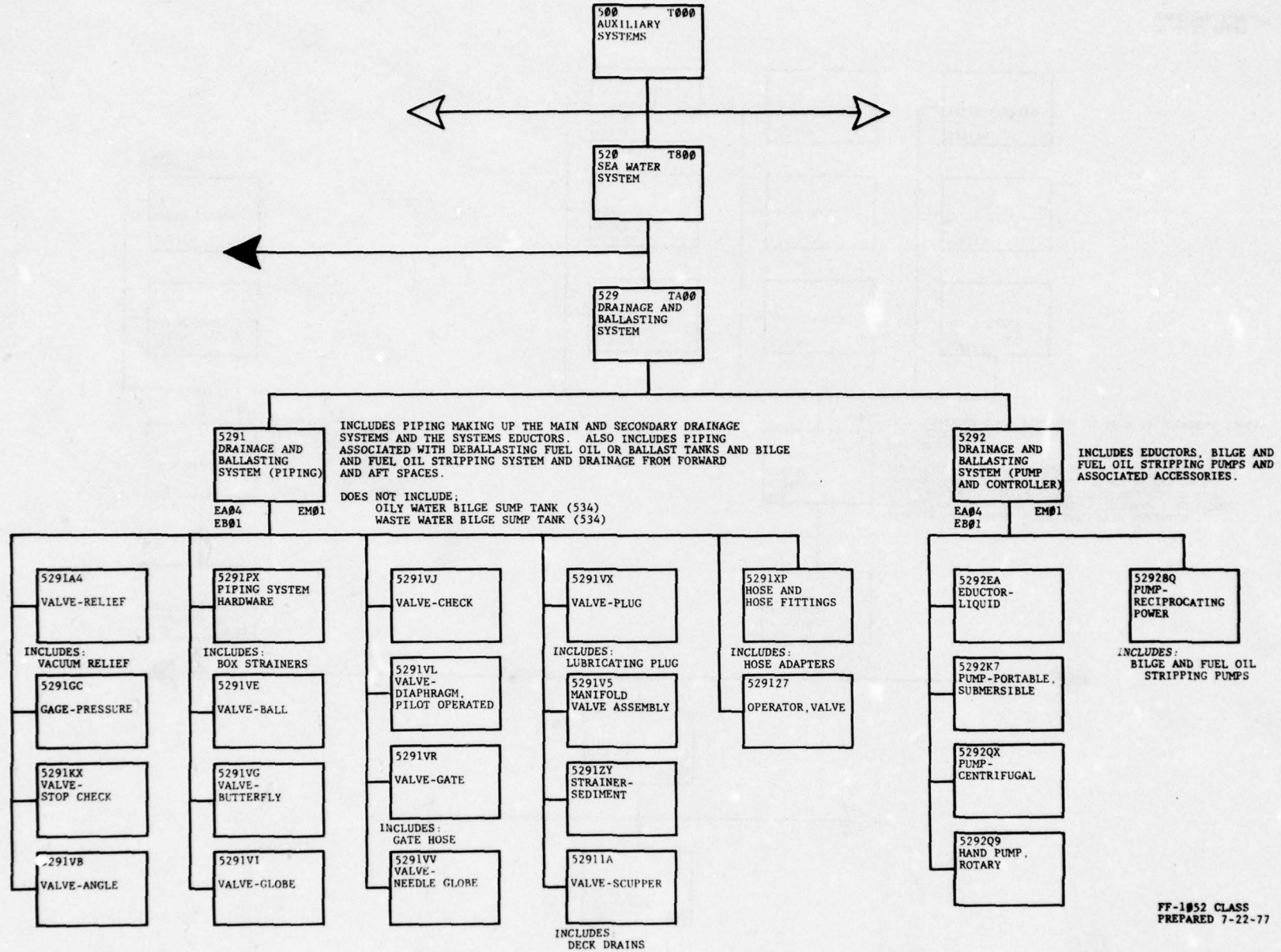


FY-1052 CLASS
PREPARED 7-22-77

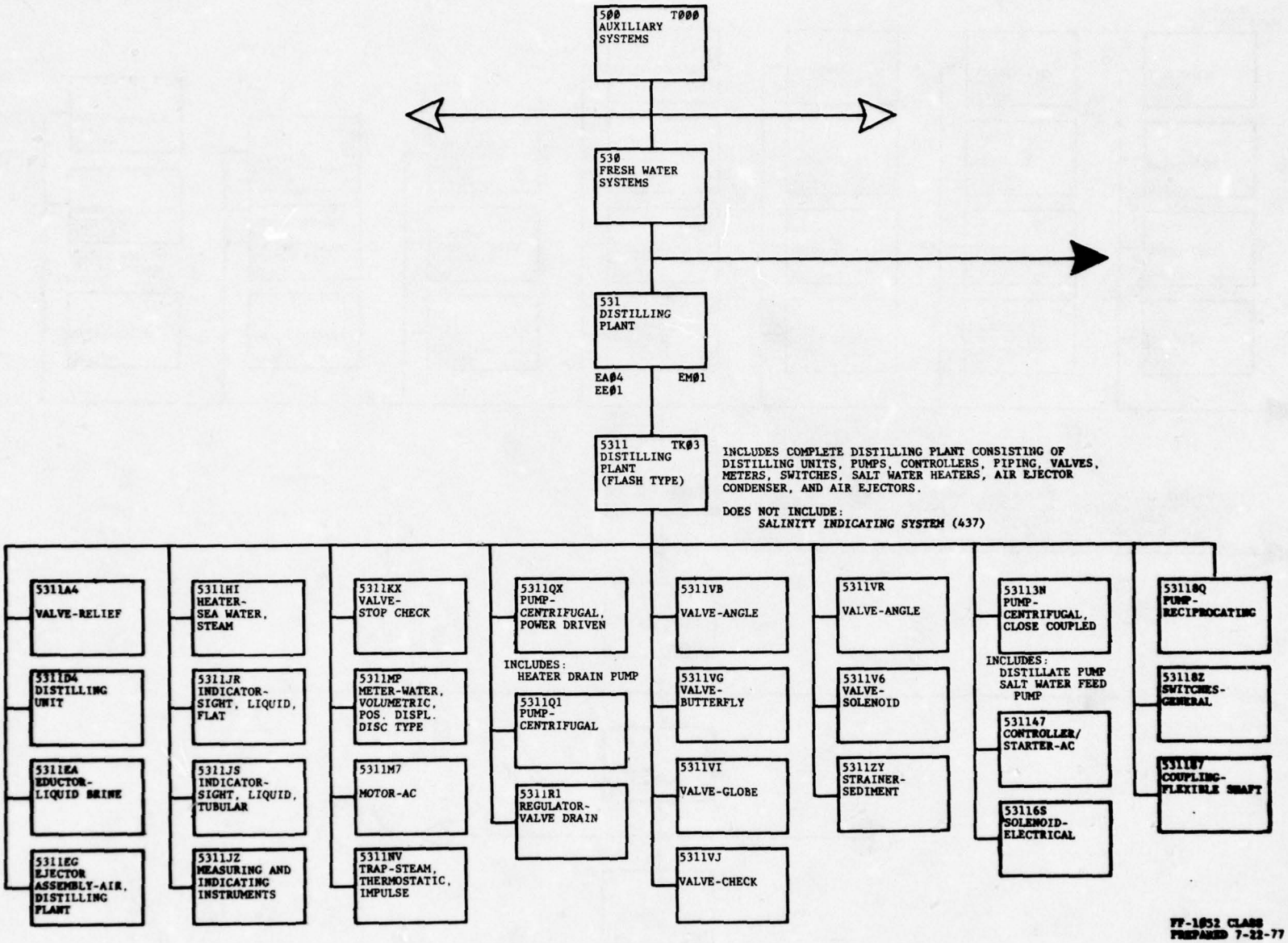

500 T000
AUXILIARY SYSTEMS
520 T800
SEA WATER SYSTEMS
524 T806
AUXILIARY SEA WATER SYSTEM
5241
AUXILIARY SEA WATER SYSTEM COMPONENTS
INCLUDES BRANCH PIPING FROM THE FIREMAIN CUT-OUT VALVES TO PROVIDE SEA WATER FOR AUXILIARY EQUIPMENT COOLING SUCH AS REFRIGERATION AND AIR CONDITIONING PLANT CONDENSERS, STERN TUBE AND SHAFT SEAL, ELECTRONIC EQUIPMENT, DISTILLING PLANT, SONAR DOME FLOODING, AND OTHERS. ALSO INCLUDES BRANCH PIPING FROM CUT OUT VALVES TO FIREMAIN ACTUATED SERVICES SUCH AS DRAINAGE EDUCTORS AND FOG SYSTEMS.
DOES NOT INCLUDE:
HEAT EXCHANGERS (W.S.)
5241A4
VALVE-RELIEF
5241C0
VALVE-FLOW REGULATING
5241FK
FILTER-FLUID PRESSURE
5241GC
GAGE-PRESSURE
5241JT
METER-FLUID FLOW INDICATOR, DIFFERENTIAL PRESSURE
5241JZ
MEASURING AND INDICATING INSTRUMENTS
5241KK
VALVE-PRESSURE REGULATING AND REDUCING
5241KX
VALVE-STOP CHECK
5241MQ
METER-FLOWRATE INDICATING, FLOAT TYPE ROTAMETER
5241PX
PIPING SYSTEM HARDWARE
5241VA
VALVE-BALANCING
INCLUDES:
FLOW REGULATOR
5241VB
VALVE-ANGLE
5241VG
VALVE-BUTTERFLY
5241VI
VALVE-GLOBE
5241VJ
VALVE-CHECK
5241VL
VALVE-DIAPHRAGM CONTROLLED PILOT OPERATED
INCLUDES:
UNLOADING VALVE
5241VR
VALVE-GATE
5241VV
VALVE-NEEDLE
5241VW
VALVE-PILOT
5241V0
VALVE-ROTARY DIRECTIONAL CONTROL
INCLUDES:
VALVE, FLOW CONTROL, 2 WAY DIRECT
5241V6
VALVE-SOLENOID, 3-WAY
5241V7
VALVE-TEMPERATURE REGULATING
5241V9
VALVE-Y
5241ZY
STRAINER-SEDIMENT
524122
SWITCH-FLOW
INCLUDES:
LOW LEVEL SWITCH
524127
VALVE-OPERATOR
524167
COOLER-FLUID
FF-1052 CLASS
PREPARED 7-22-77



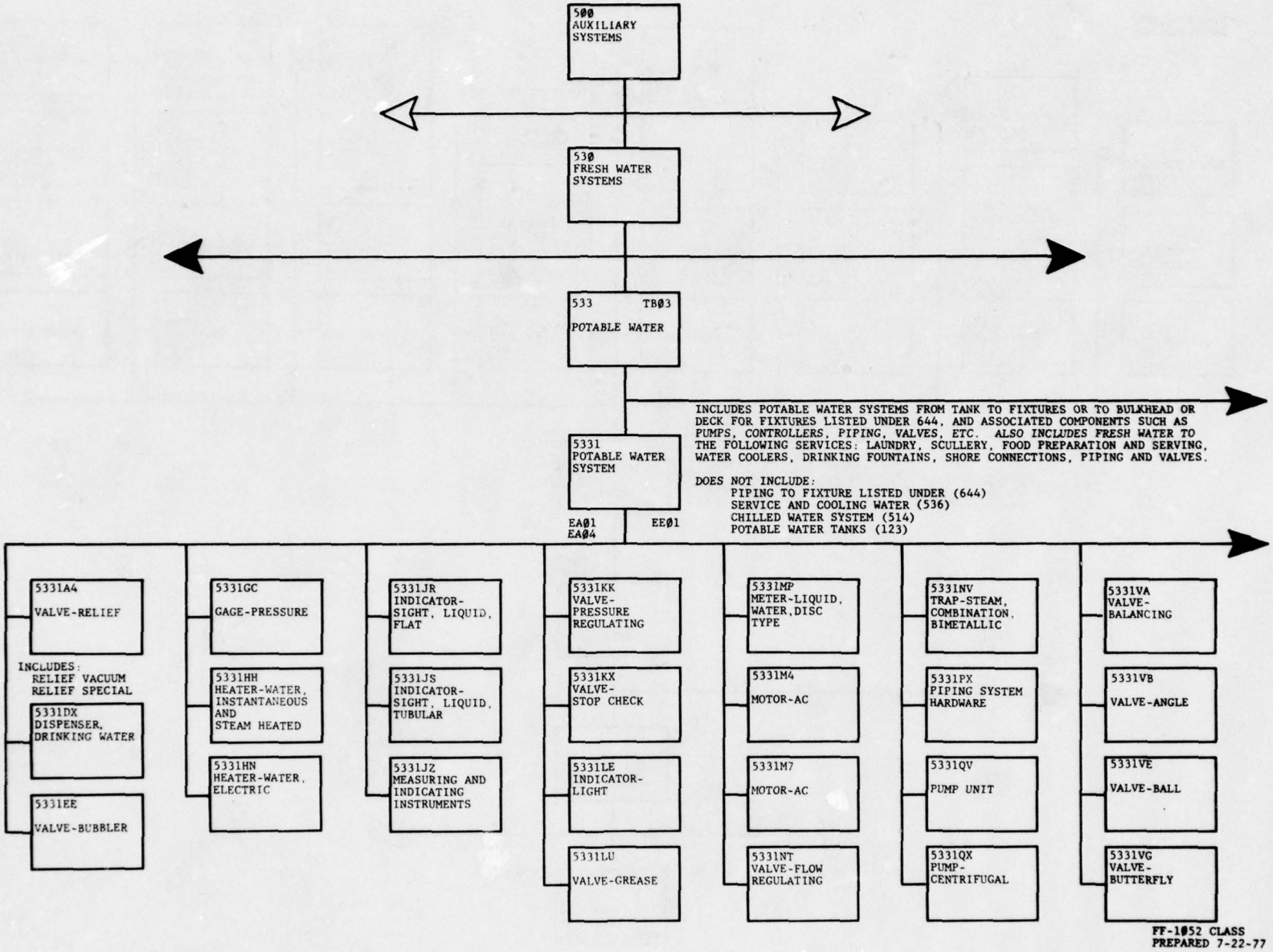
FF-1052 CLASS
PREPARED 7-22-77



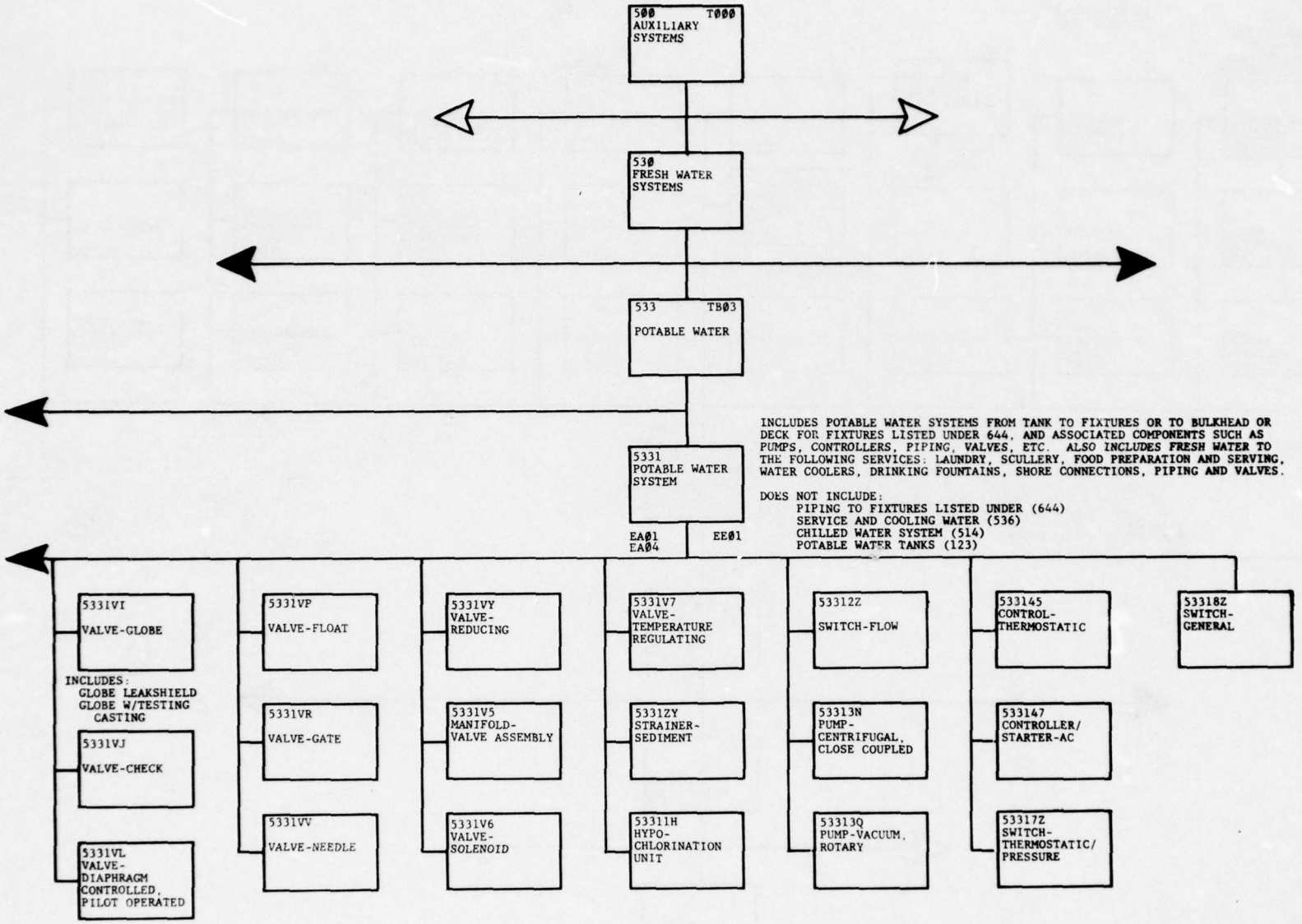
FF-1052 CLASS
PREPARED 7-22-77



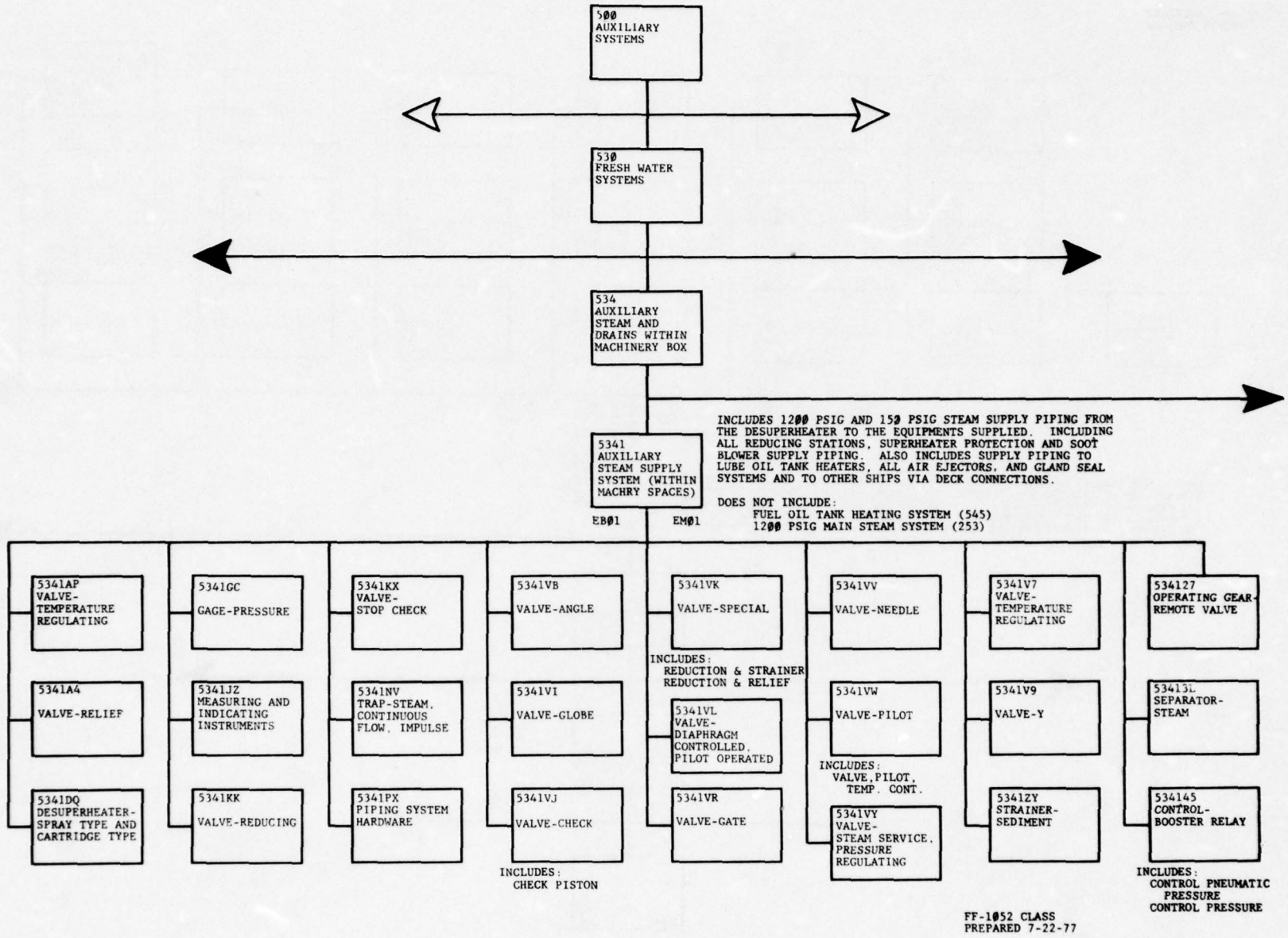
FF-1052 CLASS
PREPARED 7-22-77



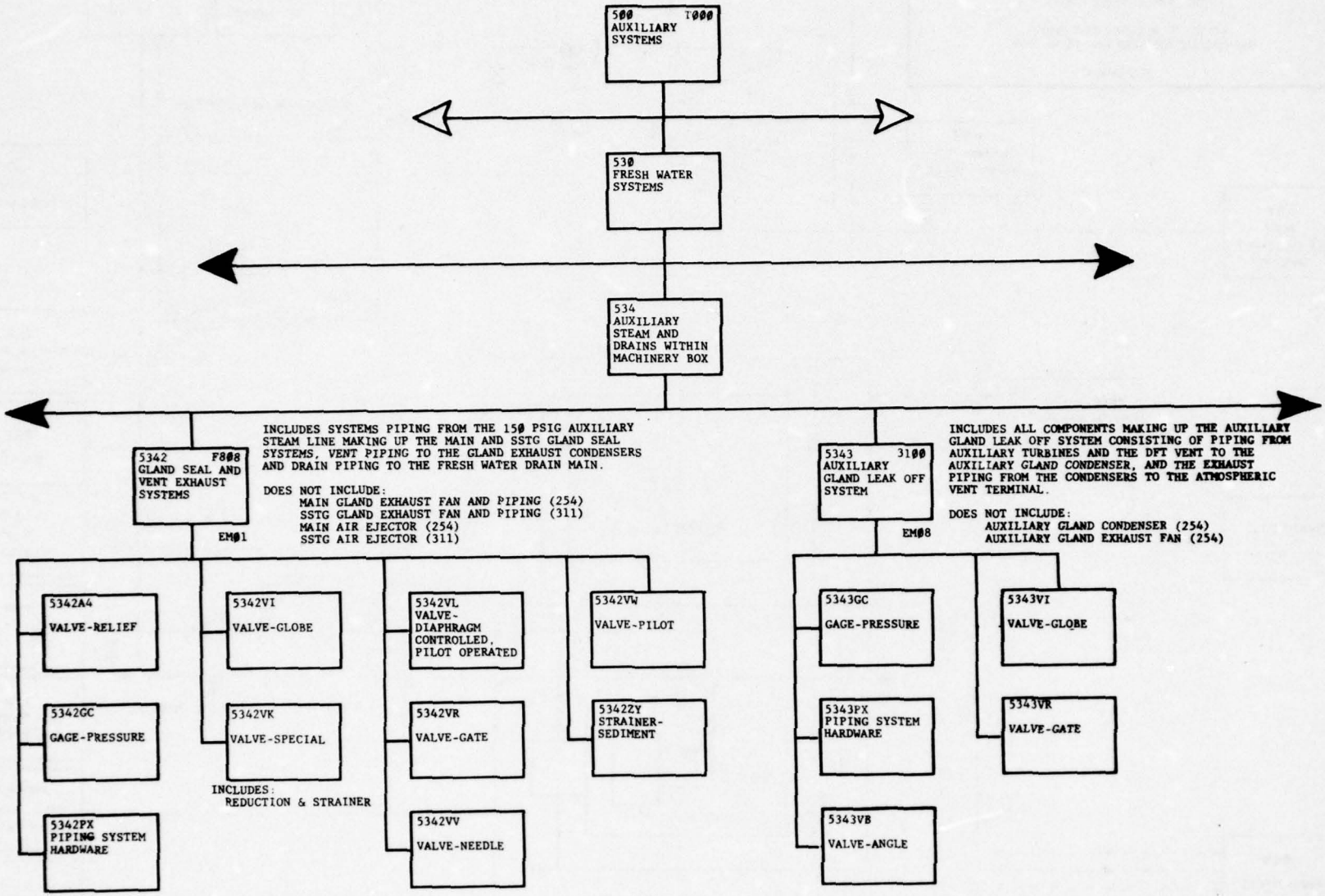
FF-1052 CLASS
PREPARED 7-22-77



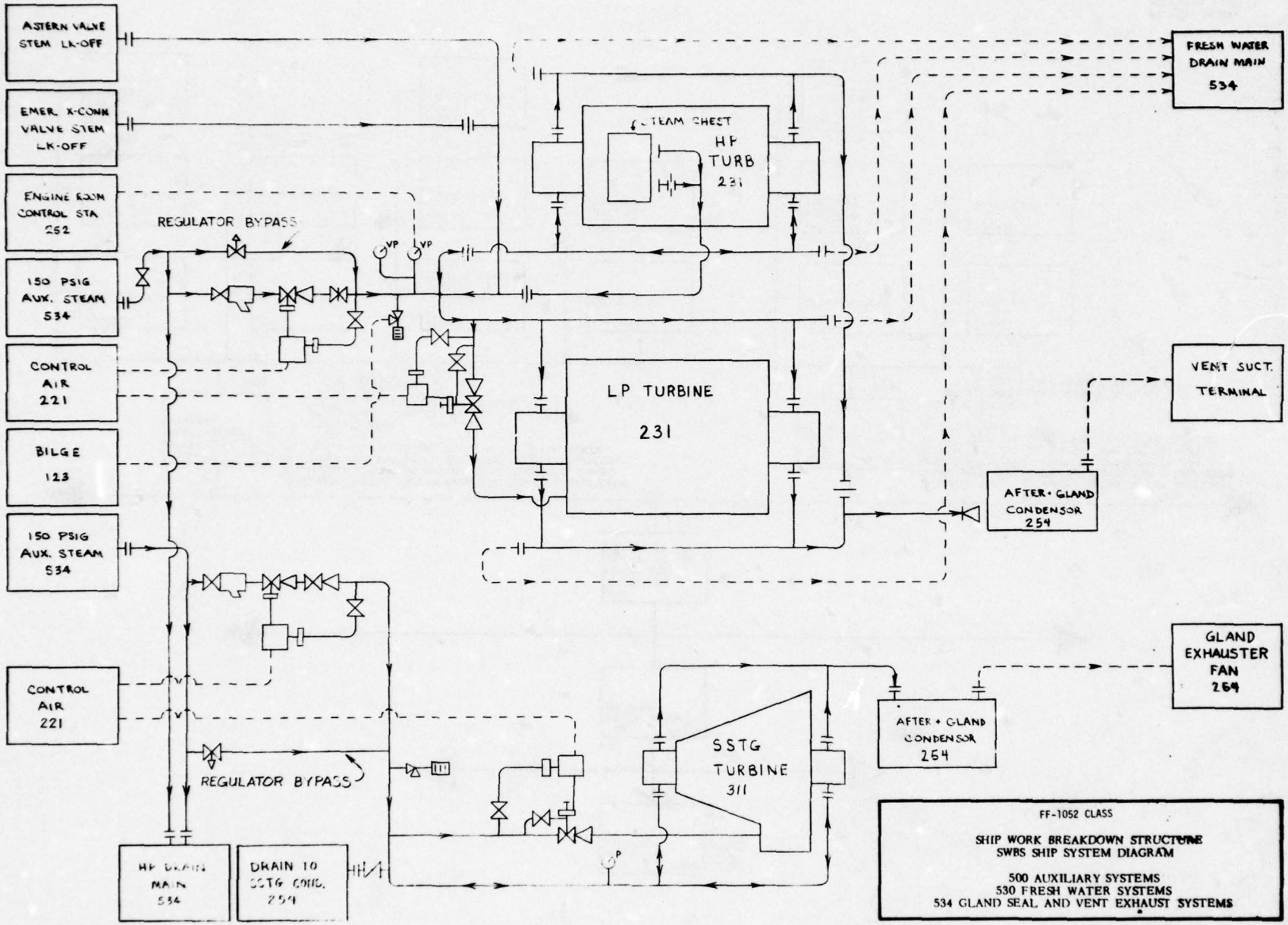
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



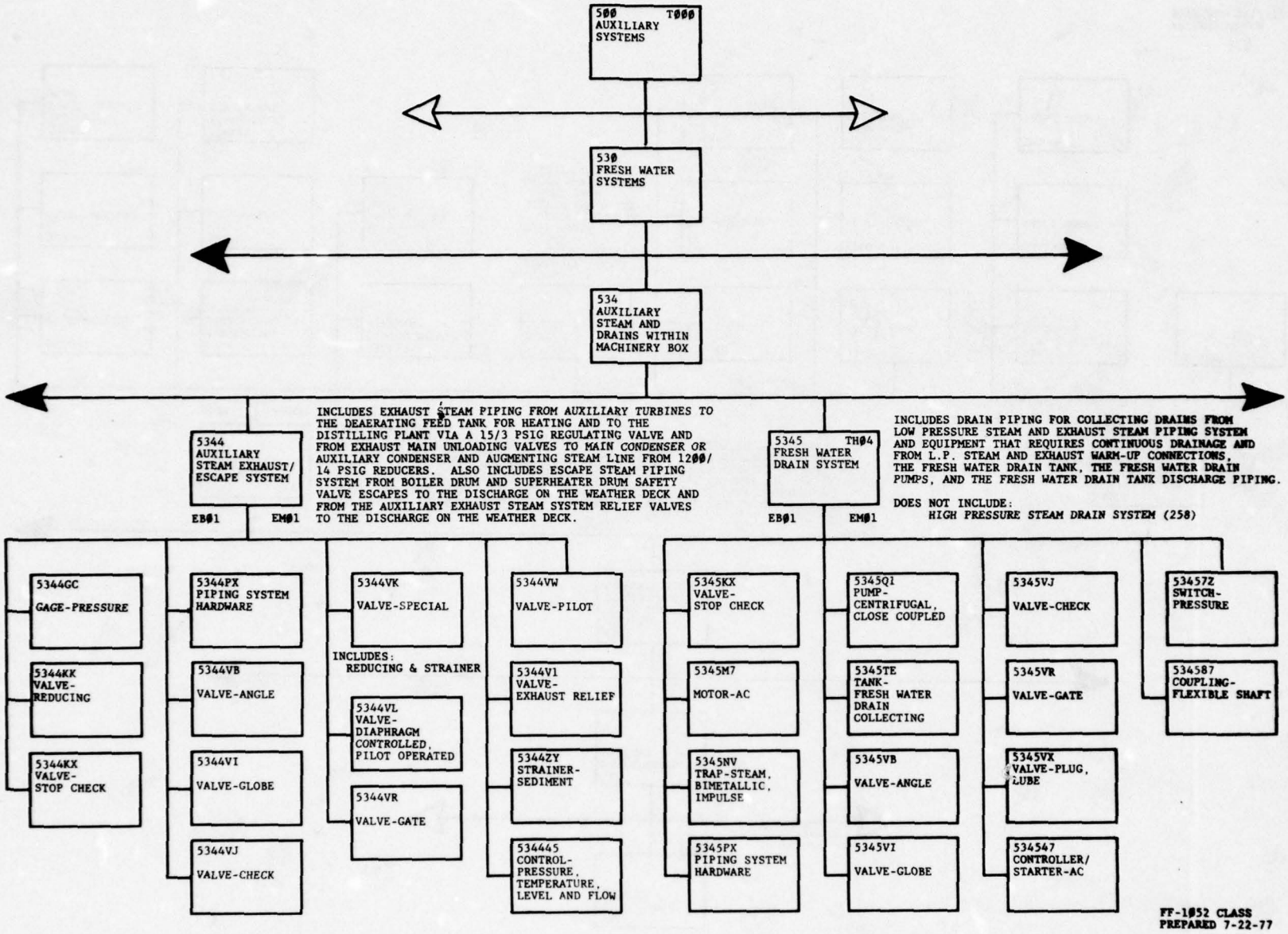
FF-1052 CLASS
PREPARED 7-22-77

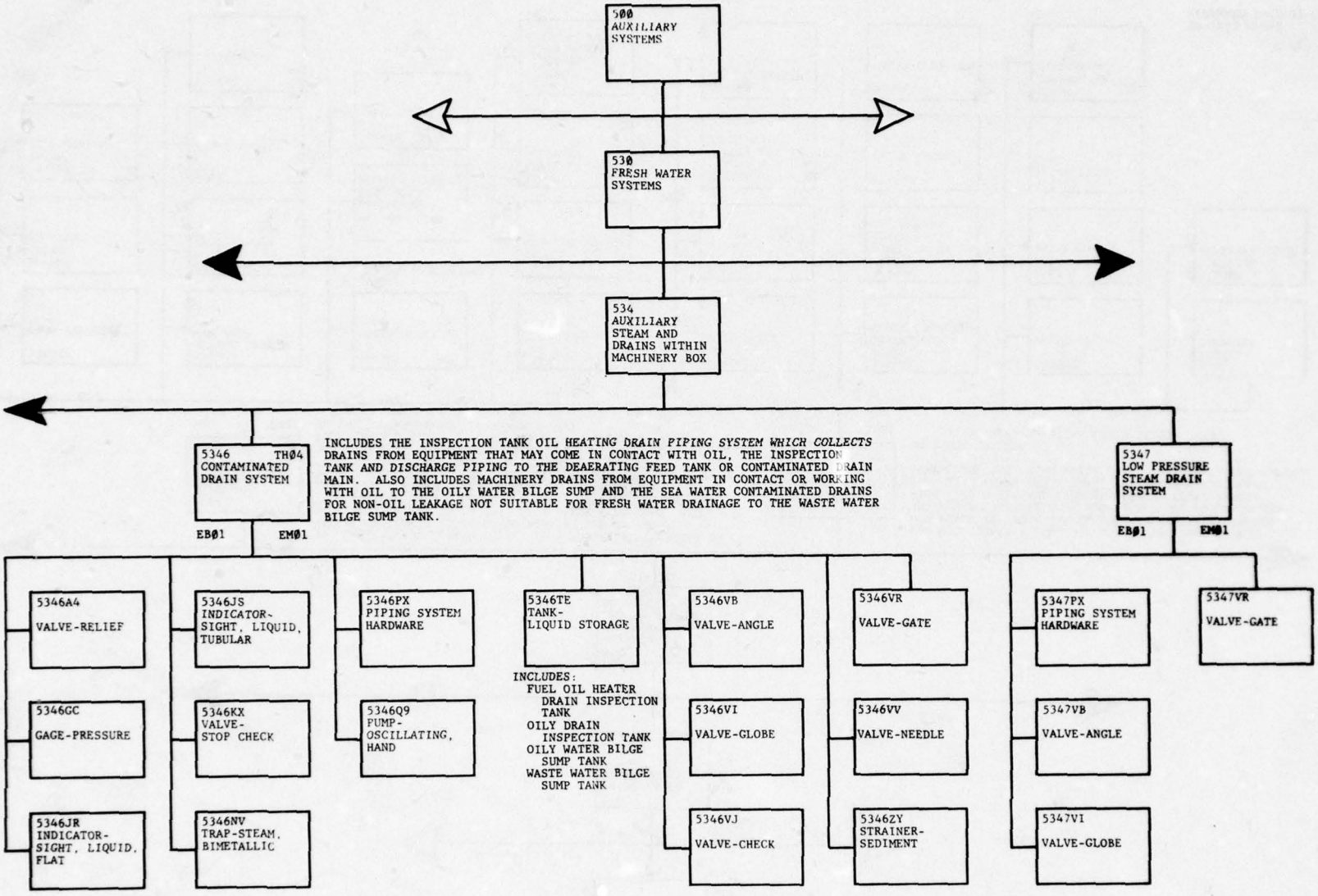


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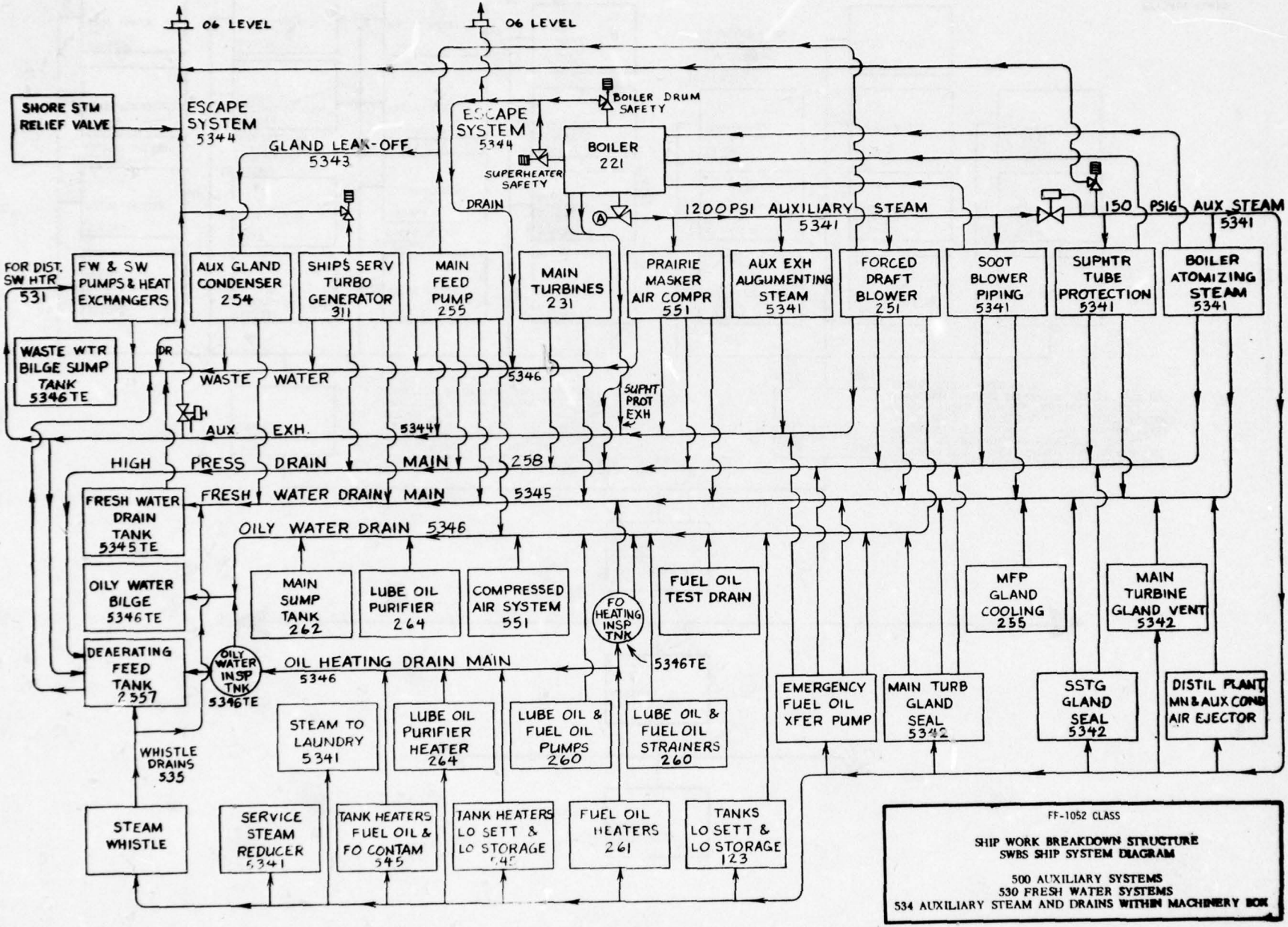
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM

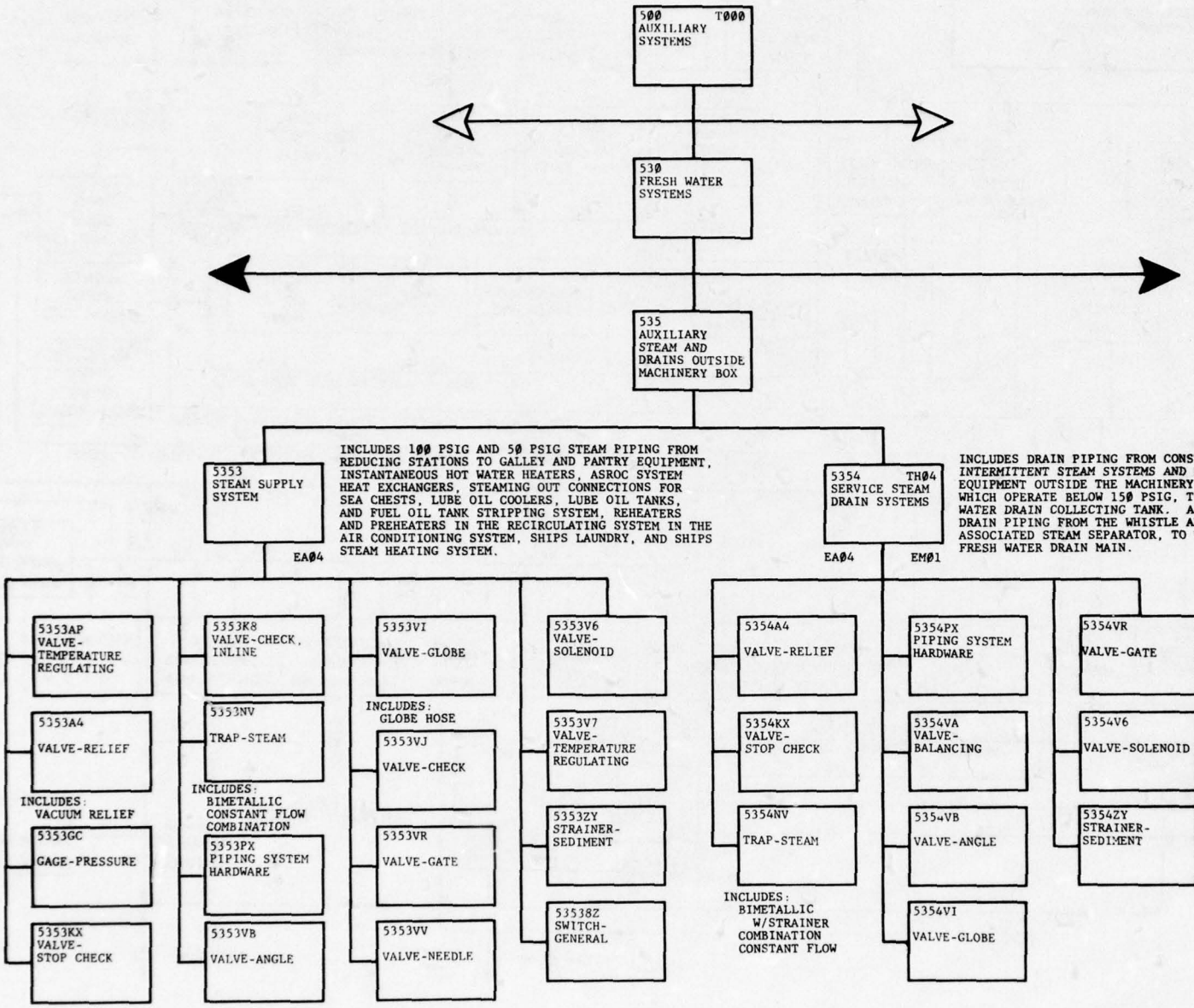
500 AUXILIARY SYSTEMS
530 FRESH WATER SYSTEMS
534 GLAND SEAL AND VENT EXHAUST SYSTEMS


500 T000
AUXILIARY SYSTEMS
530
FRESH WATER SYSTEMS
534
AUXILIARY STEAM AND DRAINS WITHIN MACHINERY BOX
5344
AUXILIARY STEAM EXHAUST/ ESCAPE SYSTEM
EB01
EM01
INCLUDES EXHAUST STEAM PIPING FROM AUXILIARY TURBINES TO THE DEAERATING FEED TANK FOR HEATING AND TO THE DISTILLING PLANT VIA A 15/3 PSIG REGULATING VALVE AND FROM EXHAUST MAIN UNLOADING VALVES TO MAIN CONDENSER OR AUXILIARY CONDENSER AND AUGMENTING STEAM LINE FROM 1200/ 14 PSIG REDUCERS. ALSO INCLUDES ESCAPE STEAM PIPING SYSTEM FROM BOILER DRUM AND SUPERHEATER DRUM SAFETY VALVE ESCAPES TO THE DISCHARGE ON THE WEATHER DECK AND FROM THE AUXILIARY EXHAUST STEAM SYSTEM RELIEF VALVES TO THE DISCHARGE ON THE WEATHER DECK.
5345 TH04
FRESH WATER DRAIN SYSTEM
EB01
EM01
INCLUDES DRAIN PIPING FOR COLLECTING DRAINS FROM LOW PRESSURE STEAM AND EXHAUST STEAM PIPING SYSTEM AND EQUIPMENT THAT REQUIRES CONTINUOUS DRAINAGE AND FROM L.P. STEAM AND EXHAUST WARM-UP CONNECTIONS, THE FRESH WATER DRAIN TANK, THE FRESH WATER DRAIN PUMPS, AND THE FRESH WATER DRAIN TANK DISCHARGE PIPING.
DOES NOT INCLUDE:
HIGH PRESSURE STEAM DRAIN SYSTEM (258)
5344GC
GAGE-PRESSURE
5344KK
VALVE-REDUCING
5344KX
VALVE-STOP CHECK
5344PX
PIPING SYSTEM HARDWARE
5344VB
VALVE-ANGLE
5344VI
VALVE-GLOBE
5344VJ
VALVE-CHECK
5344VK
VALVE-SPECIAL
INCLUDES:
REDUCING & STRAINER
5344VL
VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
5344VR
VALVE-GATE
5344VW
VALVE-PILOT
5344V1
VALVE-EXHAUST RELIEF
5344ZY
STRAINER-SEDIMENT
534445
CONTROL-PRESSURE, TEMPERATURE, LEVEL AND FLOW
5345KX
VALVE-STOP CHECK
5345M7
MOTOR-AC
5345NV
TRAP-STEAM, BIMETALLIC, IMPULSE
5345PX
PIPING SYSTEM HARDWARE
5345Q1
PUMP-CENTRIFUGAL, CLOSE COUPLED
5345TE
TANK-FRESH WATER DRAIN COLLECTING
5345VB
VALVE-ANGLE
5345VI
VALVE-GLOBE
5345VJ
VALVE-CHECK
5345VR
VALVE-GATE
5345VX
VALVE-PLUG, LUBE
534547
CONTROLLER/ STARTER-AC
53457Z
SWITCH-PRESSURE
534587
COUPLING-FLEXIBLE SHAFT
FF-1052 CLASS
PREPARED 7-22-77

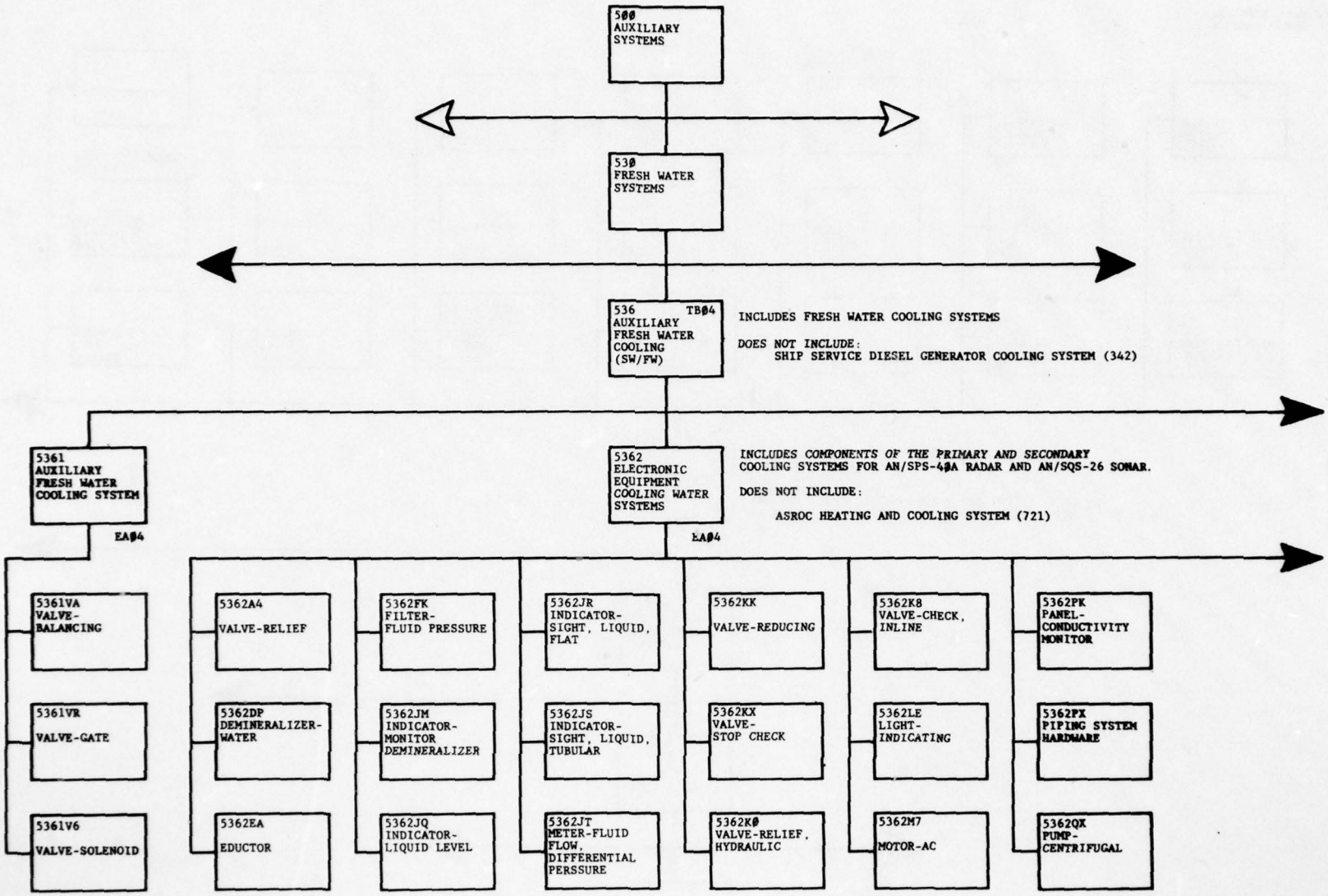


FF-1052 CLASS
PREPARED 7-22-77

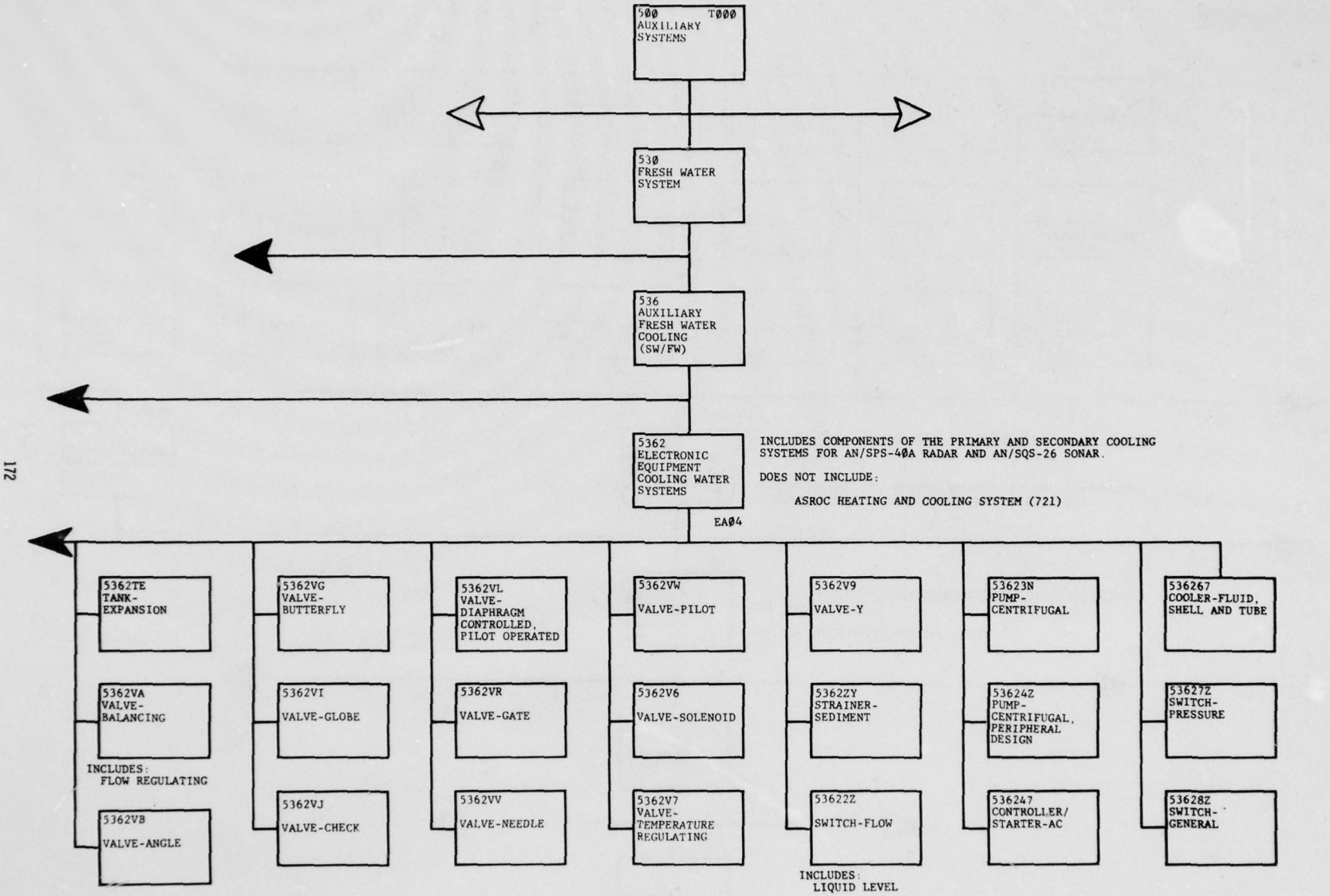

06 LEVEL
06 LEVEL
SHORE STM RELIEF VALVE
ESCAPE SYSTEM 5344
GLAND LEAK-OFF 5343
ESCAPE SYSTEM 5344
BOILER DRUM SAFETY
BOILER 221
SUPERHEATER SAFETY
DRAIN
1200PSI AUXILIARY STEAM 5341
150 PSIG AUX STEAM 5341
FOR DIST. SW HTR 531
FW & SW PUMPS & HEAT EXCHANGERS
AUX GLAND CONDENSER 254
SHIPS SERV TURBO GENERATOR 311
MAIN FEED PUMP 255
MAIN TURBINES 231
PRAIRIE MASKER AIR COMPR 551
AUX EXH AUGUMENTING STEAM 5341
FORCED DRAFT BLOWER 251
SOOT BLOWER PIPING 5341
SUPHTR TUBE PROTECTION 5341
BOILER ATOMIZING STEAM 5341
WASTE WTR BILGE SUMP TANK 5346TE
DR
WASTE WATER 5346
SUPHT PROT EXH
AUX EXH. 5344
HIGH PRESS DRAIN MAIN 258
FRESH WATER DRAIN MAIN 5345
OILY WATER DRAIN 5346
FRESH WATER DRAIN TANK 5345TE
OILY WATER BILGE 5346TE
MAIN SUMP TANK 262
LUBE OIL PURIFIER 264
COMPRESSED AIR SYSTEM 551
FO HEATING INSP TNK
FUEL OIL TEST DRAIN
MFP GLAND COOLING 255
MAIN TURBINE GLAND VENT 5342
DEAERATING FEED TANK 2357
OILY WATER INSP TNK 5346TE
OIL HEATING DRAIN MAIN 5346
5346TE
EMERGENCY FUEL OIL XFER PUMP
MAIN TURB GLAND SEAL 5342
SSTG GLAND SEAL 5342
DISTIL PLANT MN & AUX COND AIR EJECTOR
STEAM TO LAUNDRY 5341
LUBE OIL PURIFIER HEATER 264
LUBE OIL & FUEL OIL PUMPS 260
LUBE OIL & FUEL OIL STRAINERS 260
WHISTLE DRAINS 535
STEAM WHISTLE
SERVICE STEAM REDUCER 5341
TANK HEATERS FUEL OIL & FO CONTAM 545
TANK HEATERS LO SETT & LO STORAGE 545
FUEL OIL HEATERS 261
TANKS LO SETT & LO STORAGE 123
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
500 AUXILIARY SYSTEMS
530 FRESH WATER SYSTEMS
534 AUXILIARY STEAM AND DRAINS WITHIN MACHINERY BOX



