

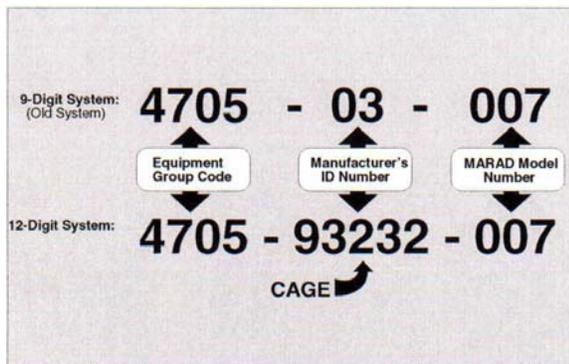
Appendix D: MARAD Equipment Numbering System

The following material identification system will be used to classify MARAD outfitting, spare parts and equipment.¹ The paragraphs and illustrations that follow provide an overview and ready reference for these systems.

Equipment Numbering System

Every equipment within the RRF has been assigned either a nine- or twelve-digit equipment number. Twelve-digit numbering reflects a newer system, which is described below. Both nine- and twelve-digit equipment numbers are assigned so as to identify a *specific* equipment within a service application by manufacturer. Figure A-1 illustrates

Figure D-1: Equipment Numbering System



the structure of equipment numbers of both the nine-digit and twelve-digit type.

The Equipment Group Code (EGC)

The first four (4) digits of the equipment number identify a *type* of equipment. The first two (2) digits (the *Section*) identify either a major piece of equipment onboard a vessel (i.e., Electric Propulsion), or a general type of equipment such as "Pumps." The second two (2) digits (the *Subsection*) represent a component or subcategory of equipment type within the major item (see: Figure A-2). The *Section* and *Subsection* together are collectively referred to as the *Equipment Group Code* (EGC).

Equipment Manufacturer

Two systems have been used for denoting the equipment manufacturer. The twelve-digit system is replacing the nine-digit system throughout the RRF.

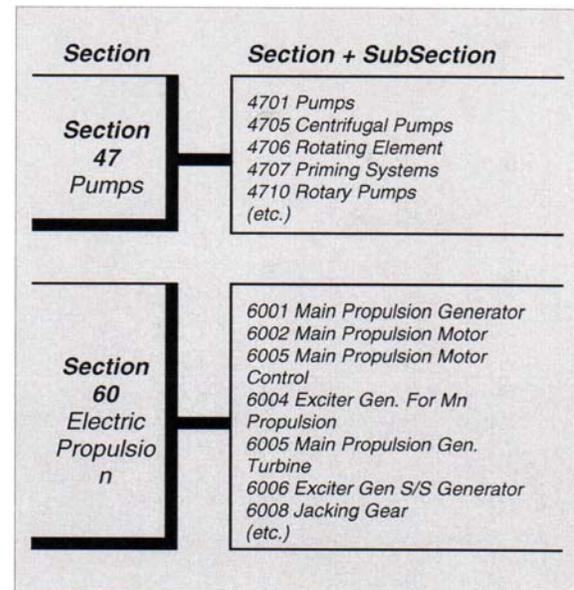


Figure D-2: Equipment Group Code

Nine-Digit System

Under the old nine-digit equipment numbering system, equipment manufacturers are represented by a *two-digit* manufacturer's code occupying the fifth and sixth positions of the equipment number. This two-digit number is sequentially assigned within an equipment subsection. The codes do not uniquely identify a manufacturer within the RRF. In other words, two (2) different equipment with the same manufacturer's code are not necessarily (or even likely to be) manufactured by the same company. MARAD personnel must continue to remain familiar with this system, since a number of RRF vessels have equipment that is marked and documented in this manner.

Twelve-Digit System

The new system of equipment numbering replaces the two-digit code with a five-digit Commercial and Government Entity (CAGE) code. The code occupies the fifth through ninth character positions of the equipment number (the CAGE was formerly referred to as the Federal Supply Code for Manufacturers or FSCM). CAGEs are listed in the Cataloging

¹ DOT Order 4420.5 Management of Material Inventories, dated 13 June 1978.



Handbook H4/H8 produced by the Defense Logistics Services Center (DLSC).

Some manufacturers have more than one CAGE assigned. The different CAGEs represent a company's various divisions (i.e., plant locations, etc.). In all cases, the company's primary CAGE will be the only one used. When the manufacturer of an equipment cannot be identified, MAR-614 will assign a five-digit, pseudo-CAGE code consisting of the letter M followed by four digits (i.e., M0001).

Equipment Model Number

The last three (3) digits of the equipment number represent the equipment *model number* under both numbering systems. The *model number* is an arbitrary, sequentially-assigned number that is used to differentiate between similar (but not identical) items of equipment made by the same manufacturer. For example: If there are two (2) different models of electrical generators manufactured by General Electric aboard RRF vessels, the *model number* 001 would be assigned to one of the generators, and *model number* 002 would be assigned to the other. The *model number* is used to distinguish different models of equipment from each other; it is *not* the manufacturer's actual model number for the equipment.

Part Numbers

Every manufacturer employs different part numbering scheme for its own products. ECSMIS contains many items with almost identical descriptions. The part number helps to ensure that the correct item will be selected. It is not necessary to understand the logic behind the manufacturer's choice of part number. All that is required is to be able to use the number that *uniquely* identifies a specific part.

