

MILITARY SEA TRANSPORTATION SERVICE, PACIFIC
NAVAL SUPPLY CENTER
OAKLAND, CALIFORNIA 94625

SPECIFICATION NUMBER: MSTSP 70-11

1 August 1969

S P E C I F I C A T I O N S

For

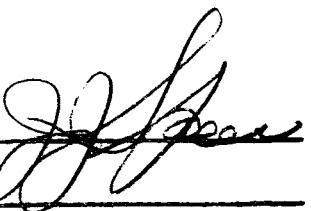
REGULAR OVERHAUL

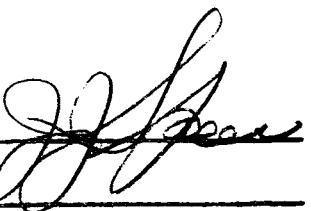
USNS GEN. JOHN POPE (T-AP 110)

The General Conditions dated 15 July 1955 and Amendment No. 1 dated 23 November 1962 to the General Conditions for work under Department of Defense, Department of the Navy, Master Contract for Repair and Alteration of Vessels are a part of these specifications and any conflict between these specifications and the Master Contract for Repair and Alteration of Vessels shall be governed by the provisions of the Master Contract.

These specifications consist of the following pages:

Index: Pages A through E
Information Sheet: Page 2
List of Plans: Page 3
Pages: 100-1 through 100-17
Pages: 200-1 through 200-2
Pages: 300-1 through 300-3
Pages: 400-1 through 400-8
Pages: 500-1 through 500-4

Approved: Dir., Transport-Tanker Oceanographic Eng. Div. 

Approved: Supt. Port Engineer Geo. N. Harlan 

CATEGORY "A" ITEMS

<u>ITEM</u>	<u>TITLE</u>	<u>PAGE</u>
	INFORMATION	
	LIST OF PLANS	
101	SERVICES	100-1
102	TELEPHONES AND GARBAGE	100-1
103	LIFEBOATS, EXCHANGE OF	100-2,3
104	CO ² SYSTEM, ANNUAL INSPECTION	100-4
105	FUSIBLE LINK DAMPERS	100-5
106	FIRE HOSES, ANNUAL INSPECTION	100-6
107	LIFEFLOAT INSPECTION	100-7
108	LIFEBOAT DAVITS	100-8
109	CARGO GEAR, ANNUAL INSPECTION	100-9
110	NUMBER ONE STACK REPAIRS	100-10
111	PAINTING PLENUM CHAMBERS AND DUCTS	100-10
112	MAINMAST AND FOREMAST	100-11
113	CARGO SIDE PORT DOORS, REPAIRS TO	100-12,13
114	INSULATION REPAIRS	100-14,15
115	VENTILATION SYSTEM, CLEANING OF	100-16
116	MANUAL FIRE DAMPER INSTALLATION	100-17

I N D E X

MSTSP 70-11

CATEGORY "A" ITEMS

<u>ITEM</u>	<u>TITLE</u>	<u>PAGE</u>
201	MISCELLANEOUS PIPING RENEWALS	200-1
202	SCUPPER VALVES	200-2

I N D E X

MSTSP 70-11

CATEGORY "A" ITEMS

<u>ITEM</u>	<u>TITLE</u>	<u>PAGE</u>
301	ANNUAL INSPECTION; BOILERS	300-1,2,3
302	BOILER WATERSIDE; CLEANING OF	300-4
303	BOILER BRICKWORK	300-5
304	BOILER REPAIR	300-6
305	D.C. HEATERS	300-7
306	UNFIRED PRESSURE VESSELS	300-8

I N D E X

MSTSP 70-11

CATEGORY "A" ITEMS

<u>ITEM</u>	<u>TITLE</u>	<u>PAGE</u>
401	VENTS FOR SMOKE DETECTOR	400-1
402	SMOKE DETECTING SYSTEM	400-1
403	KIDDE FIRE DETECTION SYSTEM	400-2
404	GENERAL ALARM SYSTEM	400-2
405	GENERAL ALARM INSTALLATIONS	400-2
406	LIFEBOAT WINCH CONTROL CIRCUITS & TESTS	400-3
407	VENT SET	400-4
408	MOTOR FIELD REWIND	400-4
409	ARMATURE REWINDS	400-5
410	IMPELLERS	400-6
411	ELEVATORS AND DUMBWAITERS	400-7
412	FIRE MAINS LOW PRESSURE ALARMS	400-8
413	DEEP FAT FRYERS	400-8