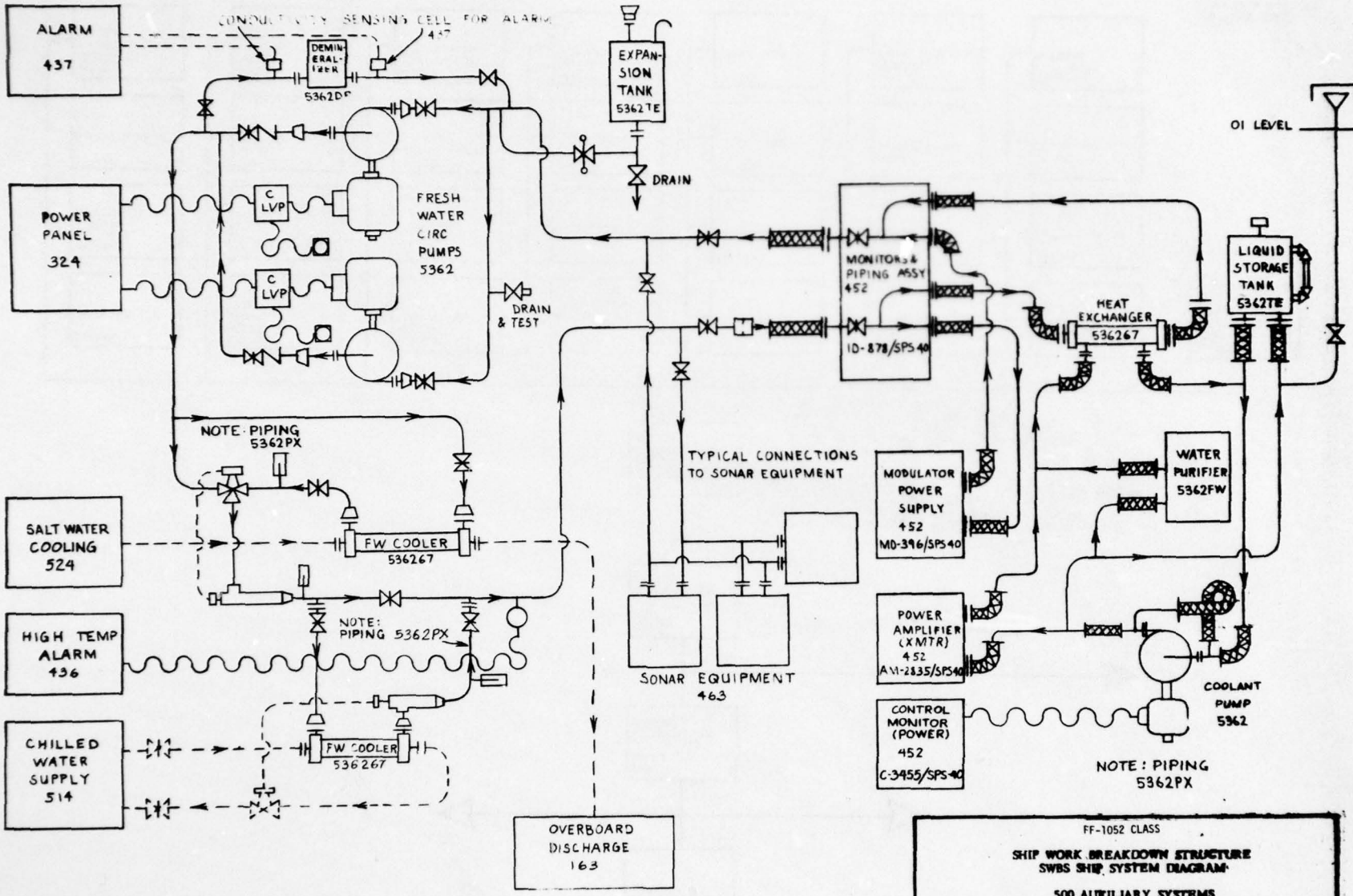
FF-1052 CLASS
PREPARED 7-22-77

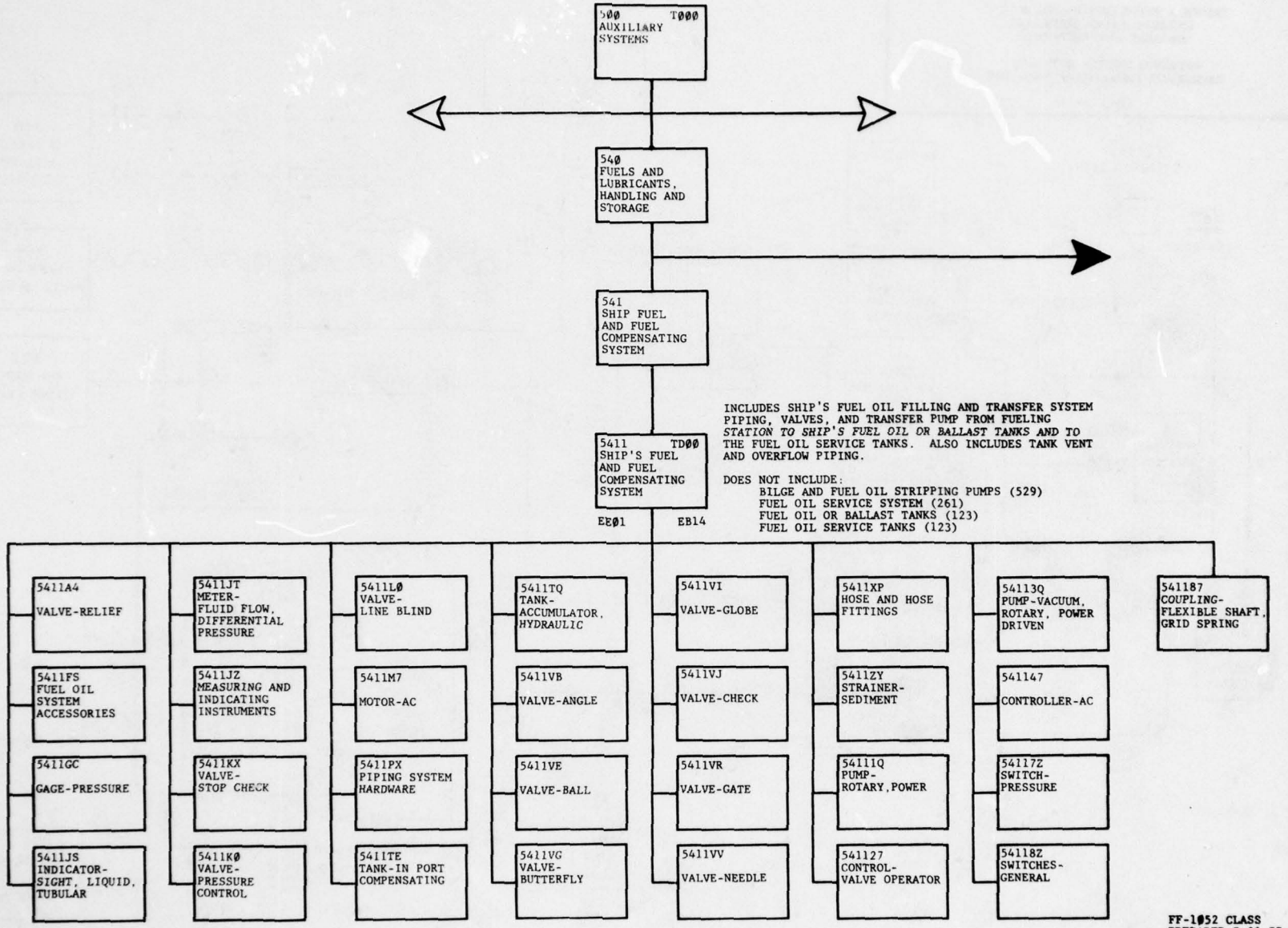


FF-1052 CLASS
PREPARED 7-22-77

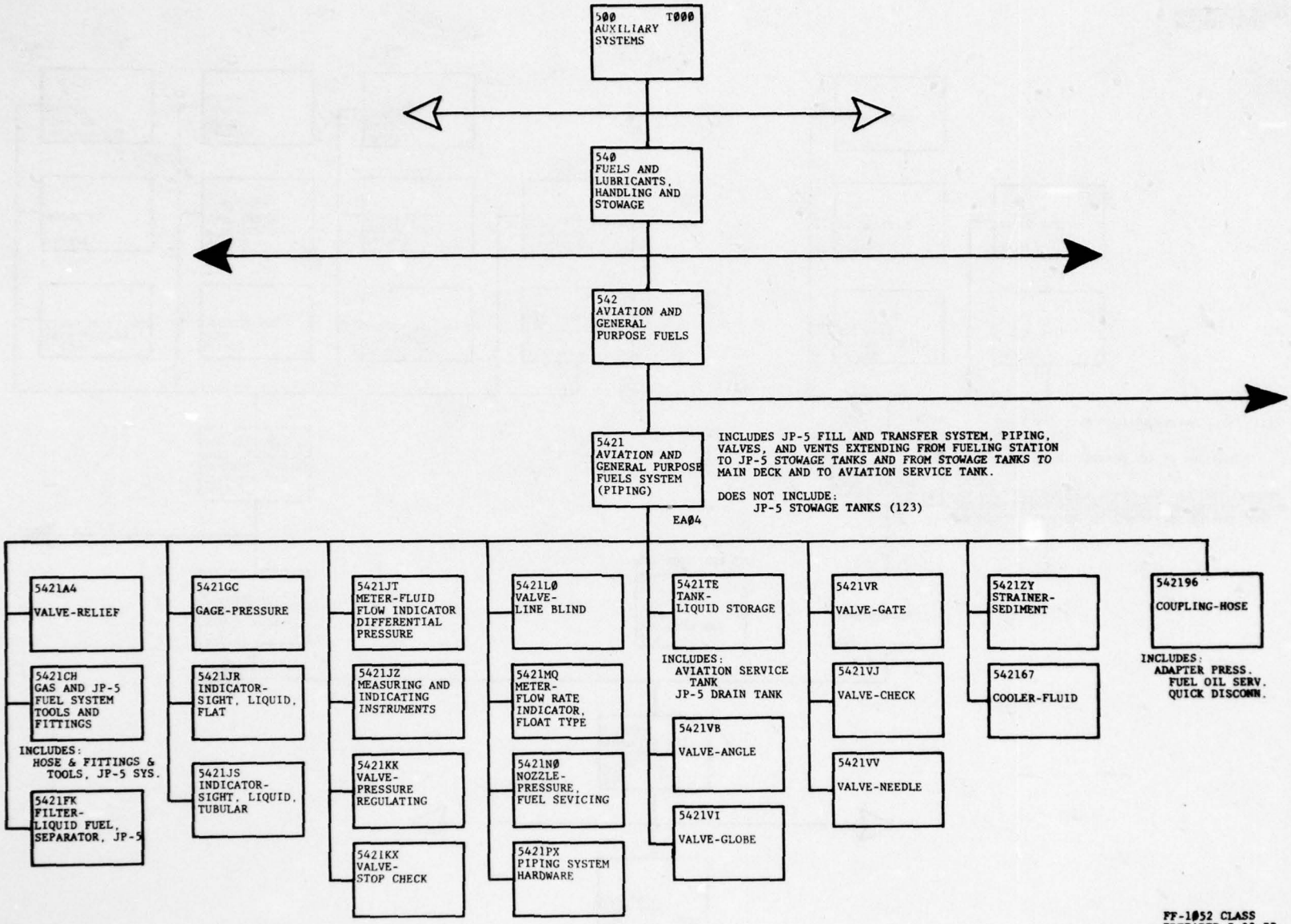


FF-1052 CLASS
PREPARED 7-22-77

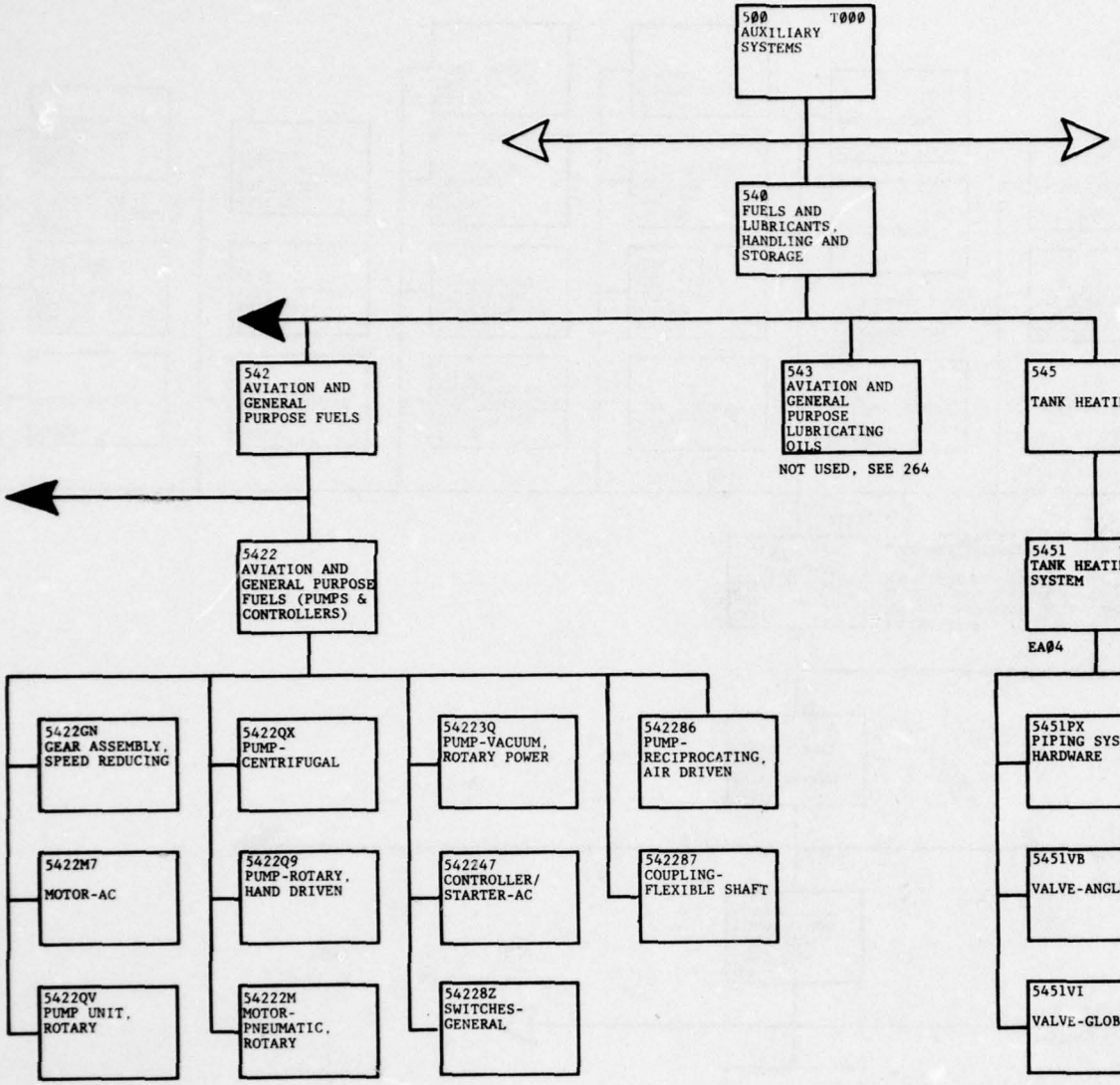

ALARM
437
CONDUCTIVITY SENSING CELL FOR ALARM
437
DEMIN-ERAL-IZER
5362DS
EXPAN-SION TANK
5362TE
DRAIN
OI LEVEL
POWER PANEL
324
C LVP
C LVP
FRESH WATER CIRC PUMPS
5362
DRAIN & TEST
MONITOR & PIPING ASSY
452
ID-878/SPS40
HEAT EXCHANGER
536267
LIQUID STORAGE TANK
5362TE
NOTE: PIPING
5362PX
TYPICAL CONNECTIONS TO SONAR EQUIPMENT
MODULATOR POWER SUPPLY
452
MD-396/SPS40
WATER PURIFIER
5362FW
SALT WATER COOLING
524
FW COOLER
536267
HIGH TEMP ALARM
436
NOTE: PIPING 5362PX
POWER AMPLIFIER (XMTR)
452
AM-2835/SPS40
SONAR EQUIPMENT
463
COOLANT PUMP
5362
CHILLED WATER SUPPLY
514
FW COOLER
536267
CONTROL MONITOR (POWER)
452
C-3455/SPS40
NOTE : PIPING
5362PX
OVERBOARD DISCHARGE
163
FF-1052 CLASS
SHIP WORK BREAKDOWN STRUCTURE
SWBS SHIP SYSTEM DIAGRAM
500 AURILIARY SYSTEMS
530 FRESH WATER SYSTEMS
536 RADAR AND SONAR COOLING



FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77

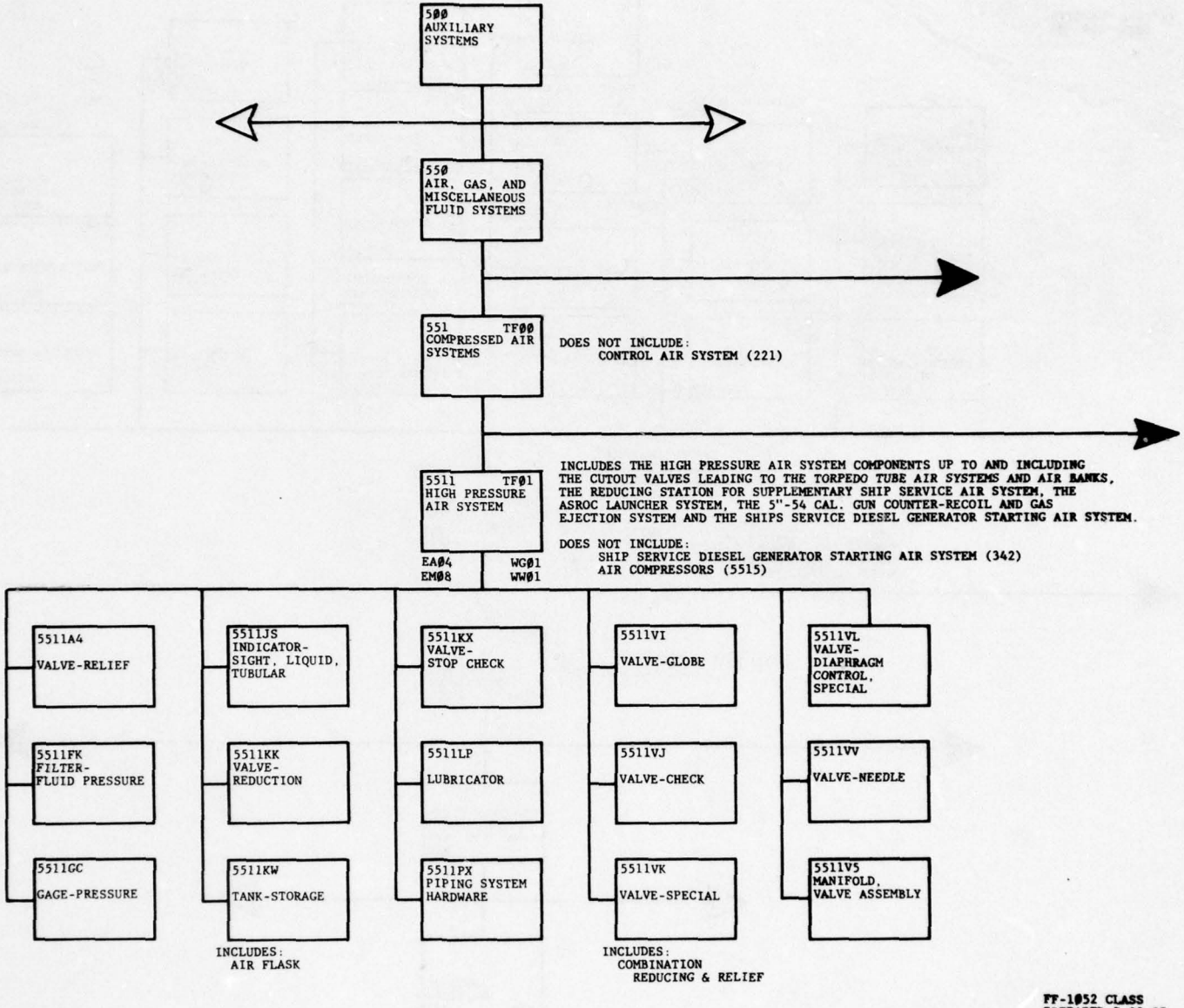


INCLUDES STEAM SUPPLY MANIFOLDS, PIPING, AND HEATING COILS MAKING UP THE TANK HEATING SYSTEM IN FUEL OIL SERVICE TANKS AND LUBE OIL STOWAGE TANKS.

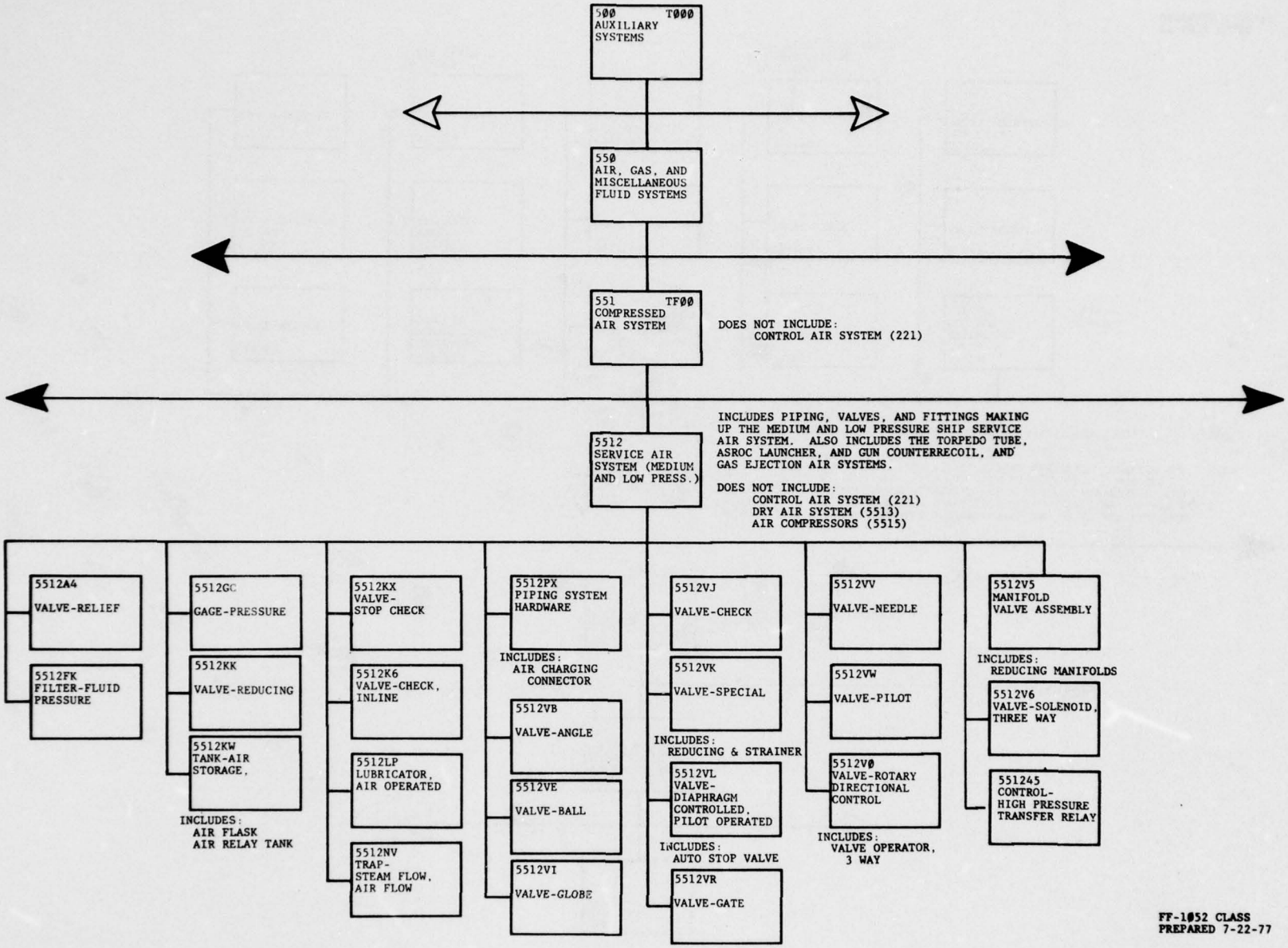
NOTE: F.O. SYSTEM BLANKED OFF IN NSD SHIPS.

DOES NOT INCLUDE:
AUXILIARY STEAM SYSTEM PIPING (534, 535)

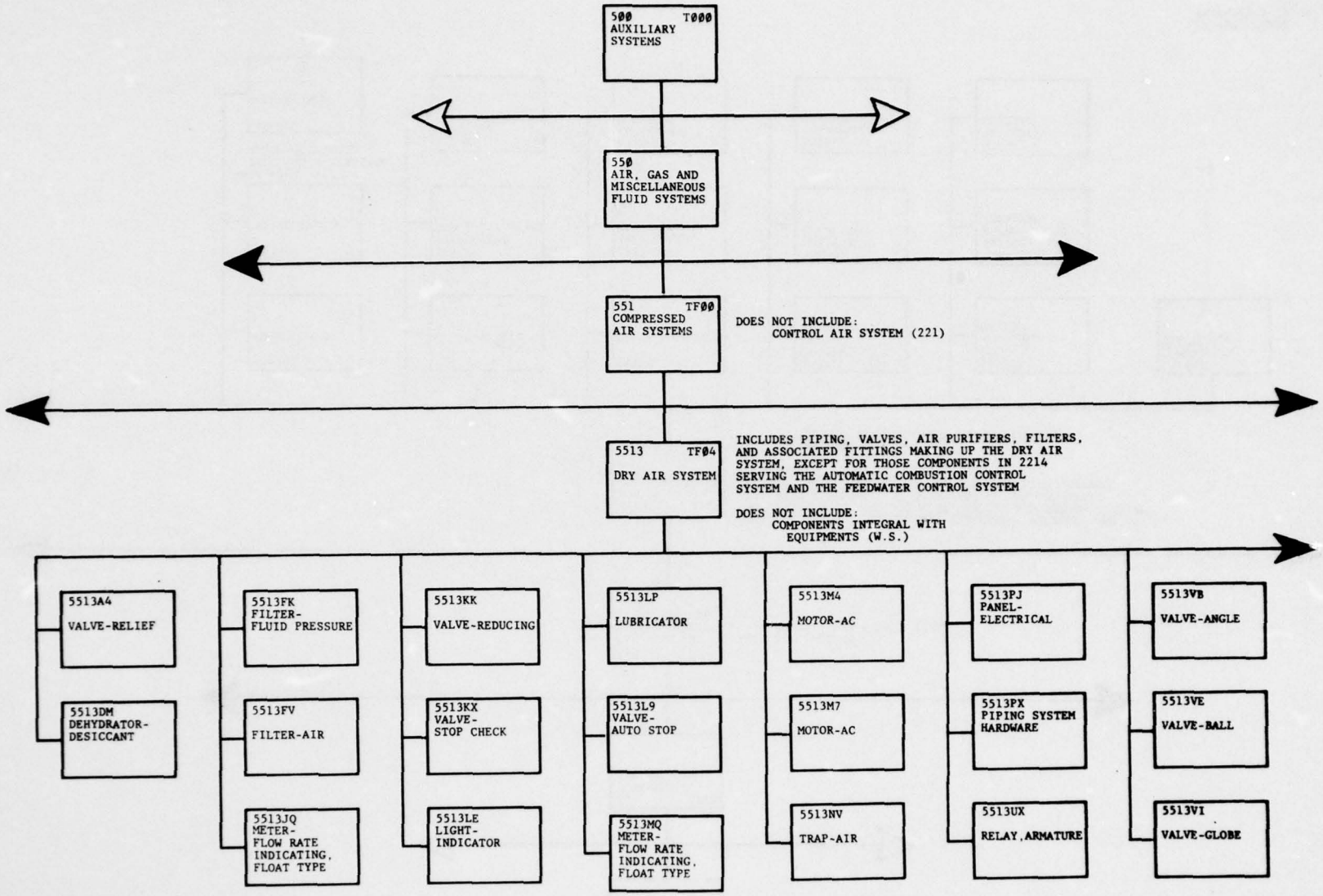
FF-1052 CLASS
PREPARED 7-22-77



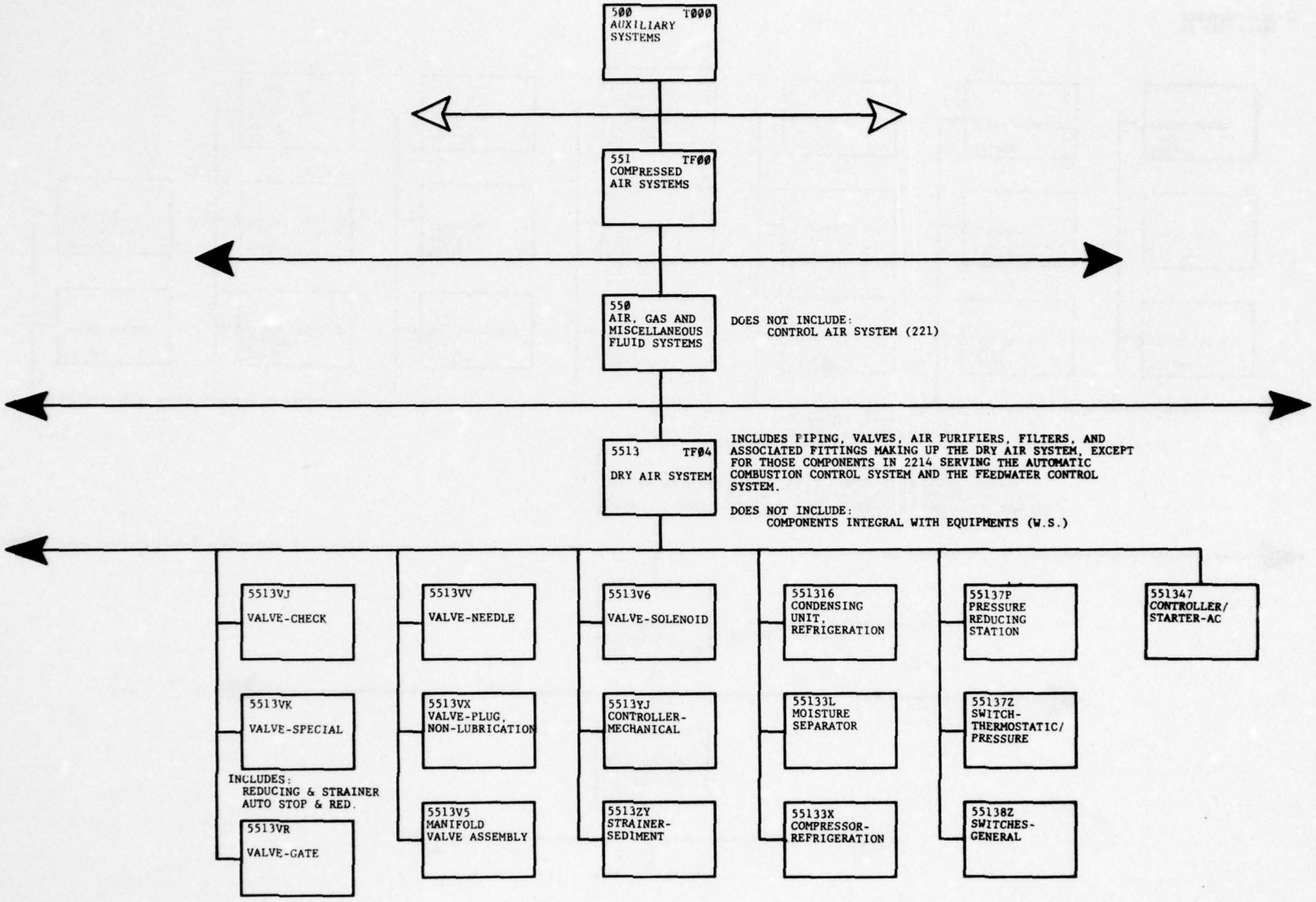
FF-1052 CLASS
PREPARED 7-22-77



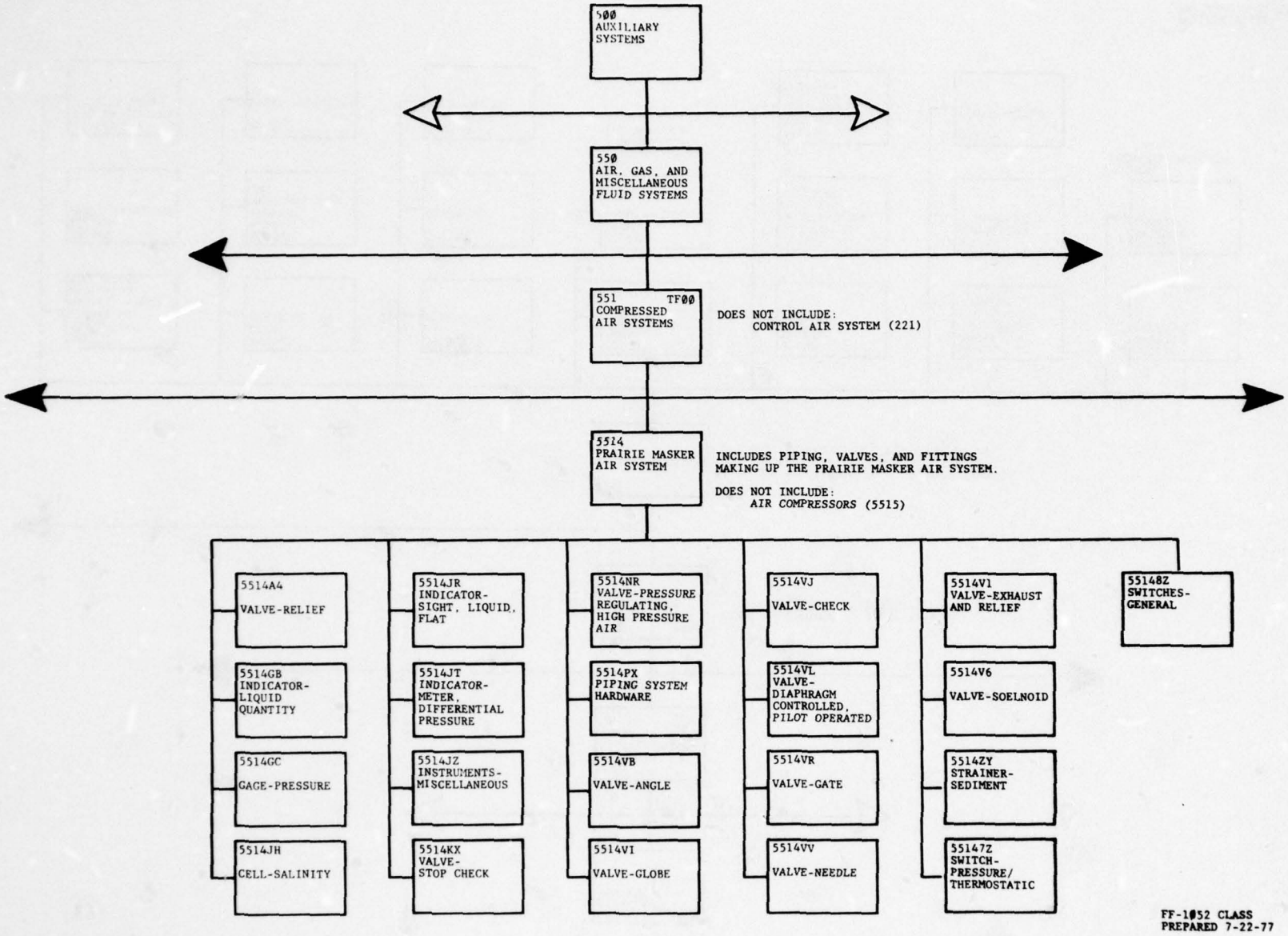
FF-1052 CLASS
PREPARED 7-22-77



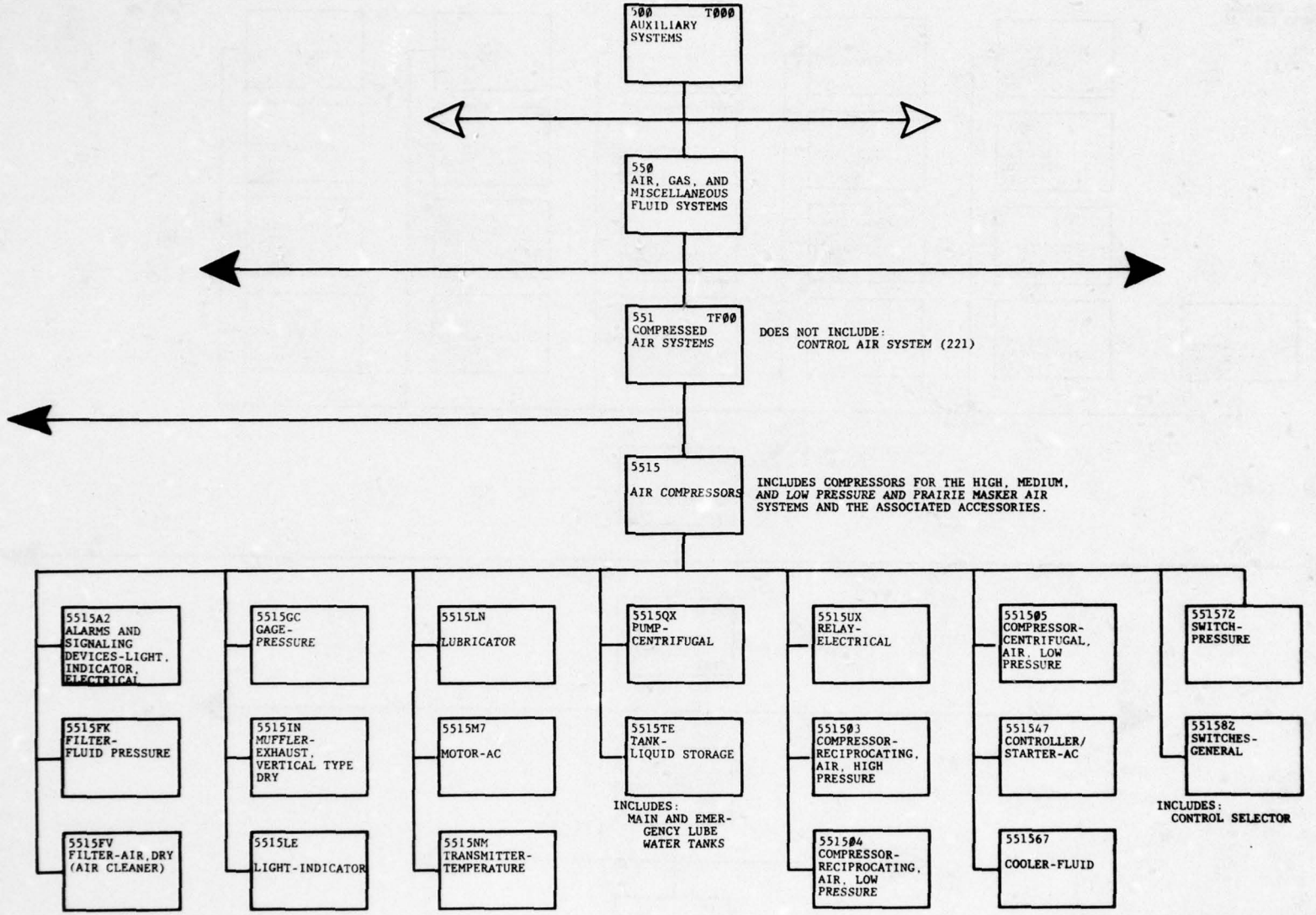
FF-1052 CLASS
PREPARED 7-22-77



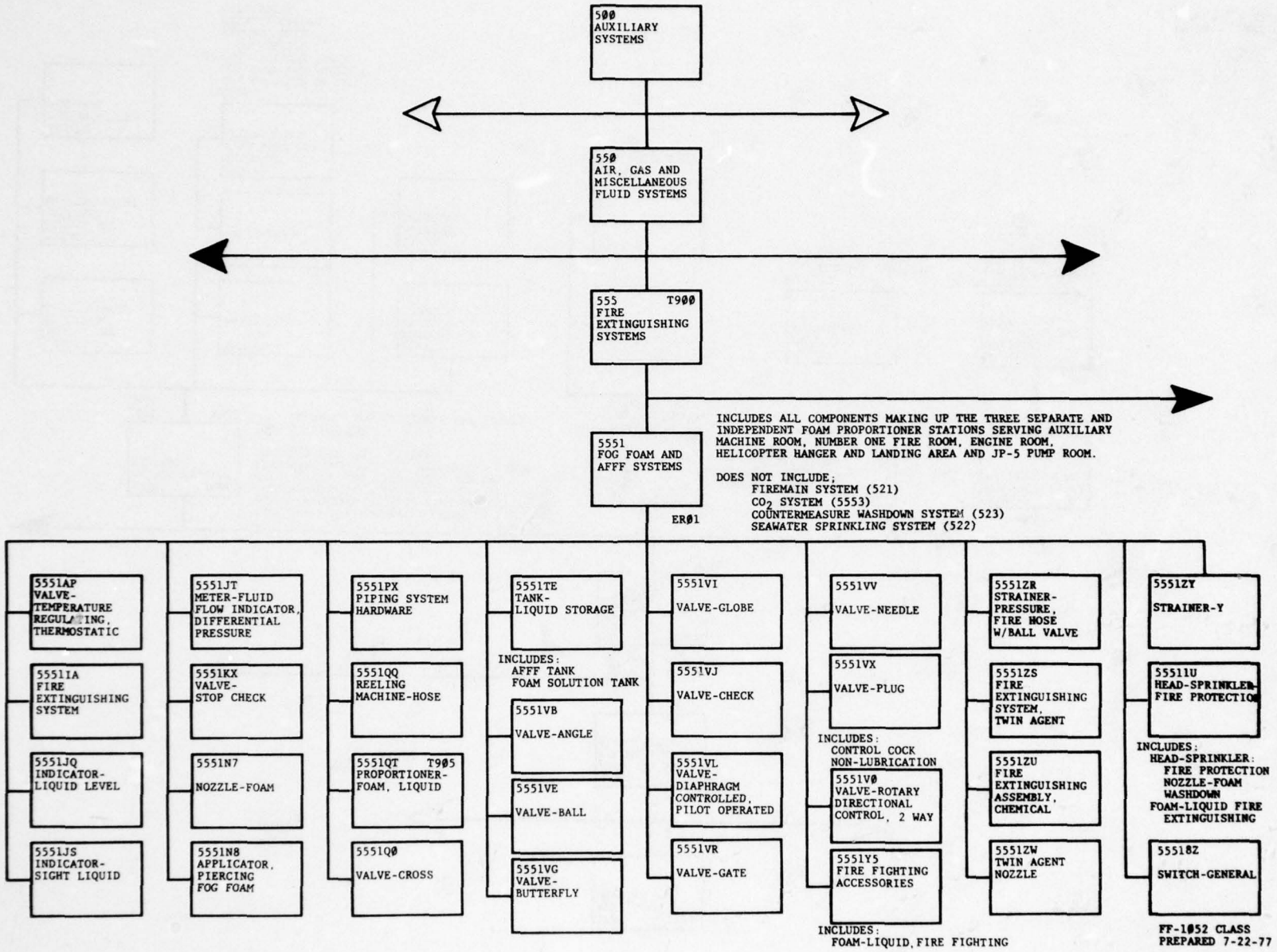
FF-1052 CLASS
PREPARED 7-22-77

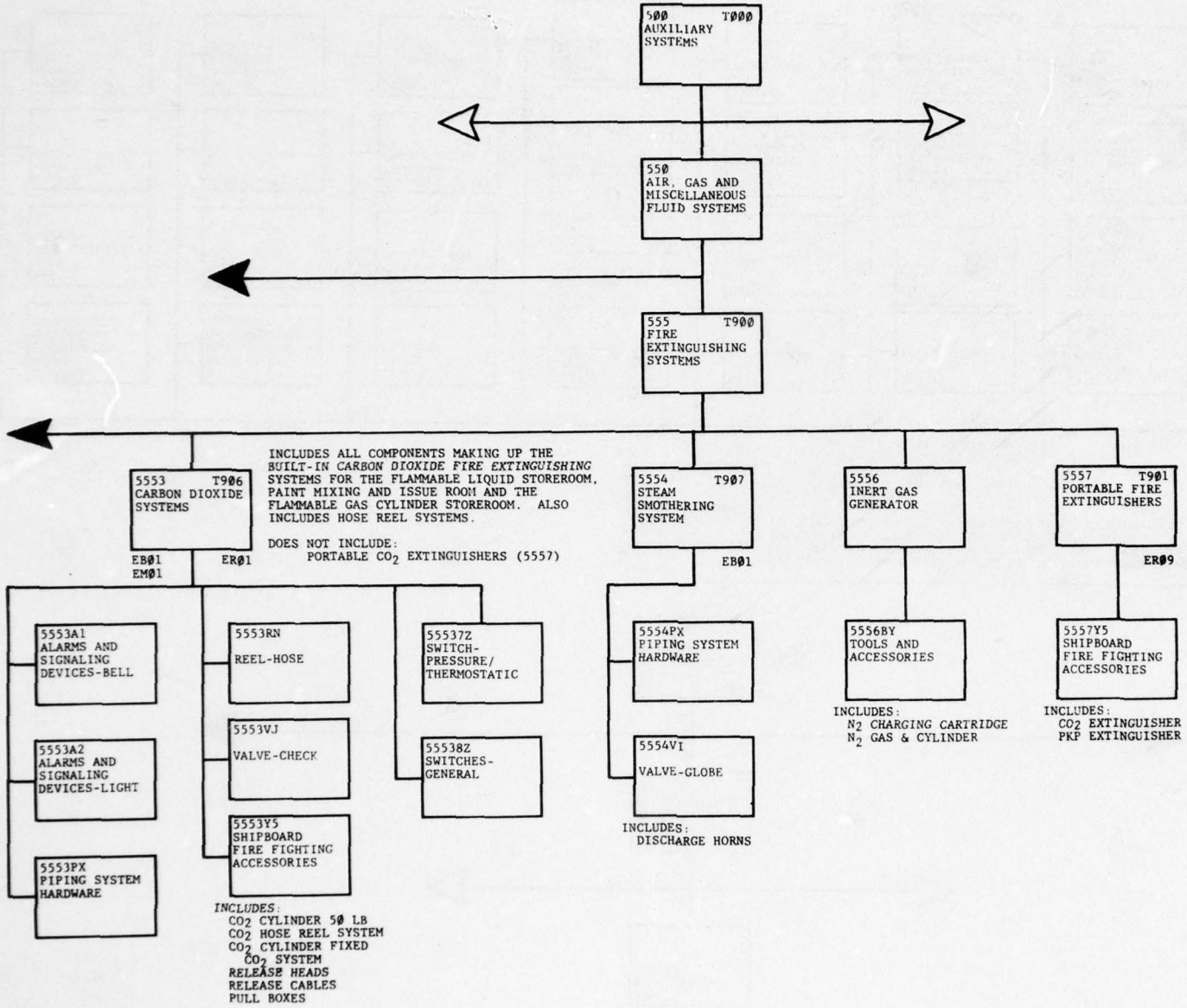


FF-1052 CLASS
PREPARED 7-22-77

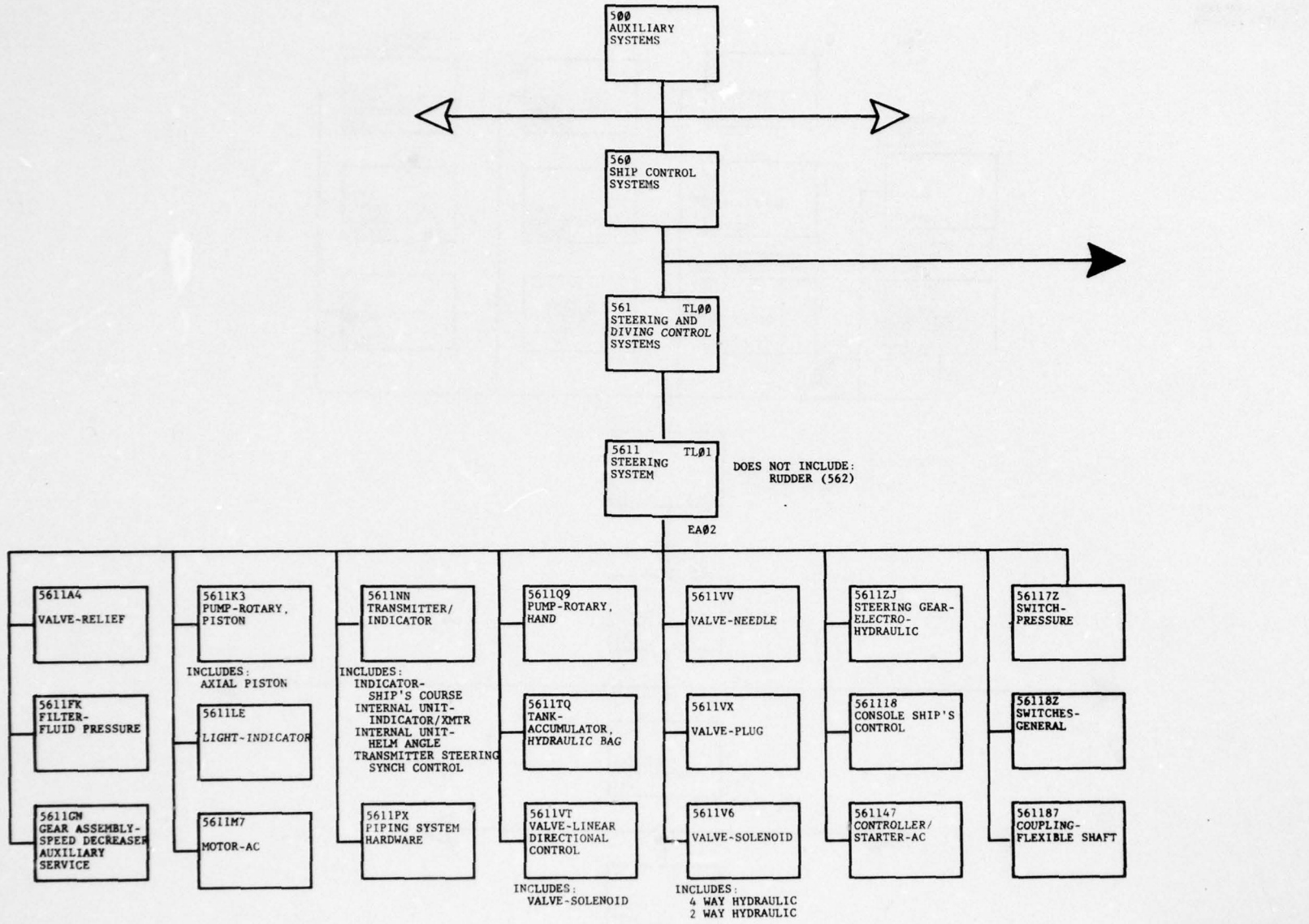


FF-1052 CLASS
PREPARED 7-22-77


500
AUXILIARY SYSTEMS
550
AIR, GAS AND MISCELLANEOUS FLUID SYSTEMS
555 T900
FIRE EXTINGUISHING SYSTEMS
5551
FOG FOAM AND AFFF SYSTEMS
ER01
INCLUDES ALL COMPONENTS MAKING UP THE THREE SEPARATE AND INDEPENDENT FOAM PROPORTIONER STATIONS SERVING AUXILIARY MACHINE ROOM, NUMBER ONE FIRE ROOM, ENGINE ROOM, HELICOPTER HANGER AND LANDING AREA AND JP-5 PUMP ROOM.
DOES NOT INCLUDE;
FIREMAIN SYSTEM (521)
CO_2 SYSTEM (5553)
COUNTERMEASURE WASHDOWN SYSTEM (523)
SEAWATER SPRINKLING SYSTEM (522)
5551AP VALVE-TEMPERATURE REGULATING, THERMOSTATIC
5551IA FIRE EXTINGUISHING SYSTEM
5551JQ INDICATOR-LIQUID LEVEL
5551JS INDICATOR-SIGHT LIQUID
5551JT METER-FLUID FLOW INDICATOR, DIFFERENTIAL PRESSURE
5551KX VALVE-STOP CHECK
5551N7 NOZZLE-FOAM
5551N8 APPLICATOR, PIERCING FOG FOAM
5551PX PIPING SYSTEM HARDWARE
5551QQ REELING MACHINE-HOSE
5551QT T905 PROPORTIONER-FOAM, LIQUID
5551Q0 VALVE-CROSS
5551TE TANK-LIQUID STORAGE
INCLUDES:
AFFF TANK
FOAM SOLUTION TANK
5551VB VALVE-ANGLE
5551VE VALVE-BALL
5551VG VALVE-BUTTERFLY
5551VI VALVE-GLOBE
5551VJ VALVE-CHECK
5551VL VALVE-DIAPHRAGM CONTROLLED, PILOT OPERATED
5551VR VALVE-GATE
5551VV VALVE-NEEDLE
5551VX VALVE-PLUG
INCLUDES:
CONTROL COCK NON-LUBRICATION
5551V0 VALVE-ROTARY DIRECTIONAL CONTROL, 2 WAY
5551Y5 FIRE FIGHTING ACCESSORIES
INCLUDES:
FOAM-LIQUID, FIRE FIGHTING
5551ZR STRAINER-PRESSURE, FIRE HOSE W/BALL VALVE
5551ZS FIRE EXTINGUISHING SYSTEM, TWIN AGENT
5551ZU FIRE EXTINGUISHING ASSEMBLY, CHEMICAL
5551ZW TWIN AGENT NOZZLE
5551ZY STRAINER-Y
55511U HEAD-SPRINKLER-FIRE PROTECTION
INCLUDES:
HEAD-SPRINKLER:
FIRE PROTECTION
NOZZLE-FOAM
WASHDOWN
FOAM-LIQUID FIRE EXTINGUISHING
55518Z SWITCH-GENERAL
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77