When using part numbers to identify material, it is important to pay attention to each number, letter, space and dash which may be present. For example: "A-934" is not the same as "A/934" or "A 934." A mistaken dash or space may result in the incorrect selection of a part. Automated systems (i.e., ECSMIS) will allow the user to select alpha-numeric,

and thereby recognize a number even if it is one character off.

Different manufacturers frequently use the same part numbers. For example: Part number "600-5" might refer to a diode for a manufacturer of electronic equipment, while the same part number could be used by a different manufacturer for a gasket. To be absolutely certain that a part is correctly identified, it is necessary to specify the manufacturer in addition to the part number. The manufacturer is normally identified by its five-digit CAGE code.

National Stock Numbers

National Stock Numbers (NSN) have a 13-digit (not including dashes) standard numbering system used throughout the Federal Supply System to provide a uniform material identification system (see: Figure A-3). Within the RRF, NSNs provide a secondary means of identifying material. All RRF vessels that were formerly operated by the Navy or the MSC contain National Stock-Numbered items. If required, NSNs can be cross-referenced to part numbers and manufacturers using the Master Cross Reference List (MCRL), which is published on CD-ROM by DLSC.

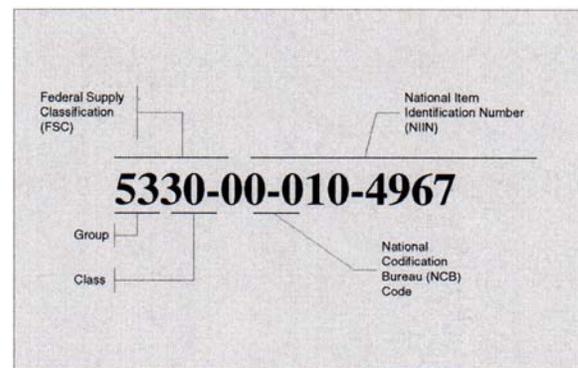


Figure D-3: National Stock Number

An NSN contains *digits only* (i.e., no letters) and is composed of the following elements:

Federal Supply Classification (FSC)

The FSC is designed to permit the classification of all items of supply used by the Federal Government. Each item of supply will be classified in one, and only one four-digit FSC. The first two (2) digits



denote the *group*, or major subdivision of commodities; the last two (2) digits denote the *class* or subdivision of commodities within a group (see: Figure A-4). As presently established, the FSC consists of 76 *groups* and approximately 600 *classes*. The number of *classes* within each *group* varies. Each *class* covers a particular area of commodities in accordance with their physical or performance characteristics, or based on the fact that the items in the *class* are usually ordered or issued together.

National Item Identification Number (NIIN)

The National Item Identification Number (NIIN) constitutes the remaining nine (9) digits of an NSN. It consists of a two-digit National Codification Bureau (NCB) code (usually "00" or "01"), plus seven (7) additional digits that uniquely identify and differentiate each item in the Federal Supply Catalog. Most catalogs within the Federal Supply System list stock numbers in NIIN rather than NSN sequence.

Local Stock Numbers

In order to take advantage of the standard stock-numbering system used for NSNs, many agencies have assigned local stock numbers that follow the 13-digit format of an NSN. Until recently, MARAD used local stock numbers to identify and manage Shore-Based Spares (SBS). Since local stock numbers are not recognized in Federal Supply Catalogs, they are of limited use for identifying and obtaining spare parts.

Group	Group & Class
Group 53 Hardware and abrasives; washers	5305 - Screws 5306 - Bolts 5307 - Studs 5310 - Nuts 5320 - Rivets
Group 48 Valves	4810 - Valve, solenoid 4820 - Valve, angle
Group 40 Rope, cable, chain, and fittings	4010 - Wire rope, steel 4020 - Rope, fibrous 4030 - Hook, guy

Figure D-4: Federal Supply Classification

As a general rule, local stock numbers can be recognized by the presence of one or more letters in the stock number (i.e., 4090-LL-124-9967).