CATEGORY "A" ITEMS

<u>ITEM</u>	<u>TITLE</u>	<u>PAGE</u>
501	EXTENSION OF ANNOUNCING SYSTEMS	500-1,2,3,4

INFORMATION REGARDING THE INVITATION FOR BIDS INCLUDING THESE SPECIFICATIONS

Prior to the time of bid opening and after award of job order, inquiries should be directed to one of the following:

Procurement and Contractual Matters
(Engineering Office)

<u>Title</u>	<u>Telephone</u>
Director, Procurement & Control Division	466-5185
Head, Contract Branch	466-5185

Legal Matters
(Office of Counsel)

<u>Title</u>	<u>Telephone</u>
Assistant Counsel	466-6481
Counsel	466-6481

Engineering and Technical Matters
(Engineering Officer)

<u>Title</u>	<u>Telephone</u>
Deputy Engineering Officer	466-6955

Statement of Manufacturer's Representative

On any specification item which calls for supervision by the manufacturer's representative the following shall be strictly complied with:

Submit a statement of supervision exercised by the representative, prepared and signed by the representative. The statement shall include certification of work actually performed and certification either that work was performed to the satisfaction of the representative, or that work deficiencies, explicitly identified by the manufacturer's representative, exist. The original plus four copies of each statement shall be delivered to the MSTSP Inspector.

Overtime Policy

The Contracting Officer may require of the Contractor's statement in writing regarding the need for overtime in the performance of the contract in the event of the issuance of a Change Order or a Supplemental Agreement for extra work. No overtime premium pay shall be considered in the price or equitable adjustment to be paid by the Government on account of the Change Order or a Supplemental Agreement unless authorized by the Contracting Officer.

The following list of plans and all references thereon for a part of these specifications.

<u>PLAN NO.</u>	<u>TITLE</u>	<u>SPEC. ITEM</u>
2454 Sheets 1,2 and 5	Upper deck, No. 1 Fwd. Stack	110
501-1172983	Typical Fusible Link Fire Damper-Installation	116
T-AP 110-401-1173095	Crew Alarm System	405
506 PAC B-3043	Fire Main Pressure Alarm Installation and Wiring Diagram	412
611 PAC-E-644 Alt. A	Deep Fat Fryers	413
401 PAC-11053	Announcing Systems Extension, One line cabling diagram	501

ITEM 101 - SERVICES: (TC)

Upon arrival of the ship in the contractor's plant, the contractor shall provide the following services for thirty-five (35) continuous calendar days.

Electric Power - 1200 amps, 120/240 volts DC and 100 amps, 3 phase 440 volts AC.

Steam	5000 lbs per hr. at 100 PSI
Fresh water	60 PSI
Flushing water	60 PSI
Fire main	100 PSI
Air	1500 CFM at 100 PSI

Any additional services required, either in quantity or in excess of time specified in this item, shall be furnished only upon issuance of a Specification Change Order. Cost of any additional services required for contractor's convenience shall be borne by the contractor.

ITEM 102 - TELEPHONES AND GARBAGE: (TC)

During the entire period while the ship is in the contractor's plant, the contractor shall furnish the following services.

Garbage and Debris Removal:

Remove, on a daily basis, all garbage and debris generated by the ship.

Telephones: (5)

One (1) twenty-four hour telephone for official use only at quarter deck.

One (1) pay telephone at quarter deck providing such telephone is not available on the dock in immediate vicinity of the ship.

Three (3) telephones through switchboard during regular work day hours as follows:

One (1) in Chief Engineer's Office

One (1) on quarterdeck for official use

One (1) in MSTSPAC Representative's Office

NOTE: Cleanliness of the ship shall be the contractor's responsibility in accordance with the Master Contract for Repair and Alteration of Vessels, clause 5, sub-paragraph (i).

ITEM 103 - LIFEBOATS, EXCHANGE OF: (AM)

Remove all food, water, equipment including the nesting chocks, equipment including gunwale and thwart brackets for anti-exposure lifeboat cover stanchions and braces from all twenty-two (22) of the ships lifeboats.

Remove the twenty-two (22) lifeboats including rudders from ship and deliver to Eureka Marine, Oakland Dock Warehouse between the hours of 0800 and 1400 of a regular work day, notifying Eureka Marine (Phone: 893-3396) not less than 24 hours prior to delivery time as to mode and time of delivery.

Remove the radio installations from the Radio House in the two (2) removed 43-person lifeboats. Removals to include the portable radio battery charging cable, batteries, etc., but exclude the "Ship Charge-Engine Charge" switch and ammeter. These items have been previously installed in the new boats.

Receive and off-load from U.S. Government transportation the twenty-two (22) boats to replace those removed.

Twelve (12) - 135 person; hand propelled
Eight (8) - 77 person; hand propelled
Two (2) - 43 person; motor, gasoline

Install the two (2) radio installations in the two (2) new 43-person boats.