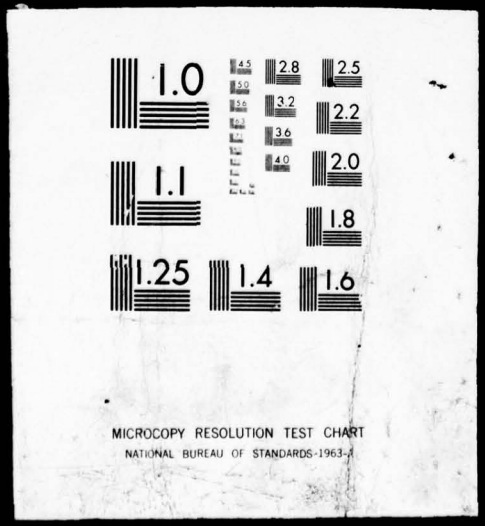
AD-A050 439 ARINC RESEARCH CORP ANNAPOLIS MD F/G 13/10
SHIP SYSTEMS DEFINITION AND INDEX (SWBS STAGING DIAGRAMS) FOR F--ETC(U)
OCT 76 N00140-76-D-0813
UNCLASSIFIED 1804-01-1-1547R NL

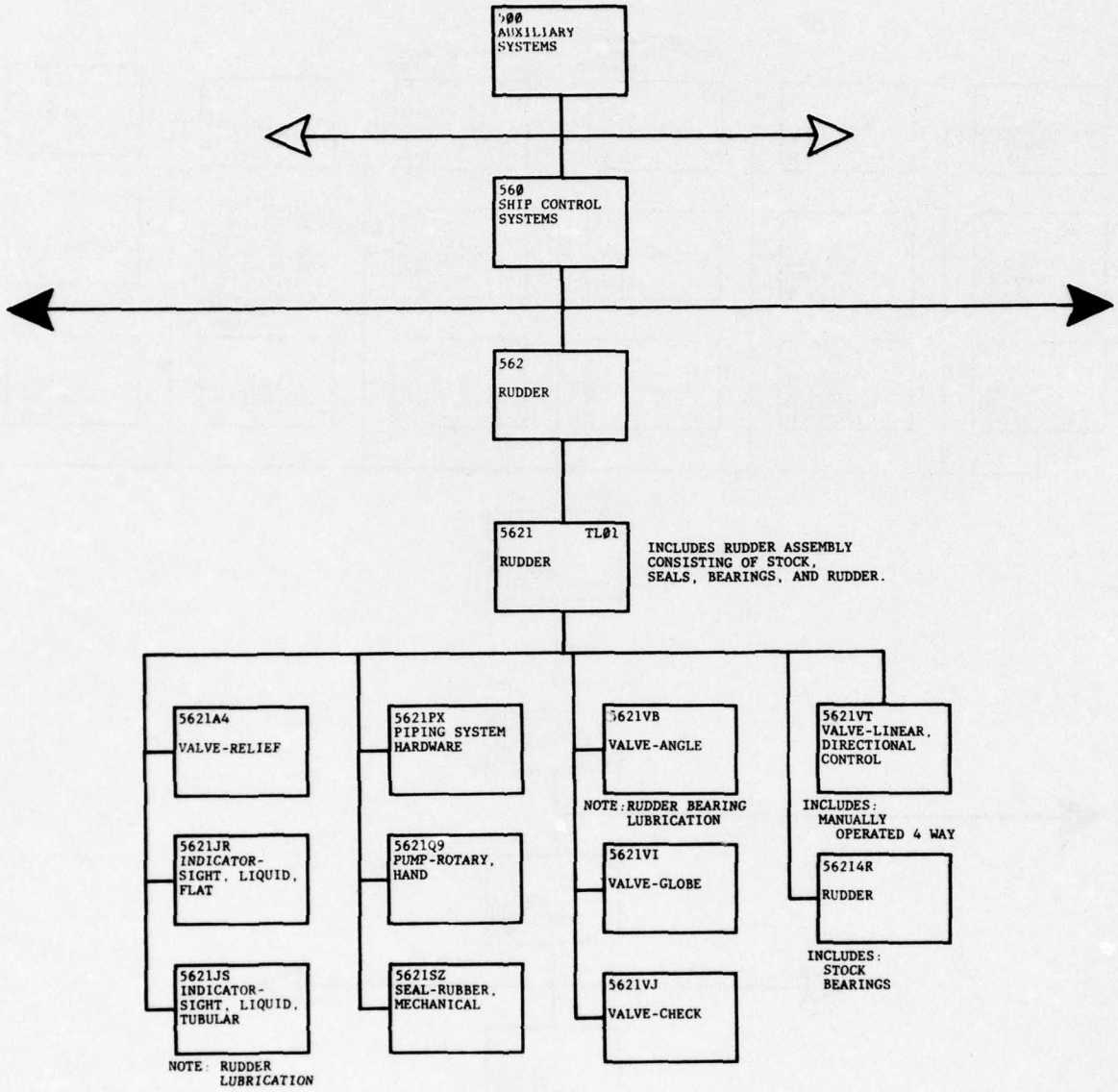
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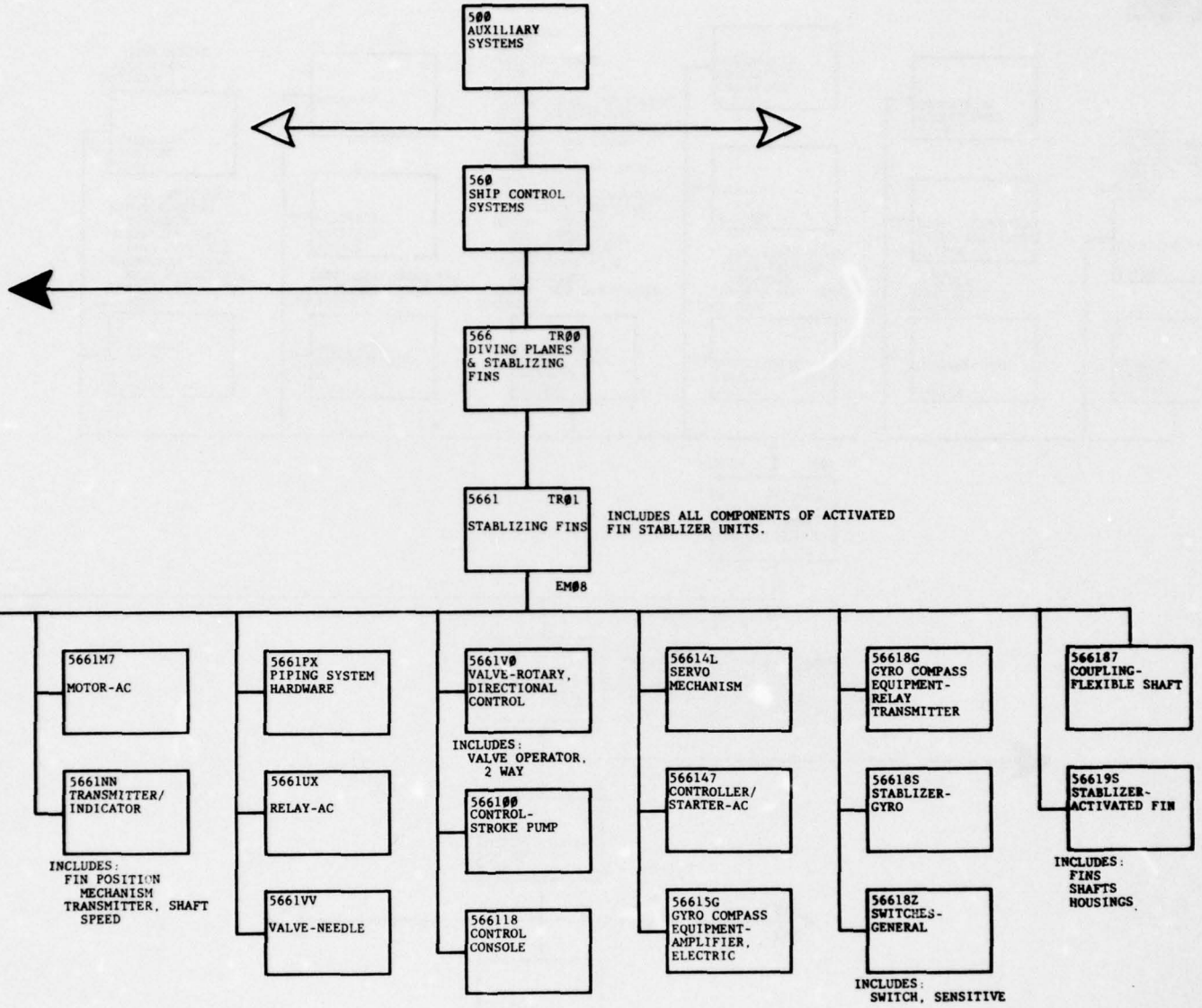
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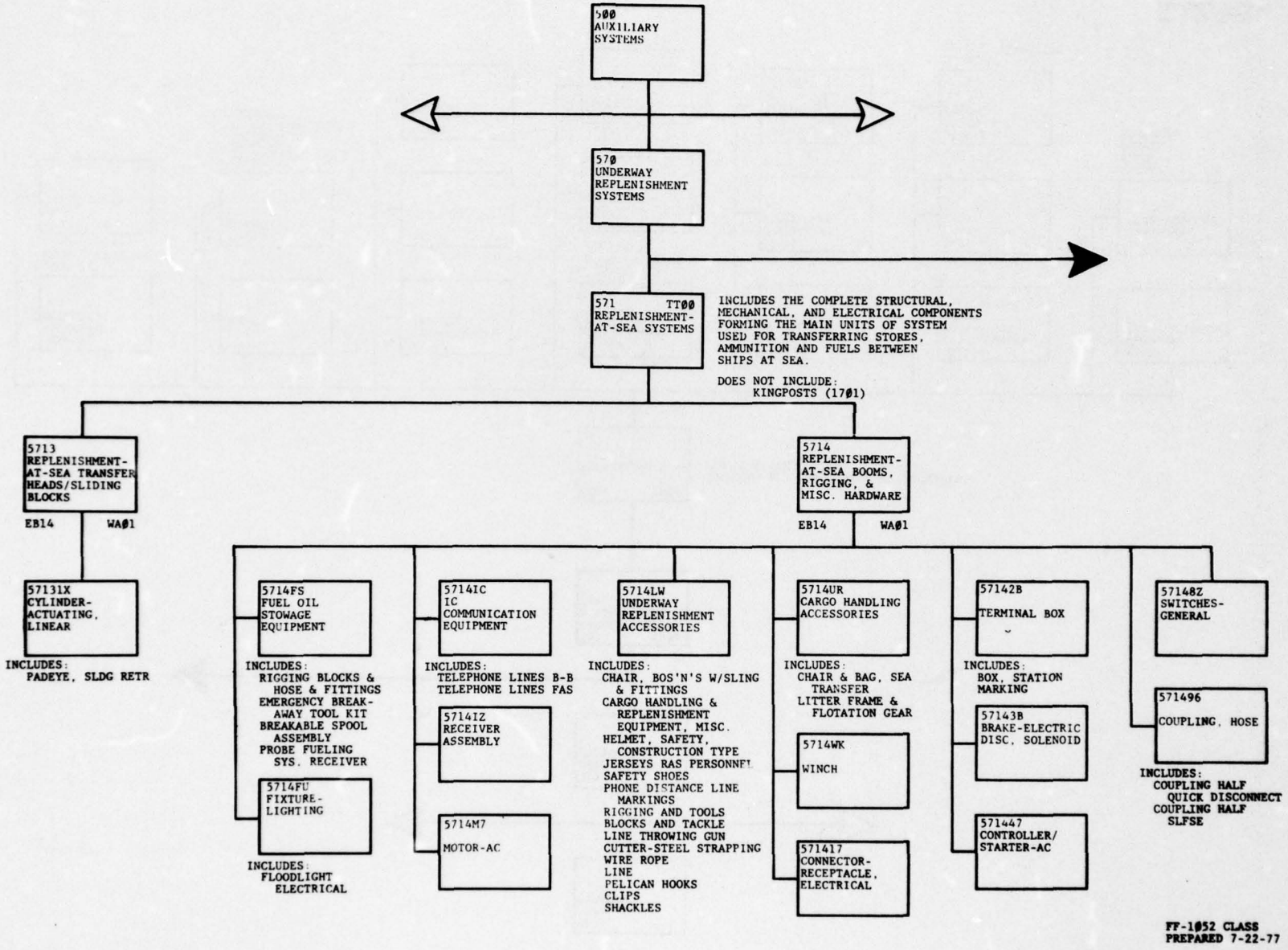


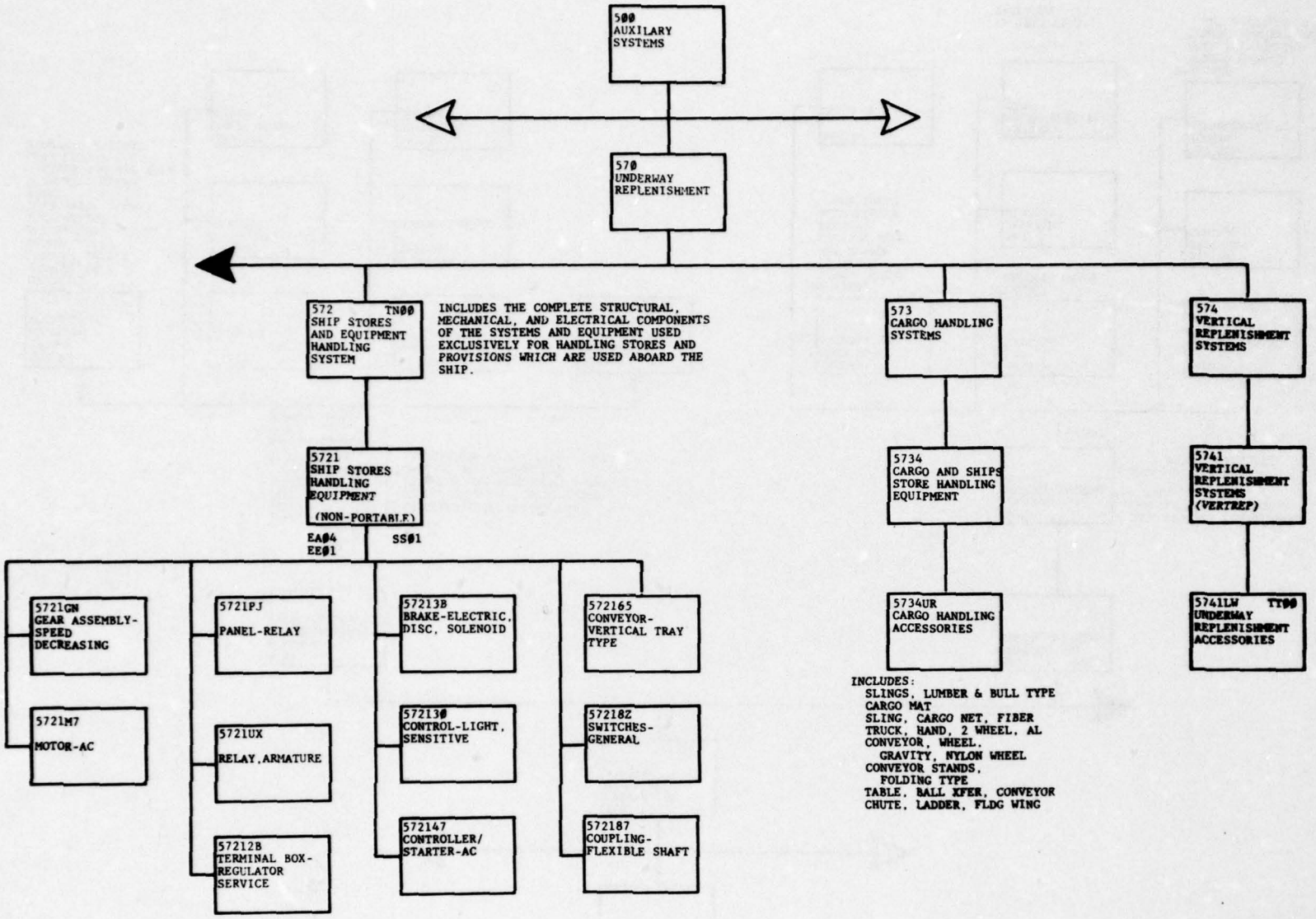


FF-1052 CLASS
PREPARED 7-22-77

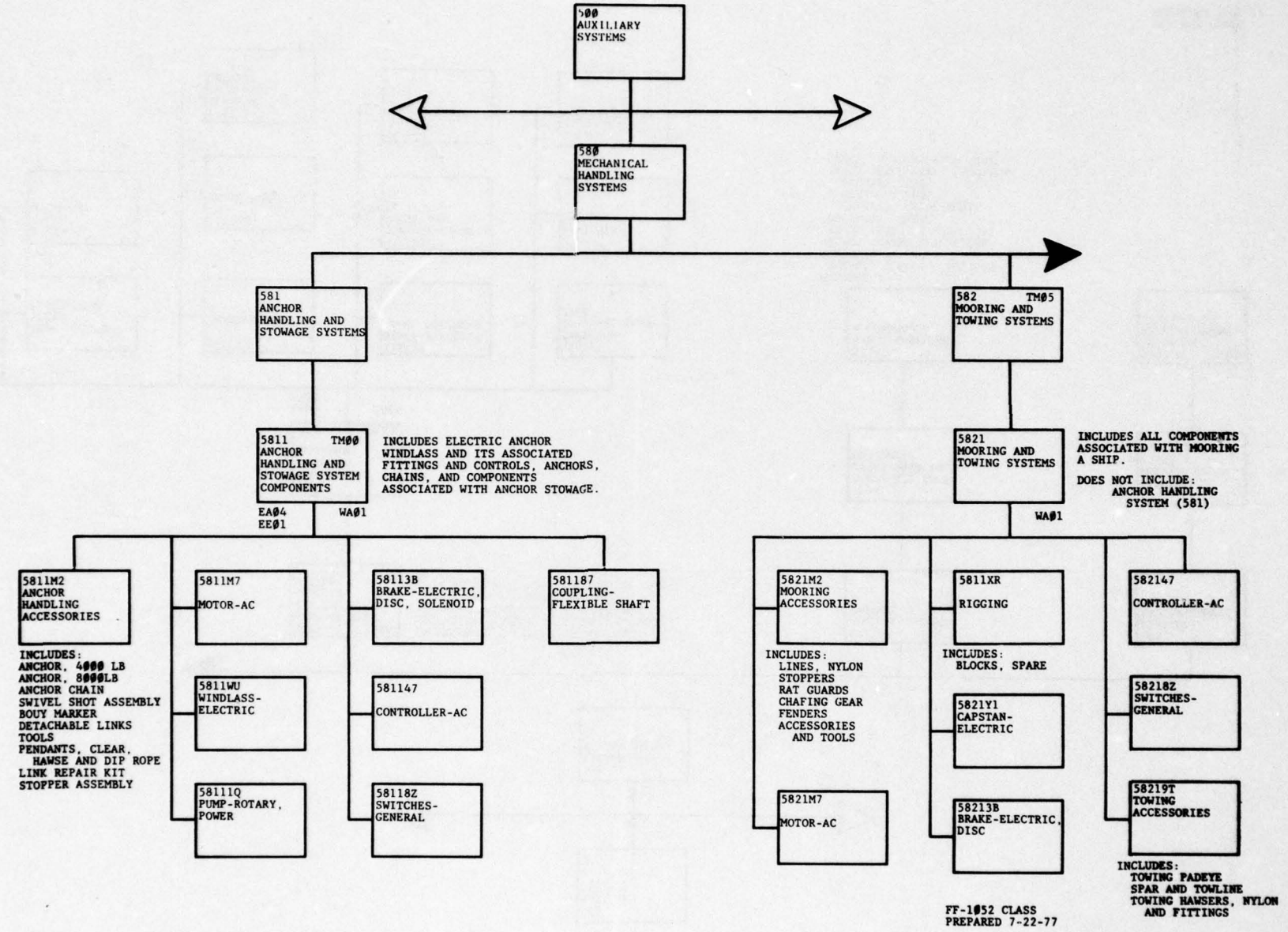


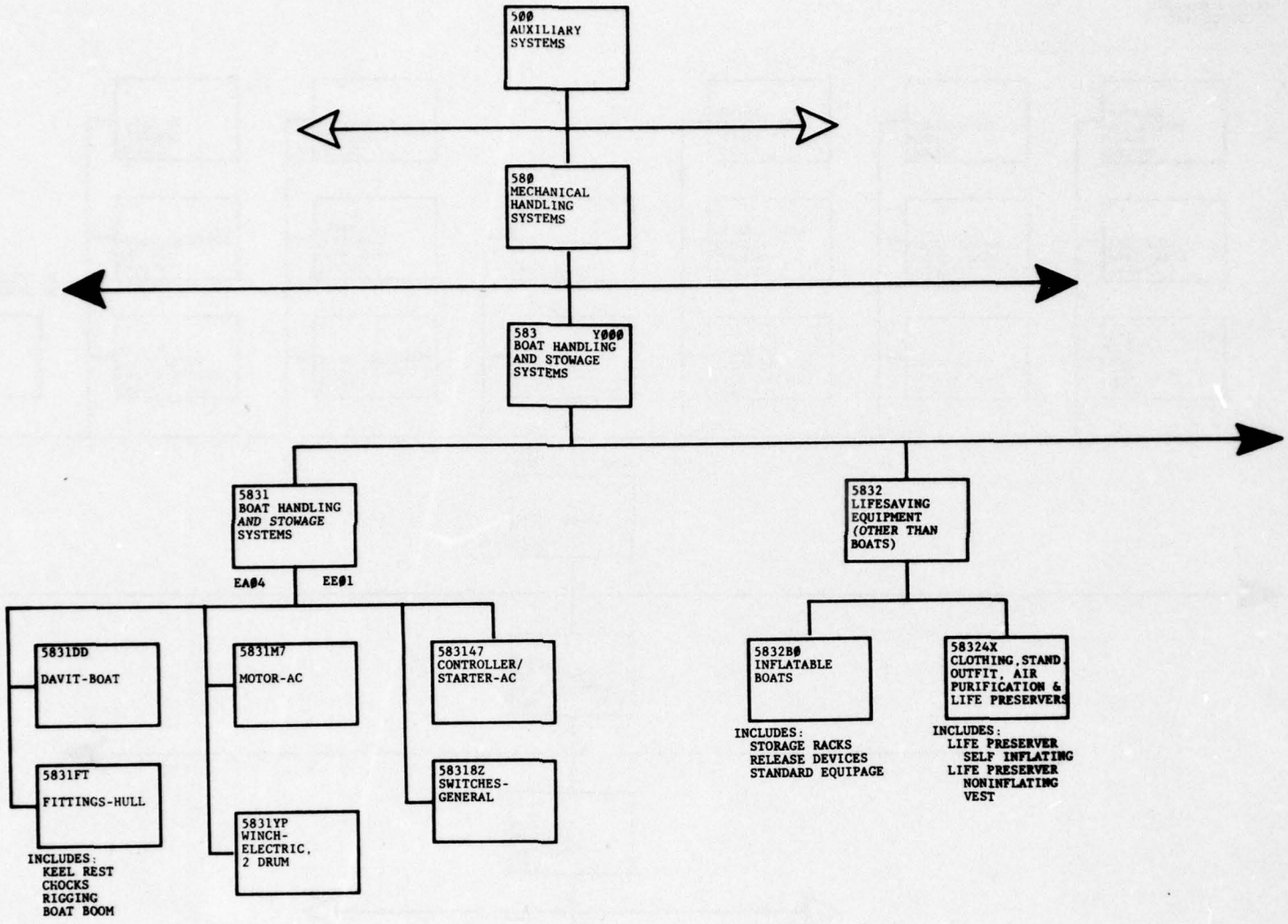
FF-1052 CLASS
PREPARED 7-22-77


500
AUXILIARY SYSTEMS
570
UNDERWAY REPLENISHMENT SYSTEMS
571 TT00
REPLENISHMENT-AT-SEA SYSTEMS
INCLUDES THE COMPLETE STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS FORMING THE MAIN UNITS OF SYSTEM USED FOR TRANSFERRING STORES, AMMUNITION AND FUELS BETWEEN SHIPS AT SEA.
DOES NOT INCLUDE:
KINGPOSTS (17001)
5713
REPLENISHMENT-AT-SEA TRANSFER HEADS/SLIDING BLOCKS
EB14
WA01
57131X
CYLINDER-ACTUATING, LINEAR
INCLUDES:
PADEYE, SLDG RETR
5714
REPLENISHMENT-AT-SEA BOOMS, RIGGING, & MISC. HARDWARE
EB14
WA01
5714FS
FUEL OIL STOWAGE EQUIPMENT
INCLUDES:
RIGGING BLOCKS & HOSE & FITTINGS
EMERGENCY BREAK-AWAY TOOL KIT
BREAKABLE SPOOL ASSEMBLY
PROBE FUELING SYS. RECEIVER
5714FU
FIXTURE-LIGHTING
INCLUDES:
FLOODLIGHT ELECTRICAL
5714IC
IC COMMUNICATION EQUIPMENT
INCLUDES:
TELEPHONE LINES B-B
TELEPHONE LINES FAS
5714IZ
RECEIVER ASSEMBLY
5714M7
MOTOR-AC
5714LW
UNDERWAY REPLENISHMENT ACCESSORIES
INCLUDES:
CHAIR, BOS'N'S W/SLING & FITTINGS
CARGO HANDLING & REPLENISHMENT EQUIPMENT, MISC.
HELMET, SAFETY, CONSTRUCTION TYPE
JERSEYS RAS PERSONNEL
SAFETY SHOES
PHONE DISTANCE LINE MARKINGS
RIGGING AND TOOLS
BLOCKS AND TACKLE
LINE THROWING GUN
CUTTER-STEEL STRAPPING
WIRE ROPE
LINE
PELICAN HOOKS
CLIPS
SHACKLES
5714UR
CARGO HANDLING ACCESSORIES
INCLUDES:
CHAIR & BAG, SEA TRANSFER
LITTER FRAME & FLOTATION GEAR
5714WK
WINCH
571417
CONNECTOR-RECEPTACLE, ELECTRICAL
57142B
TERMINAL BOX
INCLUDES:
BOX, STATION MARKING
57143B
BRAKE-ELECTRIC DISC, SOLENOID
571447
CONTROLLER/STARTER-AC
57148Z
SWITCHES-GENERAL
571496
COUPLING, HOSE
INCLUDES:
COUPLING HALF QUICK DISCONNECT
COUPLING HALF SLFSE
FF-1052 CLASS
PREPARED 7-22-77

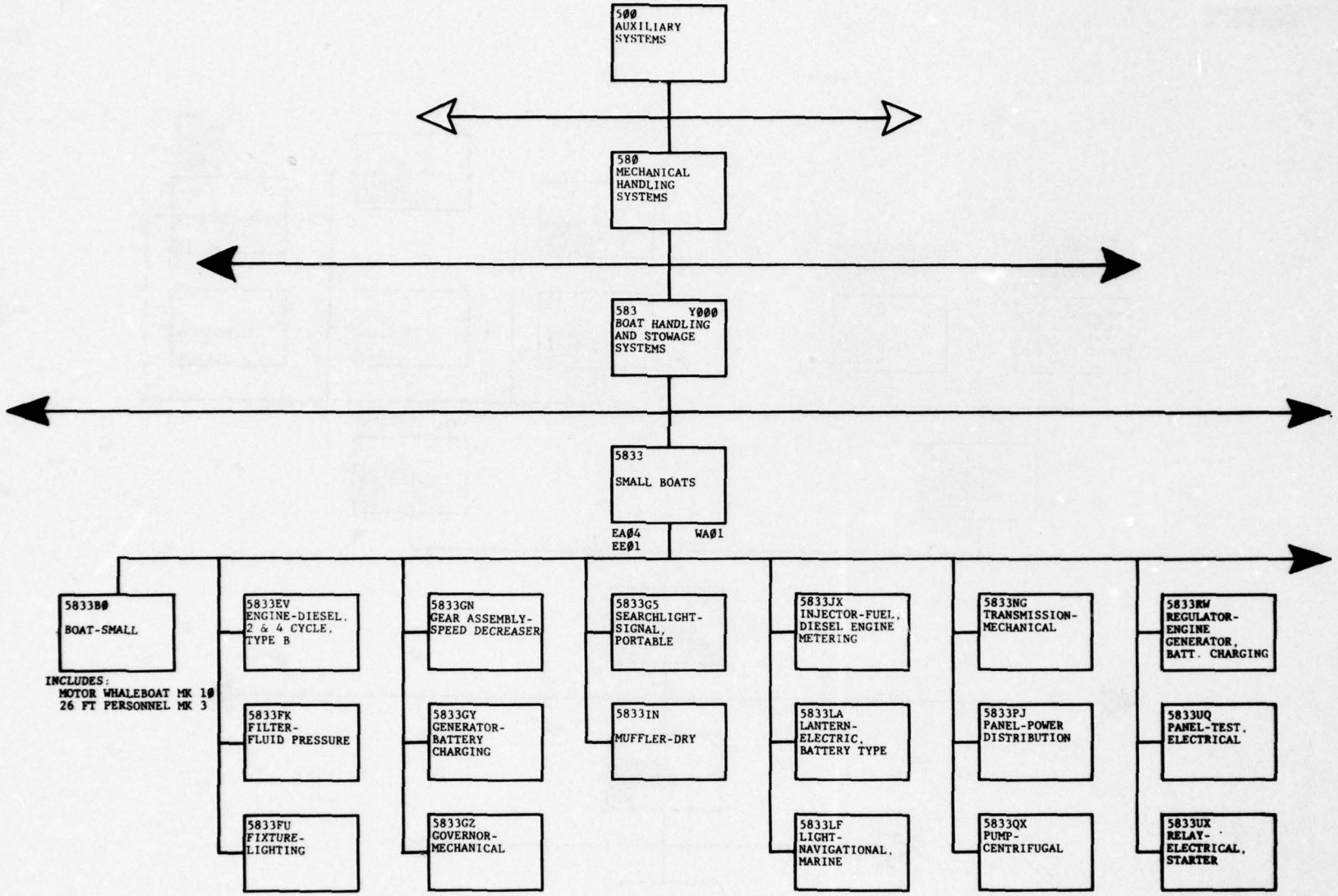


FF-1052 CLASS
PREPARED 7-22-77

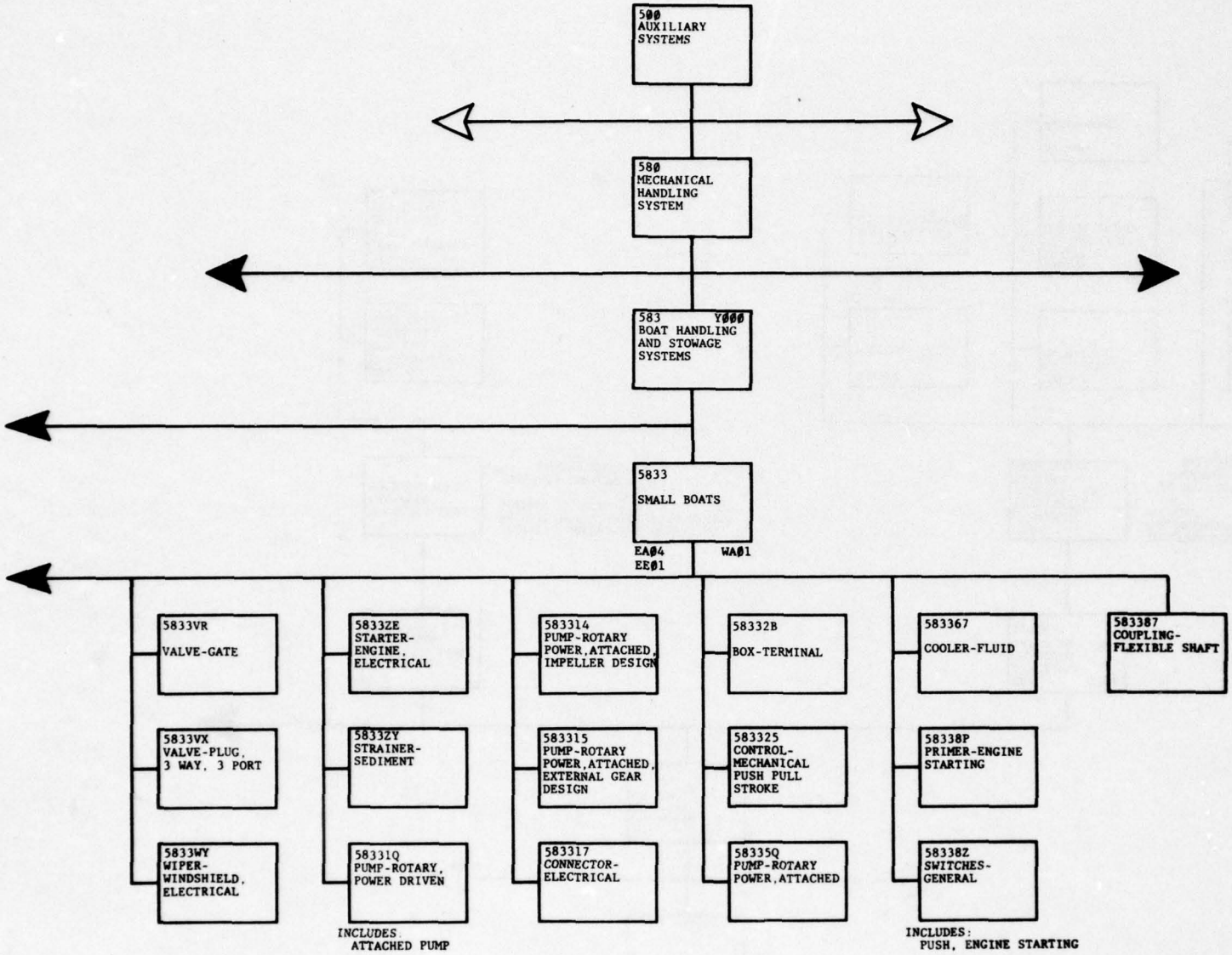

5ØØ
AUXILIARY SYSTEMS
58Ø
MECHANICAL HANDLING SYSTEMS
581
ANCHOR HANDLING AND STOWAGE SYSTEMS
582 TMØ5
MOORING AND TOWING SYSTEMS
5811 TMØØ
ANCHOR HANDLING AND STOWAGE SYSTEM COMPONENTS
INCLUDES ELECTRIC ANCHOR WINDLASS AND ITS ASSOCIATED FITTINGS AND CONTROLS, ANCHORS, CHAINS, AND COMPONENTS ASSOCIATED WITH ANCHOR STOWAGE.
EAØ4
EEØ1
WAØ1
5821
MOORING AND TOWING SYSTEMS
INCLUDES ALL COMPONENTS ASSOCIATED WITH MOORING A SHIP.
DOES NOT INCLUDE:
ANCHOR HANDLING SYSTEM (581)
WAØ1
5811M2
ANCHOR HANDLING ACCESSORIES
INCLUDES:
ANCHOR, 4ØØØ LB
ANCHOR, 8ØØØLB
ANCHOR CHAIN
SWIVEL SHOT ASSEMBLY
BOUY MARKER
DETACHABLE LINKS
TOOLS
PENDANTS, CLEAR, HAWSE AND DIP ROPE
LINK REPAIR KIT
STOPPER ASSEMBLY
5811M7
MOTOR-AC
5811WU
WINDLASS-ELECTRIC
58111Q
PUMP-ROTARY, POWER
58113B
BRAKE-ELECTRIC, DISC, SOLENOID
581147
CONTROLLER-AC
58118Z
SWITCHES-GENERAL
581187
COUPLING-FLEXIBLE SHAFT
5821M2
MOORING ACCESSORIES
INCLUDES:
LINES, NYLON
STOPPERS
RAT GUARDS
CHAFING GEAR
FENDERS
ACCESSORIES AND TOOLS
5821M7
MOTOR-AC
5811XR
RIGGING
INCLUDES:
BLOCKS, SPARE
5821Y1
CAPSTAN-ELECTRIC
58213B
BRAKE-ELECTRIC, DISC
582147
CONTROLLER-AC
58218Z
SWITCHES-GENERAL
58219T
TOWING ACCESSORIES
INCLUDES:
TOWING PADEYE
SPAR AND TOWLINE
TOWING HAWSERS, NYLON AND FITTINGS
FF-1Ø52 CLASS
PREPARED 7-22-77