01 Maintenance and Repair Summary

07 Tank Cleaning C-3

07 Dry-docking and Surveys

45 Lifesaving Equipment

10 General Technical Information

11 Structural

04 Side Shell

25 Riveted Seams

28 Structural Castings & Forgings

57 Fuel Oil Settlers

12 Hull Fittings and Outfit

02 Mooring Bitts & Foundations

06 Chain Stoppers

21 Airports & Fixed Lights

23 Windows

40 Securing Devices

55 Special Fittings & Outfit

59 Wire Reels

61 Docking Plugs

13 Rudder

01 Rudder

04 Plugs

10 Pintle & Gudgeon

12 Gudgeon & Bushing

18 Stock

30 Tools

14 Deck Covering

30 Deck Treads

16 Access

01 Watertight Doors

02 Watertight Manholes

04 W/tight Hatches-non Cargo Hand

05 W/tight Doors Hyd. Actuated

06 Watertight Door Operators

07 Cons Watertight/non-watertight Door

08 Counter Balance Valve

10 Sideports-manually Operated

11 Sideports-elect Operated

12 Sideports Hyd. Operated

15 non-Watertight Doors

19 Expanded Metal Doors

20 Screen Doors

21 Cargo Doors

22 Casing Doors

25 Bulkhead Doors, Ro/Ro

26 Suez Canal Light Access Door

30 Refrigeration Doors

31 Pilot Ladders

35 Accommodation Ladders

65 Access Plates & Covers

68 Ramp, Movable Access

70 Stern Doors

71 Stern Ramp

72 Ramp Covers

75 Tools - Ro/Ro Equipment

17 Masts and Booms

07 Gooseneck Assemblies

08 Sea Enhancement System

15 Booms

17 Heavy Lift Booms

19 Utility Davits

18 Rigging, ABS Certified/installed

01 Rigging

03 Falls

10 Blocks

11 Cargo Blocks

12 Snatch Blocks

13 Fairleads

25 Slings

31 Cargo Hooks

32 Swivels

55 Boatswain's Stores

56 Rigging Tools



19 Portable Weight Handling Equipment

20 Winches

- 01 Winches
- 02 Stern Ramp Winches
- 05 Cargo Winches
- 06 Cargo Winch Drives
- 07 Cargo Winch Brakes
- 08 Brake, Magnetic
- 10 Topping Lift Winches
- 11 Topping Lift Winch Drives
- 12 Topping & Vang
- 15 Vang Winches
- 16 Vang Winch Drives
- 17 Vang & Schooner
- 20 Schooner Vang Winches
- 21 Schooner Vang Winch Drives
- 25 Boat Winches
- 26 Boat Winch Drives
- 30 Accom./pilot Ladder Winches
- 31 Accom. Ladder Winch Drives
- 50 Heavy Lift
- 70 Hand Winches

22 Steering Gear

- 01 Steering Gear
- 05 Hydraulic System
- 06 Rams & Cylinders
- 07 Cross Head & Cross Head Drive
- 08 Follow-up Mechanism
- 09 Steering Stands & Trick Wheels
- 10 Lubrication
- 15 Pneumatic Control System

23 Stabilizers

- 01 Stabilizers
- 05 Retractable Activated Fin Type
- 06 Fins & Fin Shafts
- 07 Outboard Bearings
- 08 Inboard Bearings & Lubrication
- 09 Electro-hydraulic Drive System

- 10 Automatic Servo-control System
- 11 Gyro Sensing Unit
- 12 Tilting Mechanism
- 13 Fin Boxes and Sea Gland
- 14 Bridge Console
- 15 Apparatus Bd & Instrumentation
- 40 List Control System

24 Hatch Covers

- 01 Hatch Covers
- 07 Pontoon Fillers
- 20 Folding/hinged Type (Electro Hyd)
- 22 Fold/hinge Type (Hyd Cyl Act)
- 23 Cyl Actuation Hyd Drive
- 29 Vane Motor Actuated Hyd Drive

25 Elevators, Conveyors & Vehicles

- 03 Passenger Elevators
- 04 Stores Elevators
- 05 Dumbwaiters
- 10 Cargo Elevators & Equip.
- 13 Elevator Rigging
- 23 Ship's Stores Conveyors
- 30 Cargo Conveyors
- 44 Power Sweepers
- 46 Personnel Carriers
- 50 Conveyors (Non-powered)
- 70 Forklifts/pallet Trucks

26 Mooring Equipment

- 01 Mooring Equipment
- 05 Anchor Windlass (Electro-Hyd.)
- 06 Hydraulic System
- 08 Controls
- 10 Anchor Windlass (Electro-mech.)
- 14 Mooring Winches
- 15 Auto. Moor Winches (Electo.-mech.)
- 16 Mechanical Drive Train
- 17 Control Features
- 20 Capstans
- 21 Mechanical Drive Train



- 25 Warring Winch
 - 50 Anchors
 - 55 Anchor Chain
 - 60 Mooring Lines, Sbs
 - 61 Towing Cable, Sbs
 - 65 Anchor Windlass (Steam Driven)
- 27 Cranes**
- 01 Cranes
 - 05 Revolving Cranes
 - 07 Rigging
 - 08 Machinery
 - 09 Hoist Machinery
 - 10 Slew Machinery
 - 11 Luff Machinery
 - 12 Window Wipers/heaters
 - 13 Siren
 - 30 Overdeck Gantry Cranes
 - 33 Gantry
 - 37 Trolley
 - 40 Machinery Trolley/crane Drive
 - 43 Operator Cab
 - 48 Power Transfer Components
 - 60 Underdeck Gantry Cranes
 - 64 Spreader
 - 65 Hoist Machinery
- 29 Lashing Gear**
- 01 Lashing Gear
 - 15 Shackles - Lashing Gear
 - 20 Stackers
 - 30 Lashings
 - 35 Turnbuckles - Lashing Gear
 - 70 Miscellaneous
- 32 Office Equipment (Not C & E Items)**
- 01 Copying Machines
 - 02 Microfilm Reader Printer
- 33 Joinery**
- 01 Joinery
- 05 Storerooms and Lockers
 - 10 Office Spaces
 - 16 Toilet and Shower Spaces
 - 30 Nameplates, Notices & Markings
- 34 Commissary and Laundry**
- 01 Commissary Equip. Misc.
 - 02 Mixers
 - 03 Vegetable & Meat Processing
 - 04 Kettles/egg Blrs & tmrs/fd Wmrs
 - 05 Range, Over, Broiler, Griddle
 - 06 Garbage Disposals/compactor
 - 07 Refrig/ice Cube Mkr/drinkg Wtr
 - 08 Dishwasher
 - 09 Toasters & Coffee Makers
 - 11 Laundry Equipment
 - 12 Washing Machines
 - 13 Dryers
 - 15 Comm. Equip. (other than Comm. Sp.)
 - 16 Dispensers, Beverage/cleansers
 - 20 Filters
 - 21 Laundry Extractors
 - 22 Sanitizer, Sink
 - 38 Ventilation Hoods
- 35 Medical Equipment**
- 01 Sterilizers
- 37 Cargo Hold Dehumidification**
- 01 Cargo Hold Dehumidification
 - 05 Cargocaire (Solid Desic. Type)
 - 06 Control Equipment
 - 07 Instrumentation
 - 15 Kathabar (Liquid Desic. Type)
 - 75 Filter
- 38 Heating, Ventilating & Air Condt.**
- 01 Heating, Vent. and Air Cont.
 - 03 Heaters
 - 04 Steam or Hot Water Heaters



05 Heating, Vent. & Air Condt, Electric Heaters	25 Instrumentation
06 Cargo Coil Hot Water Heater	26 Integral Starting Mechanism
10 Induction Units	27 Governing System
11 Air Mixing Units	28 Air Intake & Exhaust Systems
15 Preheaters	35 Auxiliary Diesel Engines
16 Heating, Vent. & Air Condt., Reheaters	37 Integral F. W. Cooling System
17 Coolers	38 Integral Fuel Oil System
22 Mushrooms	39 Integral Lube Oil System
23 Goosenecks	40 Instrumentation & Controls
25 Accommodation Air Conditioning	41 Integral Starting Mechanism
31 Dampers	42 Tools - Aux. Engine
32 Filters	43 Governing System
40 Thermostatic & Humidity Contl.	60 Air Intake & Exhaust System
41 Pneumatic Temperature Controls	61 Frame
42 Temperature Control System	62 Crankshaft
45 Accommodations AC Units	63 Power Cylinders
50 A/C Water Chillers	64 Cam Shaft, Valve Train
70 Gold Ventilation	66 Cylinder Heads
	67 Flywheels
	68 Filters
	69 Indicator, Ahead & Astern
	70 Cooling Water System Aux. Eng.
	80 Lifeboat Diesel Engines
	85 Lifeboat Gasoline Engines
40 Diesel Engines	
01 Diesel Engines	
05 Main Propulsion Diesel Engine	
06 Main Gear	
07 Governing System	
08 Integral Cooling Sys	
09 Turning Gear	
10 Tools	
11 Integral Fuel System	
12 Integral Lubricating System	
13 Air Intake & Exhaust Systems	
14 Integral Starting System	
15 Charging Air System	
16 Controls	
17 Integral Lubricating System	
18 Integral Fuel System	
19 Integral Starting System	
20 Emerg. Diesel Generator Eng.	
22 Integral F. W. Cool. System	
23 Integral Diesel Oil System	
24 Integral Lube Oil System	
	41 Main Propulsion Turbines
	01 Main Propulsion Turbines
	10 Cross-compounded Turbines
	11 High Pressure Turbine
	12 Inlet Steam Control Mechanism
	13 Low Pressure Turbine
	30 Integral Gland Seal Reg. Sys
	31 Integral Lubrication System
	32 Maneuvering Valves
	33 Governing System
	34 Jacking Gear
	40 Lifting Gear & Special Tools
	42 Main Propulsion Gears
	01 Main Propulsion Gears
	02 Integral Lubrication System



10 Tools

43 Shafting and Bearings

- 01 Shafting and Bearings
- 05 Shafting
- 06 Propeller Shaft
- 07 Line Shafting
- 08 Thrust Shaft
- 09 Thrust Bearing
- 10 Prop Shafting & Cplgs & Brgs
- 11 Line Shaft Bearings
- 15 Stern Tube Ass.-Oil Lub. Type
- 16 Stern Tube Assembly-stave Type
- 17 Stern Tube Seals
- 18 Stern Tube and Bearing Assy.
- 19 Stern Tube Bearings
- 30 Tools

44 Propellers

- 01 Propellers
- 05 Solid Type
- 10 Controllable Pitch Type
- 20 Propeller Assembly Fittings
- 21 Fairwater Caps
- 22 Rope Guards
- 23 Pilgrim Nut
- 60 Bow/stern Thrusters
- 65 Controllable Pitch Type
- 66 Propeller
- 70 Control Mechanism
- 80 Tools

45 Gas Turbines

- 01 Gas Turbines
- 05 Main Propulsion Gas Turbines
- 20 Ship's Serv. Gen. Gas Turbines
- 40 Emergency Gen. Gas Turbines

46 Vacuum Equipment

- 01 Vacuum Equipment
- 05 Main Condenser

- 10 Auxiliary Condenser
- 15 Main Air Ejector & Condensers
- 20 Auxiliary Air Ejectors & Cond.
- 21 Ejectors
- 25 Gland Exhaust Condenser
- 30 Main & Aux. Air Ejectors
- 40 Contam Atmospheric Condenser

47 Pumps

- 01 Pumps
- 05 Centrifugal Pumps
- 10 Rotary Pumps
- 11 Rotating Element
- 15 Hydraulic Pumps
- 17 Control Mechanism
- 20 Hydraulic Pumps
- 21 Drive Elements
- 30 Reciprocating Pumps
- 31 Drive Assembly
- 32 Pumping Assembly
- 33 Control Mechanism
- 40 Pump & Tank Units
- 50 Hand Pumps