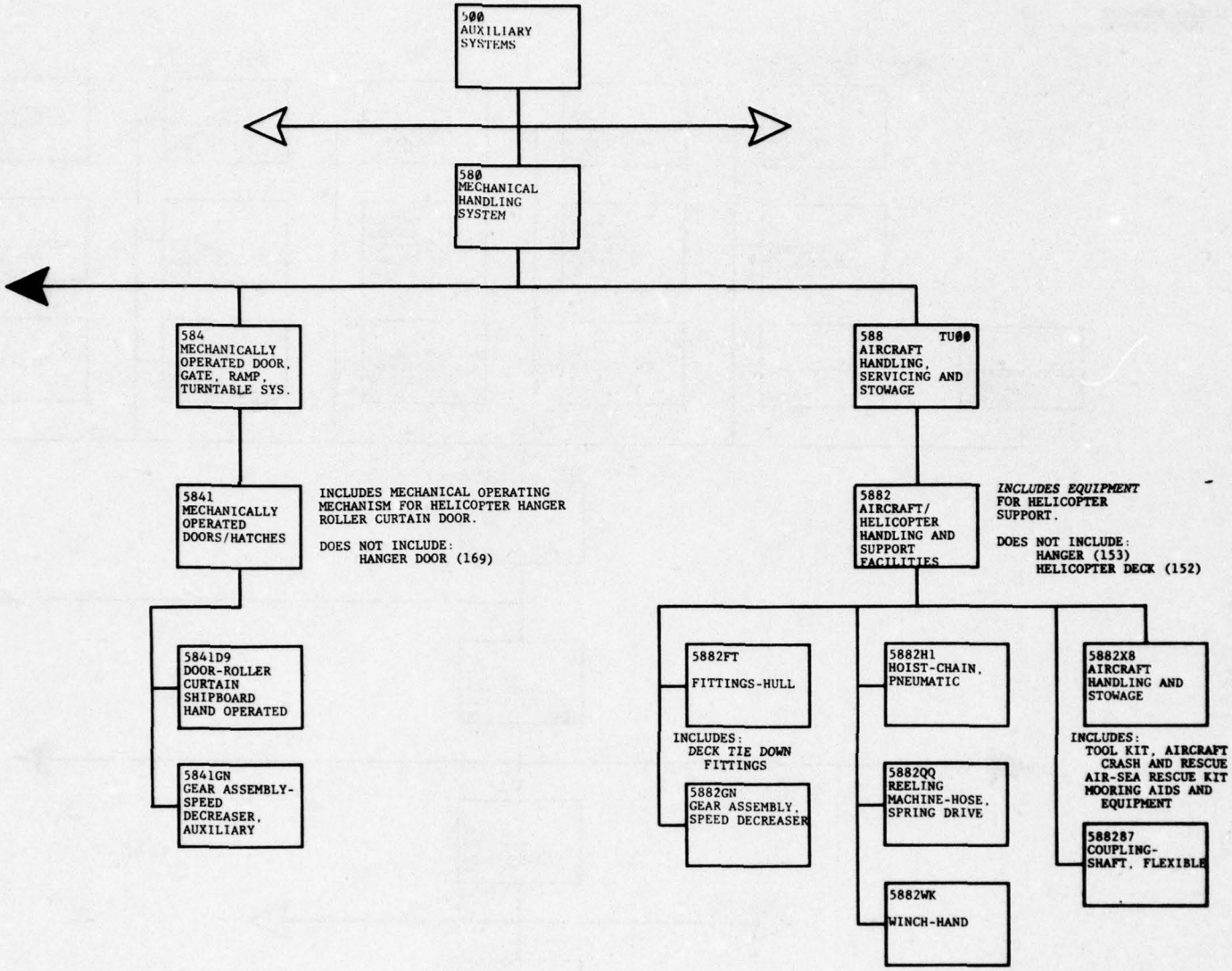
FF-1052 CLASS
PREPARED 7-22-77



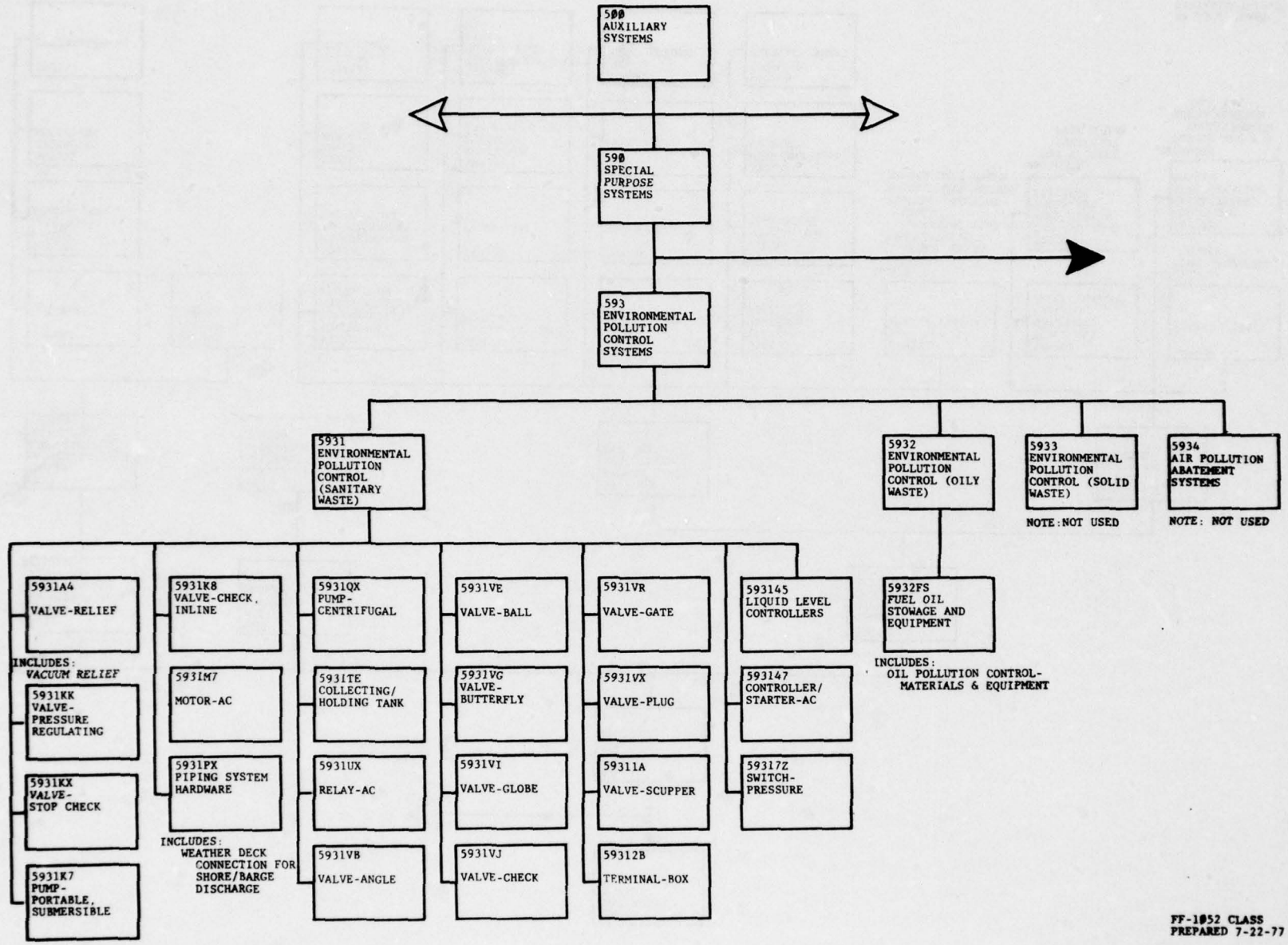
FF-1052 CLASS
PREPARED 7-22-77



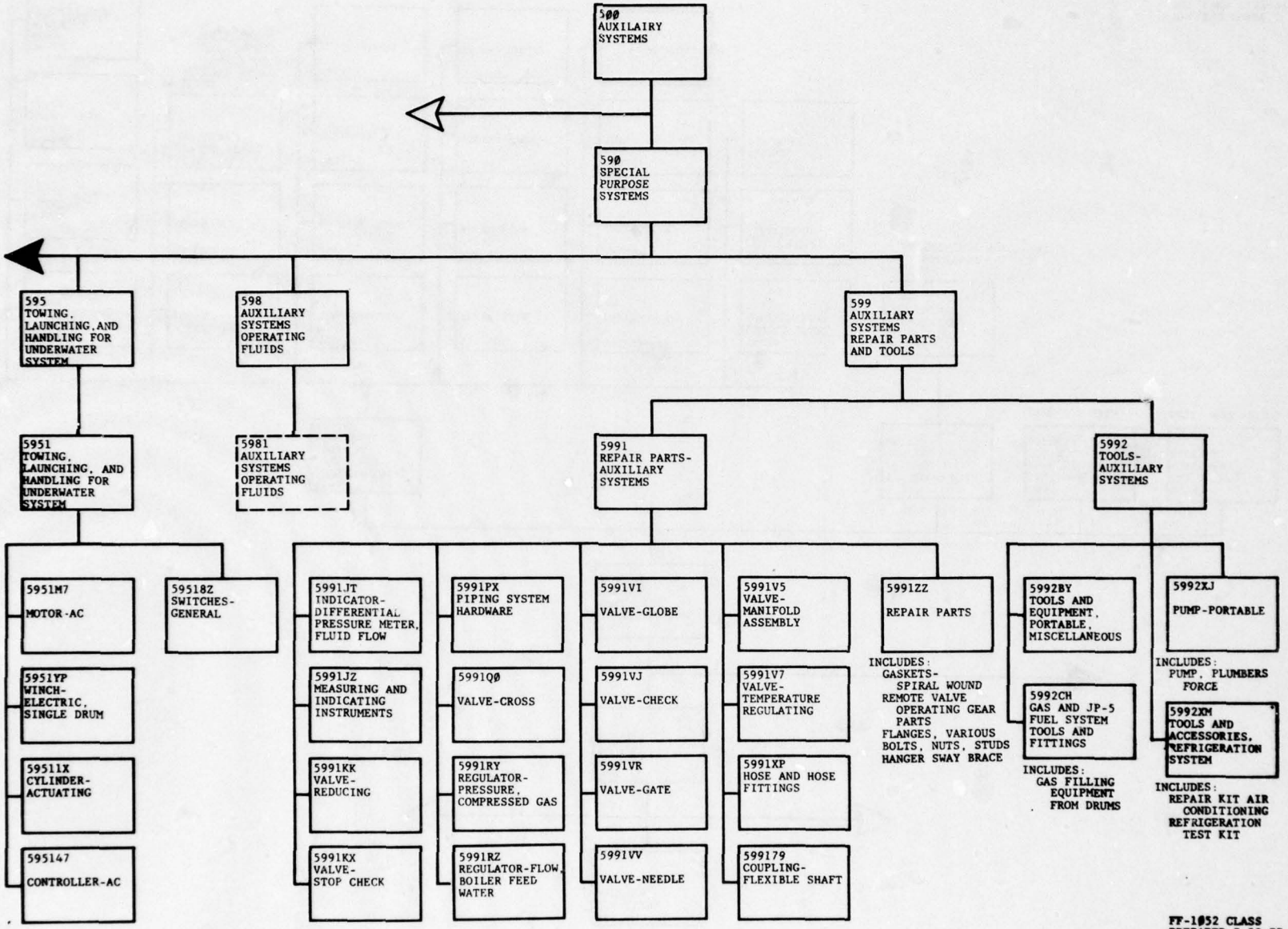
FF-1052 CLASS
PREPARED 7-22-77



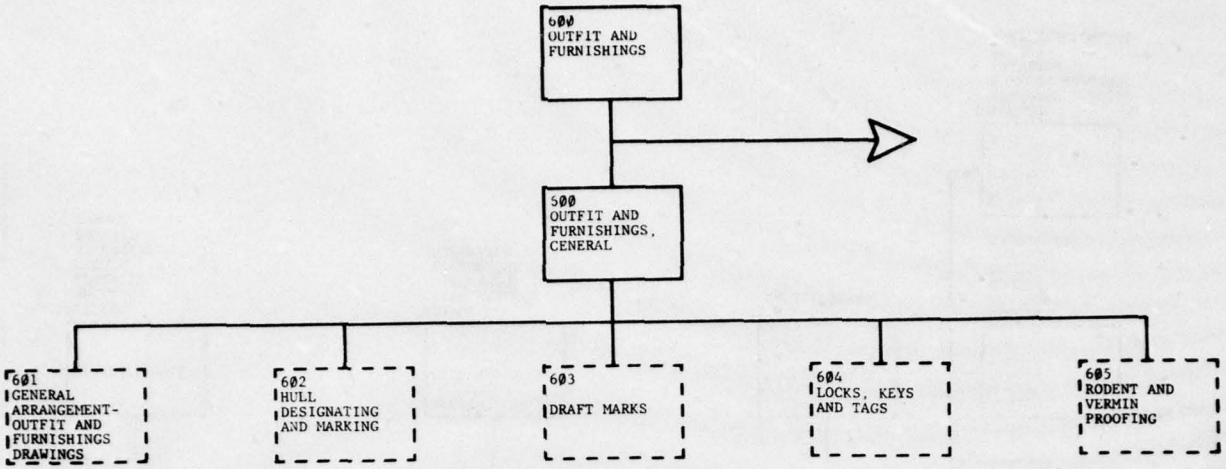
FF-1052 CLASS
PREPARED 7-22-77

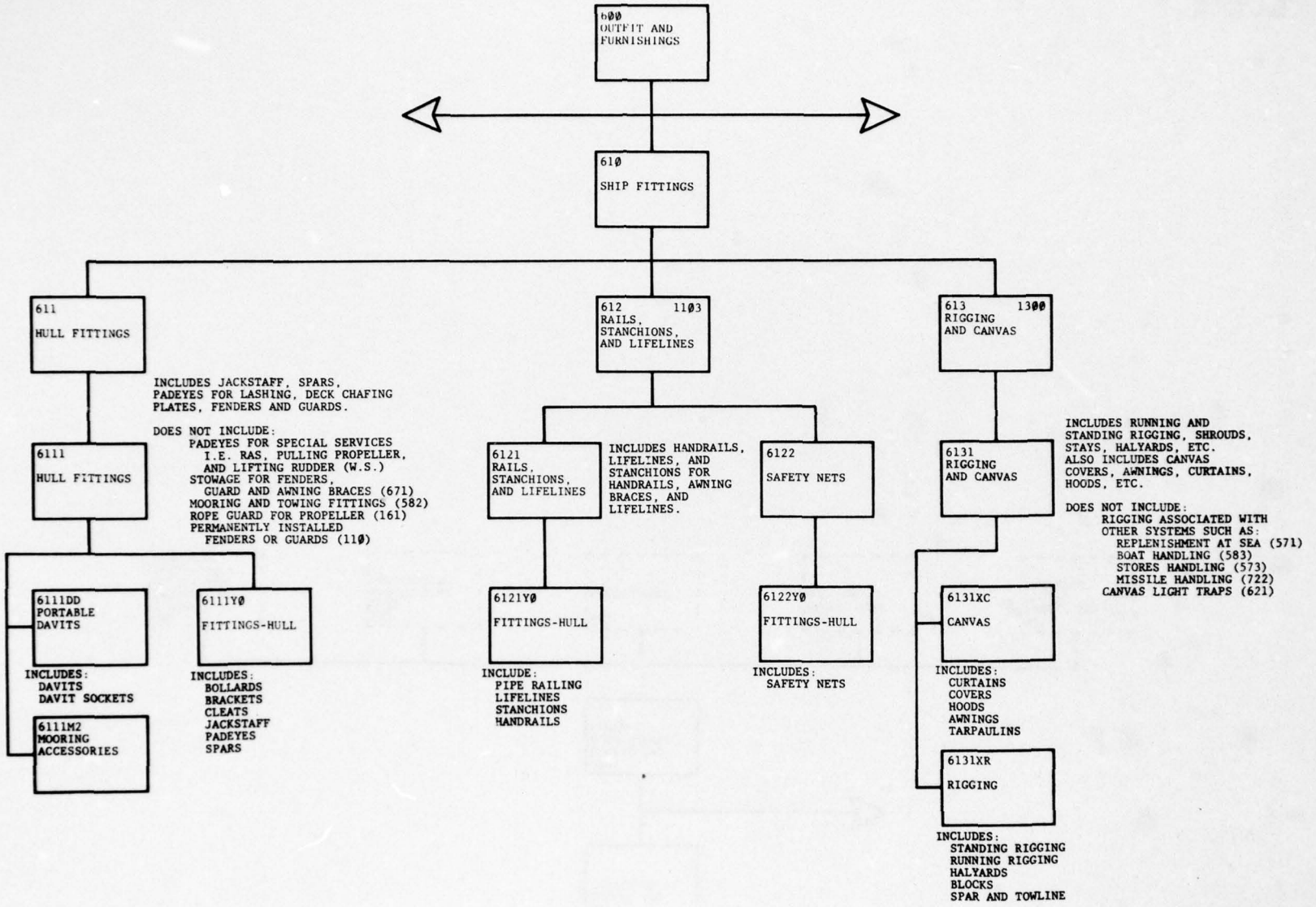


FF-1052 CLASS
PREPARED 7-22-77

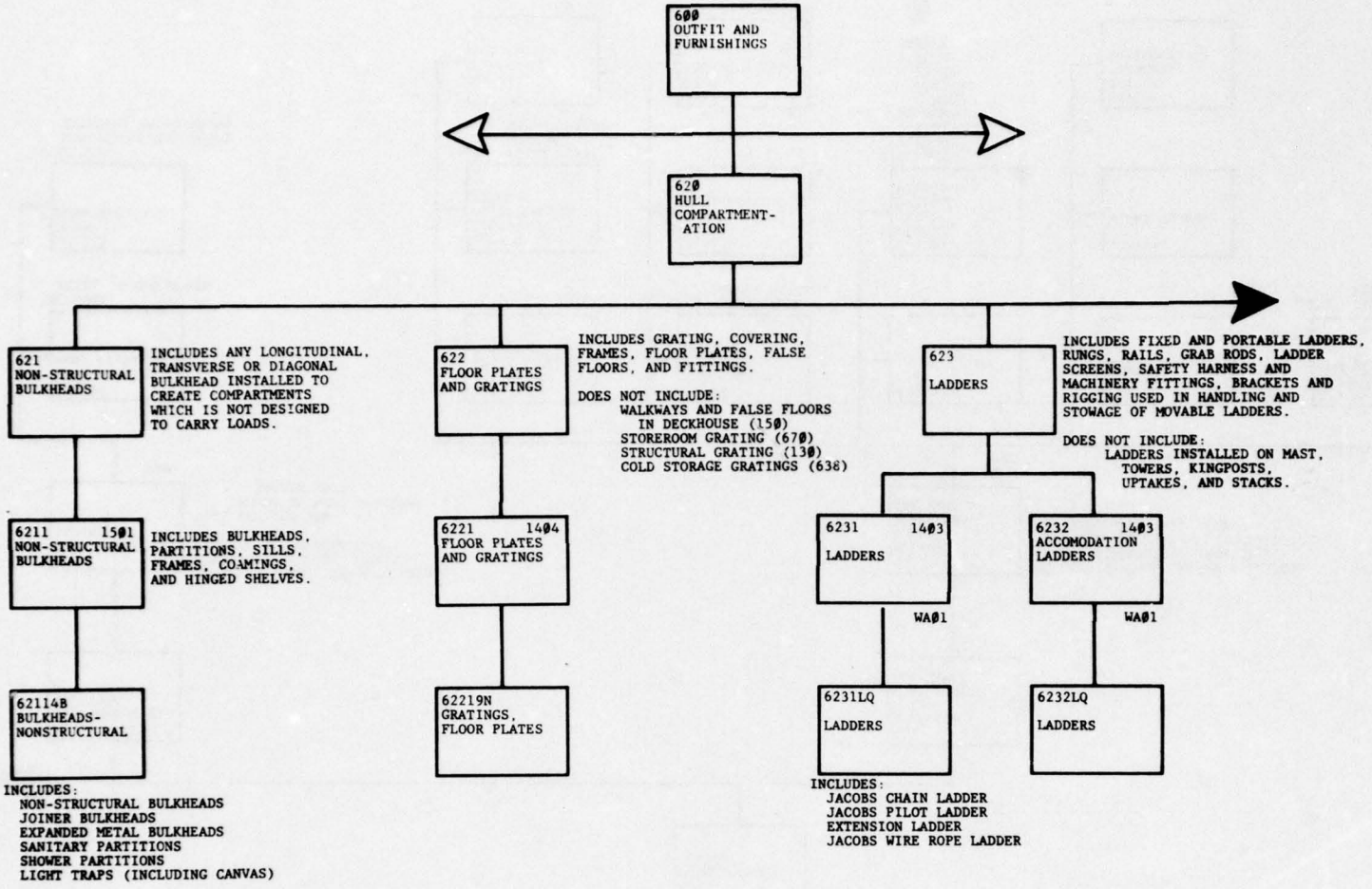


FF-1052 CLASS
PREPARED 7-22-77

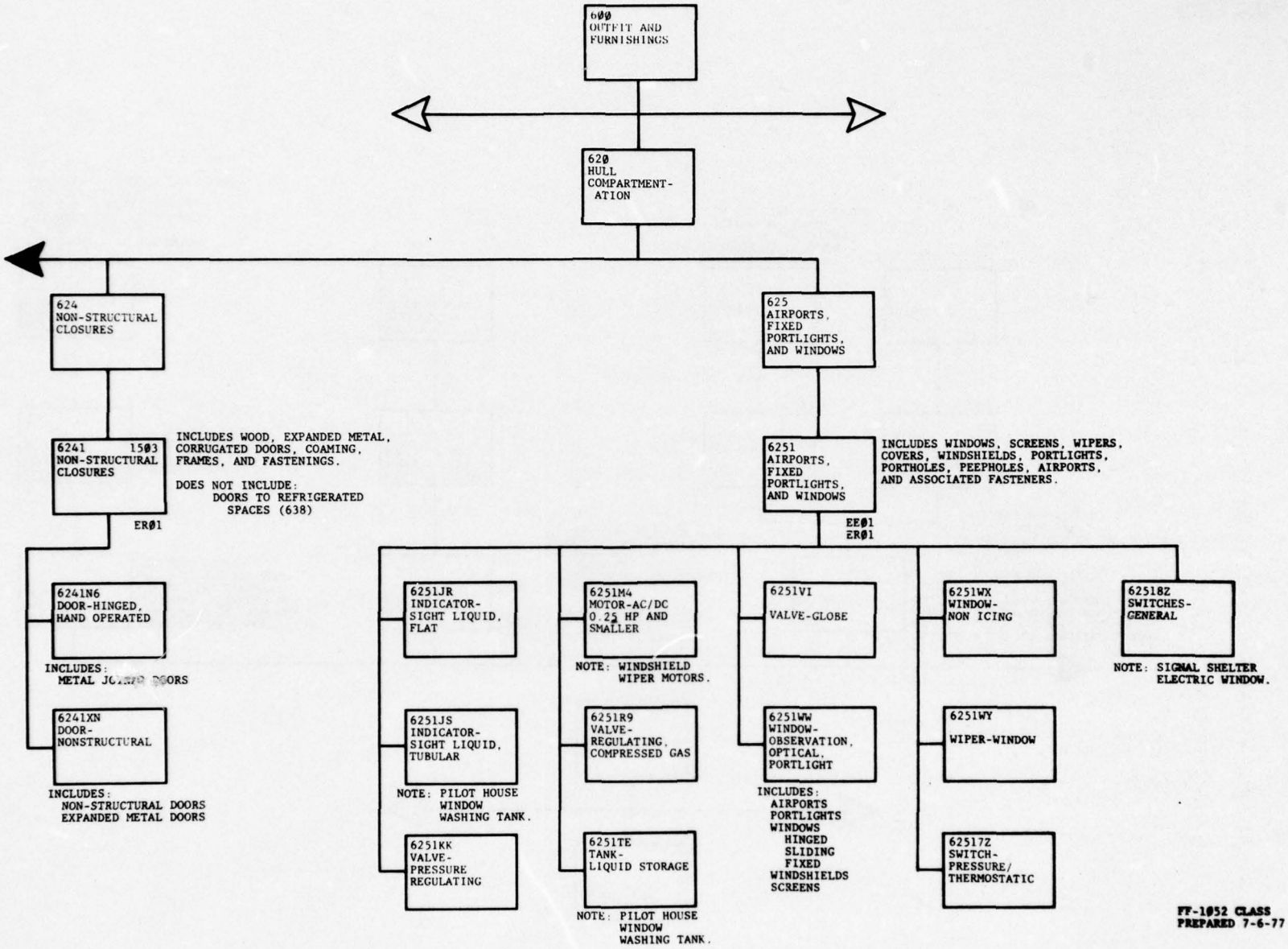

600
OUTFIT AND FURNISHINGS
500
OUTFIT AND FURNISHINGS, GENERAL
601
GENERAL ARRANGEMENT-OUTFIT AND FURNISHINGS DRAWINGS
602
HULL DESIGNATING AND MARKING
603
DRAFT MARKS
604
LOCKS, KEYS AND TAGS
605
RODENT AND VERMIN PROOFING

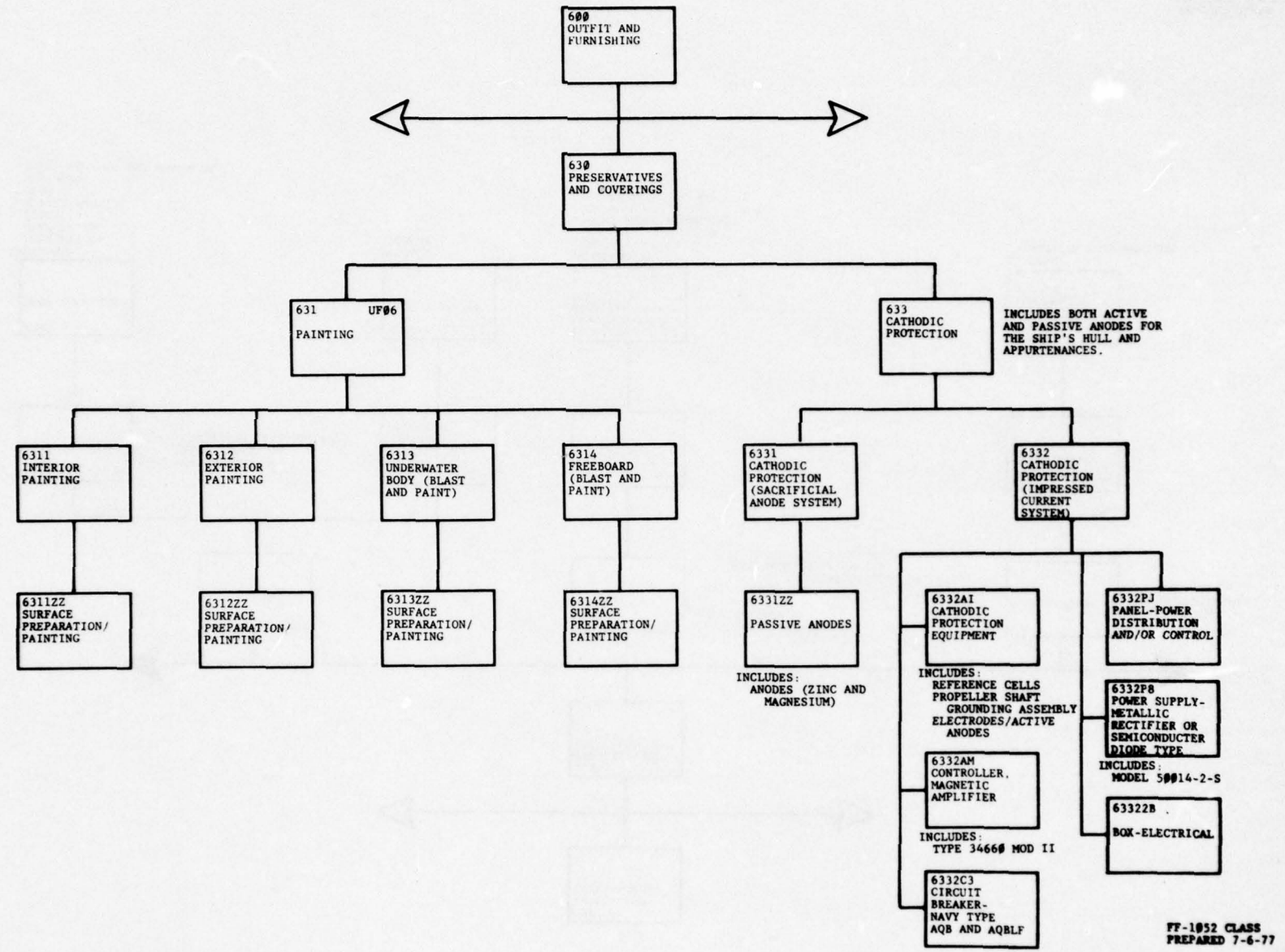


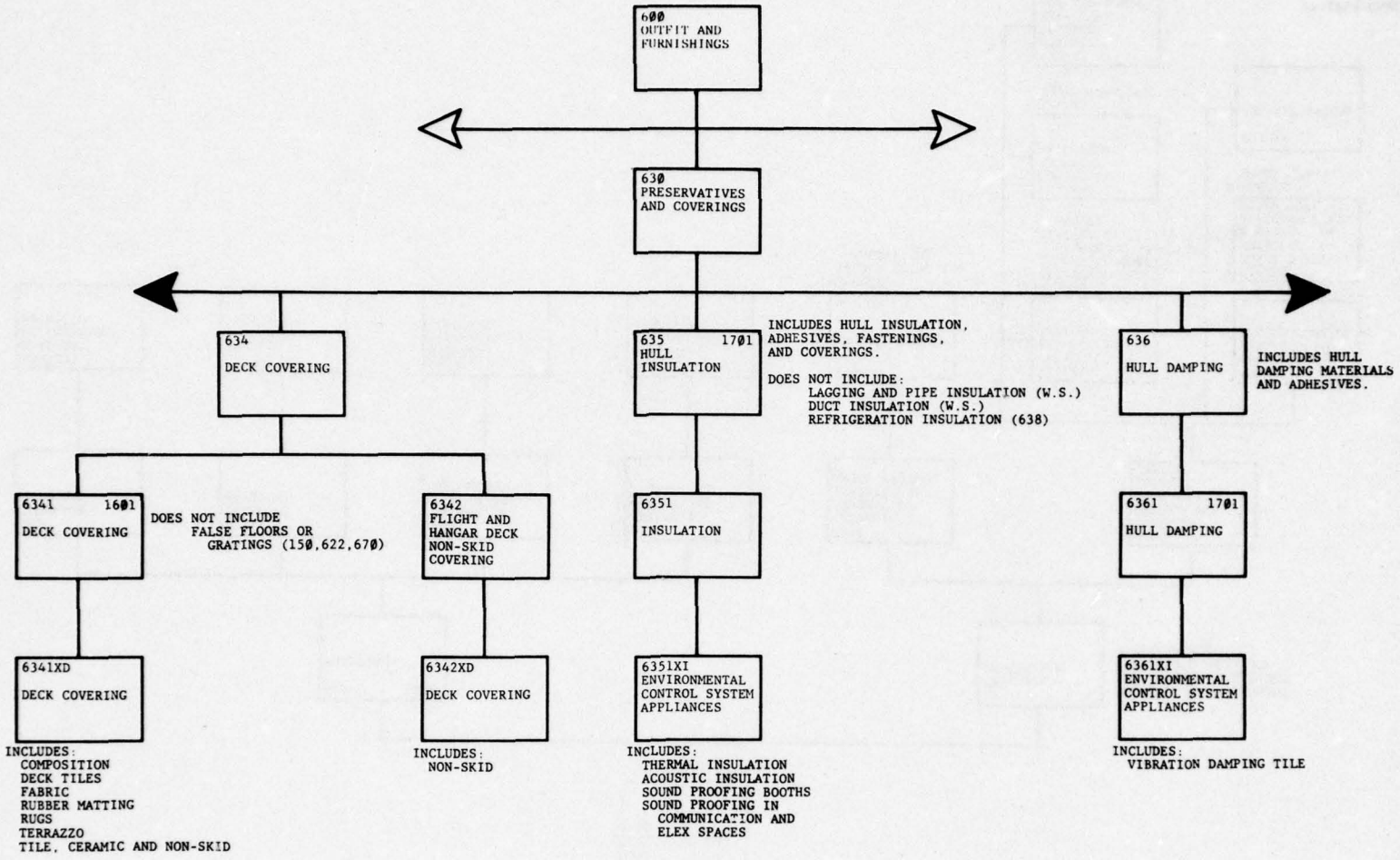
FF-1052 CLASS
PREPARED 7-6-77



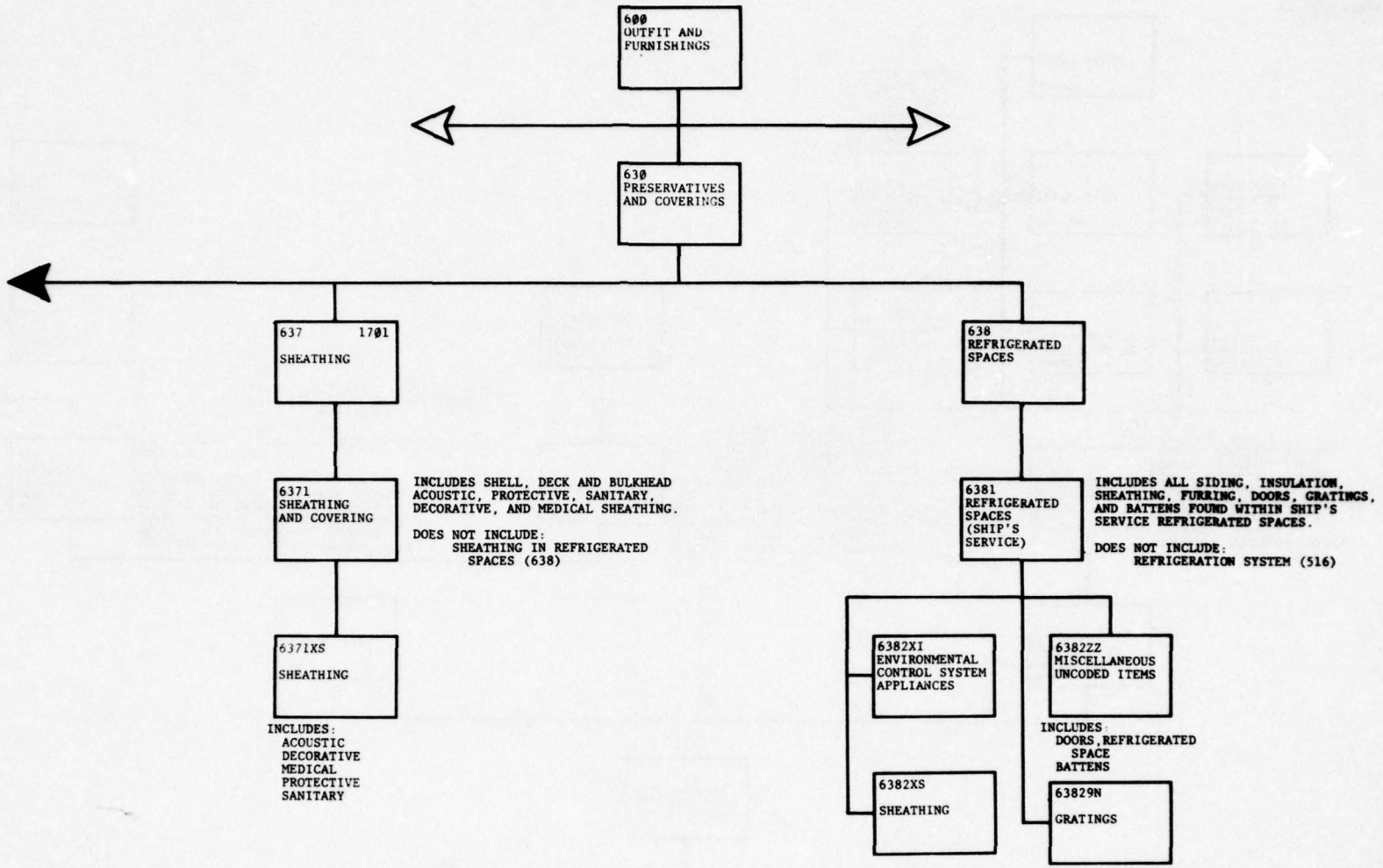
FF-1052 CLASS
PREPARED 7-6-77


600
OUTFIT AND FURNISHINGS
620
HULL COMPARTMENT-ATION
624
NON-STRUCTURAL CLOSURES
6241 1503
NON-STRUCTURAL CLOSURES
ER01
INCLUDES WOOD, EXPANDED METAL, CORRUGATED DOORS, COAMING, FRAMES, AND FASTENINGS.
DOES NOT INCLUDE: DOORS TO REFRIGERATED SPACES (638)
6241N6
DOOR-HINGED, HAND OPERATED
INCLUDES: METAL JOINER DOORS
6241XN
DOOR-NONSTRUCTURAL
INCLUDES: NON-STRUCTURAL DOORS EXPANDED METAL DOORS
625
AIRPORTS, FIXED PORTLIGHTS, AND WINDOWS
6251
AIRPORTS, FIXED PORTLIGHTS, AND WINDOWS
EE01
ER01
INCLUDES WINDOWS, SCREENS, WIPERS, COVERS, WINDSHIELDS, PORTLIGHTS, PORTHOLES, PEEPHOLES, AIRPORTS, AND ASSOCIATED FASTENERS.
6251JR
INDICATOR-SIGHT LIQUID, FLAT
6251JS
INDICATOR-SIGHT LIQUID, TUBULAR
NOTE: PILOT HOUSE WINDOW WASHING TANK.
6251KK
VALVE-PRESSURE REGULATING
6251M4
MOTOR-AC/DC 0.25 HP AND SMALLER
NOTE: WINDSHIELD WIPER MOTORS.
6251R9
VALVE-REGULATING, COMPRESSED GAS
6251TE
TANK-LIQUID STORAGE
NOTE: PILOT HOUSE WINDOW WASHING TANK.
6251VI
VALVE-GLOBE
6251WW
WINDOW-OBSERVATION, OPTICAL, PORTLIGHT
INCLUDES: AIRPORTS PORTLIGHTS WINDOWS HINGED SLIDING FIXED WINDSHIELDS SCREENS
6251WX
WINDOW-NON ICING
6251WY
WIPER-WINDOW
62517Z
SWITCH-PRESSURE/THERMOSTATIC
62518Z
SWITCHES-GENERAL
NOTE: SIGNAL SHELTER ELECTRIC WINDOW.
FF-1052 CLASS
PREPARED 7-6-77

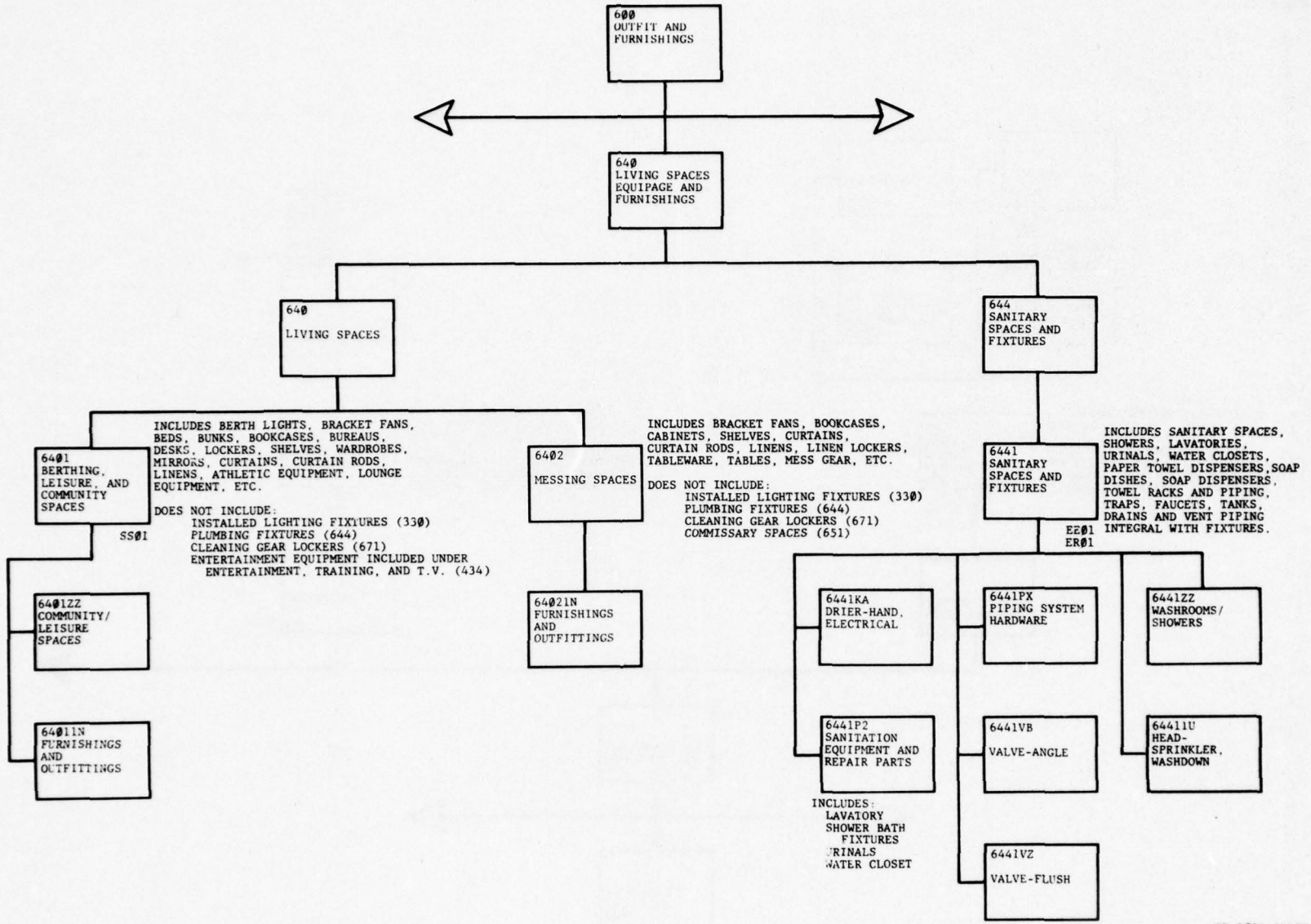

600
OUTFIT AND FURNISHING
630
PRESERVATIVES AND COVERINGS
631 UF06
PAINTING
633
CATHODIC PROTECTION
INCLUDES BOTH ACTIVE AND PASSIVE ANODES FOR THE SHIP'S HULL AND APPURTENANCES.
6311
INTERIOR PAINTING
6312
EXTERIOR PAINTING
6313
UNDERWATER BODY (BLAST AND PAINT)
6314
FREEBOARD (BLAST AND PAINT)
6331
CATHODIC PROTECTION (SACRIFICIAL ANODE SYSTEM)
6332
CATHODIC PROTECTION (IMPRESSED CURRENT SYSTEM)
6311ZZ
SURFACE PREPARATION/ PAINTING
6312ZZ
SURFACE PREPARATION/ PAINTING
6313ZZ
SURFACE PREPARATION/ PAINTING
6314ZZ
SURFACE PREPARATION/ PAINTING
6331ZZ
PASSIVE ANODES
INCLUDES:
ANODES (ZINC AND MAGNESIUM)
6332AI
CATHODIC PROTECTION EQUIPMENT
INCLUDES:
REFERENCE CELLS
PROPELLER SHAFT GROUNDING ASSEMBLY
ELECTRODES/ACTIVE ANODES
6332AM
CONTROLLER, MAGNETIC AMPLIFIER
INCLUDES:
TYPE 34660 MOD II
6332C3
CIRCUIT BREAKER- NAVY TYPE AQB AND AQBLF
6332PJ
PANEL-POWER DISTRIBUTION AND/OR CONTROL
6332P8
POWER SUPPLY-METALLIC RECTIFIER OR SEMICONDUCTER DIODE TYPE
INCLUDES:
MODEL 50014-2-S
63322B
BOX-ELECTRICAL
FF-1052 CLASS
PREPARED 7-6-77



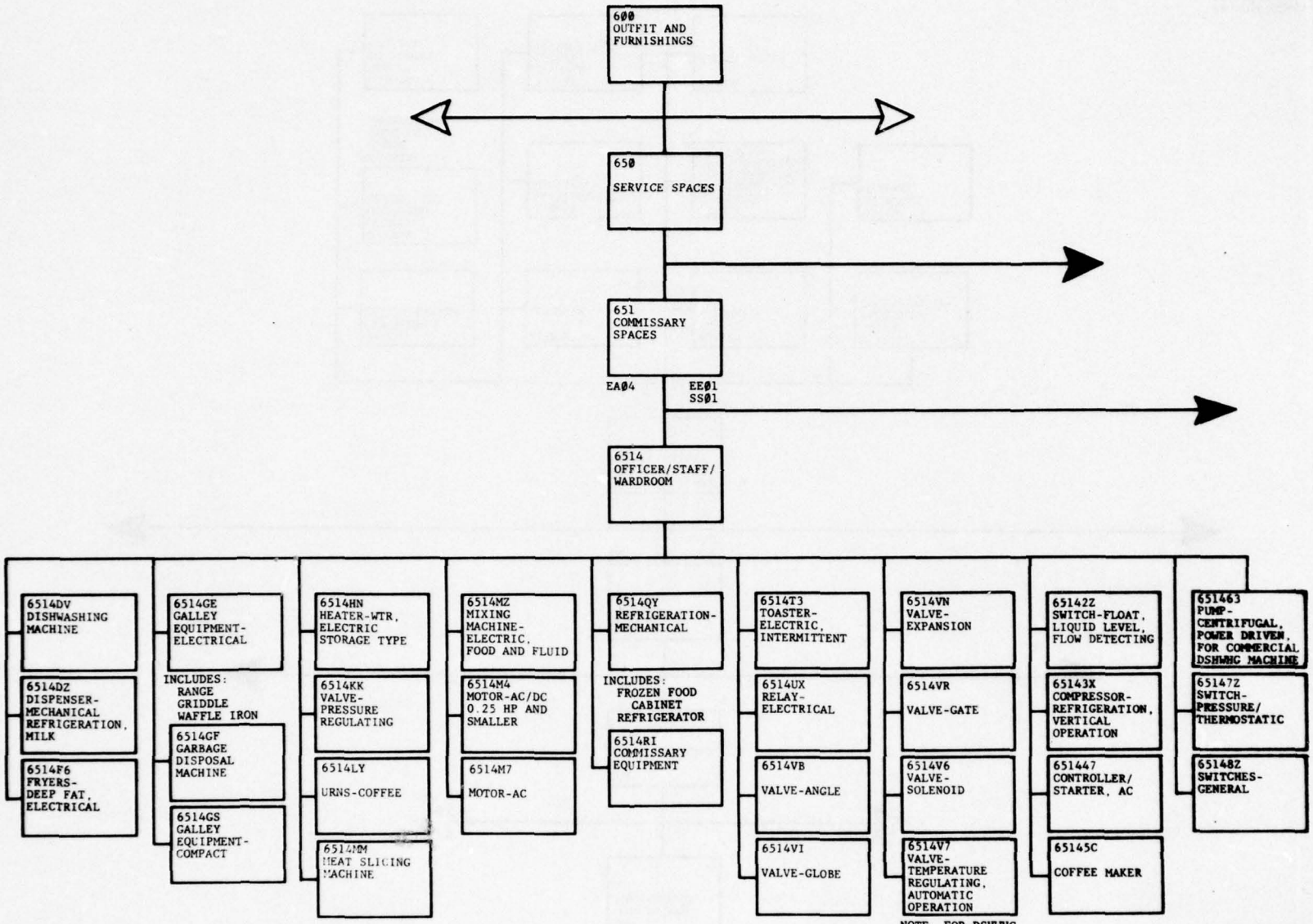
FF-1052 CLASS
PREPARED 7-6-77

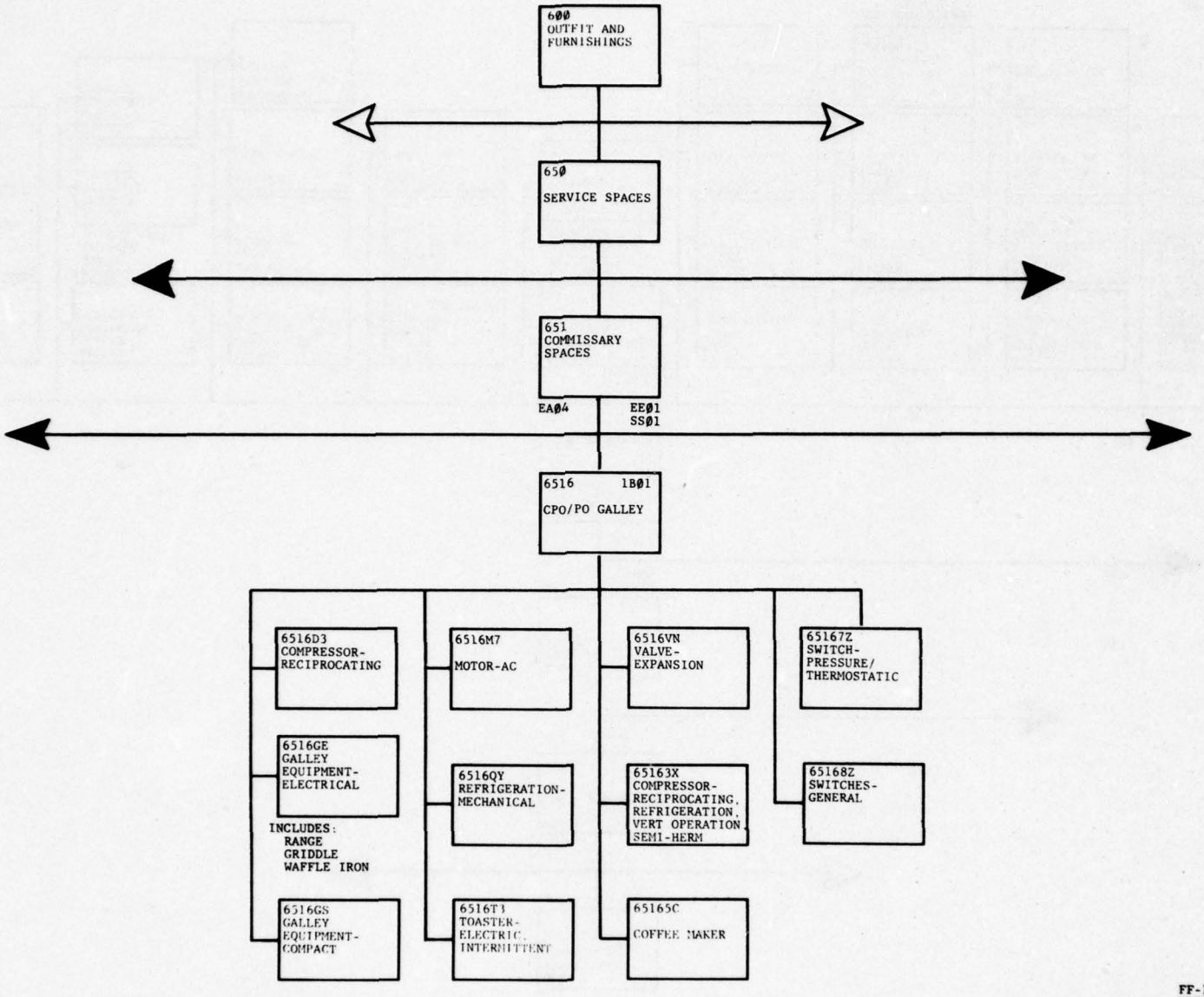


FF-1052 CLASS
FREPARED 7-6-77

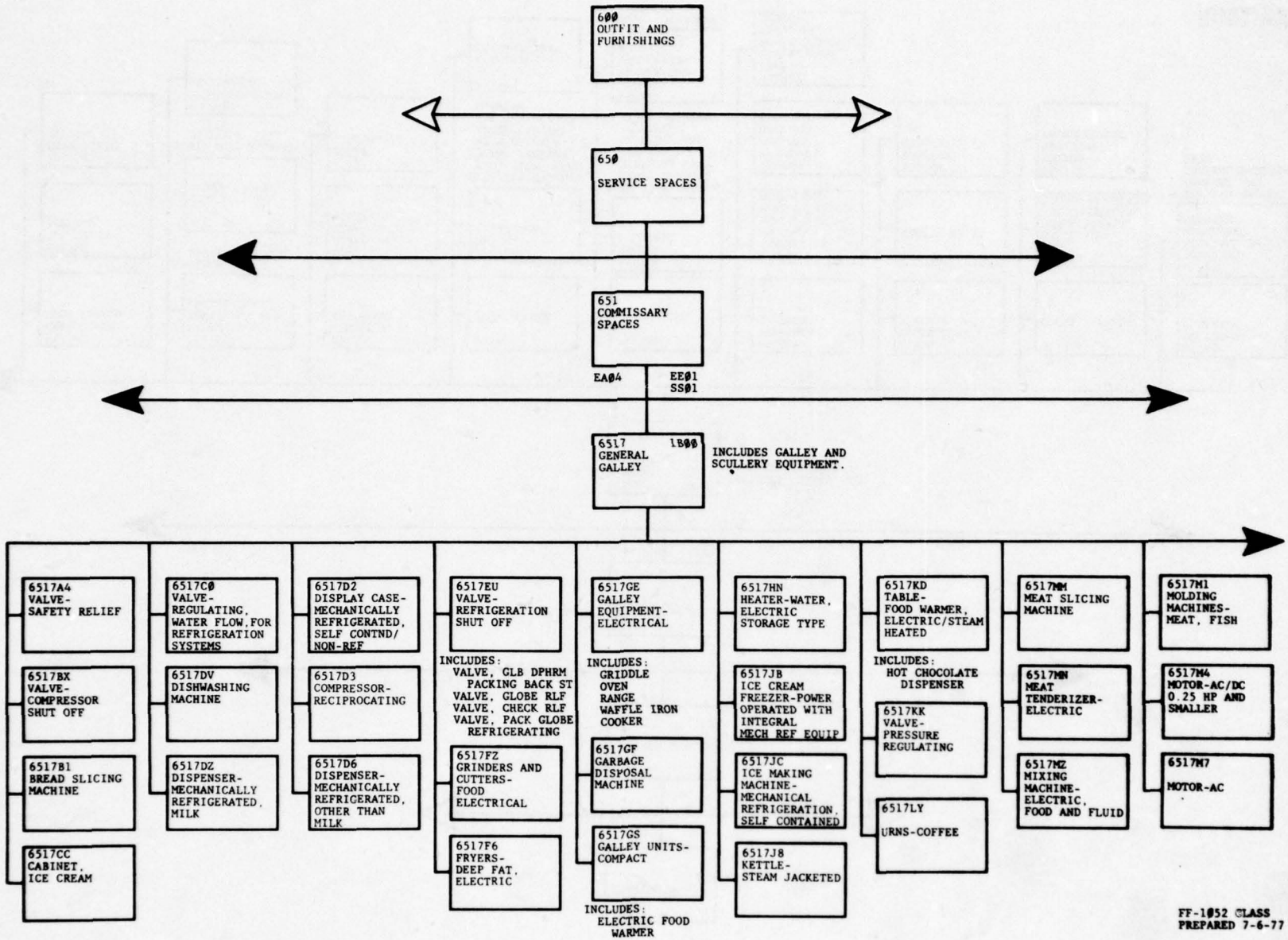


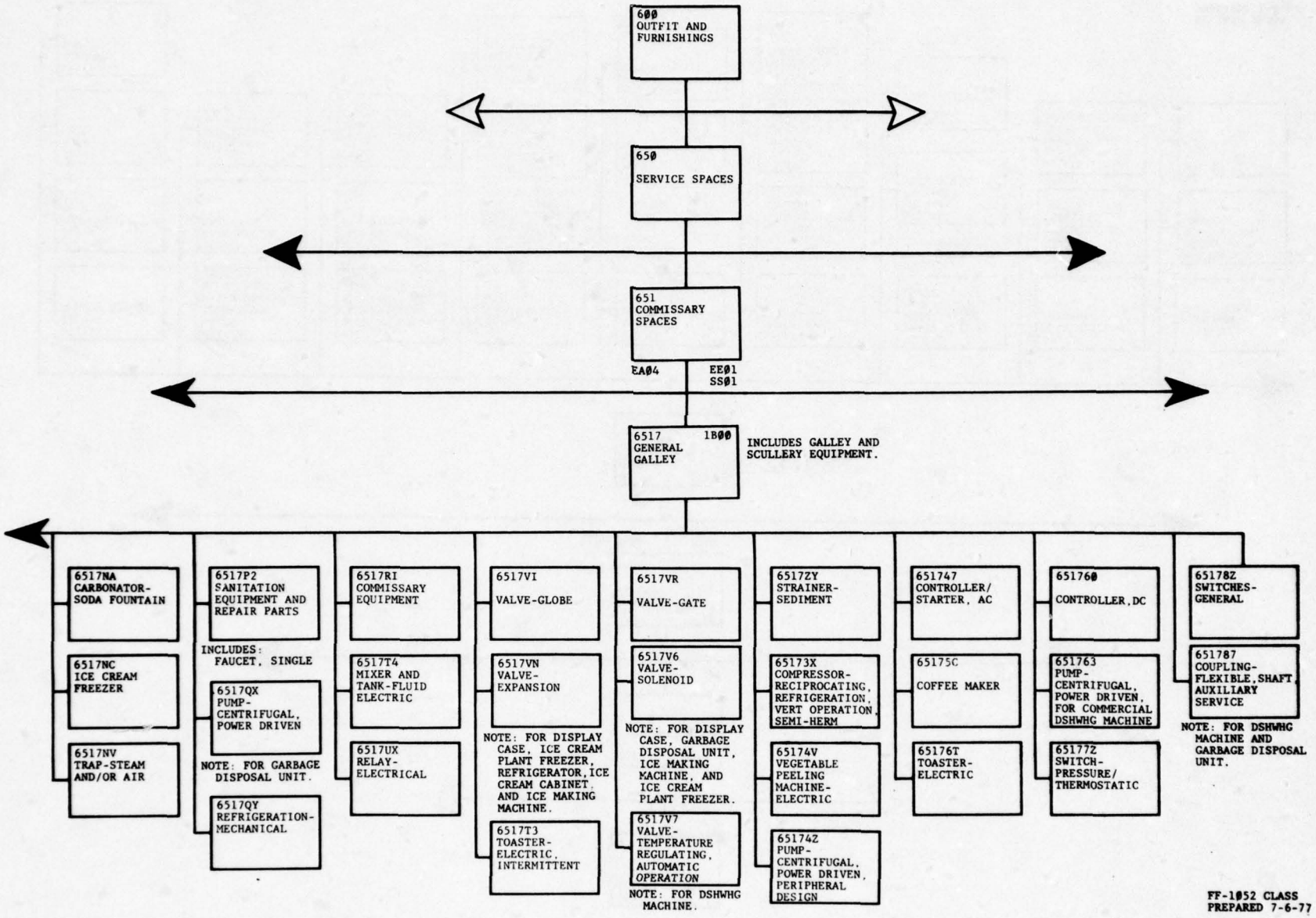
FF-1052 CLASS
PREPARED 7-6-77

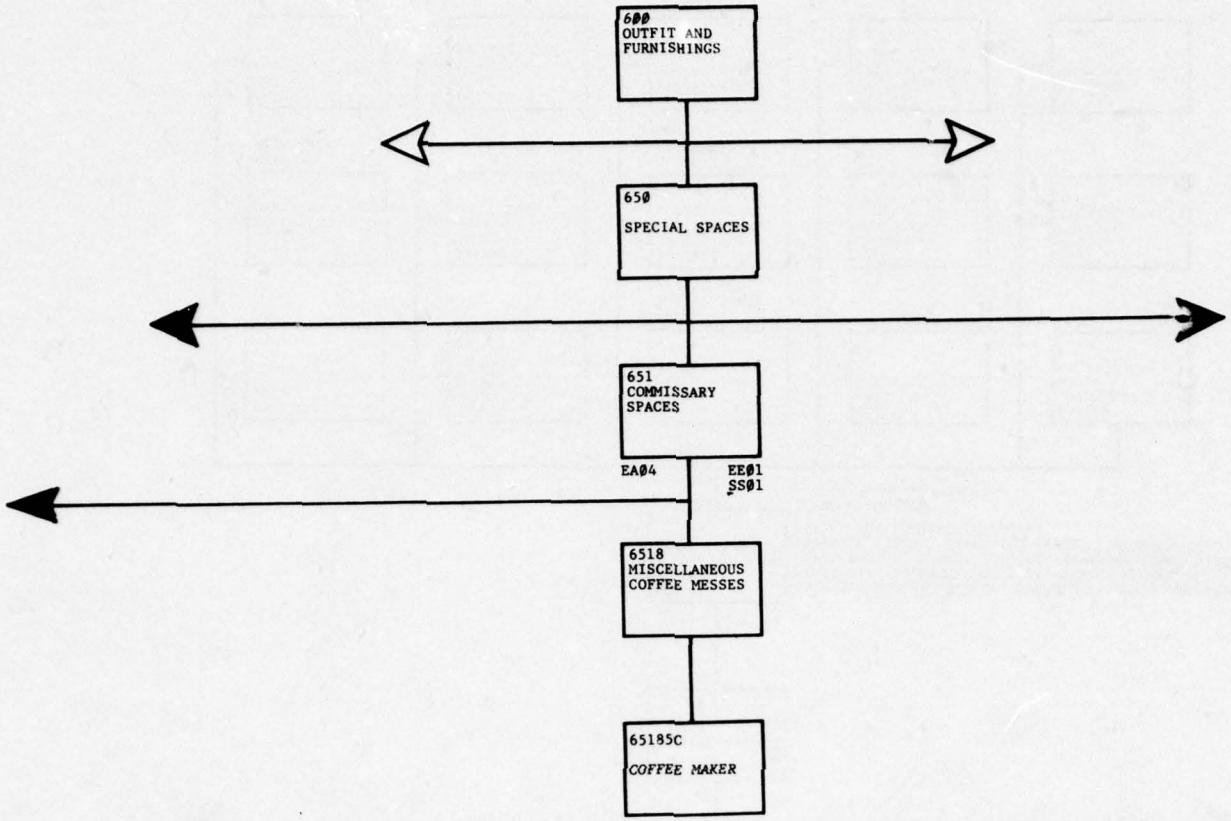

600
OUTFIT AND FURNISHINGS
650
SERVICE SPACES
651
COMMISSARY SPACES
EA04
EE01
SS01
6514
OFFICER/STAFF/ WARDROOM
6514DV
DISHWASHING MACHINE
6514DZ
DISPENSER-MECHANICAL REFRIGERATION, MILK
6514F6
FRYERS-DEEP FAT, ELECTRICAL
6514GE
GALLEY EQUIPMENT-ELECTRICAL
INCLUDES:
RANGE
GRIDDLE
WAFFLE IRON
6514GF
GARBAGE DISPOSAL MACHINE
6514GS
GALLEY EQUIPMENT-COMPACT
6514HN
HEATER-WTR, ELECTRIC STORAGE TYPE
6514KK
VALVE-PRESSURE REGULATING
6514LY
URNS-COFFEE
6514MM
MEAT SLICING MACHINE
6514MZ
MIXING MACHINE-ELECTRIC, FOOD AND FLUID
6514M4
MOTOR-AC/DC 0.25 HP AND SMALLER
6514M7
MOTOR-AC
6514QY
REFRIGERATION-MECHANICAL
INCLUDES:
FROZEN FOOD CABINET REFRIGERATOR
6514RI
COMMISSARY EQUIPMENT
6514T3
TOASTER-ELECTRIC, INTERMITTENT
6514UX
RELAY-ELECTRICAL
6514VB
VALVE-ANGLE
6514VI
VALVE-GLOBE
6514VN
VALVE-EXPANSION
6514VR
VALVE-GATE
6514V6
VALVE-SOLENOID
6514V7
VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
65142Z
SWITCH-FLOAT, LIQUID LEVEL, FLOW DETECTING
65143X
COMPRESSOR-REFRIGERATION, VERTICAL OPERATION
651447
CONTROLLER/ STARTER, AC
65145C
COFFEE MAKER
651463
PUMP-CENTRIFUGAL, POWER DRIVEN, FOR COMMERCIAL DSHWHG MACHINE
65147Z
SWITCH-PRESSURE/ THERMOSTATIC
65148Z
SWITCHES-GENERAL
NOTE: FOR DSHWHG MACHINE.
FF-1052 CLASS
PREPARED 7-6-77



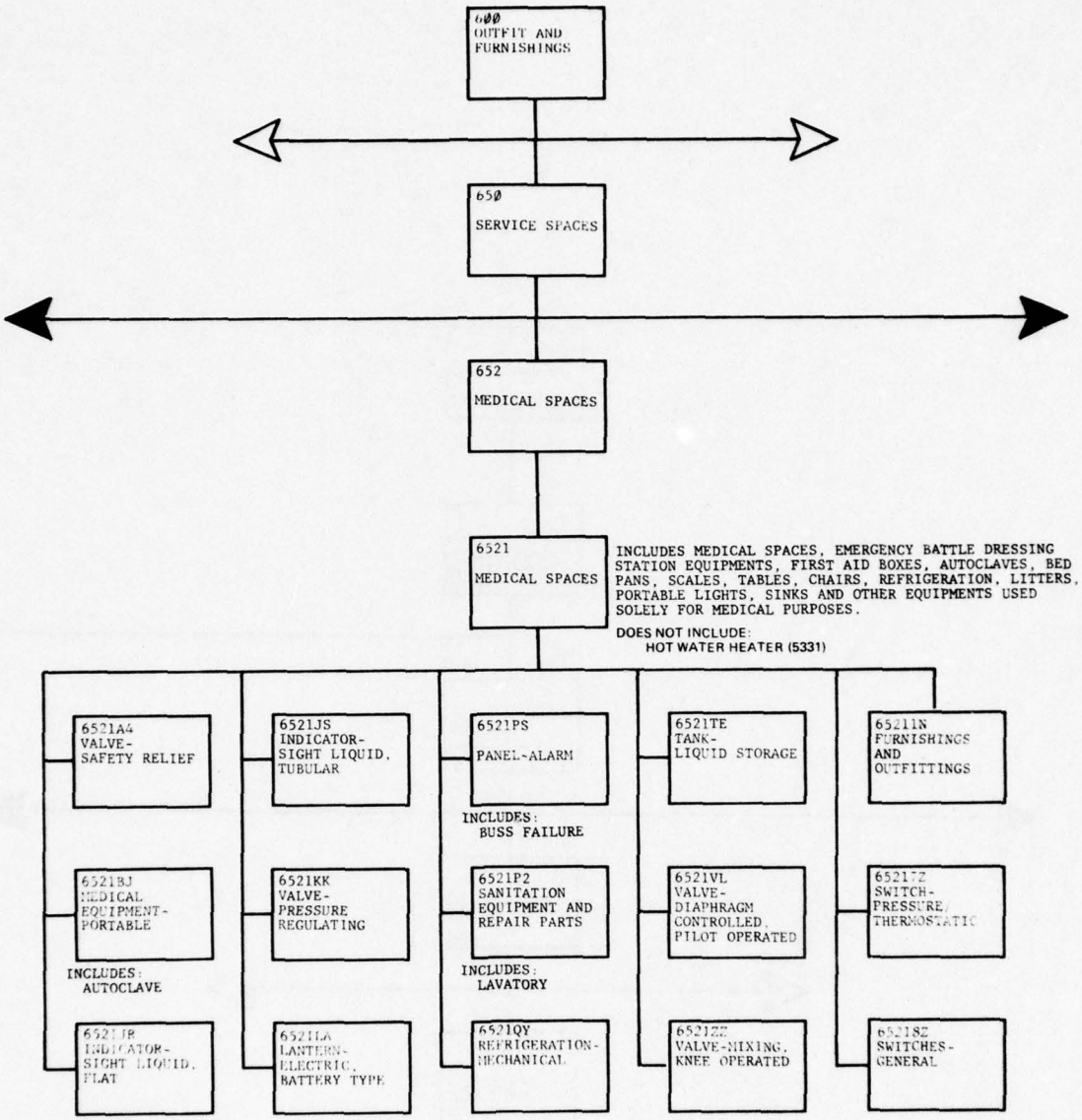
FF-1052 CLASS
PREPARED 7-6-77


600
OUTFIT AND FURNISHINGS
650
SERVICE SPACES
651
COMMISSARY SPACES
EA04
EE01
SS01
6517
GENERAL GALLEY
1B00
INCLUDES GALLEY AND SCULLERY EQUIPMENT.
6517A4
VALVE-SAFETY RELIEF
6517BX
VALVE-COMPRESSOR SHUT OFF
6517B1
BREAD SLICING MACHINE
6517CC
CABINET, ICE CREAM
6517C0
VALVE-REGULATING, WATER FLOW, FOR REFRIGERATION SYSTEMS
6517DV
DISHWASHING MACHINE
6517DZ
DISPENSER-MECHANICALLY REFRIGERATED, MILK
6517D2
DISPLAY CASE-MECHANICALLY REFRIGERATED, SELF CONTND/ NON-REF
6517D3
COMPRESSOR-RECIPROCATING
6517D6
DISPENSER-MECHANICALLY REFRIGERATED, OTHER THAN MILK
6517EU
VALVE-REFRIGERATION SHUT OFF
INCLUDES:
VALVE, GLB DPHRM PACKING BACK ST
VALVE, GLOBE RLF
VALVE, CHECK RLF
VALVE, PACK GLOBE REFRIGERATING
6517FZ
GRINDERS AND CUTTERS-FOOD ELECTRICAL
6517F6
FRYERS-DEEP FAT, ELECTRIC
6517GE
GALLEY EQUIPMENT-ELECTRICAL
INCLUDES:
GRIDDLE
OVEN
RANGE
WAFFLE IRON
COOKER
6517GF
GARBAGE DISPOSAL MACHINE
6517GS
GALLEY UNITS-COMPACT
INCLUDES:
ELECTRIC FOOD WARMER
6517HN
HEATER-WATER, ELECTRIC STORAGE TYPE
6517JB
ICE CREAM FREEZER-POWER OPERATED WITH INTEGRAL MECH REF EQUIP
6517JC
ICE MAKING MACHINE-MECHANICAL REFRIGERATION, SELF CONTAINED
6517J8
KETTLE-STEAM JACKETED
6517KD
TABLE-FOOD WARMER, ELECTRIC/STEAM HEATED
INCLUDES:
HOT CHOCOLATE DISPENSER
6517KK
VALVE-PRESSURE REGULATING
6517LY
URNS-COFFEE
6517MM
MEAT SLICING MACHINE
6517MN
MEAT TENDERIZER-ELECTRIC
6517MZ
MIXING MACHINE-ELECTRIC, FOOD AND FLUID
6517M1
MOLDING MACHINES-MEAT, FISH
6517M4
MOTOR-AC/DC 0.25 HP AND SMALLER
6517M7
MOTOR-AC
FF-1052 CLASS
PREPARED 7-6-77