48 Piping and Fittings

- 01 Piping and Fittings
- 03 Actuators, Elect./hydra./pneu.
- 05 Piping & Plumbing Supplies
- 06 Expansion Joints
- 15 Pipe Fittings
- 16 Hydraulic Hoses & Fittings
- 17 Cargo Oil Hoses & Fittings
- 18 Steam Hoses
- 19 Miscellaneous Hoses
- 20 Valves
- 21 Stop Valves
- 22 Check Valves
- 23 Stop-check Valves
- 24 Relief Valves
- 25 Regulating Valves
- 26 Thermostatic Valves



- 27 Motor Operated Valves
- 28 Air Operated Valves
- 29 Sentinel Valves
- 30 Safety Valves
- 33 Manifolds
- 35 Sys Fittings (Strnr, fltr, traps, etc.)
- 36 Gauge Glasses & Assemblies
- 40 Whistle
- 51 Sea Valves
- 52 Sea Strainers (In Piping)
- 60 Eductors
- 49 Compressors**
 - 01 Compressors
 - 05 Air Compressors
 - 06 Piston Type
 - 07 Centrifugal Type
 - 10 Auto Air Compressor Controls
 - 16 Piston Type
 - 25 Valve Cylinder Operators
 - 30 Filters/dryers
 - 50 Receivers
 - 70 Coolers
 - 80 Lubricators
- 50 Auxiliary Steam Turb and Gears**
 - 01 Aux. Steam Turbine & Gears
 - 05 Ship's Service Generator Turb
 - 08 Reduction Gear Assembly
 - 09 Governing System
 - 15 Pump Turbines
 - 16 Integral Lubrication System
 - 17 Governing System
 - 18 Cargo Oil Pump Reduction Gears
 - 25 Compressor Turbines
 - 27 Governing System
 - 35 Forced Draft Fan Turbine
- 51 Boilers**
 - 01 Boilers
 - 05 Boiler Drums and Internals
 - 06 Integral Piping
 - 10 Boiler Tubes
 - 11 Waterwalls
 - 12 Superheaters
 - 13 Floors
 - 14 Generating Tubes
 - 15 Tube Cleaning Equipment
 - 20 Economizers
 - 27 Air Heaters
 - 30 Boiler Casing
 - 31 Brickwork and Refractory
 - 35 Ignitors
 - 36 Fuel Oil Burners
 - 37 Air Registers
 - 40 Soot Blowers
 - 41 Stack Vibrators
 - 42 Flow Recorder/viscosity Contrl
 - 43 Boiler Mountings
 - 44 Boiler Valves
 - 45 Safety Valves
 - 46 Feed Water Regulators
 - 47 Draft Gauges
 - 48 Smoke Indicators/uptake Parasopes
 - 49 Boiler Wtr Level Indic/sight GI/transducers
 - 50 Feed Injector
 - 55 Combustion Control
 - 56 Burner Flame Scanning System
 - 57 Pyrometers
 - 60 Boiler Water Testing
 - 61 Flue Gas Analysis
 - 65 Boiler Controls
 - 70 Boiler Tools
 - 75 Pressure Gages
- 52 Mechanical - Miscellaneous**
 - 01 Miscellaneous, Consolidated Spares
 - 05 Miscellaneous, O-rings
 - 10 Miscellaneous, V-belts
 - 15 Miscellaneous, Springs
 - 20 Miscellaneous, Packing



53 Blowers and Fans

- 01 Blowers and Fans
- 05 Ventilation Fans
- 06 Rotating Elements
- 08 Portable Blowers & Fans
- 10 Forced Draft Blowers
- 11 Rotating Elements
- 15 Gland Exhausters
- 20 Bracket Fans
- 25 Ceiling Fans
- 30 Fan Controls

54 Unfired Pressure Vessels/non Struct. Tanks

- 06 Air Receivers
- 07 Freon Receivers
- 08 Water Compression
- 09 Hydraulic Accumulators
- 16 Priming Vacuum Tanks
- 21 Storage Tanks
- 22 Settling Tanks
- 23 Gravity Tanks
- 24 Sump Tanks
- 25 Sludge Tanks
- 26 Mixing Tanks
- 27 Expansion Tanks
- 28 Drain Tanks
- 29 Sanitary Tanks
- 35 Miscellaneous Small Tanks

55 Heat Exchangers

- 01 Heat Exchangers
- 05 Heaters
- 06 Coolers
- 09 High Pressure Feed Water Htr
- 10 Low Pressure Feed Water Heater
- 11 De-aerating F.W./Vent Condenser
- 12 Third Stage Feed Water Heater
- 13 Fourth Stage Feed Water Heater
- 15 Boiler Water Sample Cooler
- 20 Main Propulsion L.O. Cooler
- 21 Lube Oil Purifier Heater

- 22 Fuel Oil Purifier Heaters
- 23 Main Feed Pump Lube Oil Coolers
- 24 Main Generator Lube Oil Coolers
- 30 Fuel Oil Heaters
- 40 Cargo Oil Tank Heating Coils
- 48 Refrig Liq Suction Heat Exchange
- 51 Refrig Compartment Air Coolers
- 53 Hot Water Defrosting Heaters
- 54 Chiller System Water Heaters
- 55 A/C Water Coolers
- 65 Tank Cleaning Heater
- 66 Tank Cleaning Drain Cooler
- 67 Tank Heaters & Drain Coolers
- 68 Tank Htr & Drn Cooler Inj Pump
- 70 Hot Fresh Water Stor Type Heat
- 71 Instantaneous Hot Water Heater
- 72 Fresh Water Heater
- 74 Swimming Pool Heater
- 75 Heat Exchanger Tubes
- 80 Contaminated Drain Coolers
- 95 Cleaning Equipment

**57 Purifiers, Dehydrators, Separators, Dehumid.,
Tank Clean.**

- 01 Lubricating Oil Purifier
- 02 Blending Units
- 05 Diesel Oil Purifier
- 06 Heavy Oil Purifier
- 08 Purifi, dehyd, sepa, humid,tk Cln,
Incinerators
- 10 Reduct. Gear Case Dehum/precip
- 15 Chlorinator
- 17 Sterilizer, Fresh Water
- 20 Separators
- 25 Dehydrators/refrigifilters
- 40 Tank Cleaning Machines
- 70 Auto. Shooting & Monitoring
- 90 Filters

58 Evaporators

- 01 Evaporators



- 05 Low Pressure Flash Type
- 10 Single Effect
- 11 Evaporator
- 12 Eductor
- 13 Sal Indic-solenoid Dump Val
- 14 Gage Board & Instruments
- 15 Integral Piping & Fittings
- 20 Multiple Effect
- 22 Air Ejector & Condenser
- 24 Gage Board & Instruments
- 25 Integral Piping & Fittings
- 30 Low Press Submerged Tube Type
- 31 Single Effect
- 33 Air Ejector & Condenser
- 34 Sal Indic/solenoid Dump Val
- 36 Integral Piping & Fittings
- 40 Multiple Effect
- 42 Air Ejector & Condenser
- 43 Sal Indic/solenoid Dump Val
- 50 Thin Film Type
- 53 Sal Indic/solenoid Dump Val
- 70 Contaminated Steam Generators
- 75 Special Tools
- 90 Automation

59 Refrigeration & AC

- 01 Refrigeration System
- 02 Cargo Conditioning Plant
- 03 AC System
- 05 Compressors - S/s
- 10 Compressors - Cargo
- 15 Compressors - Air Cond
- 16 Purge Compressor
- 17 Compressor, CO2 Tanks
- 20 System Spares - S/s
- 25 System Spares - Cargo
- 30 System Spares - Air Cond
- 31 System Spares (Consolidated)
- 35 System Elec. Spares - S/S
- 40 System Elect. Spares - Cargo
- 45 System Elect. Spares - Air Cond

- 50 Diffusers/fans - Electrical
- 55 Diffusers/fans - Mechanical
- 60 Sys Sp A/c, Ss Cargo Cons
- 65 Condensers - S/S
- 70 Condensers - Cargo
- 75 Condensers - A/C
- 79 Condensers, CO2 Cooling
- 80 Condensers/Heat Exchangers
- 84 Defrosting System
- 85 Containers
- 86 Barge Refrigeration System
- 90 Receivers
- 95 Evaporators/chillers
- 96 Ozone Systems
- 97 Filter Systems

60 Electric Propulsion

- 01 Main Propulsion Generator
- 02 Main Propulsion Motor
- 03 Main Propulsion Motor Control
- 04 Exciter Gen. For Mn Propulsion
- 05 Main Propulsion Gen. Turbine
- 08 Jacking Gear

61 Electric Generators

- 01 Electric Generators
- 05 Ship's Service Generators
- 06 Ship's Service Generator Excit
- 07 Ship's Svc Generator A/cooler
- 09 Generator Controls
- 15 Emergency Generator
- 16 Emergency Generator Exciter
- 17 Emergency Generator Set
- 20 Coupling Shafting
- 30 Gears/gear Shaft
- 35 Remote Controls (Gen Coupling)

62 Electric Power Distribution

- 01 Electric Power Distribution
- 05 Ship Svc Generator Switchboard
- 06 Instrumentation



- 07 Main/emergency Switchboard
- 08 Indicating Lamps/panels
- 10 Emergency Generator Swbd
- 11 Instrumentation
- 15 Test Panel
- 16 Instrumentation
- 18 Remote Control Main Eng.
- 20 Distribution Panels
- 21 Shore Connection Box
- 25 Voltage Regulators
- 30 Transformers
- 31 Rectifiers
- 34 Fire Screen Door Distribution
- 35 Batteries
- 36 Battery Chargers
- 45 Consolidated Spares

63 Electric Motors & Brakes

- 01 Electric Motors
- 02 Motor & Brakes-cons
- 03 Tools
- 05 Pump Motors
- 10 Purifier Motors
- 11 Air Heater Motors
- 12 Jacking Gear Motors
- 13 Combustion Control Motors
- 14 Power Operation Valve Motors
- 15 Soot Blower Motors
- 35 Workshop Equipment Motors
- 36 Lifting Gear Motors
- 39 Diffuser Fan (Refrig, A/c)
- 40 Refrig Compressor/ac Motors
- 41 Air Compressor Motors
- 45 Fan and Blower Motors
- 46 Gland Exhaust & Leak off Motor
- 47 Cargo Hold Dehumidification
- 50 Deck Machinery Motors
- 52 Hoist (Electric)
- 55 Cargo Winch Motors & Brakes
- 56 Topping Winch Motors & Brakes
- 57 Vang Winch Motors & Brakes