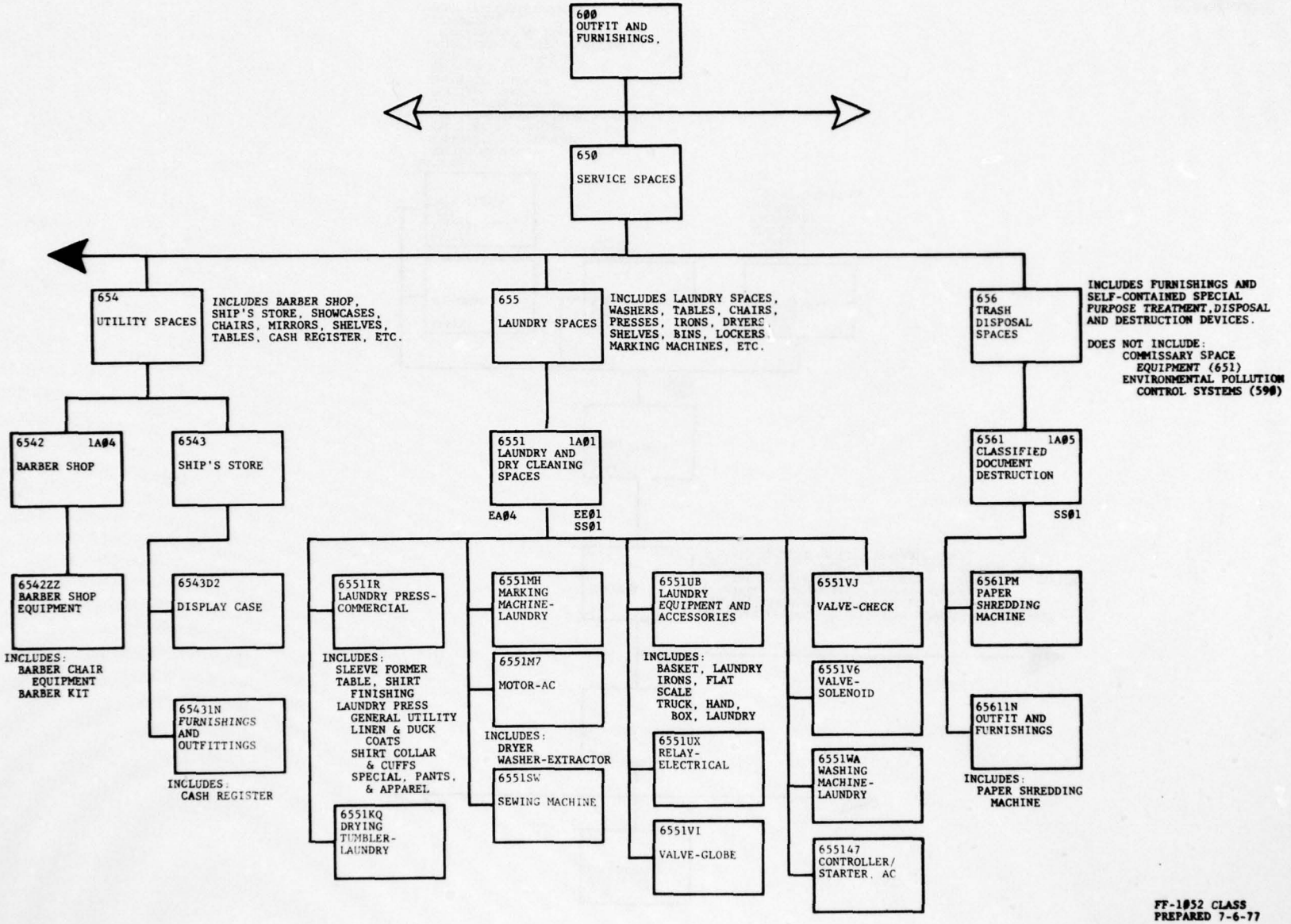

600
OUTFIT AND FURNISHINGS
650
SERVICE SPACES
651
COMMISSARY SPACES
EA04
EE01
SS01
6517 1B00
GENERAL GALLEY
INCLUDES GALLEY AND SCULLERY EQUIPMENT.
6517NA
CARBONATOR-SODA FOUNTAIN
6517NC
ICE CREAM FREEZER
6517NV
TRAP-STEAM AND/OR AIR
6517P2
SANITATION EQUIPMENT AND REPAIR PARTS
INCLUDES: FAUCET, SINGLE
6517QX
PUMP-CENTRIFUGAL, POWER DRIVEN
NOTE: FOR GARBAGE DISPOSAL UNIT.
6517QY
REFRIGERATION-MECHANICAL
6517RI
COMMISSARY EQUIPMENT
6517T4
MIXER AND TANK-FLUID ELECTRIC
6517UX
RELAY-ELECTRICAL
6517VI
VALVE-GLOBE
6517VN
VALVE-EXPANSION
NOTE: FOR DISPLAY CASE, ICE CREAM PLANT FREEZER, REFRIGERATOR, ICE CREAM CABINET, AND ICE MAKING MACHINE.
6517T3
TOASTER-ELECTRIC, INTERMITTENT
6517VR
VALVE-GATE
6517V6
VALVE-SOLENOID
NOTE: FOR DISPLAY CASE, GARBAGE DISPOSAL UNIT, ICE MAKING MACHINE, AND ICE CREAM PLANT FREEZER.
6517V7
VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
NOTE: FOR DSHWHG MACHINE.
6517ZY
STRAINER-SEDIMENT
65173X
COMPRESSOR-RECIPROCATING, REFRIGERATION, VERT OPERATION, SEMI-HERM
65174V
VEGETABLE PEELING MACHINE-ELECTRIC
65174Z
PUMP-CENTRIFUGAL, POWER DRIVEN, PERIPHERAL DESIGN
651747
CONTROLLER/STARTER, AC
65175C
COFFEE MAKER
65176T
TOASTER-ELECTRIC
651760
CONTROLLER, DC
651763
PUMP-CENTRIFUGAL, POWER DRIVEN, FOR COMMERCIAL DSHWHG MACHINE
65177Z
SWITCH-PRESSURE/THERMOSTATIC
65178Z
SWITCHES-GENERAL
651787
COUPLING-FLEXIBLE, SHAFT, AUXILIARY SERVICE
NOTE: FOR DSHWHG MACHINE AND GARBAGE DISPOSAL UNIT.
FF-1052 CLASS
PREPARED 7-6-77



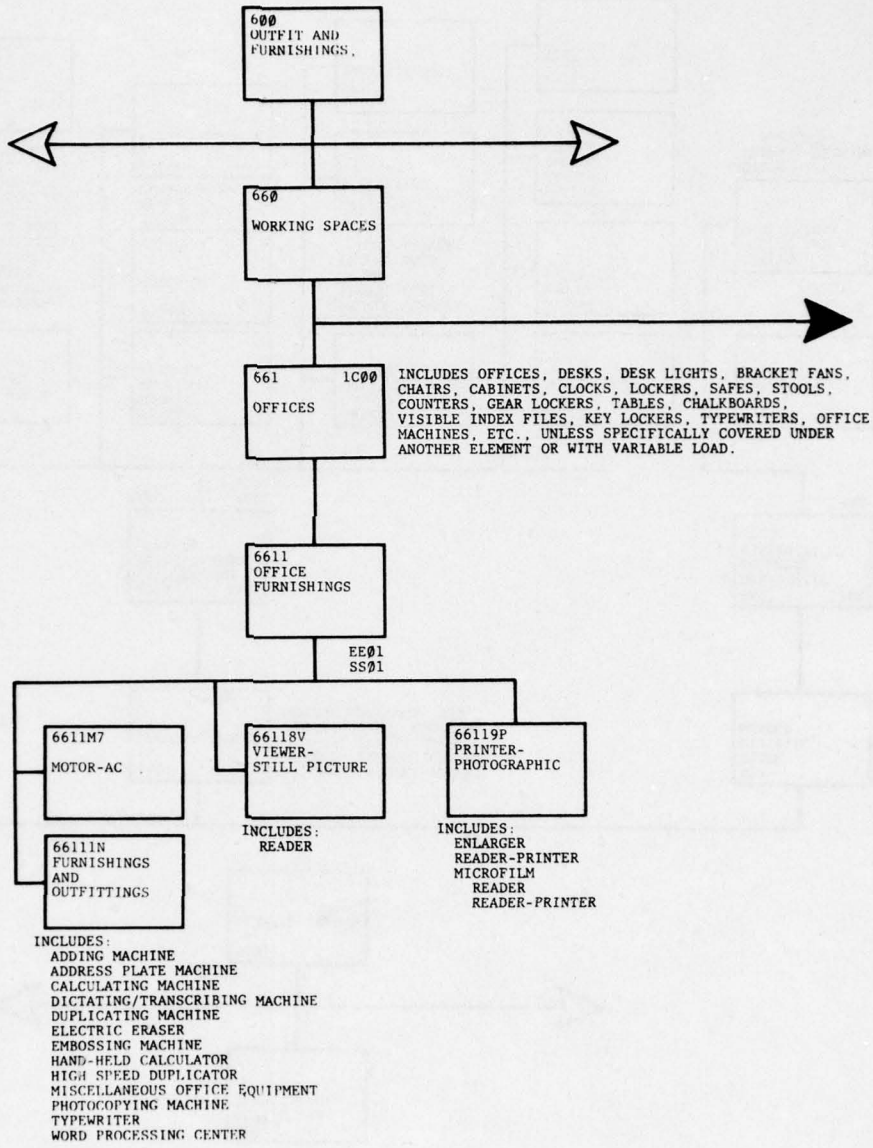
FF-1052 CLASS
PREPARED 7-6-77



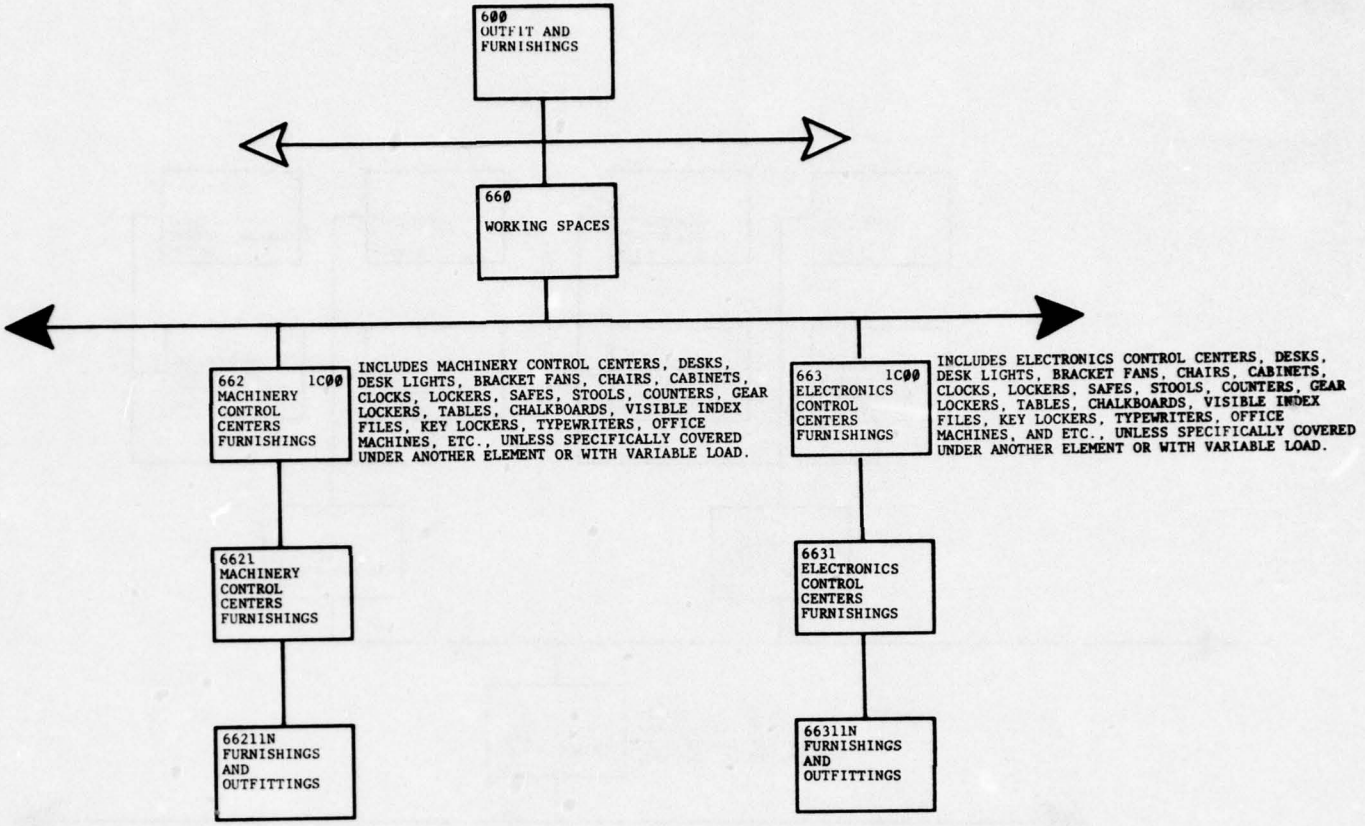
FF-1052 CLASS
PREPARED 7-6-77



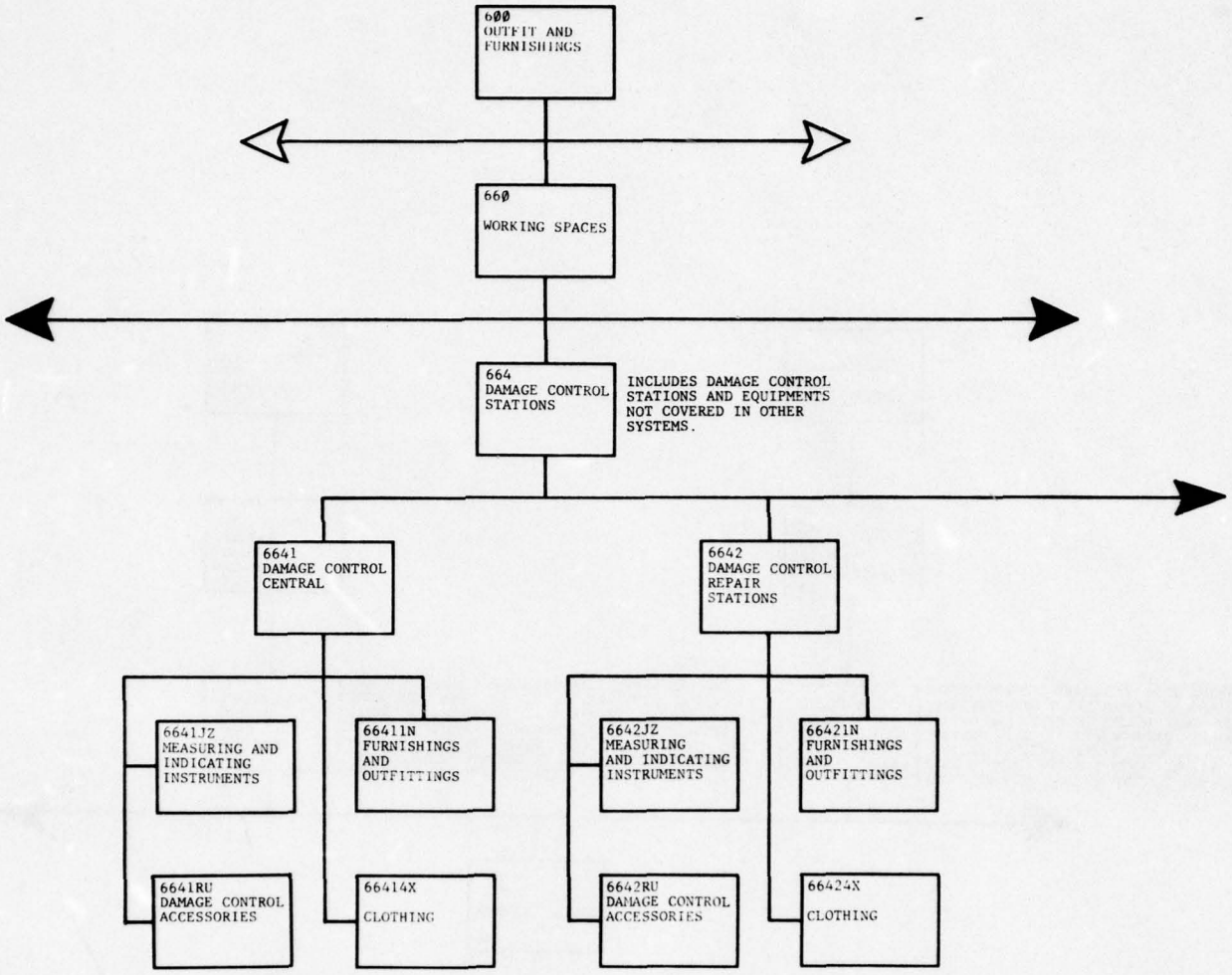
FF-1052 CLASS
PREPARED 7-6-77



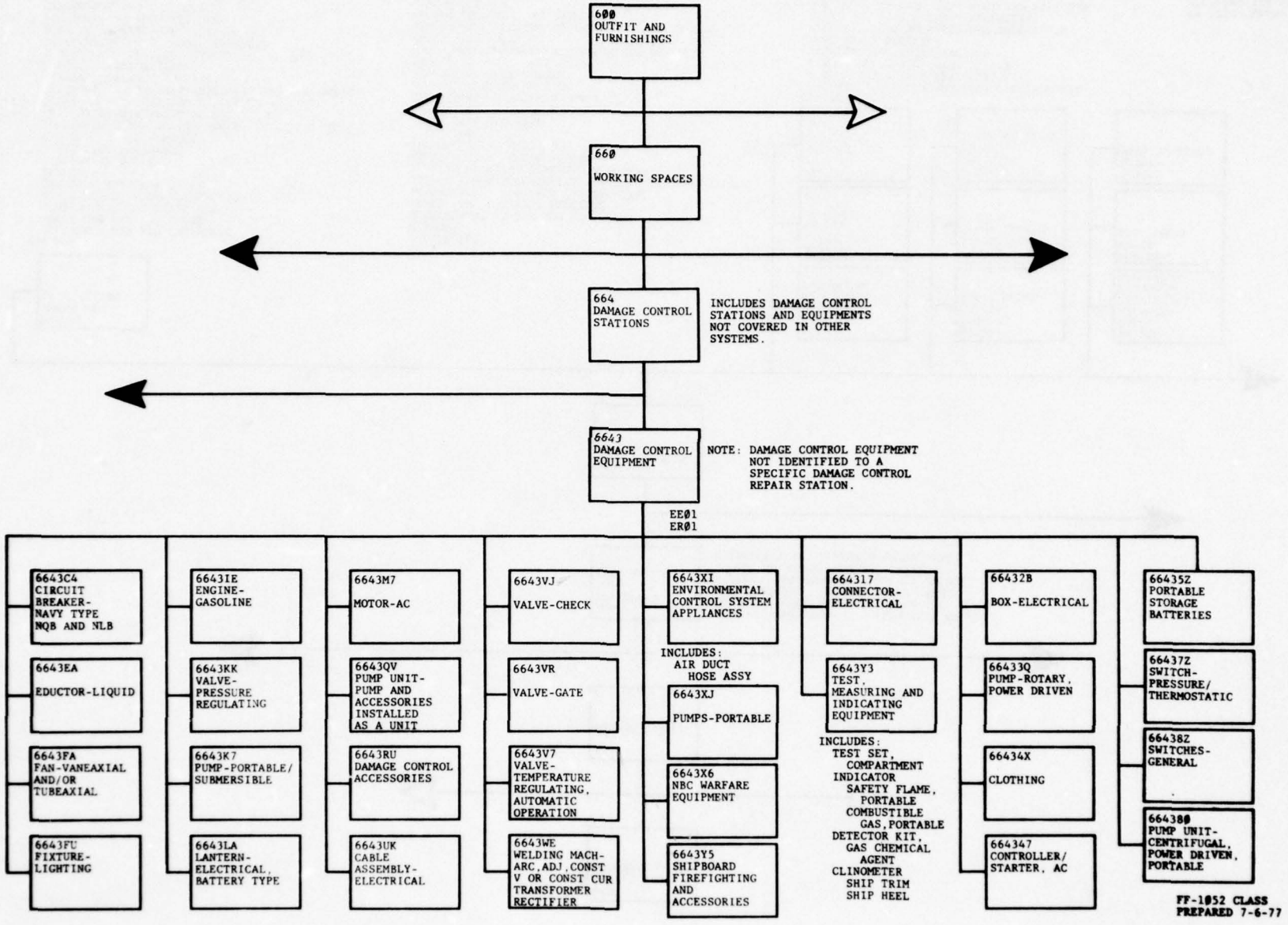
FF-1052 CLASS
PREPARED 7-6-77

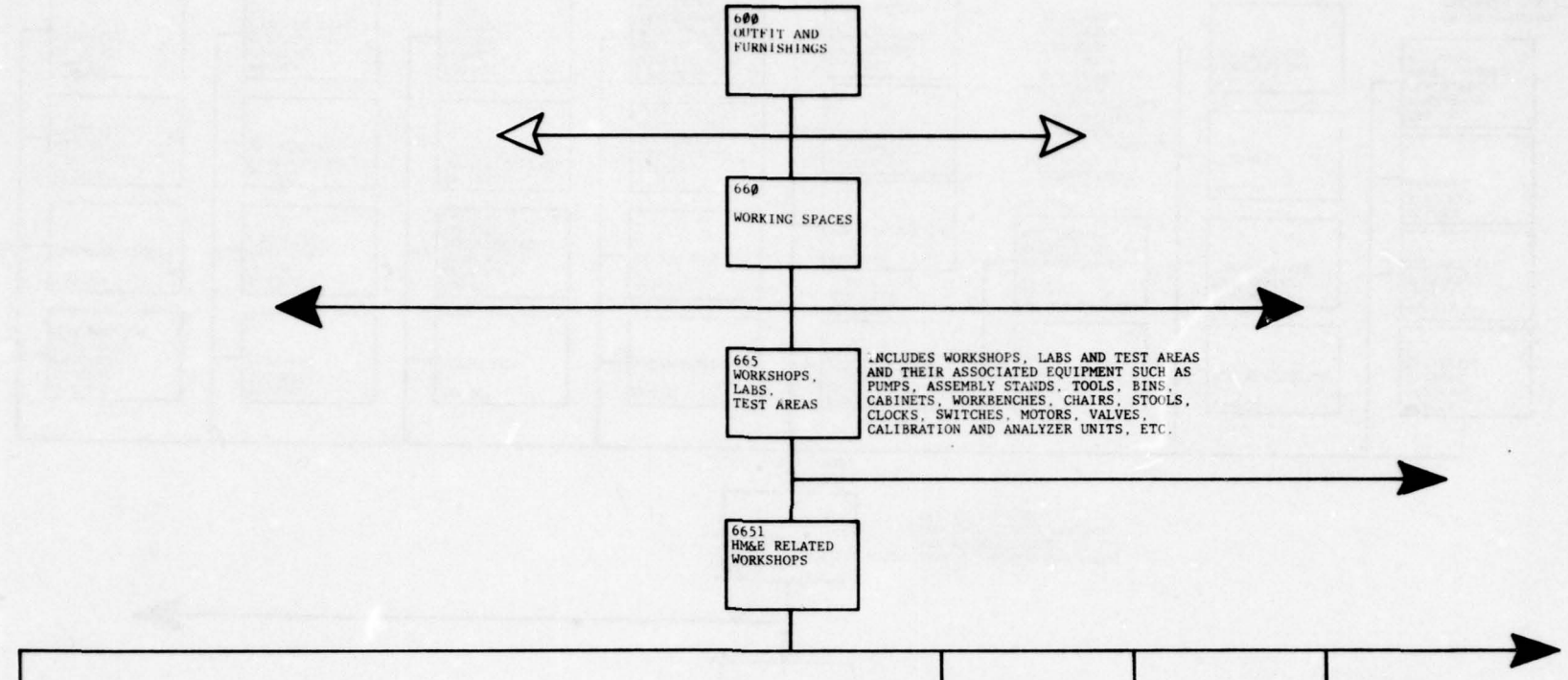


FF-1052 CLASS
PREPARED 7-6-77



FF-1052 CLASS
PREPARED 7-6-77

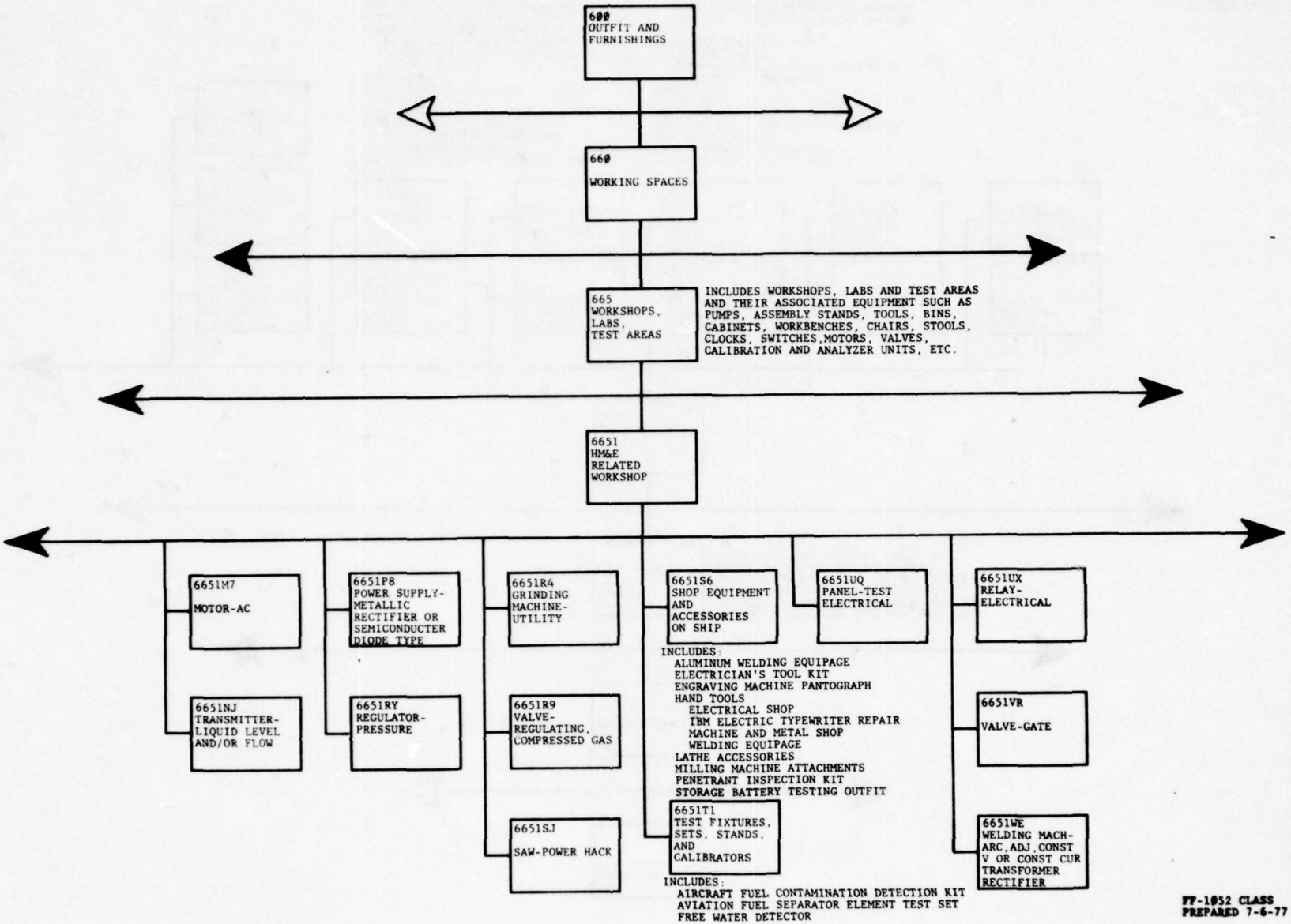

600
OUTFIT AND FURNISHINGS
660
WORKING SPACES
664
DAMAGE CONTROL STATIONS
INCLUDES DAMAGE CONTROL STATIONS AND EQUIPMENTS NOT COVERED IN OTHER SYSTEMS.
6643
DAMAGE CONTROL EQUIPMENT
NOTE: DAMAGE CONTROL EQUIPMENT NOT IDENTIFIED TO A SPECIFIC DAMAGE CONTROL REPAIR STATION.
EE01
ER01
6643C4 CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
6643EA EDUCTOR-LIQUID
6643FA FAN-VANEAXIAL AND/OR TUBEAXIAL
6643FU FIXTURE-LIGHTING
6643IE ENGINE-GASOLINE
6643KK VALVE-PRESSURE REGULATING
6643K7 PUMP-PORTABLE/SUBMERSIBLE
6643LA LANTERN-ELECTRICAL, BATTERY TYPE
6643M7 MOTOR-AC
6643QV PUMP UNIT-PUMP AND ACCESSORIES INSTALLED AS A UNIT
6643RU DAMAGE CONTROL ACCESSORIES
6643UK CABLE ASSEMBLY-ELECTRICAL
6643VJ VALVE-CHECK
6643VR VALVE-GATE
6643V7 VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
6643WE WELDING MACH-ARC, ADJ, CONST V OR CONST CUR TRANSFORMER RECTIFIER
6643XI ENVIRONMENTAL CONTROL SYSTEM APPLIANCES
INCLUDES:
AIR DUCT
HOSE ASSY
6643XJ PUMPS-PORTABLE
6643X6 NBC WARFARE EQUIPMENT
6643Y5 SHIPBOARD FIREFIGHTING AND ACCESSORIES
664317 CONNECTOR-ELECTRICAL
6643Y3 TEST, MEASURING AND INDICATING EQUIPMENT
INCLUDES:
TEST SET, COMPARTMENT INDICATOR
SAFETY FLAME, PORTABLE COMBUSTIBLE GAS, PORTABLE
DETECTOR KIT, GAS CHEMICAL AGENT
CLINOMETER
SHIP TRIM
SHIP HEEL
66432B BOX-ELECTRICAL
66433Q PUMP-ROTARY, POWER DRIVEN
66434X CLOTHING
664347 CONTROLLER/STARTER, AC
66435Z PORTABLE STORAGE BATTERIES
66437Z SWITCH-PRESSURE/THERMOSTATIC
66438Z SWITCHES-GENERAL
664380 PUMP UNIT-CENTRIFUGAL, POWER DRIVEN, PORTABLE
FF-1052 CLASS
PREPARED 7-6-77



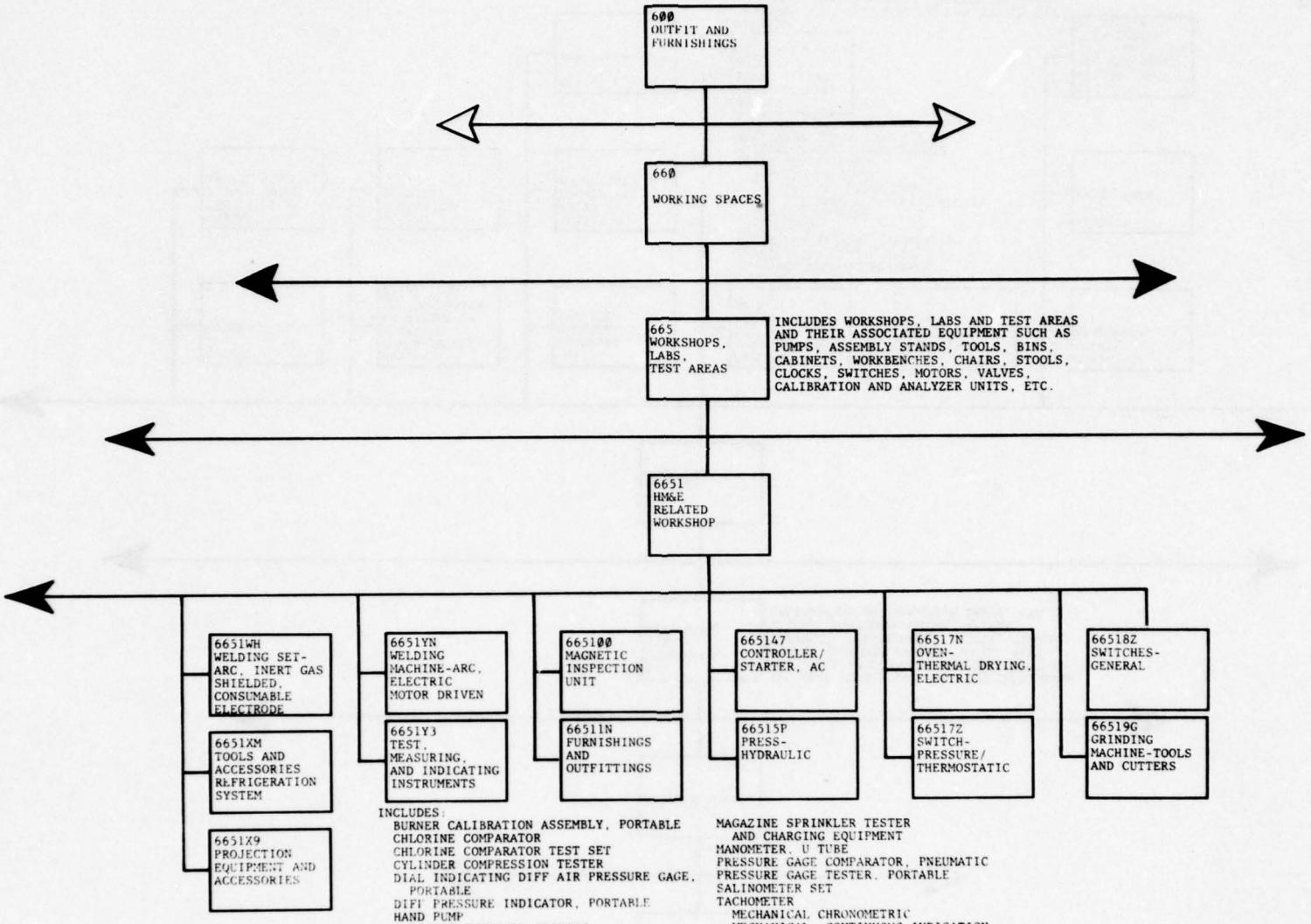
INCLUDES:
- ACETYLENE GAS AND CYLINDERS
- ARGON GAS AND CYLINDERS
- BRAZING AND SOLDERING SET
- CHAIN HOIST, HOOK SUSPENSION
- DRAFTING INSTRUMENT SET
- DRILL
  - PORTABLE ELECTRIC
  - PORTABLE PNEUMATIC
- ENGINEER'S STETHOSCOPE
- EQUIPMENT DISTRIBUTION TOOLS, MISCELLANEOUS
- GATE VALVE RESEATING OUTFIT
- GLOBE VALVE RESEATING OUTFIT
- GRINDERS AND SANDERS, ELECTRIC AND PNEUMATIC
- HAMMER, PORTABLE PNEUMATIC
- HANDHOLE SEAT GRINDER
- INSECTICIDE SPRAYER, MANUAL
- LUBRICATING UNIT, POWER OPERATED
- NIBBLER, PORTABLE ELECTRIC
- NITROGEN GAS AND CYLINDERS
- OXYGEN GAS AND CYLINDERS
- POLYETHYLENE CONTAINER, 5 GAL
- PULLER SET
- REAMERS
- REFRIGERANT 12 GAS AND CYLINDERS
- SABER SAW, PORTABLE ELECTRIC
- SANDBLASTER, PORTABLE CABINET TYPE
- SAW FILE AND ACCESSORIES, RECIPROCATING PNEUMATIC
- SEALING MACHINE, PORTABLE ELECTRIC
- SEWER ROOTER, MOTOR DRIVEN
- SHEARS, METAL CUTTING
  - ELECTRIC
  - PORTABLE ELECTRIC
- SOCKET SET
- STEEL STRAP STRETCHER, HAND
- STENCIL CUTTING MACHINE
- STRAPPING STEEL CUTTER
- THREADING SET
- TOOLS AND EQUIPAGE, MISCELLANEOUS PORTABLE
- TWIST DRILL SET
- WELDING AND CUTTING EQUIPMENT, MISCELLANEOUS
- WELDING AND CUTTING OUTFITS
- WIRE DRILL SET
- WIRE ROPE SPLICING VISE

INCLUDES:
- AIRCRAFT FUEL CONTAMINANT DETECTION KIT
- CONTAMINATED FUEL DETECTOR
- CLOSED CUP FLASH POINT TESTER
- ELECTRIC CENTRIFUGE TESTER
- FREE WATER DETECTOR
- FUEL OIL TESTING PASTE AND SPOT PLATE
- PETROLEUM TEST OUTFIT HYDROMETER
- PORT COMPENSATING TANK HOSE AND FITTINGS
- TANK GAGING TAPE MEASURE

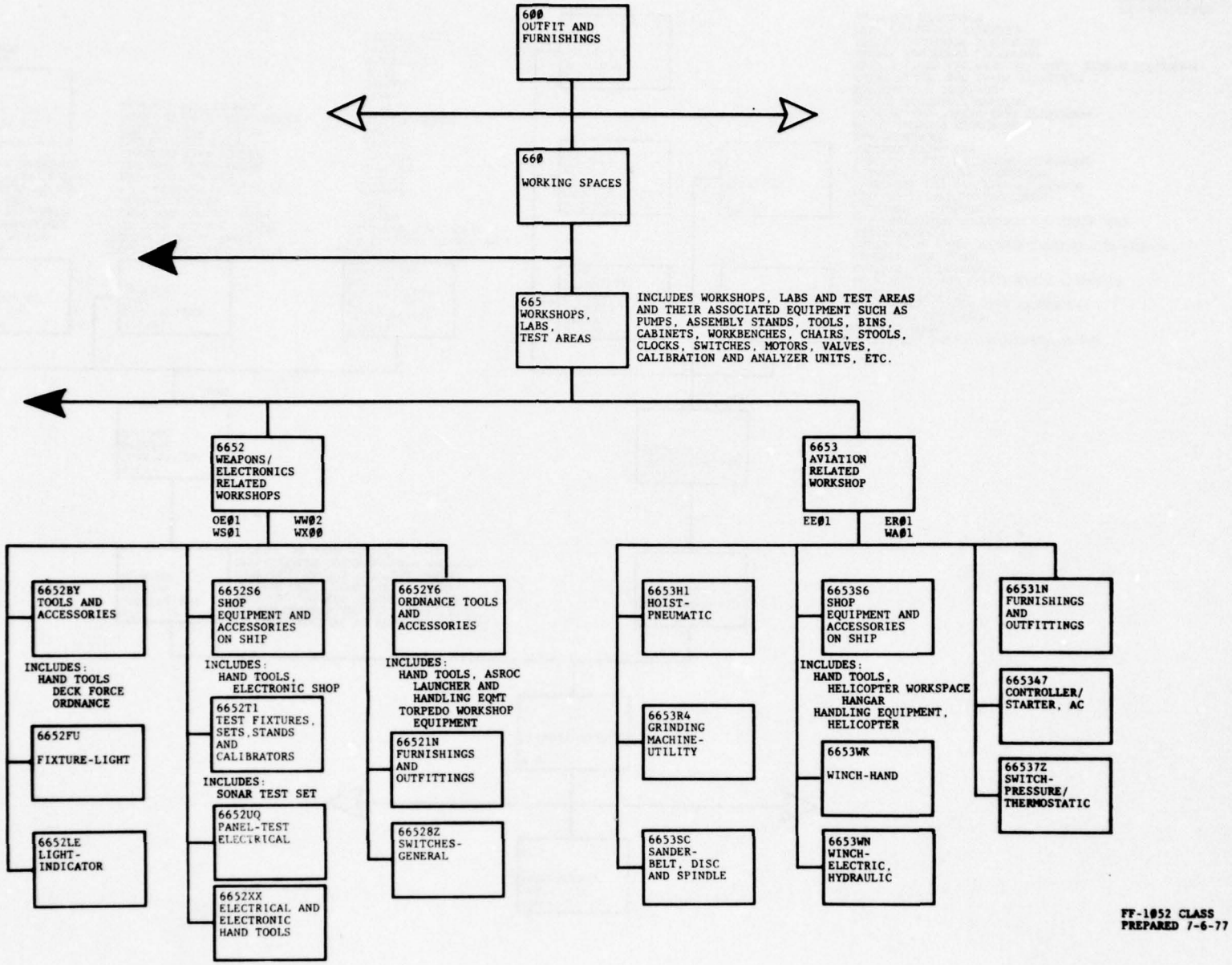
FF-1052 CLASS
PREPARED 7-6-77



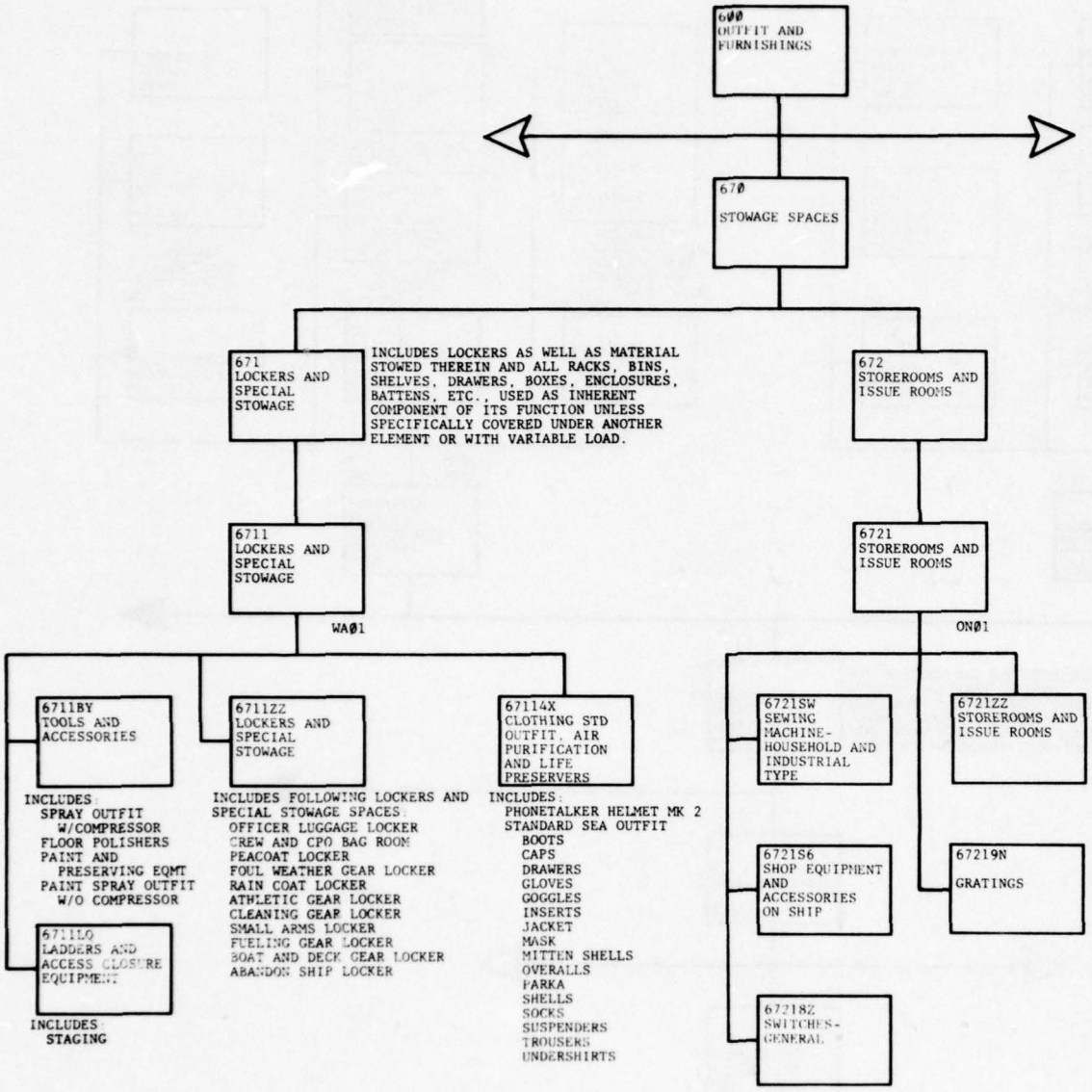
FF-1052 CLASS
PREPARED 7-6-77



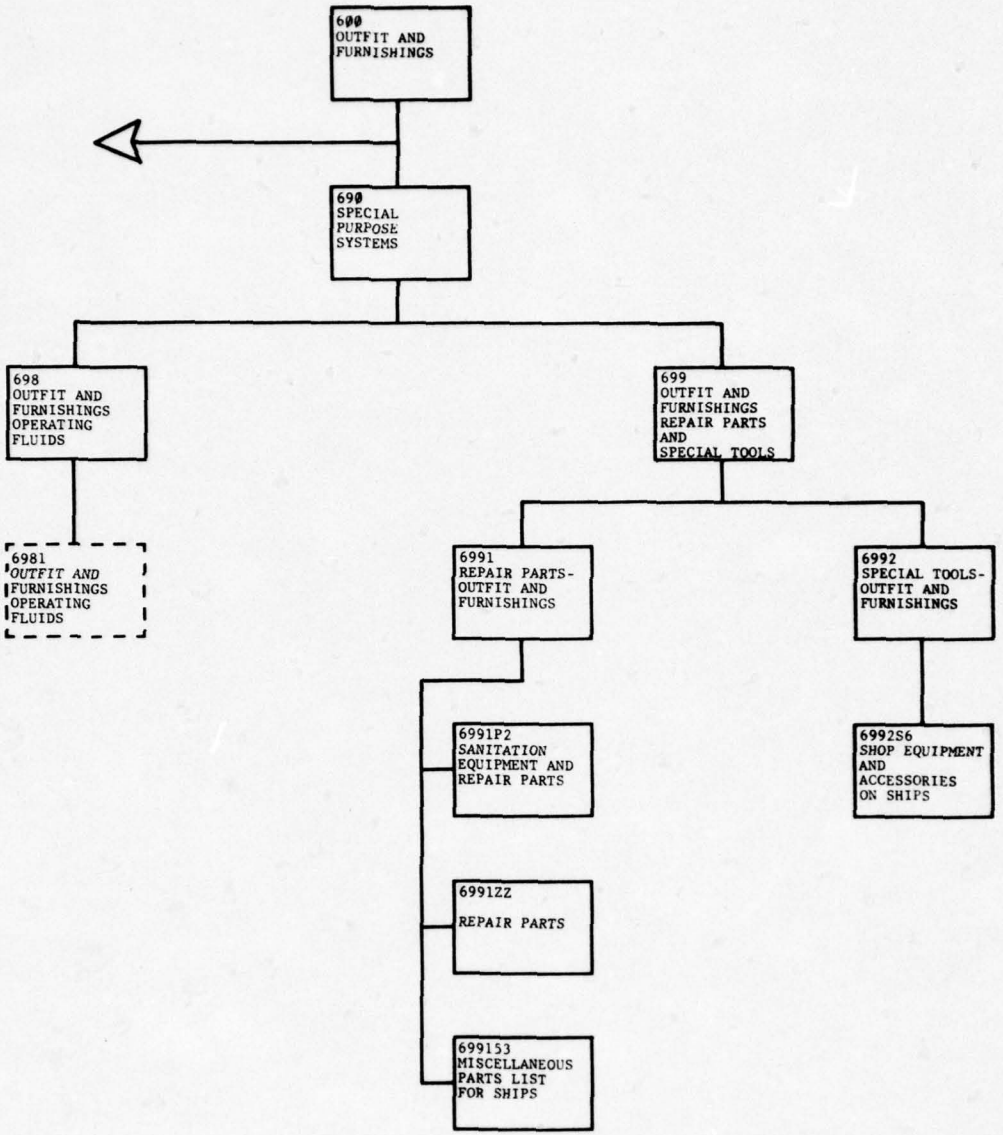
FF-1052 CLASS
PREPARED 7-6-77



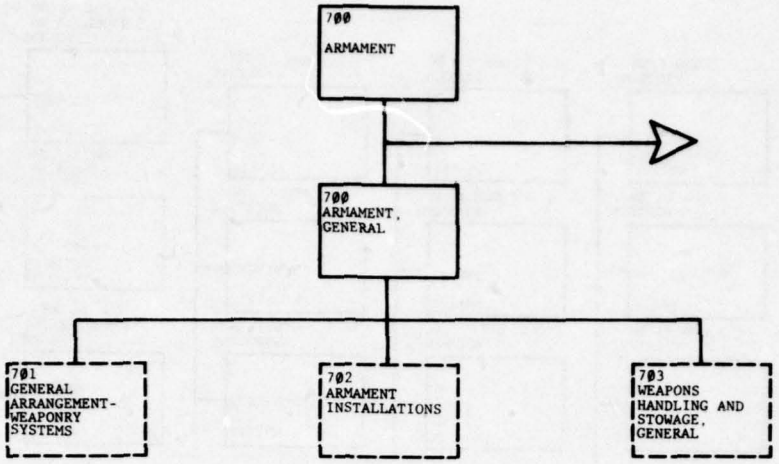
FF-1052 CLASS
PREPARED 7-6-77



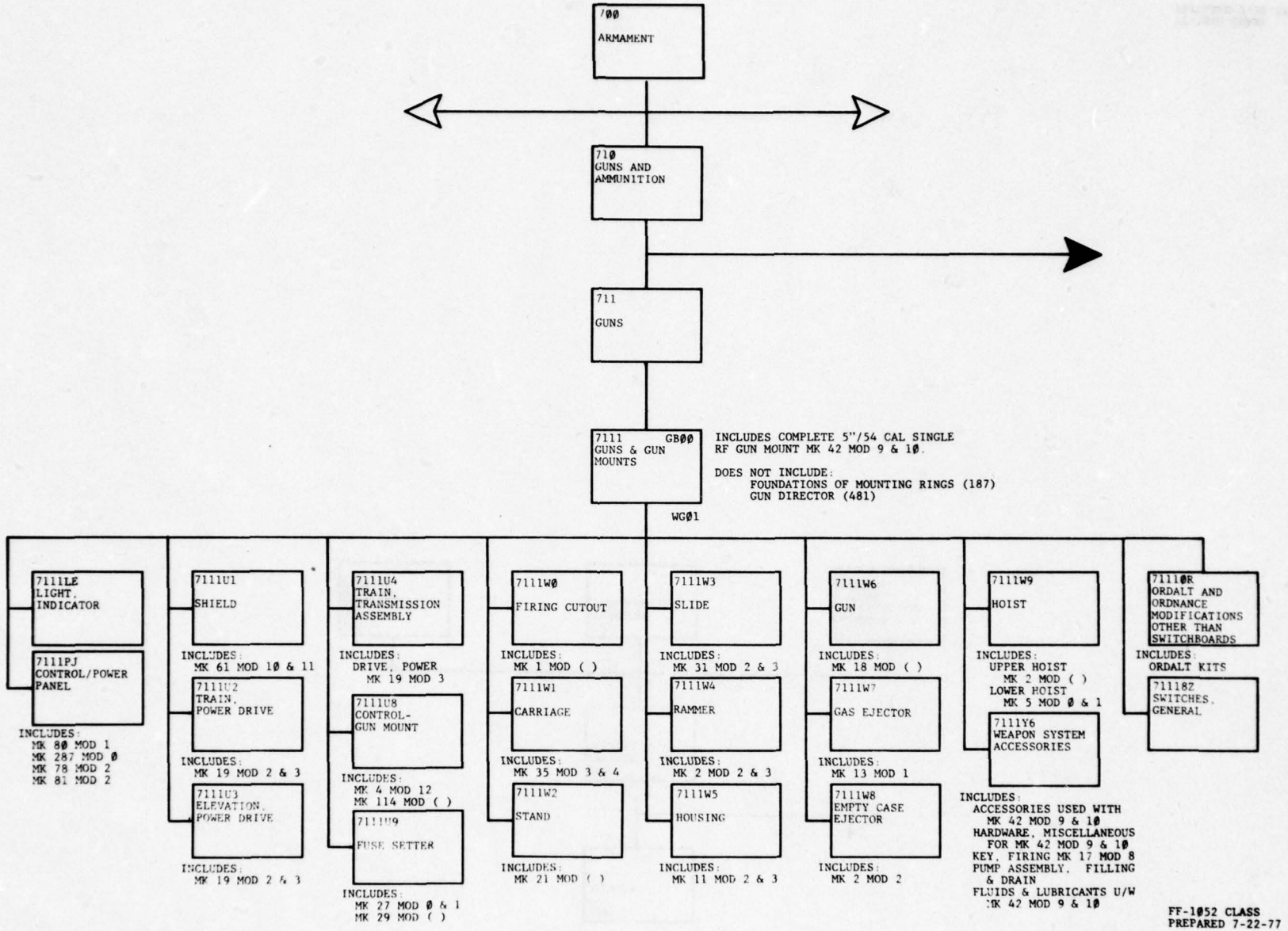
FF-1052 CLASS
PREPARED 7-6-77



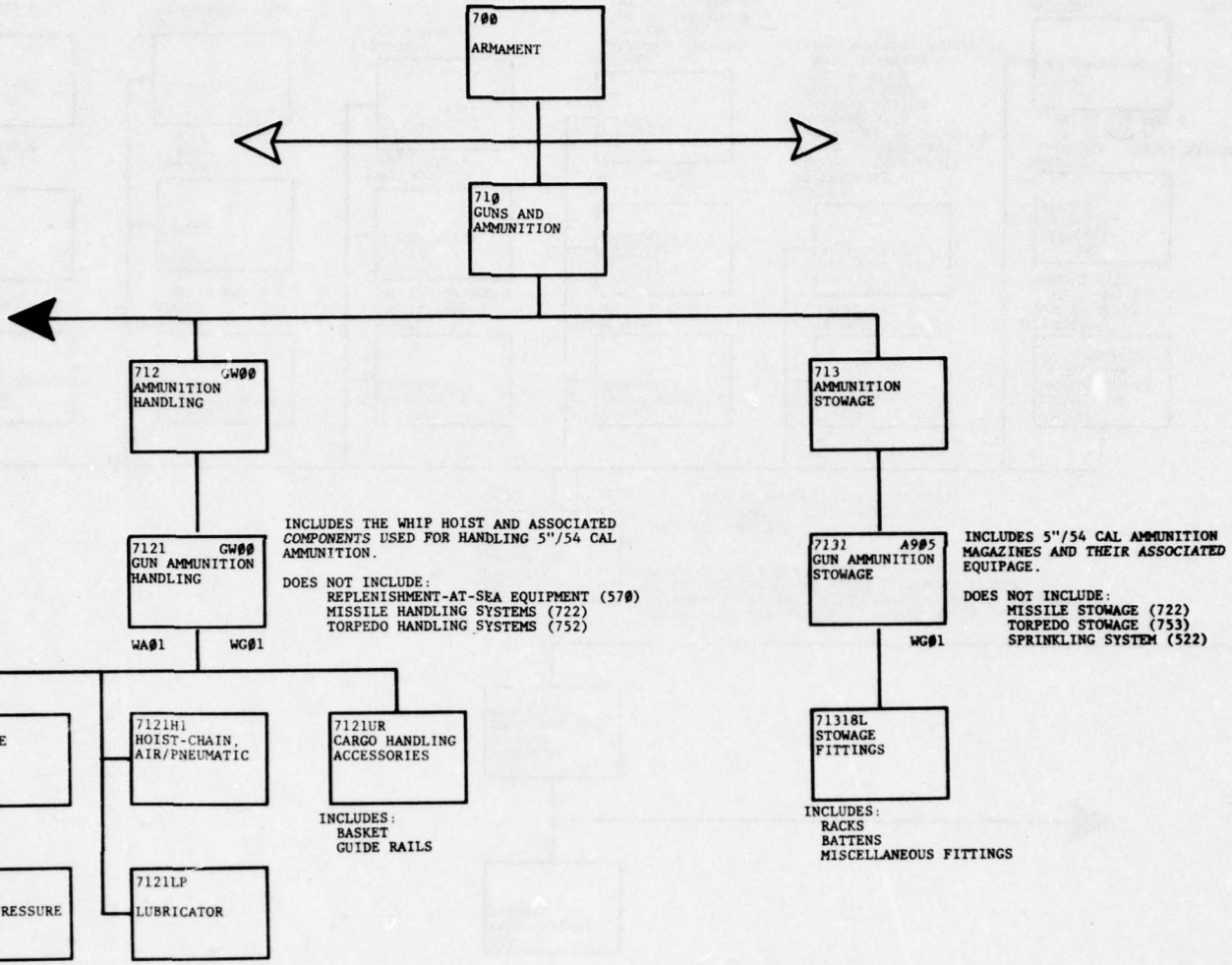
FF-1052 CLASS
PREPARED 7-6-77



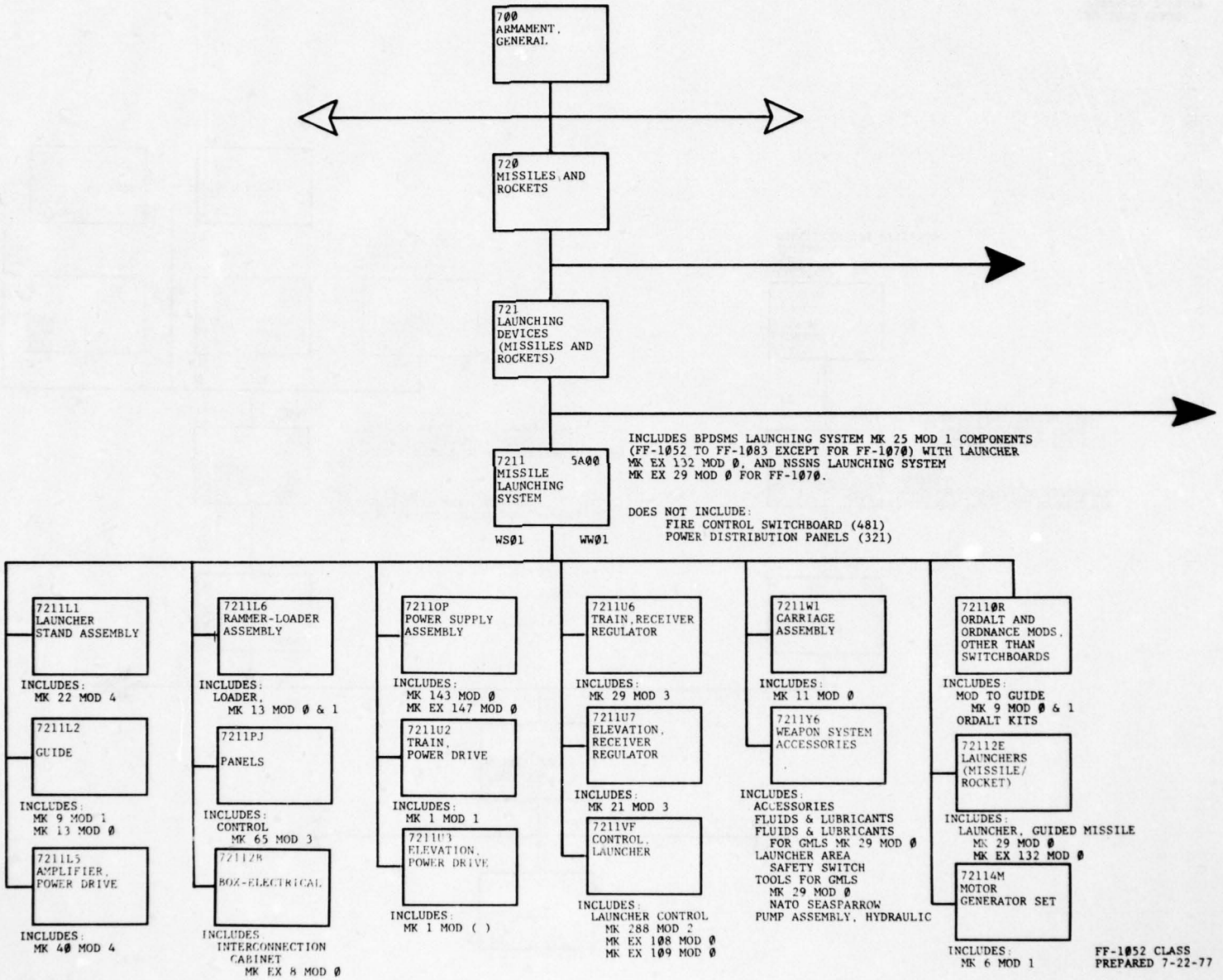
FF-1052 CLASS
PREPARED 7-22-77

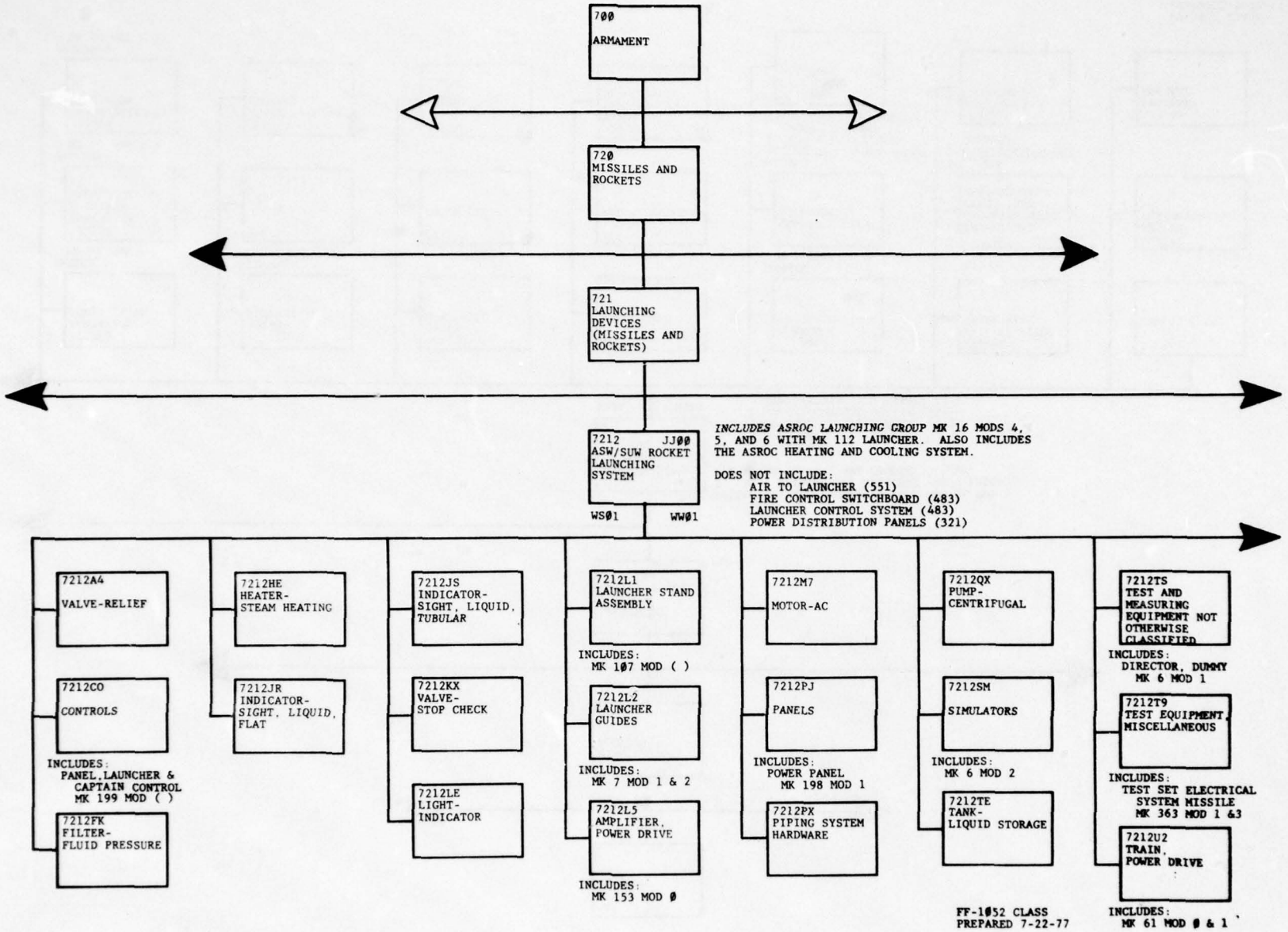


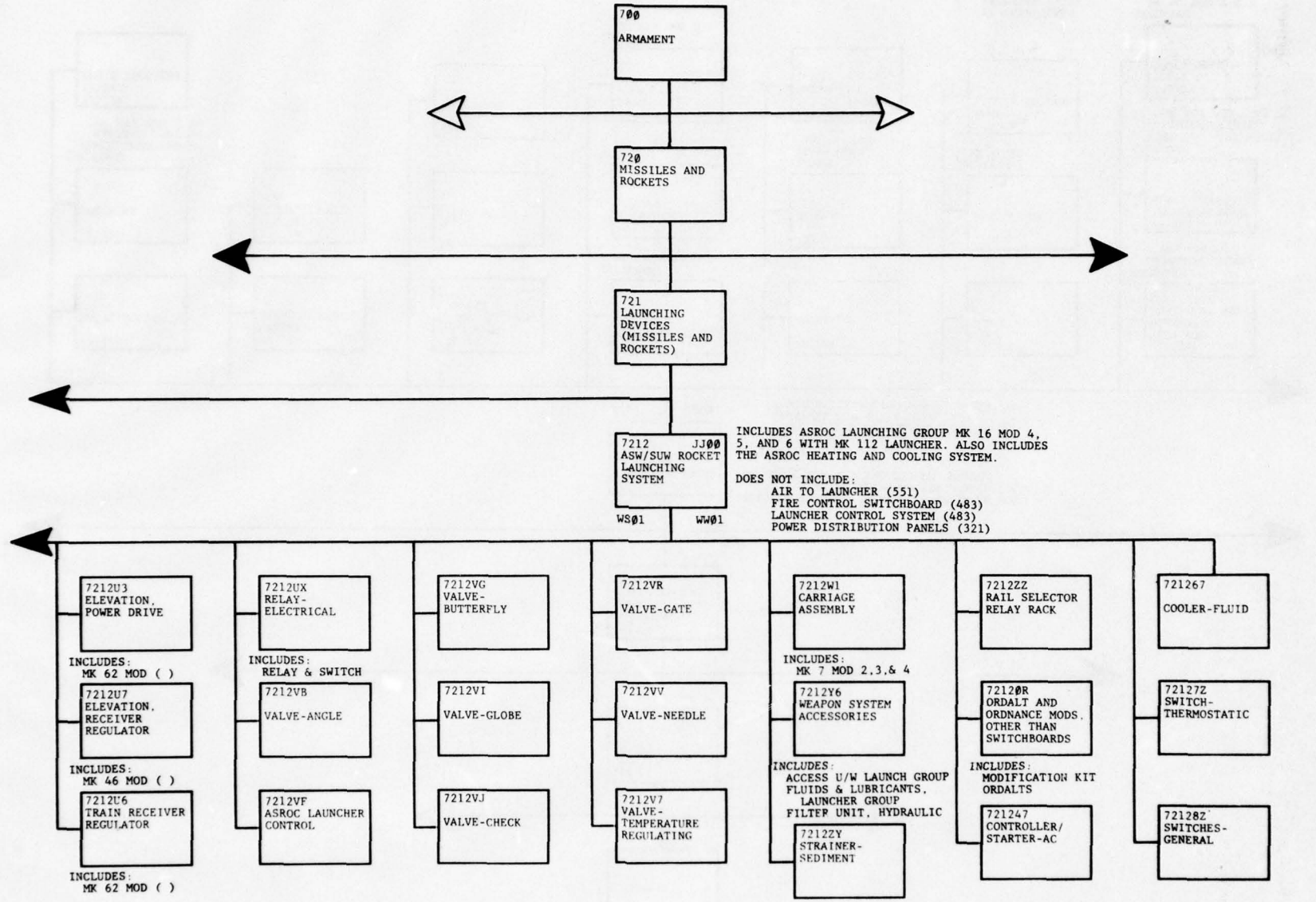
FF-1052 CLASS
PREPARED 7-22-77



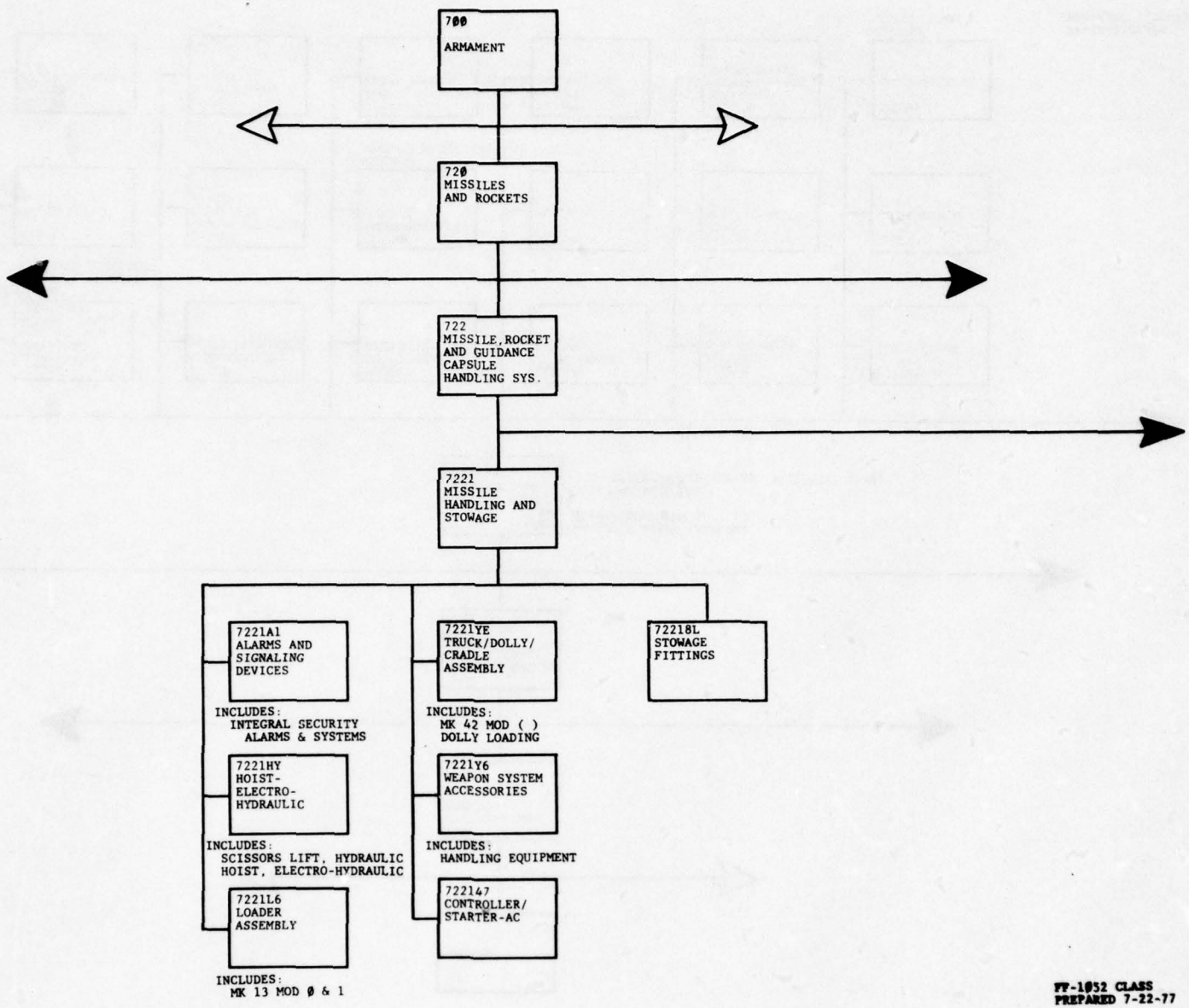
FF-1052 CLASS
PREPARED 7-22-77


700
ARMAMENT, GENERAL
720
MISSILES AND ROCKETS
721
LAUNCHING DEVICES (MISSILES AND ROCKETS)
7211 5A00
MISSILE LAUNCHING SYSTEM
WS01 WW01
INCLUDES BPDSMS LAUNCHING SYSTEM MK 25 MOD 1 COMPONENTS (FF-1052 TO FF-1083 EXCEPT FOR FF-1070) WITH LAUNCHER MK EX 132 MOD 0, AND NSSNS LAUNCHING SYSTEM MK EX 29 MOD 0 FOR FF-1070.
DOES NOT INCLUDE:
FIRE CONTROL SWITCHBOARD (481)
POWER DISTRIBUTION PANELS (321)
7211L1
LAUNCHER STAND ASSEMBLY
INCLUDES:
MK 22 MOD 4
7211L2
GUIDE
INCLUDES:
MK 9 MOD 1
MK 13 MOD 0
7211L5
AMPLIFIER, POWER DRIVE
INCLUDES:
MK 40 MOD 4
7211L6
RAMMER-LOADER ASSEMBLY
INCLUDES:
LOADER,
MK 13 MOD 0 & 1
7211PJ
PANELS
INCLUDES:
CONTROL
MK 65 MOD 3
7211Z8
BOX-ELECTRICAL
INCLUDES
INTERCONNECTION CABINET
MK EX 8 MOD 0
7211OP
POWER SUPPLY ASSEMBLY
INCLUDES:
MK 143 MOD 0
MK EX 147 MOD 0
7211U2
TRAIN, POWER DRIVE
INCLUDES:
MK 1 MOD 1
7211U3
ELEVATION, POWER DRIVE
INCLUDES:
MK 1 MOD ( )
7211U6
TRAIN, RECEIVER REGULATOR
INCLUDES:
MK 29 MOD 3
7211U7
ELEVATION, RECEIVER REGULATOR
INCLUDES:
MK 21 MOD 3
7211VF
CONTROL, LAUNCHER
INCLUDES:
LAUNCHER CONTROL
MK 288 MOD 2
MK EX 108 MOD 0
MK EX 109 MOD 0
7211W1
CARRIAGE ASSEMBLY
INCLUDES:
MK 11 MOD 0
7211Y6
WEAPON SYSTEM ACCESSORIES
INCLUDES:
ACCESSORIES
FLUIDS & LUBRICANTS
FLUIDS & LUBRICANTS FOR GMLS MK 29 MOD 0
LAUNCHER AREA SAFETY SWITCH
TOOLS FOR GMLS MK 29 MOD 0
NATO SEASPARROW
PUMP ASSEMBLY, HYDRAULIC
7211OR
ORDALT AND ORDNANCE MODS, OTHER THAN SWITCHBOARDS
INCLUDES:
MOD TO GUIDE MK 9 MOD 0 & 1
ORDALT KITS
72112E
LAUNCHERS (MISSILE/ ROCKET)
INCLUDES:
LAUNCHER, GUIDED MISSILE MK 29 MOD 0
MK EX 132 MOD 0
72114M
MOTOR GENERATOR SET
INCLUDES:
MK 6 MOD 1
FF-1052 CLASS
PREPARED 7-22-77

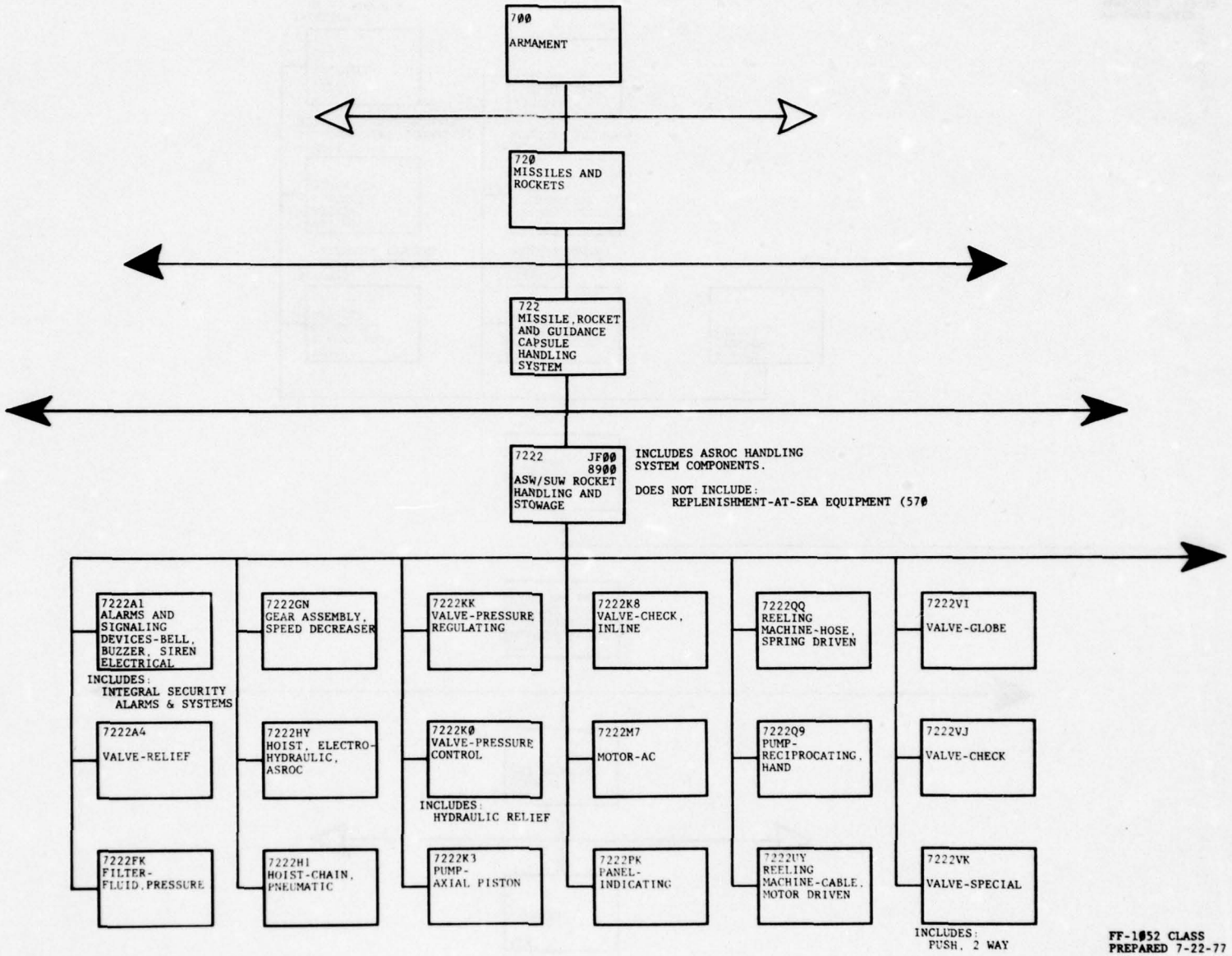

700
ARMAMENT
720
MISSILES AND ROCKETS
721
LAUNCHING DEVICES (MISSILES AND ROCKETS)
7212 JJ00
ASW/SUW ROCKET LAUNCHING SYSTEM
WS01
WW01
INCLUDES ASROC LAUNCHING GROUP MK 16 MODS 4, 5, AND 6 WITH MK 112 LAUNCHER. ALSO INCLUDES THE ASROC HEATING AND COOLING SYSTEM.
DOES NOT INCLUDE:
AIR TO LAUNCHER (551)
FIRE CONTROL SWITCHBOARD (483)
LAUNCHER CONTROL SYSTEM (483)
POWER DISTRIBUTION PANELS (321)
7212A4
VALVE-RELIEF
7212CO
CONTROLS
INCLUDES:
PANEL, LAUNCHER & CAPTAIN CONTROL MK 199 MOD ( )
7212FK
FILTER-FLUID PRESSURE
7212HE
HEATER-STEAM HEATING
7212JR
INDICATOR-SIGHT, LIQUID, FLAT
7212JS
INDICATOR-SIGHT, LIQUID, TUBULAR
7212KX
VALVE-STOP CHECK
7212LE
LIGHT-INDICATOR
7212L1
LAUNCHER STAND ASSEMBLY
INCLUDES:
MK 107 MOD ( )
7212L2
LAUNCHER GUIDES
INCLUDES:
MK 7 MOD 1 & 2
7212L5
AMPLIFIER, POWER DRIVE
INCLUDES:
MK 153 MOD 0
7212M7
MOTOR-AC
7212PJ
PANELS
INCLUDES:
POWER PANEL MK 198 MOD 1
7212PX
PIPING SYSTEM HARDWARE
7212QX
PUMP-CENTRIFUGAL
7212SM
SIMULATORS
INCLUDES:
MK 6 MOD 2
7212TE
TANK-LIQUID STORAGE
7212TS
TEST AND MEASURING EQUIPMENT NOT OTHERWISE CLASSIFIED
INCLUDES:
DIRECTOR, DUMMY MK 6 MOD 1
7212T9
TEST EQUIPMENT, MISCELLANEOUS
INCLUDES:
TEST SET ELECTRICAL SYSTEM MISSILE MK 363 MOD 1 &3
7212U2
TRAIN, POWER DRIVE
INCLUDES:
MK 61 MOD 0 & 1
FF-1052 CLASS
PREPARED 7-22-77



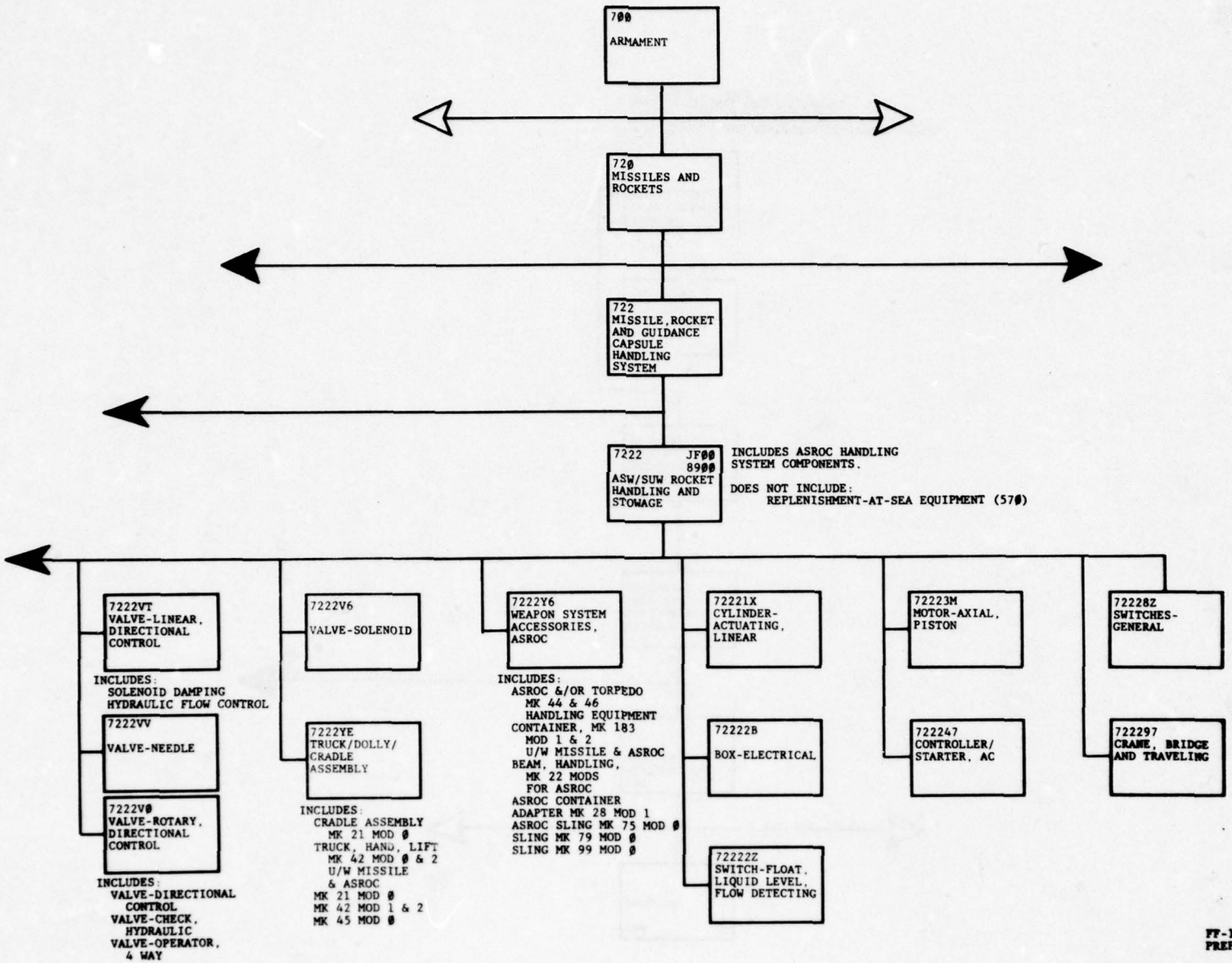
FF-1052 CLASS
PREPARED 7-22-77



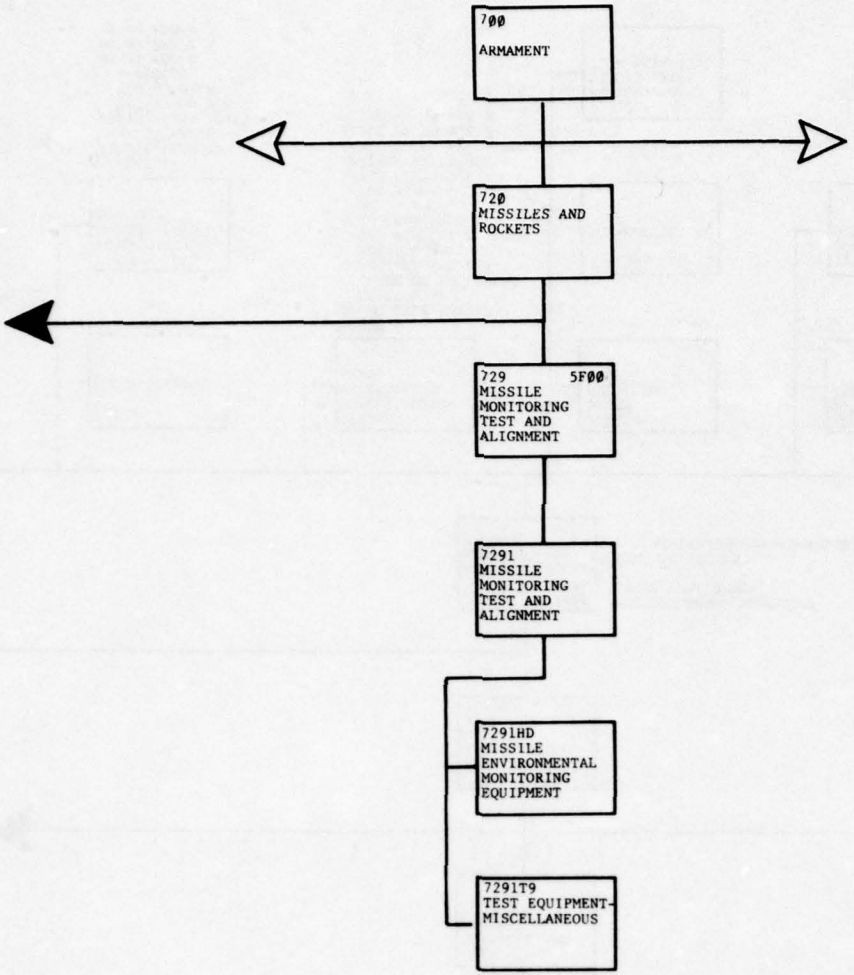
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77

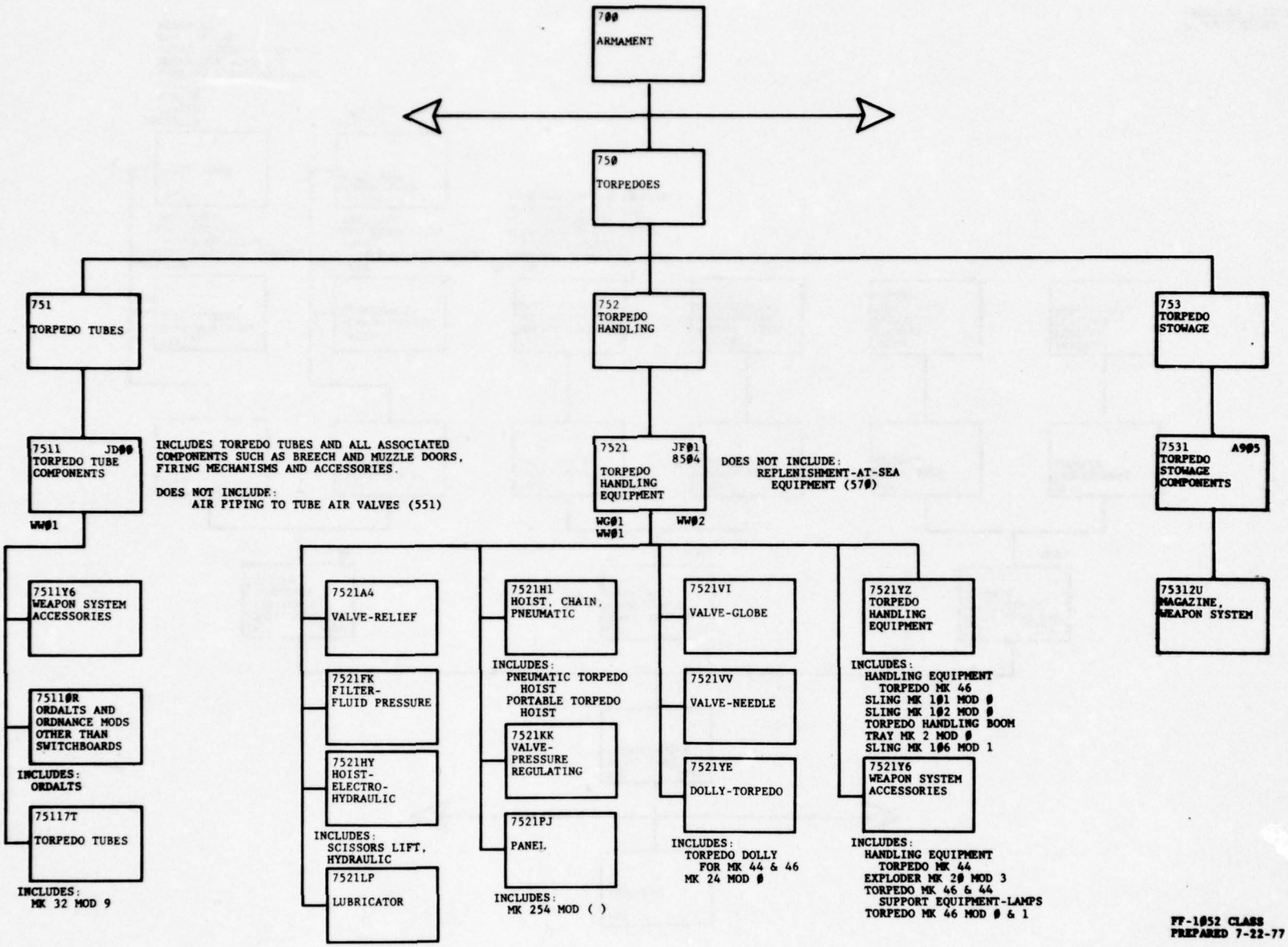


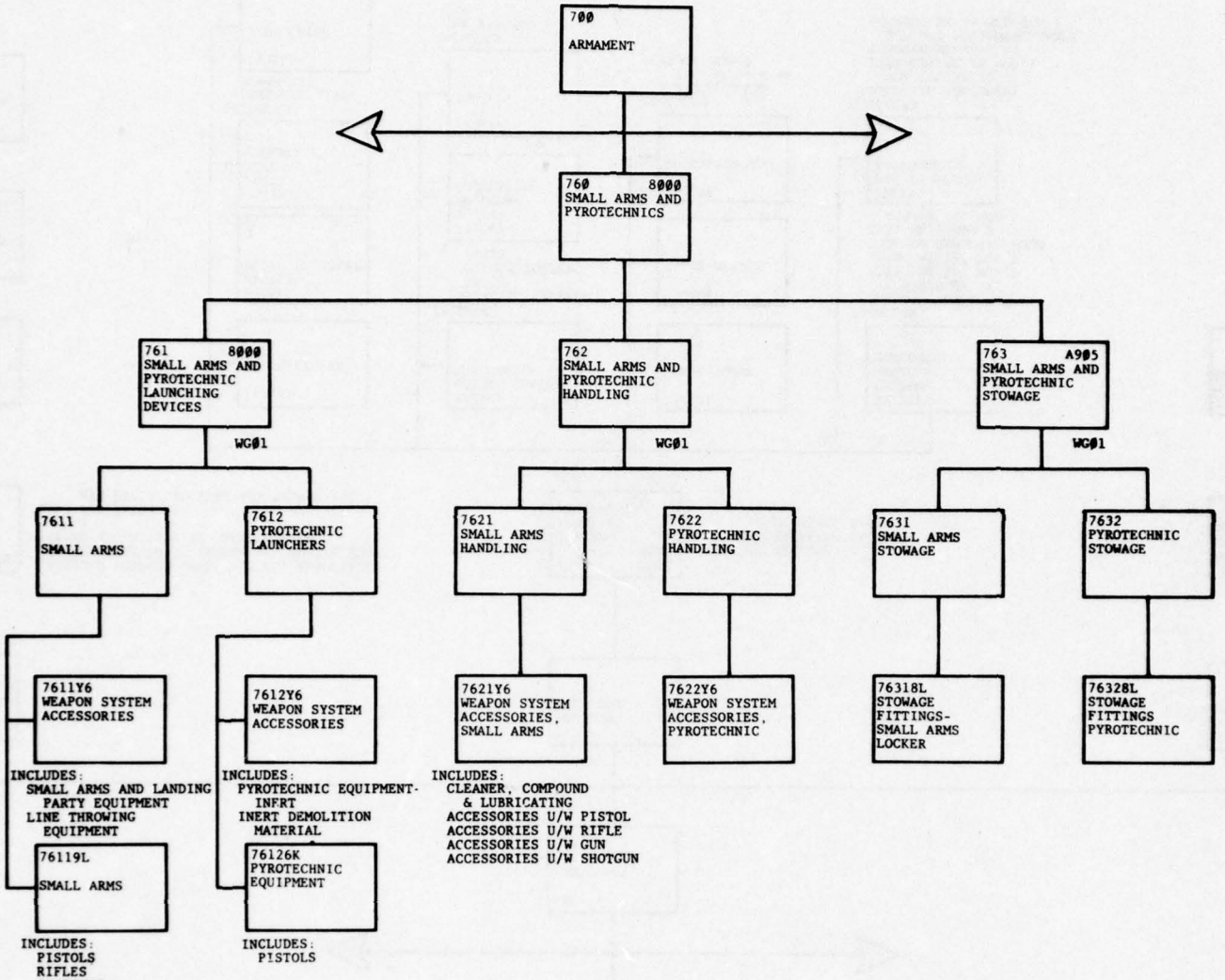
FF-1052 CLASS
PREPARED 7-22-77



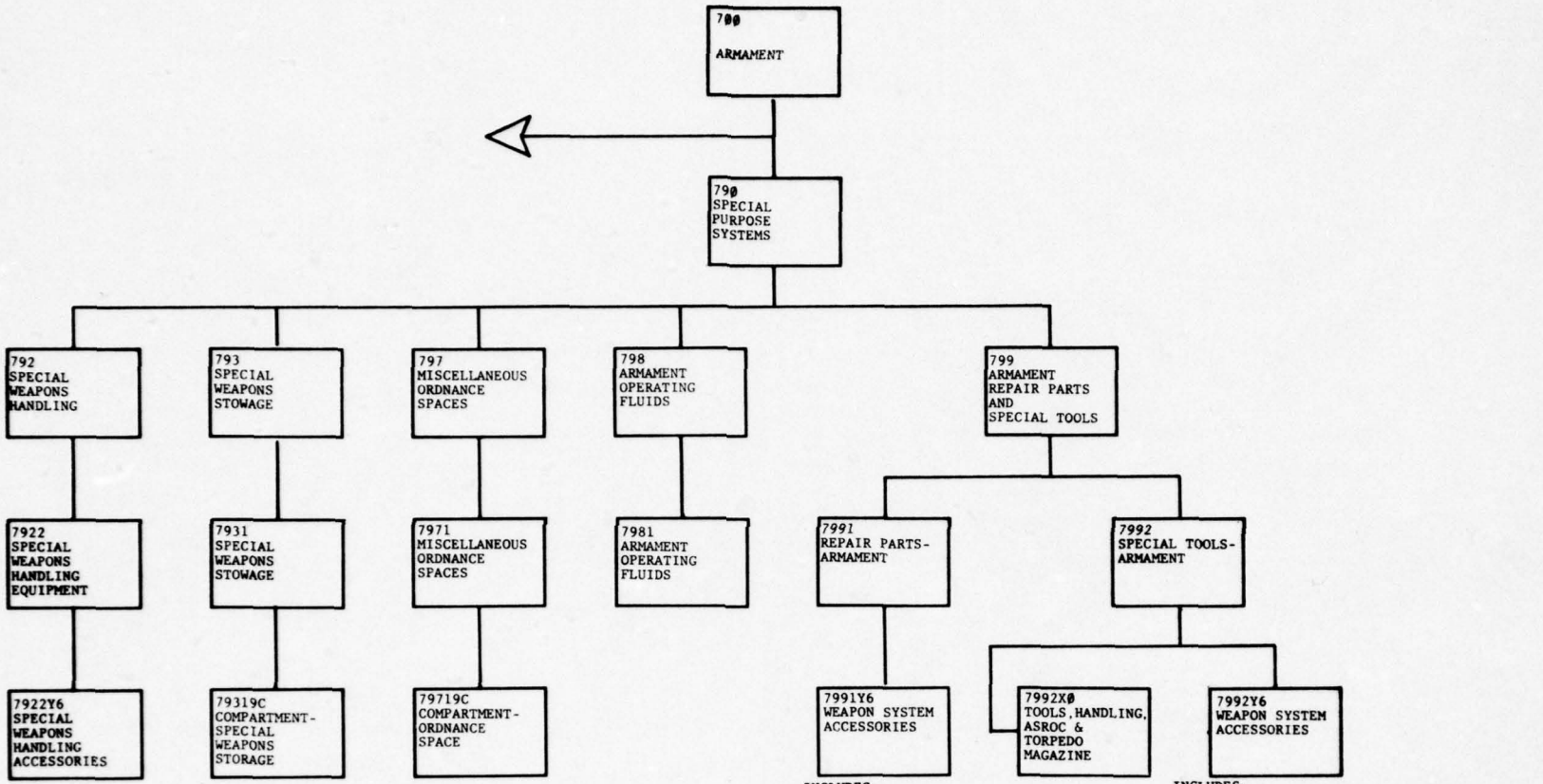
INCLUDES:
MISSILE TEST AND READINESS EQUIPMENT (MTRE)
MISSILE TEST INSTRUMENTATION (TI)
MISSILE OPTICAL AND ELECTRICAL
ALIGNMENT GROUP

FF-1052 CLASS
PREPARED 7-22-77


700
ARMAMENT
750
TORPEDOES
751
TORPEDO TUBES
752
TORPEDO HANDLING
753
TORPEDO STOWAGE
7511 JD00
TORPEDO TUBE COMPONENTS
INCLUDES TORPEDO TUBES AND ALL ASSOCIATED COMPONENTS SUCH AS BREECH AND MUZZLE DOORS, FIRING MECHANISMS AND ACCESSORIES.
DOES NOT INCLUDE:
AIR PIPING TO TUBE AIR VALVES (551)
WW01
7511Y6
WEAPON SYSTEM ACCESSORIES
75110R
ORDALTS AND ORDNANCE MODS OTHER THAN SWITCHBOARDS
INCLUDES:
ORDALTS
75117T
TORPEDO TUBES
INCLUDES:
MK 32 MOD 9
7521 JF01 8504
TORPEDO HANDLING EQUIPMENT
DOES NOT INCLUDE:
REPLENISHMENT-AT-SEA EQUIPMENT (570)
WG01
WW01
WW02
7521A4
VALVE-RELIEF
7521FK
FILTER-FLUID PRESSURE
7521HY
HOIST-ELECTRO-HYDRAULIC
INCLUDES:
SCISSORS LIFT, HYDRAULIC
7521LP
LUBRICATOR
7521H1
HOIST, CHAIN, PNEUMATIC
INCLUDES:
PNEUMATIC TORPEDO HOIST
PORTABLE TORPEDO HOIST
7521KK
VALVE-PRESSURE REGULATING
7521PJ
PANEL
INCLUDES:
MK 254 MOD ( )
7521VI
VALVE-GLOBE
7521VV
VALVE-NEEDLE
7521YE
DOLLY-TORPEDO
INCLUDES:
TORPEDO DOLLY FOR MK 44 & 46 MK 24 MOD 0
7521YZ
TORPEDO HANDLING EQUIPMENT
INCLUDES:
HANDLING EQUIPMENT TORPEDO MK 46
SLING MK 101 MOD 0
SLING MK 102 MOD 0
TORPEDO HANDLING BOOM
TRAY MK 2 MOD 0
SLING MK 106 MOD 1
7521Y6
WEAPON SYSTEM ACCESSORIES
INCLUDES:
HANDLING EQUIPMENT TORPEDO MK 44
EXPLODER MK 20 MOD 3
TORPEDO MK 46 & 44 SUPPORT EQUIPMENT-LAMPS
TORPEDO MK 46 MOD 0 & 1
7531 A905
TORPEDO STOWAGE COMPONENTS
75312U
MAGAZINE, WEAPON SYSTEM
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77

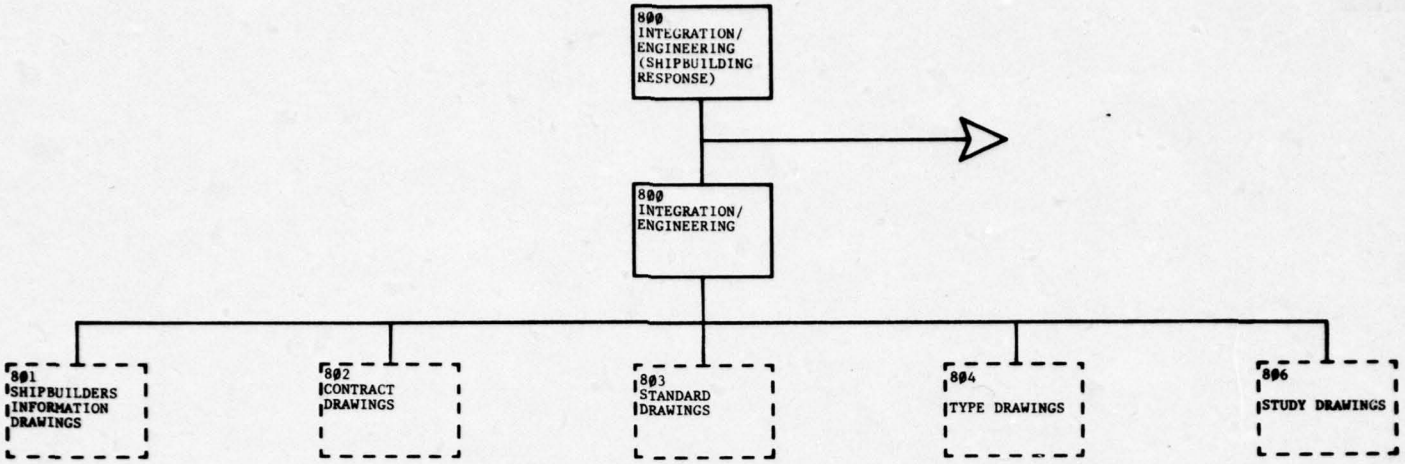


INCLUDES:
5"/54 CAL. PIPE REPLACEMENT KITS

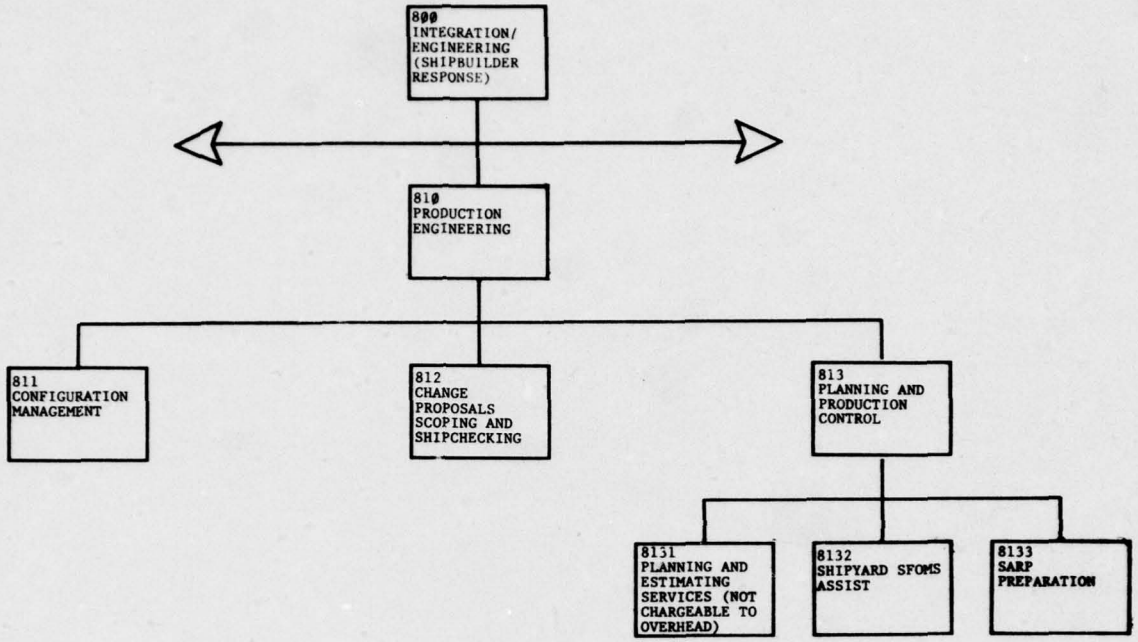
INCLUDES:
TOOLS USED WITH:
5"/54
SINGLE MOUNT
LAUNCHER GROUP
PISTOL
GUN M14
GUN M60
AW TORPEDO TUBE LAUNCHER
ASROC F/VESSEL
GUN MOUNTS 3/50-8/55
ACCESSORIES U/W SVTT MK 32 MODS
BINOCULAR, MK 28 MOD 0
BINOCULAR, MK 39 MOD 1
CONVERTER GRID SPOT MK 35 MOD 0
ATTACHMENT OFFSET WEDGE MK 8 MOD 0
ATTACHMENT OFFSET WEDGE MK 7 MOD 1