- 58 Schooner Vang Winch Mtr./brake
- 59 Boat Winch Motors
- 60 Accom. Ladder Motors & Brakes
- 61 Revolving Crane Motors
- 62 Overdeck Gantry Crane Motors
- 64 Anchor Windlass Motor
- 65 Automatic Mooring Winch Motors
- 66 Capstan Motors
- 67 Warping Winch Motors
- 68 Steering Gear Motors
- 70 Elevator Motors
- 72 Conveyor Motors
- 73 Dumbwaiter Motors
- 74 Bow & Stern Thruster Motors
- 79 Stern Ramp Winch Motors
- 80 Hatch Cover Motors
- 81 Door Motors
- 86 Mooring Winch M-g Sets
- 87 Cargo Winch M-g Sets
- 88 Revolving Crane M-g Sets
- 89 Anchor Windlass M-g Sets
- 90 Mg Sets
- 97 Miscellaneous Small Motors
- 99 Solenoids

64 Electric Motor Controllers

- 01 Electric Motor Controllers
- 02 Group Controls
- 05 Pump Motor Controllers
- 09 Separator Controllers
- 10 Purifier Motor Controllers
- 11 Air Heater Motor Controllers
- 12 Jacking Gear Motor Controllers
- 13 Combust Contrl Mtr Controllers
- 14 Pwr Oper Valve Mtr Controllers
- 15 Soot Blower Motor Controllers
- 20 I.C. Mg Set Controller
- 25 Lighting Mg Set Controller
- 35 Workshop Eqpt Mtr Controllers
- 36 Lifting Gear Motor Controllers
- 40 Refrig Compressor Mtr Contrlrs



- 41 Air Compressor Mtr Controllers
- 42 Air Conditioning Mtr Cont.
- 45 Fan & Blower Motor Controllers
- 46 Cold Diffusers (Fans)
- 47 Dehumidification
- 50 Deck Machinery Mtr Controllers
- 54 Electric Brakes (Consolidated)
- 55 Cargo Winch Motor Controllers
- 56 Topping Winch Mtr Controllers
- 57 Vang Winch Motor Controllers
- 58 Schoonr Vang Wnch Mtr Controllers
- 59 Boat Winch Motor Controllers
- 60 Accom Ladder Mtr Controllers
- 61 Revolv Crane Mtr Controllers
- 62 O/dk Gantry Crane Mtr Controllers
- 64 Anchor Windlass Mtr Controllers
- 65 Auto Mooring Winch Mtr Controller
- 66 Capstan Motor Controllers
- 67 Warping Winch Mtr Controllers
- 68 Steering Gr Mtr Controllers
- 69 Stabilizer Mtr Controllers
- 70 Elevator Motor Controllers
- 72 Electric Motor Controllers, Conveyor Motor
Controllers
- 73 Dumbwaiter Motor Controllers
- 74 Bow Thruster Motor Controllers
- 75 Stern Thruster
- 80 Hatch Cover Motor Controllers
- 81 Door Motor Controllers
- 86 M-g Set Controllers
- 87 Cargo Winch M-g Set Controllers
- 88 Revolv Crane M-g Set Controllers
- 89 Anchor Windlass M-g Sets
- 90 Electric Motor Controllers, Stores Crane
- 95 System Controls (Individual)
- 96 Misc. Controller Spares
- 97 Misc. Small Motor Controllers
- 98 below Deck Controllers
- 99 above Deck Controllers

65 Interior Communications

- 01 Interior Communications
- 02 Mg Sets
- 03 Watch Call System
- 04 Engine Order Telegraph/record
- 05 Sound Powered Telephone System
- 06 Automatic Telephone System
- 07 Public Address & Docking Sys
- 08 Call Bell System
- 09 Dumbwaiter Communications Sys
- 11 Cargo & Portable Communication
- 15 Shore Side Telephone System
- 18 Propeller Order System
- 19 Main Engine Monitoring System
- 20 Interior Communications, Prop Shaft
Revolution Ind Sys
- 21 Rudder Angle Indicator System
- 22 Salinity Ind Sys-feb-condens
- 23 Horsepower Meter System
- 25 Refrig Temp Recording Systems
- 26 Dehumidification Recording Sys
- 27 Cargo Oil Temp. Recording Sys.
- 30 Water Tight Door Indicator Panel
- 31 Motor Running Indicator Panel
- 32 Reefer Equip. Indicating Panel
- 40 Oil Ovbd. Discharge Alarm
- 50 Indv Sys Alarms Sys (Excl Spec)
- 51 Engineers Signal & Alarms Sys
- 52 General Alarm System
- 53 Wheelhouse Alarm System
- 54 Burglar Alarm System
- 55 Combustion Control Alarms
- 56 Audible Spares for Alarm Panel
- 57 Generator Alarm Panel
- 58 High & Low Level Alarms
- 59 Reefer Alarms
- 60 Vehicle Exhaust Warning Equip.
- 61 Fire Alarm
- 62 Oil Mist Detectors
- 63 Main Engine Alarm System
- 64 Motor Temp. Alarm Sys.