TOOLS MK 25 MOD 1
FLUIDS & LUBRICATION
AW TORPEDO TUBE LAUNCHER MK 32 MOD
STOPWATCH

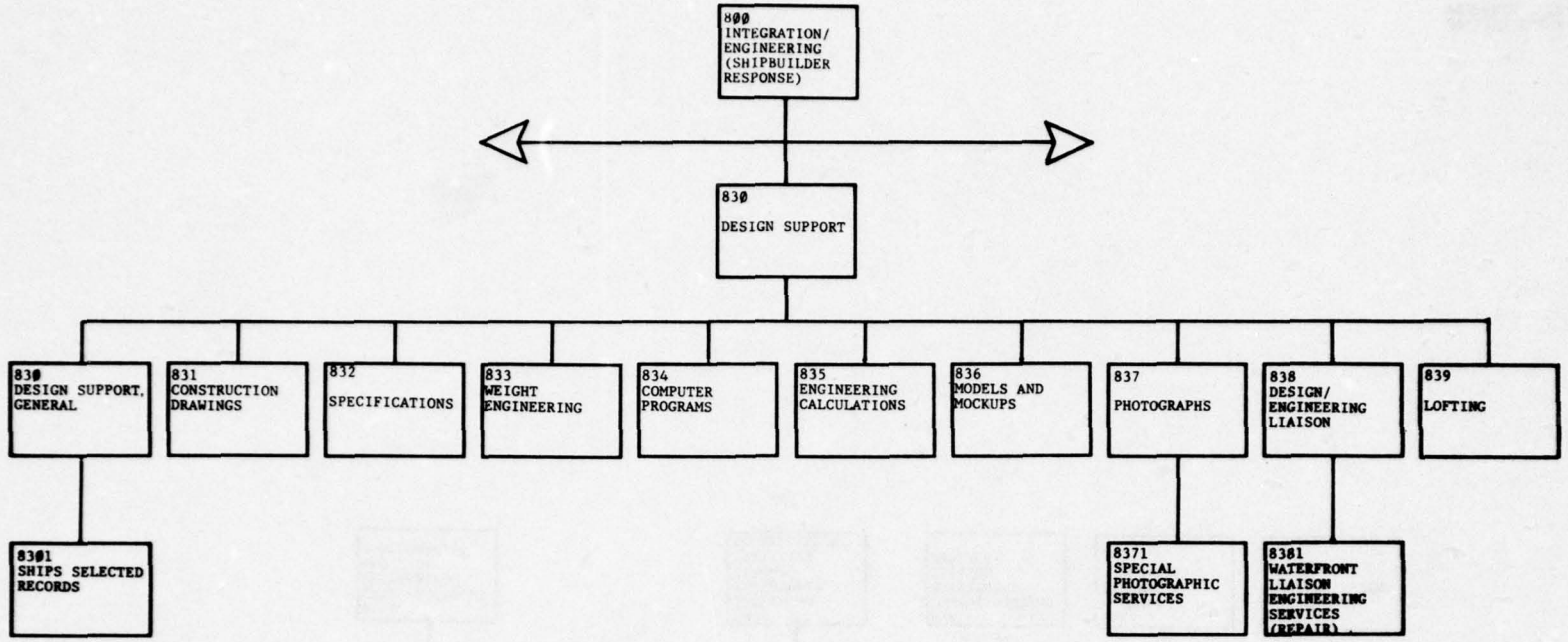
FF-1052 CLASS
PREPARED 7-22-77



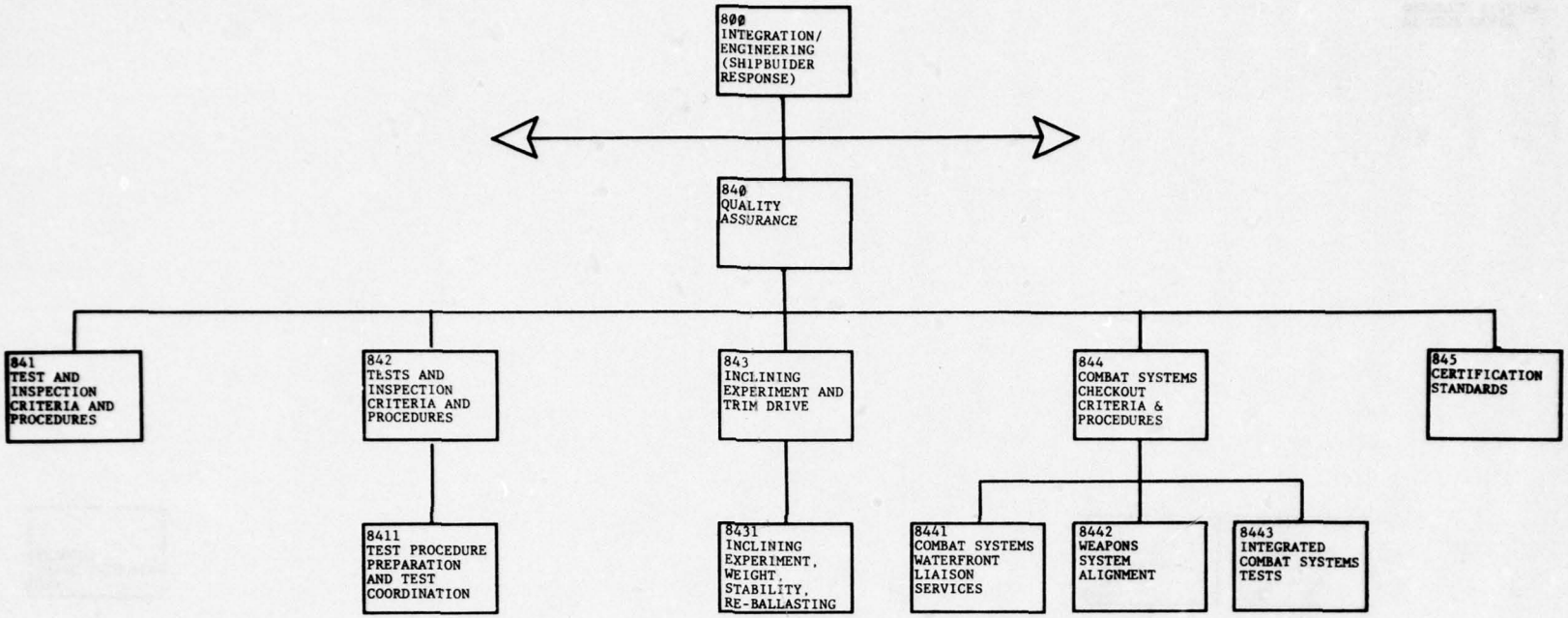
FF-1052 CLASS
PREPARED 7-22-77



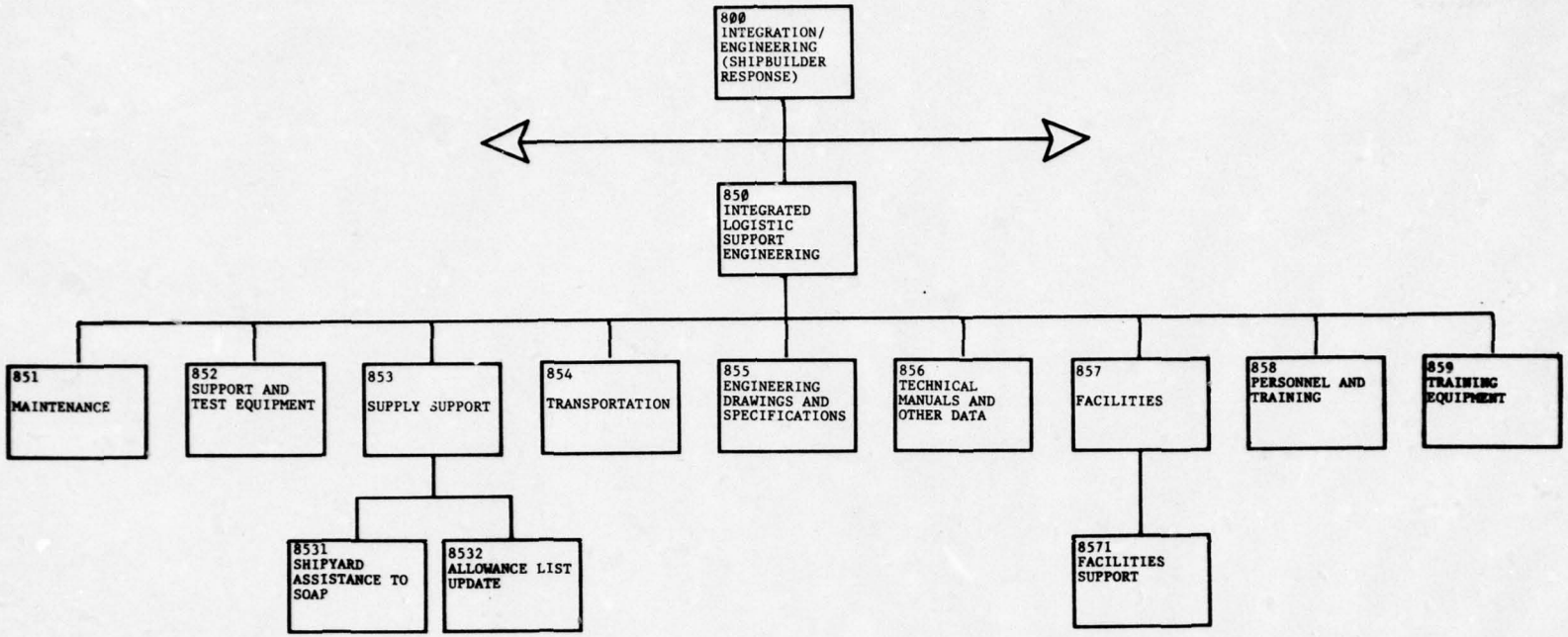
FF-1052 CLASS
PREPARED 7-22-77



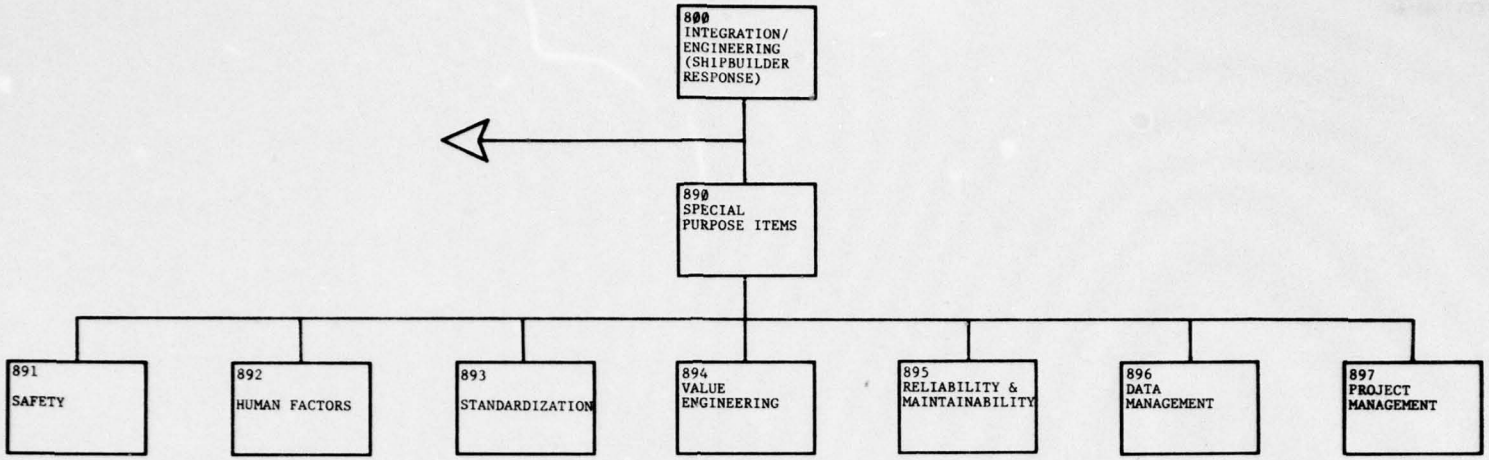
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PREPARED 7-22-77



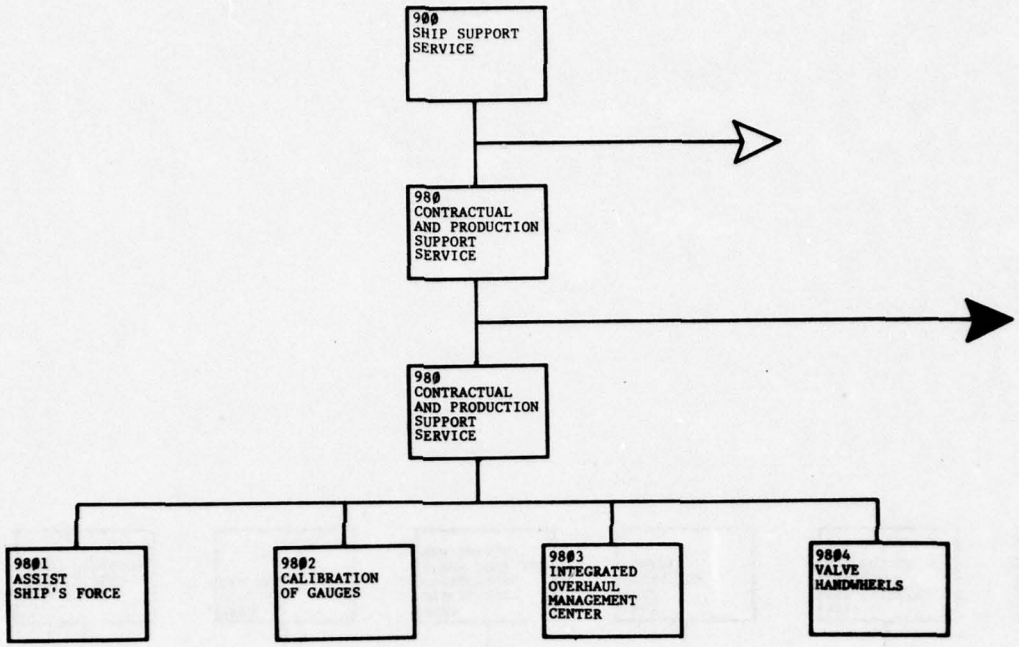
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PREPARED 7-22-77



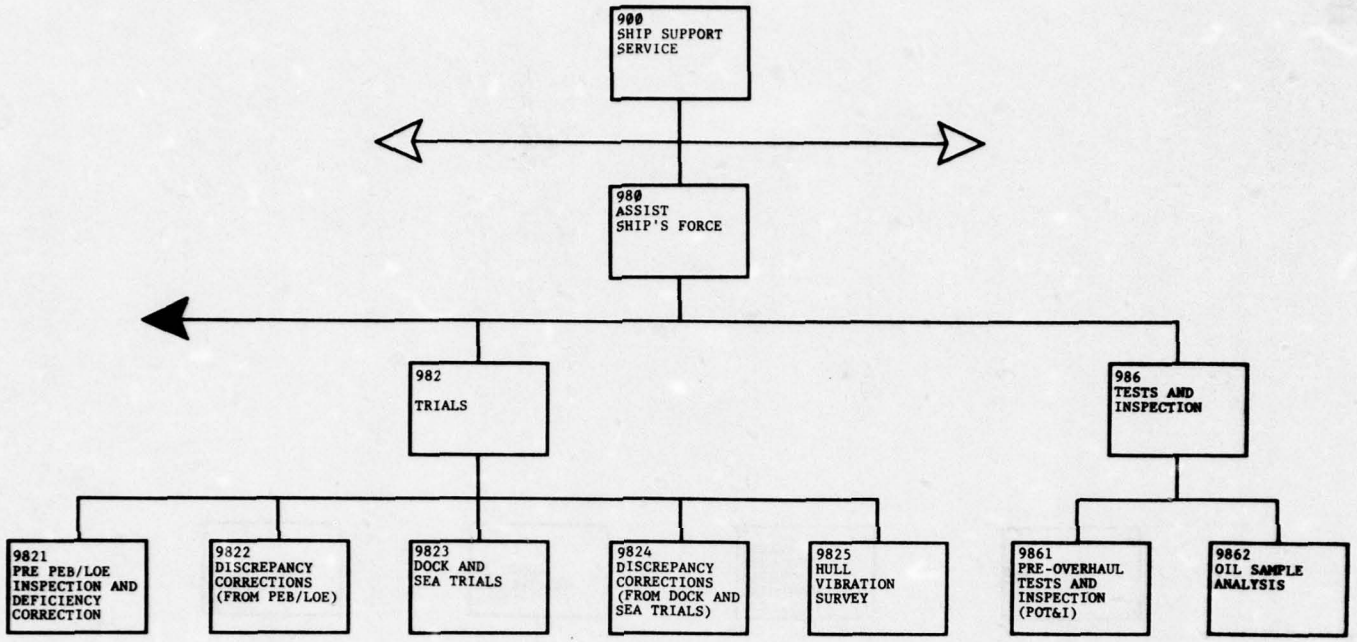
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PREPARED 7-22-77



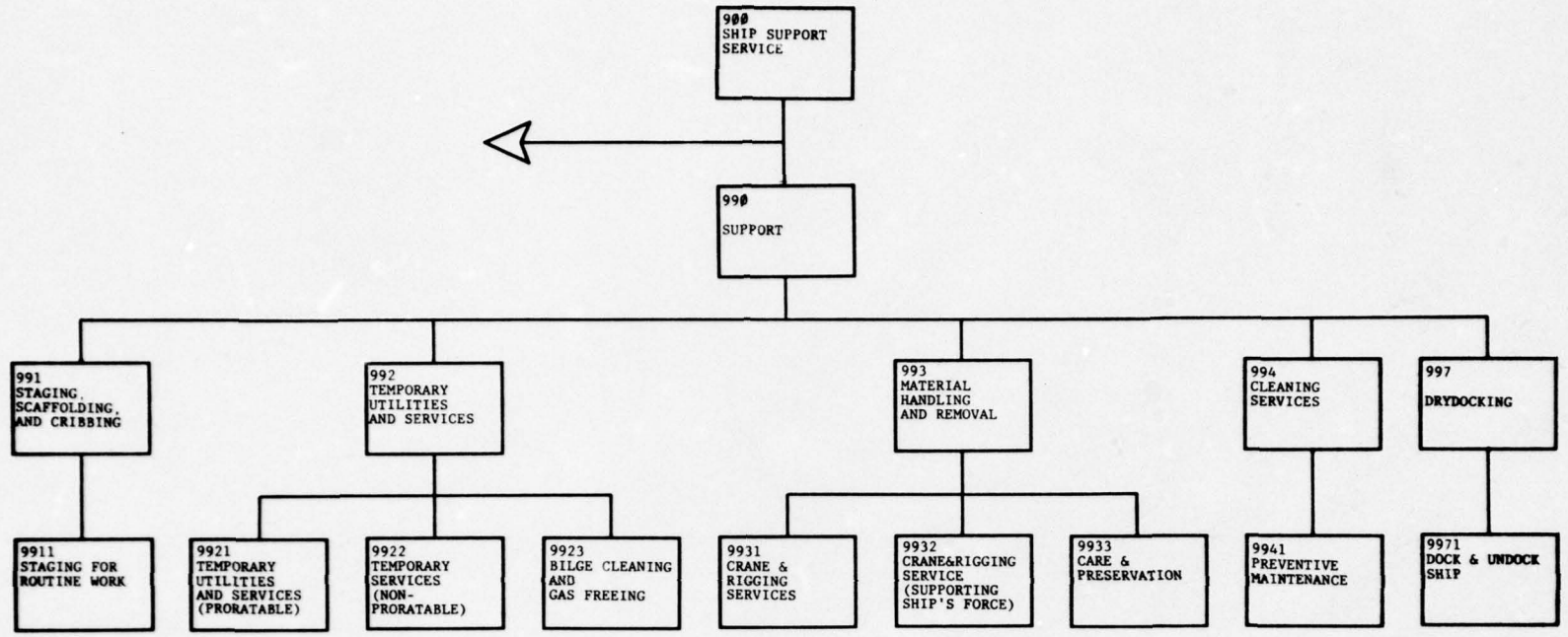
FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77



FF-1052 CLASS
PREPARED 7-22-77

APPENDIX A

COMPONENT DICTIONARY CODE LIST

APPENDIX A

COMPONENT DICTIONARY CODE LIST

CDC	LAPL	
AA	C82	ABANDON SHIP ACCESSORIES AND LIFE BOATS
AB	AB-	SUPPORTS, ANTENNA (ELEX)
AC	94-003	ACOUSTIC DEVICE-SEE ALSO CONTROL ACOUSTIC DEVICE-MINESWEEPING
AD	02-006	BOILER-AUXILIARY, STEAM, WASTE HEAT
AE	10-006	METER-ELECTRICAL INDICATING, AC AND DC METERS
AF	52-013	ACTUATOR-HYDRAULIC SEE ALSO CYL-ACT LINEAR
AG	61-265	ACTUATOR-PNEUMATIC & ELECTRO-PNEUMATIC
AH	41-040	CUTTING MACHINE-OXYGEN ACETYLENE
AI	31-009	CATHODIC PROTECTION EQUIPMENT
AJ	61-273	ACTUATOR-ELECTRO MECHANICAL
AK	85-008	ADAPTER-MISSILE HANDLING, CARGO HANDLING
AL	41-122	AGITATOR-PAINT, SHAKER TYPE
AM	AM-	AMPLIFIERS (ELEX/ORD)
AN	33-002	AIR CONDITIONER
AO		NOT ASSIGNED
AP	88-011	VALVE-TEMPERATURE REGULATING, STEAM CONTROL
AQ	33-012	AIR CONDITIONER-WINDOW UNIT TYPE
AR	09-001	CHARGER-BATTERY,AC
AS	97-006	ANTENNA ASSEMBLY-BICONICAL OR STUB (HM&E/ELEX)
AS	AS-	ANTENNAE-SIMPLE & COMPLEX (HM&E/ELEX)
AT	AT-	ANTENNAE-SIMPLE (ELEX)
AU	36-001	ALARMS & SIGNALING DEVICES-HORNS, SIRENS AND WHISTLES, AIR OR STEAM
AV	41-006	CHARGER-MAGNET, PORTABLE
AW	36-005	ALARMS & SIGNALING DEVICES-WHISTLE, STEAM OR AIR
AX	41-046	CENTERING MACHINE-SINGLE SPINDLE
AY	03-007	COOLER-AIR
AZ	83-001	SEAL-STERNTUBE, SUBMARINE APPLICATION
A0	88-021	VALVE-BOILER BLOW
A1	36-003	ALARMS & SIGNALING DEVICES-BELL,BUZZER, SIREN ELECTRICAL
A2	23-009	ALARMS & SIGNALING DEVICES-LIGHT, INDICATOR, ELECTRICAL
A3	61-079	AMPLIFIER-MAGNETIC
A4	88-023	VALVE-SAFETY RELIEF, INCLUDING VACUUM BREAKERS
A5	61-082	AMPLIFIER-HYDRAULIC
A6	B22	STEERING AND DIVING TOOLS AND REPAIR PARTS
A7	B23	TOOLS AND EQUIPMENT O2N2 PLANT
A8	23-006	ANNUNCIATOR-MECHANICAL DROP-AC
A9	B24	PERISCOPES - HOUSING FITTINGS
BA	BA-	BATTERY-PRIMARY TYPE (ELEX)
BB	BB-	BATTERY-SECONDARY TYPE (ELEX)
BC	C9-005	BATTERY-STORAGE
BD	37-001	BEARING ASSEMBLY-STERN TUBE & STRUT
BE	41-001	BALANCING INSTRUMENT-PORTABLE
BF	85-037	BALL, NUT, & SCREW ASSEMBLY
BG	C4-002	CONDENSER CHILLER-REFRIGERATION
BH	37-011	BEARING ASSEMBLY-THRUST, PIVOTED SEGMENTAL, SINGLE OR DOUBLE
BI	53-001	CAPSTAN-SEE ALSO MOORING ACCESSORIES
BJ	C37	MEDICAL EQUIPMENT-PORTABLE
BK	83-011	BRAKE-PROPULSION SHAFT(REGARDLESS OF PRIME MOVER)
BL	37-013	BEARING ASSEMBLY-THRUST AND JOURNAL WITH RESONANCE CHGR
BM	C5-023	COOLING UNIT-AIR TURBINE DRIVEN
BN	37-005	BEARING ASSEMBLY-LINE SHAFT
BO		NOT ASSIGNED

CDC	LAPL	
BP	25-042	BENCH MARK-OPTICAL
BQ	41-097	BENDING MACHINE-POWER OPERATED
BR	93-003	BLENDER-AVIATION FUEL
BS	05-030	TURBOSUPERCHARGER-CENTRIFUGAL BOILER
BT	05-031	TURBINE-GAS
BU	02-001	BOILER-MAIN PROPULSION, HP STEAM
BV	02-005	BOILER-AUXILIARY, HOT WATER
BW	64-017	FIRE EXTINGUISHER-PORTABLE
BX	88-027	VALVE-COMPRESSOR SHUT OFF
BY	C92	TOOLS AND ACCESSORIES
BZ	BZ-	ALARM UNITS (ELEX)
BO		MINOR LANDING CRAFT AND SMALL BOATS (INCL ALL COMMODITY CLASS 72)
B1	43-024	BREAD SLICING MACHINE
B2	99-017	BREATHING APPARATUS
B3	89-001	BUOY-MESSENGER SEE ALSO UNDERWAY REPLEN ACC
B4	03-008	COOLER-AIR
B5	30-001	BURNER-OIL, PRESSURE ATOMIZING, BOILER SERVICE
B6	30-002	BURNER-OIL, PRESSURE ATOMIZING, GUN TYPE
B7	30-004	BURNER-OIL, VAPORIZING POT
B8	30-005	BURNER-OIL, ROTARY HORIZONTAL
B9	30-007	BURNER-CATALYTIC
CA	CA-	COMMUTATOR ASSEMBLY-SONAR (ELEX)
CB	CB-	CAPACITOR BANK (ELEX)
CC	32-019	CABINET, ICE CREAM SEE ALSO REFRIGERATOR
CD	28-005	CABINET, RESOLVER CONTROL-AUTOMATIC PLOTING
CE	41-005	CABINET, BLAST CLEANING
CF	85-038	CABLE MACHINERY-DECK
CG	CG-	CABLE ASSEMBLY-RF (ELEX)
CH	C15	GASOLINE AND JP - FUEL SYSTEMS TOOLS AND FITTINGS
CI	43-027	CABINET, DOUGH PROOFING
CJ	54-006	CAMERA-COPYING, LITHOGRAPHIC
CK	CK-	CRYSTAL KITS (ELEX)
CL	99-002	CARBON DIOXIDE
CM	CM-	COMPARATOR (ELEX)
CN	CN-	COMPENSATOR (ELEX)
CO	C-	CONTROLS (ELEX/ORD)
CP	CP-	COMPUTER (ELEX/ORD)
CQ	85-042	CARRIAGE/CAR/CART/TRACTOR/TRAILOR
CR	CR-	CRYSTALS (ELEX)
CS	05-032	BASE/ENCLOSURE-GAS TURBINE
CT	41-147	CARTON MACHINE
CU	CU-	COUPLER (ELEX)
CV	CV-	CONVERTER (ELEX/ORD)
CV		CONVERTER (ELEX/ORD)
CW	CW-	RADOMES (ELEX)
CX	CX-	CABLE ASSEMBLIES, NON RF (ELEX)
CY	CY-	CASES AND CABINETS (ELEX)
CZ	32-003	CHILLER-WATER
CO	88-029	VALVE-REGULATING, WATER FLOW, FOR REFRIGERATION SYSTEMS
C1	76-004	CHLORINATOR
C2	31-032	CHOCK-ROLLER, DECK AND STERN
C3	14-001	CIRCUIT BREAKER-NAVY TYPE AQB AND AQBLF
C4	14-002	CIRCUIT BREAKER-NAVY TYPE NQB AND NLB
C5	14-003	CIRCUIT BREAKER-NAVY TYPE ACB

CDC	LAPL	
C6	14-004	CIRCUIT BREAKER-NAVY TYPE ALB
C7	14-006	CIRCUIT BREAKER-OTHER THAN AQB, NQB, ACB,ALB TYPES
C8	41-148	CLEANING MACHINE-ALL TYPES EXCEPT BLAST CLNG CAB
C9	99-006	CLOSER-DOOR HYDRAULIC
DA	DA-	DUMMY LOAD (ELEX)
DB	33-007	DAMPER-ACTUATOR AND POSITIONER
DC	40-006	DAMPER-VENT, COMBUSTION CONTROL
DD	56-001	DAVITS, ALL TYPES
DE	28-003	DEAD RECKONING EQUIPMENT
DF	85-024	DEFLECTOR, JET BLAST
DG	46-012	DEGAUSSING MAGNETIC MEASUREMENT SYSTEM
DH	41-011	DEGREASER
DI	D-	DISPENSER-CHAFF (ELEX)
DJ	44-002	DEHUMIDIFIER-DESICCANT ELECTRIC
DK	44-009	DEHUMIDIFIER-SPACE, MECH REFRIG SELF CONTAINED
DL	32-005	DEHYDRATOR-REFRIGERATION
DM	44-001	DEHYDRATOR-FILTER, DESICCANT, HGH PRES AIR, SELF REAC
DN	44-004	DEHYDRATOR-NON REACTIVATING
DO		NOT ASSIGNED
DP	08-007	DEMINERALIZER-WATER, ION EXCHANGE
DQ	99-027	DESUPERHEATERS-ALL TYPES
DR	06-205	COMPRESSOR UNIT-AIR
DS	33-005	DAMPER-MECHANICAL EXHAUST VENTILATION SYS
DT	DT-	DETECTING HEADS (ELEX)
DU	54-021	DEVELOPING MACHINE-BLACK AND WHITE PROCESS
DV	43-001	DISH WASHING MACHINE
DW	41-049	DISINTEGRATING MACH-METAL, ELEC ARC
DX	32-014	DISPENSER-DRINKING WTR SEE ALSO DRNKG FTN(67-006)
DY	DY-	DYNAMOTORS (ELEX)
DZ	32-032	DISPENSER-MECHANICALLY REFRIGERATED, MILK
D0	09-002	CHARGER-BATTERY, D.C.
D1	41-146	DISPENSER-TAPE, ELECTRIC
D2	32-031	DISPLAY CASE-MECH REF,SELF CONTND/NON-REFR
D3	06-002	COMPRESSOR-RECIPROCATING
D4	08-001	DISTILLATION UNIT
D5	52-015	DESURGER-HYDRAULIC
D6	32-027	DISPENSER-MECH REF,OTHR THN MLK SEE CAB,ICE CR/FREEZR
D7	08-005	DISTILLATION UNIT-VAPOR COMPRESSION
D8	85-011	DOLLY-BOATSTORAGE SEE ALSO TRK/DOLLY/CRADLE ASS
D9	31-034	DOOR-ROLLER CURTAIN, SHIPBRD, HAND OR PWR OPER
EA	74-001	EDUCTOR-LIQUID
EB	49-001	CARBURETOR
EC	73-010	EJECTOR-GARBAGE AND TRASH DISPOSAL
ED	07-011	HEATER-FLUID
EE	88-031	VALVE-BUBBLER
EF	73-012	EJECTOR-SIGNAL
EG	73-001	EJECTOR ASSEMBLY-AIR
EH	E-	HOISTS (ELEX)
EI		NOT ASSIGNED
EJ	11-003	CONVERTER
EK	849	NITROGEN CHARGING ASSEMBLY
EL	59-001	ELEVATOR-ELECTRO MECHANICAL
EM	15-013	CONTROLLER-AC
EN	16-010	GENERATOR-GAS
EO		NOT ASSIGNED
EP	59-002	ELEVATOR-AIRCRAFT LIFTING

CDC	LAPL	
EQ	41-050	EMBOSSING MACHINE-METAL & CRDBRD ALSO OFF MACH ACC
ER	16-012	BENCH-LIQUID OXYGEN CONVERTER FILL
ES	66-001	ENGINE-DIESEL, SHIP PROPULSION AND SHIP'S SERVICE, 2 & 4 CYCLE
ET	22-022	SWITCHBOARD-MINESWEEPING
EU	88-037	VALVE-REFRIGERATION SHUT OFF, SMALLER THAN 3/4 IN
EV	66-005	ENGINE-DIESEL, 2 & 4 CYC, TYPE B
EW	16-014	BOOSTER-GAS
EX	66-006	ENGINE-DIESEL,NON-MAGNETIC MINESWP PROP & AUX 4 CYC
EY	66-017	ENGINE-GASOLINE AIR OR FLUID COOLED
EZ	18-007	MOTOR GENERATOR
E0	88-042	VALVE-FLOAT, LIQUID LEVEL CONTROL, REFRIGERATION SYSTEMS
E1	66-019	ENGINE-GASOLINE, BOAT PROP, OUTBOARD MOTOR
E2	66-020	ENGINE-STEAM,RECIPROCATING,MN PROP & AUX SERVICE
E3	88-044	VALVE-STEAM SEAL MANIFOLD
E4	88-045	VALVE-GUARDING
E5	41-051	ENGRAVING MACHINE PANTOGRAPH
E6	59-005	ESCALATOR
E7	09-011	EXCHANGER, ION
E8	93-001	EXPANSION JOINTS-PIPE,PACKLESS
E9	88-046	VALVE-TRIP THROTTLE
FA	40-001	FAN-VANEAXIAL AND/OR TUBEAXIAL
FB	18-009	MOTOR GENERATOR
FC	40-002	FAN-CENTRIFUGAL
FD	20-002	RHEOSTAT
FE	40-003	FAN-CIRCULATING
FF	40-009	FAN-CENTRIFUGAL, CARBON DIOXIDE REMOVAL SYS
FG	99-030	FEEDRAIL-BRIDGE CRANE
FH	41-076	FILING MACHINE-SAW,BLADE
FI	C56	BOILER FEEDWATER TEST AND TREATMENT
FJ	09-010	FILLER-PORTABLE BATTERY WATER
FK	48-002	FILTER-FLUID,PRESSURE
FL	F-	FILTER UNITS (ELEX)
FM	20-006	RHEOSTAT
FN	FN-	FURNITURE (ELEX)
FO		NOT ASSIGNED
FP	88-048	VALVE-CROSSOVER AND MANIFOLD
FQ	43-034	FILTER-COOKING GREASE
FR	FR-	FREQUENCY MEASURING DEVICES (ELEX)
FS	C55	FUEL OIL STOWAGE AND EQUIPMENT
FT	31-023	FITTINGS-HULL SEE ALSO TOWING-ACC,MOORING ACC
FU	24-002	FIXTURE-LIGHTING
FV	48-006	FILTER-AIR, WET OR DRY ELEMENTS
FW	76-003	FILTER-WATER PURIFICATION
FX	31-012	FLAME ARRESTER-VENTILATION
FY	54-015	FOLDING MACHINE-PAPER
FZ	43-012	GRINDERS AND CUTTERS-FOOD ELECTRICAL
F0	16-011	FURNANCE ASS OXY CANDLE ROUND AND SQUARE
F1	43-059	FOOD WARMER-RADIANT,OVERHEAD,ELECTRIC
F2	41-016	FORGE-OIL BURNING ELEC OR OTHER ALSO FURNACE
F3	41-053	FORGING MACHINE-HAMMER VERTICAL
F4	41-017	FORMING MACHINE-SHEET METAL
F5	54-004	FRAME PRINTING
F6	43-006	FRYERS-DEEP FAT, ELECTRIC
F7	85-046	FUEL DISPERSING SYS
F8	41-019	FURNANCE- ELECTRIC
F9	41-020	FURNANCE-OIL BURNING

CDC	LAPL	
GA	45-003	GAGE-LIQ ONTY MECHANICAL SEE ALSO INDICATOR AND METER
GB	45-004	GAGE-LIQUID QUANTITY HYDRAULIC/PNEUMATIC
GC	45-007	GAGE-PRESSURE
GD	45-009	GAGE-DEPTH SUBMARINE
GE	43-002	GALLEY EQUIPMENT-ELECTRICAL
GF	43-009	GARBAGE DISPOSAL MACHINE
GG	31-005	GATE-STERN SEE ALSO DOOR OR HATCH
GH	G-	GENERATOR-POWER (ELEX)
GI	B67	OPERATING GEAR MISCELLANEOUS REPAIR PARTS
GJ	43-047	DOUGHNUT MACHINE-CUTTING AND FRYING
GK	69-028	GEAR-TURNING/JACK DEVICE
GL	69-029	GEAR-TILTING
GM	69-006	GEAR ASSEMBLY-SPEED DECREASER,MAIN PROP SERVICE
GN	69-016	GEAR ASSEMBLY-SPEED DECREASER, AUX SERVICE
GO	GO-	GONIOMETERS (ELEX)
GP	GP-	GROUND RODS (ELEX)
GQ	B51	BOILER FEEDWATER SYSTEM CONTROL FITTINGS
GR	23-008	SEMAPHORE-MECHANICAL SIGNAL
GS	43-044	GALLEY UNITS-COMPACT
GT	16-006	GENERATOR-DC OR AC
GU	24-004	FIXTURE-LIGHTING FLUORESCENT
GV	24-006	FIXTURE-LIGHTING MERCURY VAPOR
GW	16-008	GENERATOR-SMOKE, MECHANICAL
GX	16-009	GENERATOR-OXYGEN/NITROGEN
GY	16-001	GENERATOR-BATTERY CHARGING
GZ	70-001	GOVERNOR-MECHANICAL
GO		FUEL GELLING UNIT MIG - 10
G1	70-005	GOVERNOR-HYDRAULIC
G2	88-072	GOVERNOR-PUMP
G3	70-013	GOVERNOR-ELECTRO HYDRAULIC
G4	70-014	GOVERNOR-ELECTRIC
G5	23-004	SEARCHLIGHT-SIGNAL
G6	41-057	GRINDING MACHINE-CYCLINDRICAL
G7	41-060	GRINDING MACHINE-GLASS
G8	41-063	GRINDING MACHINE-VALVE
G9	41-065	GRINDING MACHINE-SURFACE, RECIPROCATING
HA	85-031	HANDLING GEAR-GUIDANCE CAPSULE
HB	85-045	HANGAR-AIRCRAFT
HC	HC-	HOLDER, CRYSTAL (ELEX)
HD	HD-	ENVIRONMENTAL APPARATUS (ELEX)
HE	07-002	HEATER-FLUID, FUEL OIL AND LUBE OIL, STEAM HEATED
HF	07-003	HEATER-WATER AND AIR
HG	26-015	PROJECTOR-MOTION PICTURE, SOUND, SUPER 8MM
HH	07-004	HEATER-WATER, STM/HT WTR HTD,INST, STM WTR CVTR
HI	07-001	HEATER-FLUID, SEA WATER, STEAM HEATED
HJ	07-005	HEATER-FLD, DEAERATING, BOILER FDWTR, TYPES I & II
HK	07-006	HEATER-IMMERSION, ELECTRIC
HL	07-007	HEATER-SPACE ELEC, TYP D RADIANT, TYPE T TUR,RAD PANL
HM	26-016	PROJECTOR-MOTION PICTURE, SOUND, SUPER 16MM
HN	07-013	HEATER-WTR, ELECTRIC STORAGE TYPE
HO		NOT ASSIGNED
HP	07-016	HEATER-COOLANT ENGINE, OIL FIRED OR ELECTRIC
HQ	07-022	HEATER-VENTILATION , VENT DUCT, ELEC, TYP 51-61
HR	07-023	HEATER-SPACE ELECTRIC, BLOWER, TYPE B
HS	H-	HEAD, HAND, AND CHEST SETS (ELEX)
HT	07-017	HEATER-AIR CIRCULATING UNIT, STEAM OR HT WTR HTD

CDC	LAPL	
HU	07-045	HEATING ELEMENTS-ELEMENTS-ELECTRICAL
HV	07-036	HEATING UNIT-ELEC. CONTRLD TEMP FOR STRSS RELF PRHTG
HW	58-001	HOIST-WIREROPE ELECTRIC
HX	58-002	HOIST-MANUAL
HY	58-003	HOIST-ELECTRO HYDRAULIC & ELECTRO-MECHANICAL
HZ	58-004	HOIST-CHAIN ELECTRIC
H0	61-116	HYDROSTAT. CONTROL
H1	58-005	HOIST-PNEUMATIC
H2	58-006	HOIST-HYDRAULIC
H3	85-025	HOIST-WINDSCREEN
H4	87-009	HODOMETER, O/W LOG
H5	52-033	HOIST ASSEMBLY-CYL & RAM TYP FOR COMMUN MAST
H6	41-069	HONING MACHINE-HORIZONTAL OR VERTICAL
H7	33-010	HUMIDIFIER
H8	52-016	HYDRAULIC MECHANISM SEE ALSO MISSLE HNDG SYS-HYD
H9	31-033	HYDROFOIL ASSEMBLY
IA	64-018	FIRE EXTINGUISHING SYSTEM
IB	66-002	ENGINE-DIESEL, TWO CYCLE
IC	B65	IC COMMUNICATION EQUIPMENT
ID	ID-	INDICATOR-NON CATHODE RAY TUBE (ELEX/CRD)
IE	66-018	ENGINE-GASOLINE
IF	66-021	ENGINE-DIESEL, NONMAGNETIC
IG	66-022	ENGINE-DIESEL, MODEL 645
IH	69-026	GEAR ASSEMBLY-SPEED INCREASER
II	71-001	DISTRIBUTOR-IGNITION SYSTEM
IJ	73-011	EJECTOR-SEWAGE
IK	78-018	COUPLING ASSEMBLY
IL	IL-	INSULATORS (ELEX)
IM	IM-	INTENSITY MEASURING DEVICES (ELEX)
IN	79-003	MUFFLER-DRY
IO		NOT ASSIGNED
IP	IP-	INDICATORS-CATHODE RAY TUBE (ELEX)
IQ	83-015	CONTROL BOARD-CONTROLLABLE PITCH PROPELLER, EMER, PITCH CONTROL
IR	91-004	LAUNDRY PRESS-COMMERCIAL
IS	B59	AIR CONDITIONING REFRIGERATION TOOLS AND ACCESSORIES
IT	92-020	TANK-LUBE OIL STORAGE AND CONDITIONING ASSEMBLY
IU	94-004	ACOUSTIC DEVICE
IV	94-005	ACOUSTIC DEVICE
IW		NOT ASSIGNED
IX	97-012	SUB ASSEMBLIES-PERISCOPE
IY	97-018	CAMERA ACCESSORIES-PERISCOPE
IZ	99-029	RECEIVER-FUELING PROBE
I0		NOT ASSIGNED
I1		NOT ASSIGNED
I2	B64	NAVIGATIONAL SIGNAL LIGHTS
I3		NOT ASSIGNED
I4		NOT ASSIGNED
I5		NOT ASSIGNED
I6		NOT ASSIGNED
I7		NOT ASSIGNED
I8		NOT ASSIGNED
I9		NOT ASSIGNED
JA	43-028	ICE CREAM CUP FILLING MACHINE- HAND OPERATED
JB	32-017	ICE CREAM FREEZER-PWR OPER WITH INTGRL MCH REF EQ
JC	32-022	ICE MAKING MACHINE-MECH REFRIG SELF CONTAINED

CDC LAPL

JD	J-	INTERFACE UNITS (ELEX)
JE	32-004	ICE MAKING PLANT
JF	41-032	IMPREGNATING EQUIPMENT
JG	30-006	INCINERATOR SEE ALSO BURNER
JH	27-008	SALINITY INDICATING EQUIPMENT
JI		NOT ASSIGNED
JJ	38-002	INDICATOR-TEMPERATURE, ELECTRICAL
JK	28-028	NAVIGATION EQUIPMENT
JL	38-007	INDICATOR-BOILER SMOKE
JM	38-014	INDICATOR-SALINITY & SALINITY CELL
JN	38-015	INDICATOR-PRES DIFFERTL, LIQ/STM LVL, DIR OR REM
JO		NOT ASSIGNED
JP	38-016	INDICATOR-MECHANICAL TACHOMETER
JQ	38-020	INDICATOR-LIQ LVL, FLOW, WATER AND FUEL
JR	45-001	INDICATOR-SIGHT LIQUID, FLAT
JS	45-002	INDICATOR-SIGHT LIQUID, TUBULAR
JT	45-005	INDICATOR-METER, DIFFERENTIAL PRESSURE
JU	61-025	INDICATOR-PORTABLE SHIP CONTROL
JV	41-111	VULCANIZER - RUBBER COVERED CABLE
JW	29-001	INJECTOR- FUEL DIESEL ENGINE NOZZLE NON-MET TYP
JX	29-002	INJECTOR-FUEL, DIESEL ENGINE, UNIT METERING AND PRES
JY	43-060	INJECTOR-RINSE AGENT FOR DISHWASHING MACHINE
JZ	B87	MEASURING AND INDICATING INSTRUMENTS
JO	31-011	TENSION UNIT-HYDRAULIC RAM
J1	27-009	INTERCOMMUNICATION STATION
J2	97-002	MAST-ANTENNA
J3	97-013	MAST-SNORKEL
J4	G89	NUCLEAR POWER PLANT - COOLANT DISCHARGE SYSTEM VALVE
J5	85-035	JACK ASSEMBLY-HAND, SCREW, HYDRAULIC/PNEUMATIC OPR
J6	41-034	JOINTER-WOODWORKING
J7	27-010	TELEPHONE EQUIPMENT-DIAL
J8	43-008	KETTLE-STEAM JACKETED
J9	41-070	KEY DUPLICATING MACHINE
KA	40-004	DRIER-HAND, ELECTRIC
KB	86-003	DRIER-PHOTOGRAPHIC
KC	41-014	DRILLING MACHINE-FLOOR OR BENCH
KD	43-050	TABLE-FOOD WARMER,ELECTRIC/STEAM HEATED
KE	54-014	DRILLING MACHINE-PAPER
KF	67-006	DRINKING FOUNTAIN
KG	52-001	DRIVE ASSEMBLY-ELECTRO HYDRAULIC AMMUN HOIST
KH	52-004	DRIVE ASSEMBLY-ELECTRO HYD HST, VERT TUB,,12.75RKT
KI	16-005	TACHOMETER SEE ALSO INDICATOR-MECHANIC TACHOMETER
KJ	52-007	DRIVE ASSEMBLY-ELECTROHYDRAULIC HOIST,3000# MIS TRAV
KK	88-063	VALVE-PRESSURE REGULATING
KL	85-004	DRIVE ASSEMBLY-SLIDING BLOCK
KM	91-008	DRY CLEANING PRESS
KN	91-007	DRY CLEANING UNIT ASS-AUTO,SYNTHET SOLVENT TYPE
KO		NOT ASSIGNED
KP	54-018	DRYING MACHINE BLUEPRINT
KQ	91-002	DRYING TUMBLER-LAUNDRY
KR	59-003	DUMBWAITER
KS	54-002	DUPLICATING MACHINE-OFFSET SEE ALSO OFF MACH ACC
KT	41-015	DYNAMOMETER
KU	41-131	TANK-HOT DIP
KV	92-005	TANK-DIESEL ENGINE,AIR STARTING
KW	92-001	TANK-STORAGE

CDC	LAPL	
KX	88-104	VALVE-STOP CHECK
KY	KY-	KEYING DEVICES (ELEX)
KZ	88-117	VALVE SUBPLATE
K0	88-125	VALVE-PRESSURE CONTROL
K1	88-129	VALVE-PRESSURE REGULATING
K2	88-130	VALVE-HYDRAULIC CONTROL
K3	01-010	PUMP, ROTARY PISTON, FIXED OR VARIABLE DELIVERY
K4	88-134	VALVE-SHUTTLE
K5	88-135	VALVE-HYDRAULIC
K6	88-138	VALVE-CHECK, INLINE, UNDER $25.00
K7	01-025	PUMP, PORTABLE SUBMERSIBLE
K8	88-142	VALVE-CHECK, INLINE, $25.00 AND ABOVE
K9	88-158	VALVE-TEST CASTING
LA	24-009	LANTERN-ELECTRIC, BATTERY TYPE
LB	41-036	LATHE-METAL WORKING
LC	LC-	TOOLS-LINE CONSTRUCTION (ELEX)
LD	91-012	LAUNDRY EQUIPMENT
LE	23-002	LIGHT-INDICATOR
LF	24-008	LIGHT-NAVIGATIONAL MARINE
LG	54-024	LIGHT-ARC PHOTOLITHOGRAPHIC
LH	16-015	LIQUIDIFIED GAS STORAGE AND CHARGING SYS
LI		NOT ASSIGNED
LJ	54-007	LITHOGRAPHIC, NEGATIVE AND PLATE MAKING
LK	99-020	LOCK-ELECTROMECHANICAL
LL	28-018	LOCKER-BINOCULAR DRYING
LM	26-013	LOUDSPEAKER-MOTION PICTURE PROJECTOR
LN	65-001	LUBRICATOR-MECHANICALLY OR HAND OPERATED
LO		NOT ASSIGNED
LP	65-002	LUBRICATOR-AIR OPERATED
LQ	C16	LADDERS AND ACCESS CLOSURE EQUIPMENT
LR	845	LUBE OIL PIPING SYSTEM REPAIR PARTS
LS	LS-	LOUDSPEAKERS (ELEX)
LT	41-037	LATHE-WOODWORKING
LU	88-159	VALVE-DISTRIBUTOR LUBRICATION
LV	41-141	UNDERCUTTER - ARMATURE, MICA, ELECTRICAL OPERATED
LW	C20	UNDERWAY REPLENISHMENT TOOLS AND ACCESSORIES
LX	32-008	UNION TUBE - REFRIGERATION
LY	43-005	URNS -COFFEE
LZ	88-162	VALVE-SHEARING
L0	88-169	VALVE-LINE BLIND
L1		LAUNCHER STAND-WEAPON SYSTEM
L2		LAUNCHER GUIDES-WEAPON SYSTEM
L3		TRAIN ASSEMBLY-WEAPON SYSTEM
L4		ELEVATION ASSEMBLY-WEAPON SYSTEM
L5		AMPLIFIER,POWER DRIVE-WEAPON SYSTEM
L6		RAMMER-LOADER ASSEMBLY-WEAPON SYSTEM
L7	88-170	VALVE AND TRAP MANIFOLD
L8	88-177	VALVE-SPECIAL STOP CHECK
L9	88-186	VALVE-FLOW FUSE
MA	MA-	MAGAZINE-MAGNETIC TAPE OR WIRE (ELEX)
MB	68-001	MAGNETO-IGNITION
MC	32-006	MANIFOLD-REFRIGERATION
MD	MD-	MODULATORS, DEMODULATORS, AND DISCRIMINATORS (ELEX)
ME	ME-	METERS (ELEX)
MF	MF-	MAGNETS OR MAGNETIC FIELD GENERATORS (ELEX)
MG	45-008	MANOMETER-U TUBE AND OTHER TYPES

CDC	LAPL	
MH	91-006	MARKING MACHINE-LAUNDRY
MI	M-	MICROPHONES (ELEX)
MJ	85-030	MAST-HINGED
MK	MK-	MISCELLANEOUS KITS (ELEX)
ML	ML-	METEOROLOGICAL DEVICES (ELEX)
MM	43-016	MEAT SLICING MACH-ELEC & MANUAL SEE ALSO FOOD CUTTER
MN	43-021	MEAT TENDERIZER-ELECTRIC
MO		NOT ASSIGNED
MP	10-001	METER-VOLUMETRIC, POS DISPL,FUEL OIL,WTR,GAS,JP-5,AL T
MQ	10-002	METER-FLOWRATE INDICATING, FLOAT TYPE ROTAMETER
MR	10-003	METER-IMPELLER TYPE LIQUID VELOCITY
MS	10-004	METER-VENTURI TYPE
MT	MT-	MOUNTINGS (ELEX)
MU	MU-	MEMORY UNITS (ELEX)
MV	41-042	MILLING MACHINE-HORIZONTAL
MW	41-043	MILLING MACHINE-WOODWORKING, VERTICAL, BORING
MX	MX-	MISCELLANEOUS EQUIPMENT (ELEX)
MY	41-038	MIXER-LIQUID, PORTABLE
MZ	43-004	MIXING MACHINE-ELECTRIC, FOOD AND FLUID
MO	28-031	SEXTANT, MARINE
M1	43-035	MOLDING MACHINES-MEAT, FISH
M2	C26	ANCHORING AND MOORING APPLIANCES
M3	41-088	MORTISER-HOLLOW CHISEL
M4	17-023	MOTOR-AC/DC 0.25 HORSEPOWER AND SMALLER
M5	31-039	SONAR DOME WINDOW SYSTEM
M6	10-005	METER-FLOWRATE INDICATING, VANE TYPE
M7	17-001	MOTOR-AC OR DC
M8	31-040	TENSIONING DEVICE-TORSION BAR
M9	E32	MISCELLANEOUS FLAG ALLOWANCES, OFFICE MACHINES
NA	32-021	CARBONATOR-SODA FOUNTAIN
NB	13-013	TRANSFORMERS-REPAIRABLE AND NON-REPAIRABLE
NC	32-025	ICE CREAM FREEZER
ND	33-004	CHILLER-WATER, AIR CONDITIONING
NE	61-080	AMPLIFIER-ELECTRONIC
NF	52-005	TRANSMISSION-HYDRAULIC,FIXED OR VARIABLE DELIVERY SEE ALSO POWER UNIT
NG	69-011	TRANSMISSION-MECHANICAL
NH	27-005	TRANSMITTER-MECHANICAL
NI		NOT ASSIGNED
NJ	27-006	TXMTR-LIQ LVL AND/OR FLOW,CAP,FLOAT,IND,RADIOACT,RES AND SONIC TYPE
NK	27-021	TRANSMITTER-LIQUID LEVEL, ELECTRICAL
NL	28-024	TRANSMITTER-NAVIGATIONAL
NM	61-085	TRANSMITTER-TEMPERATURE SEE ALSO INDICATOR - TEMPERATURE,ELEC RESIST
NN	27-001	TRANSMITTER/INDICATOR-ELECTRICAL TRANSMITTER TYPES
NO		NOT ASSIGNED
NP	54-022	PRINTING MACHINE-BLUEPRINT
NQ	85-043	STAND-MISSILE
NR	88-192	VALVE-PRESSURE REGULATING, HIGH PRESSURE AIR
NS		STEEL PLATE
NT	88-193	VALVE-FLOW CONTROL
NU	88-201	VALVE-OFFICE
NV	77-001	TRAP-STEAM AND/OR AIR
NW	37-016	BEARING-JOURNAL, PIVOTED PAD/SHOE
NX	38-021	INDICATING SYSTEM-LIQUID LEVEL, PNEUMATIC
NY	41-002	BALANCING MACHINE-DYNAMIC, STATIC, HORIZONTAL
NZ	41-031	MACHINE-HOSE ASSEMBLY, REPAIR AND CUTOFF
NO	93-004	NOZZLE-PRESSURE FUEL SERVICING

CDC	LAPL	
N1	C24	NAVIGATION EQUIPMENT AND ACCESSORIES
N2	28-027	NAVIGATION EQUIPMENT-PLOTTING SYS SEE ALSO PLTG TABLE
N3	28-026	NAVIGATION EQUIPMENT-DEAD RECKONING EQUIPMENT
N4	28-001	NAVIGATION PLOTTING BOARDS
N5	28-011	NAVIGATIONAL CLOCKS
N6	31-041	DOOR-HINGED-HAND OPERATED
N7	64-001	NOZZLE-FIRE HOSE SEE ALSO DAMAGE CONTROL ACC
N8	64-003	NOZZLE-MONITOR TYPE
N9	64-004	NOZZLE-WATER QUENCH
OA	OA-	MISCELLANEOUS GROUPS (ELEX)
OB	OB-	MULTIPLEXER AND/OR DEMULTIPLEXER GROUPS (ELEX)
OC	OC-	OCEANOGRAPHIC DEVICES (ELEX)
OD	OD-	INDICATOR GROUPS (ELEX/ORD)
OE	OE-	ANTENNA GROUPS (ELEX)
OF	OF-	ADAPTER GROUPS (ELEX)
OG	OG-	AMPLIFIER GROUPS (ELEX)
OH	OH-	SIMULATOR GROUPS (ELEX)
OI	O-	OSCILLATORS (ELEX)
OJ	OJ-	CONSOLES AND CONSOLE GROUPS (ELEX/ORD)
OK	OK-	CONTROL GROUPS (ELEX/ORD)
OL	OL-	DATA ANALYSIS AND DATA PROCESSING (ELEX)
OM	OM-	MODULATOR AND/OR DEMODULATOR GROUPS (ELEX)
ON	ON-	INTERCONNECTING GROUPS (ELEX)
OO		NOT ASSIGNED
OP	OP-	POWER SUPPLY GROUPS (ELEX/ORD)
OQ	OQ-	TEST SET GROUPS (ELEX)
OR	OR-	RECEIVER GROUPS (ELEX)
OS	OS-	OSCILLOSCOPE-TEST (ELEX)
OT	OT-	TRANSMITTER GROUPS (ELEX)
OU	OU-	CONVERTER GROUPS (ELEX)
OV	OV-	GENERATOR GROUPS (ELEX)
OW	OW-	TERMINAL GROUPS (ELEX)
OX	OX-	CODER, DECODER, INTERROGATOR, TRANSPONDER GROUPS (ELEX)
OY	OY-	RADAR SET GROUPS (ELEX/ORD)
OZ	OZ-	RADIO SET GROUPS (ELEX)
C0		NOT ASSIGNED
01	99-A01	NR-1 SUBMERSIBLE RESEARCH SHIP
02	99-A02	ATS-1, 2, 3 (UNITED KINGDOM)
03	99-A03	ORDNANCE FIRE CONTROL SWITCHING EQUIPMENT (HM&E/ORD)
04	99-A04	DEEP DIVING SUBMERGENCE SYSTEM
05	99-A05	OCEANOGRAPHIC COMPONENTS
06		TRANSCEIVER GROUPS
07		SONAR SET GROUPS
08	97-003	ANTENNA SYSTEM-FLOATING WIRE
09	97-004	ANTENNA SYSTEM-HELICAL, LOOP OR WHIP
PA	50-033	PANEL-REMOTE VALVE OPERATING
PB	88-203	VALVE-MIXING, REFRIGERATION, AIR CONDITIONING AND COOLING
PC	50-001	PANEL-FUSE
PD	PD-	PRIME DRIVERS (ELEX)
PE	50-005	PANEL-COMMUNICATION

CDC	LAPL	
PF	PF-	FITTINGS-POLE (ELEX)
PG	PG-	PIGEON ARTICLES (ELEX)
PH	PH-	PHOTOGRAPHIC ARTICLES (ELEX)
PI	97-011	PERISCOPE-STADIMETER
PJ	50-010	PANEL-POWER DISTRIBUTION AND/OR CONTROL (HM&E/ORD)
PK		PANEL-INDICATING (HM&E/ORD)
PK	50-025	PANEL-INDICATING (HM&E/ORD)
PL	PL-	PLUG-IN UNITS (ELEX)
PM	41-072	PAPER SHREDDING MACHINE SEE ALSO OFF MACH ACC
PN	25-004	PELORUS STAND SEE ALSO NAVIGATION EQUIPMENT ACC
PO		NOT ASSIGNED
PP	PP-	POWER SUPPLY-NONROTATING MACHINE TYPE (ELEX)
PQ	97-008	PERISCOPE-COLLIMATOR
PR	97-009	DEPLUMERS, FAIRINGS AND SUPPORTS FOR SUBMARINE PERISCOPES AND MASTS
PS	50-009	PANEL-ALARM
PT	PT-	MAPPING AND PLOTTING UNITS (ELEX)
PU	PU-	POWER SUPPLY-ROTATING (ELEX)
PV	41-047	CLEANING MACHINE-CLOCK AND WATCH
PW	41-073	PINKING MACHINE
PX	848	PIPING SYSTEM HARDWARE
PY	41-091	PLANER-METAL CUTTING
PZ	97-010	PERISCOPE-SEXTANT
P0	11-009	POWER SUPPLY-AN/SQS-26 SONAR
P1	28-029	PLOTTING TABLE, MK NC2 MODO,2 & 3 SEE ALSO NAVIG EQ (HM&E/ORD)
P2	836	SANITATION EQUIPMENT AND REPAIR PARTS
P3	27-011	PNEUMATIC TUBE SYSTEMS-COMMUNICATION
P4	41-093	POLISHER-METALLURGICAL
P5	41-095	POSITIONER-WELDING
P6	41-094	POT-MELTING, ELEC
P7	97-001	PERISCOPE-SUBMARINE
P8	11-001	POWER SUPPLY-METALLIC RECTIFIER OR SEMICONDUCTOR DIODE TYPE
P9	41-008	CLEANER-STEAM PRESSURE JET
QA	54-010	PRINTING MACHINE-HEAT DEVELOPING
QB	54-005	PRINTING PRESS-OFFSET
QC	54-008	PRINTING PRESS-LETTER PRESS
QD	54-019	PRINTING PRESS-LETTER
QE	54-025	PRINTING PRESS-PROOF
QF	99-028	PROBE AND CARRIER-FUELNG SEE ALSO FUEL OIL SYS ACC
QG	54-017	PROCESSING MACHINE-BLUE PRINT
QH	86-013	PROCESSING MACHINE-PHOTOGRAPHIC FILM
QI		NOT ASSIGNED
QJ	61-117	PROGRAM CONTROLLER
QK	26-001	PROJECTION EQUIPMENT-MOTION PICTURE
QL	26-002	PROJECTION EQUIPMENT-STILL PICTURE
QM	83-030	PROPELLER ASSEMBLY-CONSTANT PITCH
QN	64-007	RECHARGING UNIT-CO2 PUMPING METHOD
QO		NOT ASSIGNED
QP	89-002	RESCUE CHAMBER AND RECOMPRESSION TANK
QQ	55-002	REELING MACHINE-HOSE
QR	32-039	REFRIGERATION SYSTEM-ABSORPTION
QS	83-034	PROPELLER ASSEMBLY-CONTROLLABLE PITCH
QT	64-008	PROPORTIONER-FOAM LIQ SEE ALSO DAMAGE CONTRL ACC
QU	83-043	PROPULSION DRIVE UNIT-STERN
QV	01-038	PUMP UNIT-PUMP AND ACCESSORIES INSTALLED AS A UNIT

CDC	LAPL	
QW	88-213	VALVE-OVERFLOW
QX	01-011	PUMP-CENTRIFUGAL, POWER DRIVEN
QY	32-023	REFRIGERATION-MECHANICAL
QZ	42-001	REGULATOR-ELECTRICAL (EXCPT ENGINE GENERATOR)
Q0	88-231	VALVE-CROSS
Q1	01-017	PUMP-CENTRIFUGAL, POWER DRIVEN, CLOSE-COUPLED OR COUPLING DESIGN
Q2	88-245	VALVE-DIRECTIONAL INTERLOCK
Q3	88-248	VALVE-PILOT, PNEUMATIC OPERATED
Q4	01-001	PUMP-CENTRIFUGAL, BOILER FEED
Q5	88-249	VALVE-CONTROL THERMAL
Q6	41-048	CLEANING MACHINE-ELECTRIC AND OILBURNING
Q7	88-251	VALVE-LOW PUMP SECTION, SAFETY TRIP
Q8	88-252	VALVE-CONTROL AIR
Q9	01-014	PUMP-HAND DRIVE, OSCILLATING, RECIPROCATING OR ROTARY
RA	58-007	RACK-READY SERVICE
RB	52-029	RAM-HYDRAULIC
RC	RC-	REELS (ELEX)
RD	RD-	RECORDER/REPRODUCERS (ELEX)
RE	RE-	RELAY ASSEMBLY UNITS (ELEX/ORD)
RF	RF-	RADIO FREQUENCY COMPONENTS (ELEX)
RG	RG-	CABLES, RF BULK-(ELEX)
RH	16-013	RECONDENSER SYSTER-NITROGEN AND OXYGEN
RI	B34	COMMISSARY EQUIPMENT
RJ	32-007	REFRIGERATION PURGE UNIT
RK	46-010	RECORDER-PNEUMATIC AND ELECTRO-PNEUMATIC
RL	RL-	REELING MACHINES (ELEX/ORD)
RM	41-084	CLEANING MACHINE-TANK
RN	55-003	REEL-HOSE
RO	RO-	RECORDERS (ELEX/ORD)
RP	RP-	REPRODUCERS (ELEX)
RQ	32-029	REFIGERATED TANK-FILM PROCESSING
RR	RR-	REFLECTORS-EXCEPT ANTENNA REFLECTORS (ELEX)
RS	32-001	REFRIGERATION SYSTEM-MECHANICAL
RT	RT-	RECEIVER & TRANSMITTER (ELEX)
RU	C88	DAMAGE CONTROL EQUIPMENT AND ACCESSORIES
RV	R-	RECEIVERS (ELEX)
RW	42-002	REGULATOR-ENGINE GENERATOR, BATTERY CHRG, ELECTROMECH
RX	42-007	REGULATOR-ENGINE GENERATOR, BATTERY CHRG, ELEX
RY	42-100	REGULATOR-PRESSURE
RZ	42-101	REGULATOR-FLOW, BOILER FEED WATER
R0	88-253	VALVE-LINEAR DIRECTIONAL CONTROL WITH ACTUATOR
R1	42-102	REGULATOR-FLOW, FLOAT OPERATED, DRAIN/MAKE-UP VLV
R2	42-104	REGULATOR-PRESSURE OXYGEN SERVICE
R3	99-004	RECEPTACLE ASSEMBLY-CO2 ABSORBENT
R4	41-067	GRINDING MACHINE-UTILITY
R5	20-003	RESISTOR-VARIABLE
R6	20-004	RESISTOR-FIXED
R7	41-104	REWINDING AND INSULATION MACHINES
R8	20-001	RHEOSTAT
R9	88-254	VALVE-REGULATING, COMPRESSED GAS
SA	SA-	SWITCHING UNITS (ELEX)
SB	SB-	SWITCHBOARDS (ELEX)
SC	41-112	SANDER-BELT, DISK AND SPINDLE

CDC	LAPL	
SD	67-008	SANITATION EQUIPMENT SEE ALSO TOILET-MARINE
SE	41-114	SAW-ABRASIVE-DISC, MASONRY
SF	41-115	SAW-BAND
SG	SG-	GENERATOR-SIGNAL (ELEX/ORD)
SH	S-	SHELTER (ELEX)
SI	54-016	COMPOSING MACHINE-PHOTO PRINTING
SJ	41-120	SAW- POWER HACK
SK	43-017	SAW BAND, MEAT CUTTING
SL	41-078	SAW SETTING MACHINE
SM	SM-	SIMULATORS (ELEX/ORD)
SN	SN-	SYNCHRONIZERS (ELEX)
SO		NOT ASSIGNED
SP	83-010	SEAL-SWIVEL JOINT TYPE
SQ	41-145	SEALING MACHINE-HEAT
SR	07-029	HEATER-SPACE, MULTI-FUEL WITH BLOWER
SS	87-006	SELECTOR-SPEED SENSITIVITY
ST	ST-	STRAPS (ELEX)
SU	SU-	OPTICAL UNITS (ELEX)
SV	67-010	SEWAGE TREATMENT SYSTEM-MULTI TOILETS OR URINALS
SW	41-080	SEWING MACHINE-HOUSEHOLD AND INDUSTRIAL
SX	83-017	SHAFT-PROPULSION, SHIP
SY	41-119	SAW-JIG, WOOD WORKING
SZ	83-002	SEAL-STERN TUBE SHAFT
S0	43-023	SINK-SCULLERY
S1	41-123	SHAPER-METAL CUTTING AND WOODWORKING
S2	41-096	BENDING OR FOLDING MACHINE-MANUAL
S3	99-007	SHELL-MISSILE TUBE
S4	85-014	SHOCK ABSORBER-GAS, OIL OR PNEUMATIC
S5	41-081	SHOE FINISHING AND STITCHING MACHINE
S6	891	SHOP EQUIPMENT AND ACCESSORIES ON SHIPS
S7	40-005	SHUTTER
S8	41-125	SIEVE-FOUNDRY
S9	43-052	SIFTING MACHINE-FLOUR, ELECTRIC
TA	TA-	TELEPHONE APPARATUS (ELEX)
TB	TB-	TOWED BODY (ELEX)
TC	TC-	TOWED CABLE (ELEX)
TD	TD-	TIMING DEVICES (ELEX)
TE	92-007	TANK-LIQUID STORAGE
TF	TF-	TRANSFORMERS (ELEX)
TG	TG-	POSITIONING DEVICES-TILT AND/OR TRAIN (ELEX)
TH	TH-	TELEGRAPH APPARATUS (ELEX)
TI	61-107	TRANSDUCER-MOTIONAL PICKUP
TJ	88-049	VALVE-MANEUVERING AND THROTTLE
TK	TK-	TOOL KITS (ELEX)
TL	TL-	TOOLS (ELEX)
TM	88-250	VALVE-MANUAL RESET
TN	TN-	TUNING UNITS (ELEX)
TO		NOT ASSIGNED
TP	AN/ A	INVISIBLE LIGHT, HEAT RADIATION
TQ	52-012	TANK-ACCUMULATOR, HYDRAULIC
TR	TR-	TRANSDUCERS (ELEX)
TS	TS-	TEST AND MEASURING EQUIPMENT NOT OTHERWISE CLASSIFIED (ELEX/ORD)
TT	TT-	TELETYPE WRITER AND FACSIMILE APPARATUS (ELEX)

CDC	LAPL	
TU	52-048	COMPENSATOR-HYDRAULIC
TV	TV-	TESTER-TUBE (ELEX)
TW	TW-	TAPE UNITS-USED FOR OPERATIONAL TEST AND CHECK OUT (ELEX)
TX	T-	TRANSMITTERS-ALL TYPES EXCEPT TELEPHONE (ELEX)
TY	31-006	TENSIONING DEVICE-COUNTERWEIGHT
TZ	46-002	TEST EQUIPMENT-ANALYZER
T0	41-149	PUMP-AIRLESS SPRAY PAINT
T1	46-006	TEST FIXTURES, SETS, STANDS AND CALIBRATORS, ALL TYPES
T2	41-150	CLEANER-VACUUM, ELECTRIC
T3	43-029	TOASTER-ELECTRIC, INTERMITTENT
T4	43-030	MIXER AND TANK-FLUID ELECTRIC
T5	43-058	FOOD CUTTER AND MIXER-ELECTRICAL
T6	43-061	COMPACTOR-TRASH
T7	46-013	TORSION METER-PROPULSION SHAFTING
T8	48-010	FILTER-AIR, ELECTROSTATIC
T9	41-132	TEST EQUIPMENT-MISCELLANEOUS (HM&E/CRC)
UA	U-	CONNECTORS-AUDIO AND POWER (ELEX)
UB	C35	LAUNDRY EQUIPMENT AND ACCESSORIES
UC	C22	STEERING GEAR, EMERGENCY
UD	C21	HYDRAULIC FILTER UNIT, PORTABLE
UE	C30	PORTABLE CLEATS
UF	C23	INDUSTRIAL GASES GENERATING, HANDLING AND STOWAGE
UG	UG-	CONNECTORS-RF (ELEX)
UH		DIRECTOR-WEAPON SYSTEM
UI		NOT ASSIGNED
UJ	88-014	VALVE-GATE, HYDROCARBON FUEL SERVICE
UK	99-018	CABLE ASSEMBLY-ELECTRICAL
UL	99-031	DISPENSER-CHAFF
UM	88-032	VALVE-REFRIGERATION SHUT OFF 3/4 IN AND LARGER
UN	52-006	MISSILE HANDLING SYSTEM-HYDRAULIC
UO		NOT ASSIGNED
UP	41-071	MAGNETIC INSPECTION UNIT PORTABLE
UQ	50-003	PANEL-TEST ELECTRICAL
UR	C27	CARGO HANDLING ACCESSORIES
US	50-006	PANEL-INTERIOR COMMUNICATION
UT	50-008	PANEL-GYRO OR DEAD RECKONING CONTROL
UU	86-004	SAFELIGHT-DARKROOM, PHOTOGRAPHIC
UV	28-023	PLOTTING AND TRACING EQUIPMENT
UW	55-004	REEL-CABLE
UX	19-002	RELAY-ELECTRICAL SEE ALSO TEST EQUIPMENT
UY	55-001	REELING MACHINE-CABLE
UZ	46-003	RECORDER-ELECTRICAL AND ELECTRONIC
U0	41-118	SAW-CIRCULAR
U1		SHIELD ASSEMBLY-WEAPON SYSTEM
U2		TRAIN POWER DRIVE ASSEMBLY-WEAPON SYSTEM
U3		ELEVATION POWER DRIVE ASSEMBLY-WEAPON SYSTEM
U4		TRAIN TRANSMISSION ASSEMBLY-WEAPON SYSTEM
U5		ELEVATION TRANSMISSION ASSEMBLY-WEAPON SYSTEM
U6		TRAIN RECEIVER REGULATOR-WEAPON SYSTEM
U7		ELEVATION RECEIVER REGULATOR-WEAPON SYSTEM
U8		CONTROL ASSEMBLY-WEAPON SYSTEM
U9		FUSE SETTER ASSEMBLY-WEAPON SYSTEM
VA	88-103	VALVE-BALANCING
VB	88-149	VALVE-ANGLE
VC	88-039	VALVE-ASTERN

CDC	LAPL	
VD	838	ENVIRONMENTAL CONTROL SYSTEM SPARES AND REPAIR PARTS
VE	88-001	VALVE-BALL
VF		CONTROL-LAUNCHER
VG	88-038	VALVE-BUTTERFLY
VH	V-	VEHICLES-CARTS, DOLLIES, VANS U/W ELECTRONIC EQUIPMENT (ELEX)
VI	88-057	VALVE-GLOBE
VJ	88-036	VALVE-CHECK
VK	88-175	VALVE-SPECIAL
VL	88-019	VALVE-PILOT AND LINE PRESSURE OPERATED, DIAPHRAGM AND PISTON TYPES
VM	88-171	VALVE-RELAY AIR, DIAPHRAGM AND PISTON TYPES
VN	88-026	VALVE-EXPANSION
VO		NOT ASSIGNED
VP	88-212	VALVE-FLOAT
VQ	88-024	VALVE-FUEL OIL REGULATING
VR	88-013	VALVE-GATE, ALL TYPES EXCEPT HYDROCARBON FUEL SERVICE
VS	VS-	SIGNALING EQUIPMENT-VISUAL (ELEX)
VT	88-124	VALVE-LINEAR, DIRECTIONAL CONTROL
VU	88-189	VALVE-INSTANTANEOUS HEATER
VV	88-071	VALVE-NEEDLE
VW	88-217	VALVE-PILOT CONTROL, BELLOWS AND SOLENOID OPERATED
VX	88-033	VALVE-PLUG
VY	88-020	VALVE-PRESSURE REGULATING, STEAM SERVICE
VZ	88-025	VALVE-FLUSH
V0	88-102	VALVE-ROTARY, DIRECTIONAL CONTROL
V1	88-176	VALVE-EXHAUST AND RELIEF
V2	88-191	VALVE-FEEDWATER REGULATING
V3	87-013	VALVE - SEA, UNDERWATER LOG
V4	88-152	VALVE-MAIN BALLAST
V5	88-144	VALVE-MANIFOLD (EXCLUDES VALVE AND TRAP MANIFOLDS)
V6	88-216	VALVE-SOLENOID
V7	88-010	VALVE-TEMPERATURE REGULATING, AUTOMATIC OPERATION
V8	88-166	VALVE-HINGE TYPE
V9	88-055	VALVE-Y
WA	91-001	WASHING MACHINE - LAUNDRY
WB	41-086	WELDING AND BRAZING MACHINE - BAND SAW BLADE
WC	82-002	WELDING MACHINE - RESISTANCE
WD	WD-	CABLE, 2 CONDUCTOR, NON-RF (ELEX)
WE	82-005	WELDING MACH-ARC,ADJUST,CONST VLTG OR CONST CURR TRANSFORER RECTIFIER
WF	WF-	CABLE, 4 CONDUCTOR, NON-RF (ELEX)
WG	82-001	WELDING SET - TUNGSTEN ARC,INERT GAS SHELDED,NONCONSUMABLE ELECTRODE
WH	82-004	WELDING SET - ARC,INERT GAS SHIELDED, CONSUMABLE ELECTRODE
WI		NOT ASSIGNED
WJ	82-007	WELDING SET - STUD, ELECTRIC ARC
WK	62-001	WINCH - HAND OPERATED
WL	62-002	WINCH - STEAM OPERATED
WM	WM-	CABLE, MULTIPLE CONDUCTOR, NON-RF (ELEX)
WN	62-004	WINCH - ELECTRC - HYDRAULIC
WO		NOT ASSIGNED
WP	62-006	WINCH - ENGINE DRIVEN, GASOLINE OR DIESEL
WQ	62-007	WINCH - PNEUMATIC DRIVE
WR	41-087	WINDING MACHINE COIL
WS	WS-	CABLE, SINGLE CONDUCTOR, NON-RF (ELEX)
WT	WT-	CABLE, 3 CONDUCTOR, NON-RF (ELEX)
WU	63-003	WINDLASS - ELECTRICAL MECHANICAL SEE ALSO ANCHOR HANDLING ACCESSORIES
WV	63-004	WINDLASS - HAND OPERATED SEE ALSO ANCHOR HANDLING ACCESSORIES
WW	31-025	WINDOW - OBSERVATION, OPTICAL, PORTLIGHT

CDC	LAPL	
WX	99-001	WINDOW - NON ICING
WY	35-001	WIPER-WINDOW PNLM. RTY OR VERT TYPE. ELEC OR MNL (HM&E/ORD)
WZ	35-002	WIPER - WINDOW. PENDULUM TYPE. PNEUMATIC
WO		FIRING CUTOUT ASSY-WEAPON SYSTEM
W1		CARRIAGE ASSEMBLY-WEAPON SYSTEM
W2		STAND ASSEMBLY-WEAPON SYSTEM
W3		SLIDE ASSEMBLY-WEAPON SYSTEM
W4		RAMMER ASSEMBLY-WEAPON SYSTEM
W5		HOUSING ASSEMBLY-WEAPON SYSTEM
W6		GUN BARREL ASSEMBLY-WEAPON SYSTEM
W7		GAS EJECTOR ASSEMBLY-WEAPON SYSTEM
W8		EMPTY CASE EJECTOR ASSY-WEAPON SYSTEM
W9		HOIST ASSEMBLY-WEAPON SYSTEM
XA	C00	COMPRESSOR GAS TURBINE REPAIR PARTS
XB		BULKHEADS-STRUCTURAL
XC		CANVAS
XD		DECK COVERINGS
XE	E34	MISCELLANEOUS FLAG ALLOWANCES. MESSING GEAR
XF	C36	SURVIVAL EQUIPMENT
XG	C41	LIFTING AND HANDLING GEAR MAIN AND AUXILIARY MACHINERY
XH	C43	TOOLS AND ACCESSORIES MAIN PROPULSION SHAFTING
XI	C38	ENVIRONMENTAL CONTROL SYSTEM APPLIANCES
XJ	C47	PUMPS. PORTABLE
XK	C51	BOILER TOOLS AND ACCESSORIES
XL	C58	TOOLS AND ACCESSORIES DISTILLING PLANT
XM	C59	TOOLS AND ACCESSORIES REFRIGERATION SYSTEM
XN		DOOR-NON STRUCTURAL
XO		NOT ASSIGNED
XP	C48	HOSE AND MISCELLANEOUS HOSE FITTINGS
XQ	C61	TOOLS AND ACCESSORIES GENERATORS
XR	C18	RIGGING
XS		SHEATHING
XT	C62	TOOLS AND ACCESSORIES ELECTRIC POWER DISTRIBUTION
XU	C64	LIGHT EXTENSION
XV	C65	PORTABLE INTERIOR COMMUNICATION EQUIPMENT
XW	C66	LIGHT SIGNAL PORTABLE
XX	C67	ELECTRICAL AND ELECTRONIC HAND TOOLS
XY	C69	IOIC SUPPORT EQUIPMENT
XZ	C70	FLAGS AND PENNANTS
XO	C75	ASROC/TORPEDO/MINE HANDLING
X1		DECK
X2		DOME-SONAR(STRUCT AND NON STRUCT)
X3		BALLAST
X4		PLATFORM DECK
X5		FLAT
X6	C77	NBC WARFARE EQUIPMENT
X7	C81	MINESWEEPING EQUIPMENT
X8	C83	AIRCRAFT HANDLING AND STOWAGE
X9	C85	PROJECTION EQUIPMENT AND ACCESSORIES
YA	54-009	TABLE-LITHOGRAPHIC LAYOUT
YB	60-006	STEERING GEAR
YC	46-011	TRITIUM AIR MONITOR
YD	85-036	TROLLEY - MONORAIL AND BI-RAIL
YE	85-018	TRUCK/DOLLY/ CRADLE ASSEMBLY SEE ALSO CARGO HNDL ACCY (HM&E/ORD)

CDC	LAPL	
YF	41 .39	TUBE AND FLUE CLEANER - AIR MOTOR DRIVEN
.G	41-140	TUBE AND FLUE CLEANER - ELECTRIC MOTOR DRIVEN
YH	05-001	TURBINE-STEAM, MAIN PROPULSION
YI		NOT ASSIGNED
YJ	61-029	CONTROL PANEL-AUTOMATIC OR MANUAL
YK	61-048	ELECTRONICS SUB-ASSEMBLIES
YL	82-003	WELDING MACHINE - ARC, DRIVEN BY GAS OR DIESEL INTERNAL COMBUST ENGIN
YM	61-065	INDUCTOR-VERNIER
YN	82-006	WELDING MACHINE - ARC, ELECTRIC MOTOR DRIVEN
YO		NOT ASSIGNED
YP	62-003	WINCH - ELECTRIC
YQ	63-001	WINDLASS - STEAM DRIVEN SEE ALSO ANCHOR HANDLING ACCESSORIES
YR	05-006	TURBINE-STEAM, AUXILIARY
YS	05-022	TURBINE - WATER DRIVEN
YT	05-028	TURBINE - GAS, PROPULSION AND AUXILIARY SERVICE OVER 2000 HORSEPOWER
YU	05-029	TURBINE - GAS, PROPULSION AND AUX SERV 2000 HORSEPOWER OR UNDER
YV	05-025	TURBINE AND FAN, INTEGRAL FORCED DRAFT AIR SERVICE FOR MAIN BOILER
YW	05-019	TURBINE CONTROL - PROPULSION
YX	05-024	TURBO/SUPERCHARGER - DIESEL ENGINE
YY	85-003	TURNTABLE - TROLLEY OR BALL TYPE, MANUAL OR POWER DRIVEN
YZ	85-009	TORPEDO HANDLING UNIT (HM&E/ORD)
Y0	C12	HULL FITTINGS, LASHING GEAR AND ACCESS CLOSURES
Y1	53-002	CAPSTAN-POWER OPERATED, ELECTRIC OR HYDRAULIC
Y2	63-002	WINDLASS - ELECTRIC HYDRAULIC SEE ALSO ANCHOR HANDLING ACCESSORIES
Y3	C87	TEST, MEASURING AND INDICATING EQUIPMENT
Y4	C90	RADIATION MONITORING AND COUNTERMEASURES
Y5	C93	SHIPBOARD FIREFIGHTING AND ACCESSORIES
Y6	A00	ORDNANCE TOOLS AND ACCESSORIES (AEL/ORD)
Y7		WELDMENT
Y8	C94	SALVAGE TOOLS AND EQUIPMENT
Y9	C95	DIVING EQUIPMENT
ZA	61-086	STAND,CONTROL-STEERING
ZB	61-087	STAND, CONTROL PROPULSION
ZC	91-009	STARCH COOKER-LAUNDRY
ZD	61-482	VALVE OPERATOR-HYDRAULIC OPERATOR
ZE	34-001	STARTER-ENGINE, ELECTRICAL
ZF	34-002	STARTER-ENGINE, HYDRAULIC
ZG	34-003	STARTER-ENGINE, DIRECT COMBUSTION AND/OR GAS TURBINE
ZH	34-005	STARTER-ENGINE,AIR MOTOR OR AIR TURBINE TYPE
ZI		NOT ASSIGNED
ZJ	60-001	STEERING GEAR-ELECTRO-HYDRAULIC,MARINE,LINK,TILLER TY P
ZK	60-003	STRNG GEAR-ELEC MCH,MRN,DRM&CBL/CBL&CC,GR&OC,HND OP TY
ZL	60-007	STEERING GEAR-ELECTRIC,STEER MOTOR-CHAIN DRIVE TYPE
ZM	ZM-	IMPEDANCE MEASURING DEVICES (ELEX)
ZN	60-008	STEERING GEAR-EMERGENCY SUBMERSIBLE TYPE
ZO		NOT ASSIGNED
ZP	61-027	STEERING HEAD-GYROPILOT
ZQ	54-020	STITCHER-BOOK AND PAMPHLET
ZR	64-005	STRAINER-PRESSURE,FIRE HOSE WITH BALL VALVE
ZS	64-014	FIRE EXTINGUISHING SYSTEM-TWIN AGENT
ZT	C99	TOOLS AND EQUIPMENT MISCELLANEOUS
ZU	64-015	FIRE EXTINGUISHING UNIT-DRY CHEMICAL
ZV	D39	DSRV RESCUE CONTROL CENTER
ZW	64-016	NOZZLE ASSEMBLY-TWIN AGENT

CDC	LAPL	
ZX	41-113	SAND MULLER
ZY	75-001	STRAINER-SEDIMENT
ZZ		MISCELLANEOUS ITEMS NOT OTHERWISE CODED
Z0	E24	MISCELLANEOUS FLAG ALLOWANCES. NAVIGATION INSTRUMENTS
Z1	61-072	CONTROL-HUMIDITY
Z2	41-129	SURFACER-WOODWORKING
Z3	85-027	SWAY BRACE ASSEMBLY-ELECTRIC CHAIN HOIST DRIVE
Z4	89-005	SWIMMERS RECOVERY SYSTEM
Z5	E36	MISCELLANEOUS FLAG ALLOWANCES. VACUUM CLEANER
Z6	61-074	COMPUTER-SHIPBOARD
Z7	E85	MISCELLANEOUS FLAG ALLOWANCES. PROJECTION EQUIPMENT
Z8	61-389	BELLOWS ASSEMBLY-PRESSURE RELIEF
Z9		NOT ASSIGNED
0A		NOT ASSIGNED
0B		NOT ASSIGNED
0C		TELEMETERING SETS
0D		NOT ASSIGNED
0E		NOT ASSIGNED
0F		NOT ASSIGNED
0G		NOT ASSIGNED
0H		NOT ASSIGNED
0I		NOT ASSIGNED
0J		NOT ASSIGNED
0K		NOT ASSIGNED
0L		NOT ASSIGNED
0M		NOT ASSIGNED
0N		NOT ASSIGNED
0O		NOT ASSIGNED
0P		NOT ASSIGNED
0Q		NOT ASSIGNED
0R	0R	ORDALTS AND ORDNANCE MODIFICATIONS-OTHER THAN SWITCHBOARD
0S	RS	ORDALTS AND ORDNANCE MODIFICATIONS-SWITCHBOARD ONLY
0T		NOT ASSIGNED
0U		NOT ASSIGNED
0V		NOT ASSIGNED
0W		NOT ASSIGNED
0X		NOT ASSIGNED
0Y		NOT ASSIGNED
0Z		NOT ASSIGNED
00	NLAPLW	NLAPLW-ITEM LISTED BY SPCC AS NOT LAPL WORTHY
00	INCOMP	INCOMP-ITEM LISTED BY SPCC AS INCOMPLETE
01	06-001	COMPRESSOR-RECIPROCATING. OTHER
02	06-004	COMPRESSOR-CENTRIFUGAL. REFRIGERATION
03	06-201	COMPRESSOR-RECIPROCATING. AIR. HIGH. PRESSURE
04	06-202	COMPRESSOR-RECIPROCATING. AIR. LOW. PRESSURE
05	06-203	COMPRESSOR-CENTRIFUGAL. AIR. LOW PRESSURE
06	06-204	COMPRESSOR-ROTARY. AIR. LOW PRESSURE
07	06-501	COMPRESSOR-VAPOR ROTARY
08		AVIATION ORDNANCE EQUIPMENT
09	04-001	CONDENSER-REFRIGERATION. WATER. COOLED
1A		VALVE-SCUPPER (INCL. DECK DRAIN VALVES)
1B	41-004	BOOTH-SPRAYING
1C	39-005	CLUTCH-FRICTION
1D	B37	PROPANE GAS AND CYLINDERS
1E		MACK
1F	14-007	FUSE UNIT ASS

CDC	LAPL	
1G	41-045	GRINDING MACHINE-UTILITY (INCL BUFFNG CAPABILITY)
1H	76-006	HYPOCHLORINATION UNIT
1I		NOT ASSIGNED
1J	01-012	PUMP-FUEL, ALL TYPES INCLUDING ELECTRIC DRIVE DESIGN
1K	54-001	PUNCHING MACHINE-PAPER
1L	61-049	SYNCHRO-RECEIVER, TRANSMITTER,RECEIVER,TRANSMITTER
1M	17-018	MOTOR-AC/DC MAIN PROP, UNLIMITED HORSEPOWER
1N	C32	FURNISHINGS AND OUTFITTINGS
1O		NOT ASSIGNED
1P	39-003	POWER TAKE OFF-ACCESSORY DRIVE
1Q	01-005	PUMP-ROTARY, POWER DRIVEN
1R	43-057	RINSER-SANITIZER
1S	86-001	SINK-PHOTOGRAPHIC PROCESSING
1T	01-013	PUMPING UNIT-CENTRIFUGAL, POWER DRIVEN, AIRCRAFT FUELING
1U		HEAD-SPRINKLER-FIRE PROTECTION
1V	88-004	VALVE-SAFETY RELIEF, MAIN PROPULSION BOILER
1W		NOT ASSIGNED
1X	52-014	CYLINDER-ACTUATING LINEAR SEE ALSO JACK ASSEMBLY/SHOCK AB
1Y	57-008	CRANE-ASROC MISSILE
1Z		NOT ASSIGNED
1O		NOT ASSIGNED
11	04-100	CONDENSER-STEAM, ALL TYPES
12	01-003	PUMP-CENTRIFUGAL, MAIN CONDENSER CIRCULATING
13	01-004	PUMP-ROTARY, POWER DRIVEN, CAM AND PLUNGER DESIGN
14	01-006	PUMP-ROTARY, POWER DRIVEN, IMPELLER DESIGN WITH TIMING GEARS
15	01-007	PUMP-ROTARY, POWER DRIVEN, EXTERNAL GEAR DESIGN
16	32-009	CONDENSING UNIT-REFRIGERATION
17	99-023	CONNECTOR-ELECTRICAL SEE BOX-ELECTRICAL
18	61-030	CONSOLE-CONTROL AND POWER
19	09-004	CONTROL-BATTERY CHARGER
2A		LAUNCHING SYSTEM (MISSILE/ROCKET)
2B	99-008	BOX-ELECTRICAL (HM&E/CRD)
2C	39-006	CLUTCH-MAGNETIC
2D	844	PROPELLER, SPECIAL TOOLS AND HANDLING GEAR
2E		LAUNCHERS (MISSILE/ROCKET)
2F	850	GOVERNOR OVERSPEED SPARES
2G	25-024	GYRO COMPASS-ARMA MK 7,8,9,10,21,22,24,& 26
2H	31-003	HATCH COVER
2I		NOT ASSIGNED
2J		ANTI-ICING SYSTEM
2K	41-074	PUNCHING, SHEARING, AND NIBBLING MACHINE-METAL
2L	32-034	SEPARATOR-OIL, REFRIGERANT
2M	41-089	MOTOR-PNEUMATIC
2N	83-037	OIL DISTRIBUTION BOX OR OIL INJECTOR ASSEMBLY
2O		NOT ASSIGNED
2P	52-047	POWER UNIT-HYDRAULIC
2Q	39-001	CLUTCH-POSITIVE DRIVE AND ROTATING ELEMENT
2R	41-075	RIVETING MACHINE-ELECTRIC OR PNEUMATIC
2S	41-082	SKIVING AND BEVELING MACHINE-SHOE,SOLE,HAND OPERATED
2T	41-085	THREADING MACHINE-PIPE AND BOLT SEE ALSO SHOP ACCESSORIES-TOOLS X ECP
2U		MAGAZINES-WEAPON SYSTEM
2V		GUN MOUNTS
2W		NOT ASSIGNED
2X		CASTING
2Y	57-009	CRANE-ELECTRO HYDRAULIC

CDC	LAPL	
2Z	21-011	SWITCH-FLOAT, LIQUID LEVEL, FLOW DETECTING
20	61-008	CONTROL-STEERING SYSTEM
21	61-009	CONTROL-MECHANICAL
22		NOT ASSIGNED
23	61-015	CONTROL-NAVIGATIONAL LIGHT
24	61-022	CONTROL-ACOUSTIC DEVICE
25	61-024	CONTROL-MECHANICAL PUSH PULL STROKE
26	61-026	CONTROL-ELECTRIC LIGHT
27	61-040	CONTROL-VALVE OPERATOR
28	61-064	CONTROL-HUMIDITY
29	61-067	CONTROL-REMOTE TRANSMITTERS AND RECEIVERS
3A		NOT ASSIGNED
3B	80-001	BRAKE-ELECTRIC,SHOE OR DISC,SOLENOID
3C	39-007	CLUTCH-MAGNETIC PARTICLE
3D	B41	PROPULSION MAIN DRIVE DIESEL ENGINE EQUIPMENT AND ACCESSORIES
3E		NOT ASSIGNED
3F		FRAME-STRUCTURAL
3G	25-028	GYRO COMPASS-SPERRY MK 11, 14, 17, 18, & 19
3H		NOT ASSIGNED
3I		NOT ASSIGNED
3J	21-018	SWITCHING UNIT-POWER TRANSFER
3K	76-001	PURIFIER-CENTRIFUGAL
3L	93-009	SEPARATOR MOISTURE
3M	52-046	MOTOR-HYDRAULIC
3N	01-018	PUMP-CENTRIFUGAL, SINGLE STAGE, CLOSE-COUPLED, NAVY STD
3O		NOT ASSIGNED
3P	61-091	POWER UNIT-GYRO PILOT
3Q	01-009	PUMP-ROTARY, POWER DRIVEN, VANE DESIGN, FIXED OR VAR DELIVERY
3R	87-002	RODMETER-UNDERWATER LOG SYSTEM
3S	32-020	SODA FOUNTAIN
3T	61-056	THRUSTOR-MOTOR DRIVEN,HYDRAULICALLY OPERATED
3U	B58	DISTILLING PLANT ACCESSORIES
3V	16-016	VAPORIZER SYSTEM - LIQUID OXYGEN OR NITROGEN
3W	AN/ C	CARRIER
3X	C6-0C5	COMPRESSOR-RECIPROCATING, REFRIG, VERT OPR,SEMI-HERM
3Y	57-010	CRANE STERN
3Z	AN/ D	RADIAC
30	61-071	CONTROL-PHOTOELECTRIC CELL
31	61-079	CONTROL-CONSTANT FREQUENCY
32	61-096	CONTROL-TRANSMISSION REVERSING MECHANISM
33	61-108	CONTROL-PERISCOPE
34	61-110	CONTROL-SENSOR, DEPTH AND TRIM
35	61-402	CONTROL-FLAME FAILURE
36	61-444	CONTROL-GENERATOR, COOLER FEEDWATER
37	61-481	CONTROL-SERVO, CONTROLLABLE PITCH PROPELLERS
38	87-0C4	CONTROL-UNDERWATER LOG
39	61-019	CONTROL TRANSMITTER-PRESSURE DIFFERENTIAL
4A	AN/ G	TELEGRAPH OR TELETYPE
4B		BULKHEAD-NONSTRUCTURAL
4C	39-013	CLUTCH- ALL OTHER TYPES
4D	31-019	DOOR-MISSLE TUBE
4E	AN/ I	INTERPHONE AND PUBLIC ADDRESS
4F		FORGING
4G	25-039	GYRO COMPASS-SPERRY MK 23 AND 27
4H	AN/ J	ELECTROMECHANICAL OR INERTIAL WIRE COVERED
4I		NOT ASSIGNED

CDC	LAPL	
4J	22-001	SWITCHBOARD-DEGAUSSING
4K	61-012	CONTROL-DEGAUSSING
4L	61-011	SERVO GEAR TRAIN
4M	18-001	MOTOR GENERATOR
4N	31-002	OPERATING MECHANISM-DOOR,RAMP,STERNGATE & BRIDGE
4O		NOT ASSIGNED
4P	41-069	PRESS-GROMMET AND EYELET
4Q	AN/ K	TELEMETERING (ELEX/ORD)
4R	31-018	RUDDER-INCLUDING STOCKS, POSTS AND CARRIERS
4S	41-127	SOLDER AND DESOLDER UNIT-ELECTRIC
4T	61-005	TIMER
4U	AN/ L	COUNTERMEASURES
4V	43-014	VEGETABLE PEELING MACHINE - ELECTRIC
4W	AN/ M	METEOROLOGICAL
4X	C33	CLOTHING STANDARD OUTFIT, AIR PURIFICATION AND LIFE PRESERVERS
4Y	57-011	CRANE-HEAVY EQUIPMENT
4Z	01-019	PUMP CENTRIFUGAL, POWER DRIVEN, PERIPHERAL DESIGN
40	61-075	CONTROL-STEERING AND DIVING ASSEMBLY
41	61-062	CONTROL-PNEUMATIC
42	61-066	CONTROL-TELEMOTOR STEERING
43	61-089	CONTROL-SPLIT PLANE
44	61-132	CONTROL-FEED WATER SYSTEM
45	61-251	CONTROL- PRESSURE,TEMP,LEVEL AND FLOW
46	83-040	CONTROL-CONTROLLABLE PITCH PROPELLER
47	15-002	CONTROLLER/STARTER, AC
48	AN/ N	SOUND IN AIR
49	AN/ P	RADAR
5A	AN/ Q	SONAR AND UNDERWATER SOUND
5B	80-002	BRAKE-ELECTRIC, MOTOR OPERATED
5C	43-015	COFFEE MAKER
5D	31-017	DOOR-HINGED TYPE, POWER OPERATED
5E	AN/ R	RADIO
5F		FOUNDATION
5G	25-008	GYRO COMPASS EQUIPMENT-AMPLIFIER-SYNCHRO SIGNAL
5H	AN/ S	SPECIAL TYPES MAGNETIC, ETC., OR COMBINATIONS OF TYPES
5I		NOT ASSIGNED
5J	22-002	SWITCHBOARD-INTERIOR COMMUNICATION
5K		PLATFORM-SERVICE
5L		STRUCTURE-DECKHOUSE
5M	AN/ T	TELEPHONE (WIRE)
5N	28-009	OPTICAL NAVIGATIONAL AIDS ALSO SEE SPECIFIC EQPMT
5O		NOT ASSIGNED
5P	41-098	PRESS-HYDRAULIC, MANUAL OR POWER OPERATED
5Q	01-008	PUMP-ROTARY, POWER DRIVEN, INTERNAL GEAR DESIGN
5R	B21	HYDRAULIC SYSTEM TOOLS AND REPAIR PARTS
5S	41-126	SOLDERING AND BRAZING OUTFIT, ELECTRIC
5T		TRUNK-STRUCTURAL
5U	AN/ V	VISUAL AND VISIBLE LIGHT
5V	87-007	VENT, AIR - U/W LOG EQUIPMENT
5W	AN/ W	ARMAMENT (PECULIAR TO ARMAMENT, NOT OTHERWISE COVERED)
5X	01-021	PUMP-CENTRIFUGAL, TURBINE DRIVEN, GASOLINE SERVICE
5Y	57-013	CRANE-GANTRY
5Z	B62	PORTABLE STORAGE BATTERIES AND POWER DISTRIBUTION ACCESSORIES
50	AN/ X	FACSIMILE OR TELEVISION
51	AN/ Y	DATA PROCESSING

CDC	LAPL	
52		AUTOMOTIVE & CONSTRUCTION EQUIPMENT (INCL ALL COMMODITY CLASS 95)
53		MISC. PARTS LISTS FOR SHIPS (INCL ALL APLS STARTING WITH 89000)
54		MAINTENANCE & REPAIR SHIP EQUIPMENT (INCL ALL COMMODITY CLASS 12)
55		CHEMICAL WARFARE EQUIPMENT (INCL ALL COMMODITY CLASS 47)
56		SICK-BAY EQUIPMENT (INCL ALL COMMODITY CLASS 84)
57	01-020	PUMP-CENTRIFUGAL, POWER DRIVEN, HORIZONTAL, SPLIT CASE DESIGN
58		RIGGING & RIGGING GEAR (INCL ALL COMMODITY CLASS 90)
59		CONSTRUCTION EQUIPMENT (INCL ALL COMMODITY CLASS 96)
6A	99-015	ARRESTOR-ELECTRICAL
6B	01-028	PUMP-CENTRIFUGAL, TURBINE DRIVEN, HORIZONTAL, CLOSE-COUPLED
6C	54-023	COLLATOR
6D	31-008	DOOR-METAL SLIDING
6E		SPECIAL POWER PLANT EQUIPMENT (INCL ALL COMMODITY CLASS 98)
6F		NOT ASSIGNED
6G	25-010	GYRO COMPASS EQUIPMENT-ALARMS-AUDIBLE & VISIBLE
6H		NOT ASSIGNED
6I		NOT ASSIGNED
6J	22-004	SWITCHBOARD-PROPULSION
6K		PYROTECHNIC EQUIPMENT
6L		SEA CHEST
6M	E99	MISCELLANEOUS FLAG ALLOWANCES, FURNITURE AND MISC. EQUIPMENT
6N	87-012	OSCILLATOR AND AMPLIFIER-U/W LOG EQUIPMENT
6O		NOT ASSIGNED
6P	41-100	PRESS-ARBOR, MANUAL OPERATION
6Q		NOT ASSIGNED
6R		NOT ASSIGNED
6S	61-046	SOLENOID-ELECTRIC
6T	43-026	TOASTER-ELECTRIC
6U		NOT ASSIGNED
6V	31-020	VENTILATOR - DECK
6W		NOT ASSIGNED
6X	B16	ACCESS CLOSURES OPERATING SPARES
6Y	57-016	CRANE-KINGPOST
6Z		NOT ASSIGNED
60	15-010	CONTROLLER, DC
61		NOT ASSIGNED
62	25-014	CONVERTER-SIGNAL DATA
63	01-022	PUMP-CENTRIFUGAL, POWER DRIVEN, FOR COMMERCIAL DISHWASHING MACHINE
64	01-023	PUMP-CENTRIFUGAL, POWER DRIVEN, SUBMARINE TRIM AND DRAIN SERVICE
65	59-006	CONVEYOR-POWER OPERATED, BELT OR VERTICAL TRAY TYPE
66		NOT ASSIGNED
67	03-001	COOLER-FLUID, SHELL/TUBE CONSTRUCTION
68	01-026	PUMPING UNIT-CENTRIFUGAL, ELECTRIC MOTOR DRIVEN, FOR STEAM SYSTEMS
69	03-002	COOLER-FLUID, TYPE B
7A		APPENDAGES-SHELL
7B	80-003	BRAKE-PNEUMATIC
7C	41-009	COLLECTOR UNIT-DUST
7D	43-054	DOUGH INTERMEDIATE PROOFING MACHINES
7E		NOT ASSIGNED
7F		NOT ASSIGNED
7G	25-011	GYRO COMPASS EQUIPMENT-CABINET-GYRO & GUID COMP STOR
7H		NOT ASSIGNED
7I		NOT ASSIGNED
7J	22-009	SWITCHBOARD-ALARM
7K		NOT ASSIGNED
7L		STANCHIONS

CDC	LAPL	
7M	51-006	MOUNT-RESILIENT
7N	41-090	OVEN-THERMAL DRYING, ELECTRIC
7O		NOT ASSIGNED
7P	44-008	PRESSURE REDUCING STATION
7Q		NOT ASSIGNED
7R		NOT ASSIGNED
7S	81-001	SOOT BLOWERS
7T		TORPEDO TUBE ASSEMBLY
7U		NOT ASSIGNED
7V	61-054	VERTICAL REFERENCE
7W		NOT ASSIGNED
7X		NOT ASSIGNED
7Y	41-039	CUT-OFF MACHINE-ABRASIVE DISK, METAL CUTTING
7Z	21-023	SWITCH-PRESSURE AND/OR THERMOSTATIC
70	03-003	COOLER-FLUID,ENGINE JACKET WATER HULL MOUNTED
71	03-004	COOLER, FLD SMPL WTR TYPE I SHL/CL DSN, TYP II DB TB
72	03-006	COOLER, AIR
73	03-011	COOLER-FLUID, RADIATOR ENGINE COOLANT
74	03-015	COOLER-AMINE
75	32-011	COOLER-AIR FLOW UNIT
76	32-010	COOLING COIL-AIR, DUCT TYPE AND GRAVITY TYPE
77	46-005	COUNTERS AND TOTALIZERS
78		NOT ASSIGNED
79	51-001	COUPLING-FLEXIBLE, SOUND ISOLATION
8A		NOT ASSIGNED
8B	80-004	BRAKE-MANUAL
8C	28-012	COMPASS COMPENSATING EQUIPMENT
8D	43-018	DOUGH MIXING MACHINES
8E		NOT ASSIGNED
8F		NOT ASSIGNED
8G	25-021	GYRO COMPASS EQUIPMENT-RELAY TRANSMITTER
8H		NOT ASSIGNED
8I		NOT ASSIGNED
8J	22-013	SWITCHBOARD-POWER
8K		NOT ASSIGNED
8L	B78	AMMUNITION HANDLING AND STOWAGE
8M	86-014	MOUNT-FILM SLIDE, PHOTOGRAPHIC
8N	43-019	RANGES AND OVENS-OIL BURNING-SEE ALSO GALLEY EQPMT
8O		NOT ASSIGNED
8P	29-003	PRIMER-ENGINE STARTING, ETHER INJECTION
8Q	01-002	PUMP-RECIPROCATING, DIRECT ACTING AND POWER DRIVEN
8R		NOT ASSIGNED
8S	25-017	STABILIZER-GYRO
8T	67-009	TOILET-MARINE
8U		NOT ASSIGNED
8V	26-004	VIEWER - STILL PICTURE
8W		NOT ASSIGNED
8X		NOT ASSIGNED
8Y	02-004	BOILER-AUXILIARY, HP STEAM, OIL FIRED
8Z	21-006	SWITCHES-GENERAL
80	01-032	PUMP UNIT-CENTRIFUGAL, POWER DRIVEN, PORTABLE (SELF-CONTAINED)
81	78-001	COUPLING-FLEXIBLE, SHAFT
82	01-034	PUMPING UNIT-HYDRAULIC, AIR DRIVEN
83		NOT ASSIGNED
84	01-035	PUMP-CENTRIFUGAL, PWR DRIVEN, (MULTI-STAGE) VERT DEEPWELL TURB DESIGN
85	01-036	PUMP-JET, MAIN PROPULSION

CDC	LAPL	
86	01-037	PUMP-RECIPROCATING, AIR DRIVEN, MISCELLANEOUS SERVICE
87	78-004	COUPLING-FLEX, SFT, AUXILIARY SERVICE
88	02-002	BOILER-AUXILIARY, HP STEAM, WATER TUBE
89	02-003	BOILER-AUXILIARY, HP STEAM, HORIZONTAL FIRE TUBE
9A		NOT ASSIGNED
9B	80-005	BRAKE-HYDRAULIC
9C		COMPARTMENT
9D	43-032	DOUGH PROCESSING MACHINE-POWER AND MANUAL
9E		NOT ASSIGNED
9F		NOT ASSIGNED
9G	41-066	GRINDING MACHINE-TOOLS & CUTTERS
9H		NOT ASSIGNED
9I		NOT ASSIGNED
9J	22-021	SWITCHBOARD-STATIC GROUP CONTROL
9K		NOT ASSIGNED
9L		SMALL ARMS
9M	79-001	MUFFLER
9N		GRATINGS, FLOOR PLATES
9O		NOT ASSIGNED
9P	86-002	PRINTER-PHOTOGRAPHIC
9Q		NOT ASSIGNED
9R		NOT ASSIGNED
9S	31-029	STABILIZER-ACTIV FIN,RETRCTBLE & NONRETRCTBLE
9T	C25	TOWING GEAR
9U		NOT ASSIGNED
9V	86-006	VIEWER PRINTER - MICROFILM
9W		NOT ASSIGNED
9X		NOT ASSIGNED
9Y	54-013	CUTTER-PAPER, GUILLOTINE
9Z		NOT ASSIGNED
90		NOT ASSIGNED
91	B20	WINCHES AND CAPSTANS REPAIR PARTS
92	78-011	COUPLING-RIGID, SHAFT
93	78-009	COUPLING-HYDRAULIC
94	78-012	COUPLING-CLAMP PIPE
95	78-013	COUPLING-ELECTRIC INDUCTION
96	93-018	COUPLING-HOSE,MISC SEE ALSO UNDWAY REPLEN ACC
97	57-001	CRANE-BRIDGE OR OVERHEAD TRAVELING
98	57-002	CRANE-QUARTER
99	57-003	CRANE-JIB