- 65 Pump Press. Sensors/alarms
- 66 Power Failure Alarms
- 71 Movie Projection System
- 72 Music Entertainment System
- 73 Television System
- 74 Entertainment Radios
- 75 Electric Clock System
- 76 Automatic Timer
- 77 Broadcast Antenna System
- 78 Tank Level Indicators

66 Exterior Communications

- 01 Exterior Communications
- 02 Receivers
- 03 Transmitters
- 04 Transceivers
- 05 Radio Telegraph Equipment
- 06 Antenna Spares
- 07 Jack/switching Panels/plug
- 08 Digital Frequency Meter
- 10 Radio Teletype Equipment
- 15 Radiotelephone Equipment
- 20 Lifeboat Portable Radio Equip.
- 22 Modulator
- 23 Freq. Shift Diversity Convert.
- 25 Auto Alarm
- 26 Auto Keyers
- 30 Satellite Communications
- 35 Power Supply
- 40 Amplifier & Filters & Exciters

67 Navigation Equipment

- 01 Navigation Equipment
- 04 Hyd. Sys. F/retrac. Radar Mast
- 05 Radars and Associated Antennas
- 06 Scanner
- 07 Rudder Course Board
- 08 Echo Sounder Equip.
- 14 Gyro Pilot System
- 15 Gyro Compass System
- 16 Master Gyro Compass

- 17 Course Recorder
- 18 Gyro Repeaters
- 19 Compass Systems
- 25 Magnetic Compass
- 30 Radio Direction Finder
- 35 LORAN/NAVSAT
- 36 Decca Navigator
- 40 Elec. Steering-gyro Pilot Sys.
- 41 Wheelhouse Control Units
- 42 Steering Gear Rm. Control Units
- 45 Doppler Speed Log
- 46 Pit/Sal Log
- 50 Weather Printer
- 51 Radio Receiver
- 52 Facsimile Recorder
- 55 Whistle Control
- 56 Siren
- 57 Fog Bell & Gong System
- 60 Anemometer System
- 70 Window Wipers/heaters
- 75 Portable Navigation Equipment
- 80 Collision Avoidance System
- 84 Load Calculator/indicator
- 90 Clinometer/inclinometer

68 Lighting & Lighting Panels

- 01 Lighting
- 10 Exterior Lighting
- 11 House Lighting
- 12 Signal Lighting
- 13 Navigation Lighting
- 14 Searchlights
- 30 Interior Lighting
- 32 Machinery Space Lighting
- 33 Cargo Space Lighting
- 34 Refrigeration Space Lighting
- 40 Light Dimmers
- 42 Portable Lighting

69 Cathodic Protection/degaussing

- 01 Cathodic Protection



70 General Electrical Spares

- 01 Elect./electronic Spares

75 Bearings/couplings & Sleeves

- 01 Bearings/couplings & Sleeves
- 02 Motor Bearings
- 03 Fan Bearings
- 10 Seals
- 20 Couplings
- 25 Consolidated Brgs. Coups Seals

81 Fire Fighting Equipment

- 01 Fire Fighting Equipment
- 02 Fire Doors
- 05 Fire Extinguishers
- 06 Fire Detection
- 15 C02 Room Equipment
- 20 Smoke Detecting Equipment
- 50 Foam Equipment
- 70 Gas Detection System
- 80 Hose, nozzles, applicator., Axes, rakes,
- 90 Inert Gas Systems, System Components

82 Life Saving Equipment

- 01 Life Saving Equipment
- 05 Lifeboats
- 06 Lifeboat/raft Davits
- 10 Lifebuoys/rings/jackets
- 11 Breathing Apparatus*
- 15 Life Rafts, S.b.s.
- 20 Lifeboat Equipment, S.b.s.
- 30 Survival/exposure Suits

85 Workshop Equipment

- 01 Workshop Equipment
- 05 Lathes
- 06 Lathe Attachments
- 10 Workshop Equipment, Shapers
- 15 Milling Machines
- 20 Drill Presses
- 25 Grinders

- 30 Welding Equipment

- 35 Lifting Gear

- 40 Saws - Motor Driven

- 45 Power Driven Portable Tools

- 50 Miscellaneous Tools

- 51 Motor Rewinding Machine

- 55 Misc. Measuring Devices/instruments

- 60 Engine Test Stand

- 80 High Pressure Cleaning Equip.

87 Instrumentation, Meters, Gauges

- 01 System Instruments

- 02 Main Gage Board

- 05 System Indicating Instruments

- 06 Cons Thermometers/press Gauges

- 10 System Recording Instruments

- 15 Portable Instruments

- 20 Radiological Equip.

- 25 Inert Gas System

90 Nuclear Reactors

95 Automation

- 01 Automation

- 05 Engine Room Console

- 06 Bridge Console

- 08 Panel, Diesel Eng. Remote Cont

- 10 Information Recorders

- 11 Bell Recorders

- 20 Viscosity Control Equipment

- 60 Auxiliary Machinery Automation

- 62 Controllers, Liquid Level

- 63 Condensate Level Control Sys.

- 65 Power Transfer Panels

- 67 Controller, Water Cooler Temp.

- 70 Remote Control Station, Valves

- 71 Hyd. Power Units for Valve. Sys.

- 75 Control Panels for F.O. System

- 76 Control Panels for Purifiers

- 77 Control Panels for Heaters

- 78 Control Panels for Dumbwaiters



- 79 Controls for Cargo Oil
- 80 Controls- Bilge, Ballast & F.O.
- 85 Control Panel-sewage Treatment
- 87 Controls for Stern Ramps
- 90 Controls for Hydraulic Systems
- 95 Cont. Panels F/winchcs & Hoist

96 Marine Sanitation Devices

- 01 Marine Sanitation Devices
- 05 Float Switches

97 OPDS- Offshore Petrol Disch. Sys.

- 05 OPDS-SALM
- 10 OPDS-flexible Piping
- 15 OPDS-towing/mooring Systems
- 20 OPDS-warping Tugs
- 25 OPDS-deployment Ancillaries
- 30 OPDS- tools/consumables & Misc.

98 UNREP-underway Replenishment. Sys.

- 05 Underway Replenishment System

99 Miscellaneous