Test-operate the radio equipment installation in the presence of the MSTSP Inspector and insure proper operating condition.

Check out and insure correct connections for proper operation of the battery charging and drying lamp circuit from the ship charging lines.

Connect engine generator charging circuit for correct charging polarity.

Re-install gunwale and thwart brackets for anti-exposure lifeboat cover stanchions and braces on each of the replacement lifeboats (total twenty-two (22) boats). Location of brackets shall be templated from removed boats, prior to their delivery to Eureka Marine.

Restow all food, water and equipment removed from the twenty-two (22) removed boats in the new boats. The ship's force will provide replacements for all condemned food, water and equipment while the units are removed from the boats. Place new boats in their respective shipboard davits, modifying the davit paddings, lifeline falls, keel rests, gripe pads and gripe to form a neat and proper stowage.

(Continued)

ITEM 103 - LIFEBOATS, EXCHANGE OF: (AM) (Cont'd)

Tighten the stern tube packing in each boat.

Stencil new boats as required by the USCG.

Lower the two (2) new motor boats to the water. Fill gasoline tank, transmissions and crankcases and test-operate engines as required by and to the satisfaction of the USCG Inspector.

On completion of tests, refill the gasoline tanks and resecure boats aboard ship.

Secure the releasing devices, falls and davit heads with wire rope while boats are being worked on in davits.

All boats shall be handled by use of strongback spreaders simulating davit centers.

The exchange of the lifeboats shall be completed prior to the time of ship's departure from the Contractor's yard.

Test of boat davits as outlined in a separate item of the specifications shall be accomplished prior to securing of boats in davits.

Weight test of boats will be accomplished on separate item of this specification titled "Lifeboat Winch Control Circuits and Tests".

The U.S. Department of Labor "Safety and Health Regulations for Ship Repairing" provides: "Before employees are permitted to work in or on a life-boat, either stowed on or in a suspended position, the employer shall ensure that precautions have been taken to prevent the boat from falling due to accidental tripping of the releasing gear, movement of davits or capsizing of a boat in chocks." Compliance with this requirement is a prerequisite to commencing work in this item.

ITEM 104 - CO² SYSTEM, ANNUAL INSPECTION: (AM)

Completely check out the below listed systems and appliances for conformity with current USCG Rules and Regulations.

All fixed and portable CO² cylinders and associated operating components.

The below listed CO² cylinders shall be weighed

Forty-five (45)	100 lb.	Main CO ² Room
Two (2)	50 lb.	Fwd. Eng. Room
Two (2)	50 lb.	Aft. Eng. Room
Three (3)	50 lb.	Emerg. Gen. Room
One (1)	50 lb.	Fwd. Lamp Locker
Two (2)	50 lb.	Aft. Paint Locker
Two (2)	50 lb.	Fwd. Fire Pump Room
Two (2)	50 lb.	Aft. Fire Pump Room
Ninety-five (95)	15 lb.	Fwd. Paint Locker 1-7-2A Throughout Ship

Tag each cylinder with date of tests and weight.

On completion of servicing, the system and appliances shall be operated as requested and to the approval of the USCG and MSTSP Inspectors.

Provide a report of certification to USCG and MSTSP as follows:

Four (4) copies of each certificate, one (1) to USCG, one (1) to Ship's Master and two (2) MSTSP via the MSTSP Inspector.

All equipment listed in this item shall be placed in design operating condition.

Ship's force will furnish replacements for all 15-pound cylinders found under-weight.

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 105 - FUSIBLE LINK DAMPERS: (AM)

Open all of the ship's fusible link ventilation dampers for inspection by the U.S. Coast Guard and MSTSP Inspectors.

Renew all defective or missing screws and links, free up and lubricate dampers.

Upon completion of inspection and repairs, leave dampers ready for use. Forty-three (43) fusible link dampers require opening.

LOCATIONS:

01-84, 85-1	- One (1) Each	3-109, 110-1 & 2	- Two (2) Each
01-35-2	- One (1) Each	3-118-2	- One (1) Each
1-40-1	- One (1) Each	3-120, 121-1	- One (1) Each
1-42-2	- Two (2) Each	3-121, 122-1 & 2	- Two (2) Each
1-42-1	- Two (2) Each	3-126-1	- One (1) Each
1-172, 173-1	- One (1) Each	3-129, 130-1 & 2	- Two (2) Each
1-202-1	- One (1) Each	3-141, 143-1 & 2	- Two (2) Each
2-36-1 & 2	- Two (2) Each	4-16-1	- One (1) Each
2-37-1 & 2	- Two (2) Each	4-40-1	- One (1) Each
2-83-1 & 2	- Two (2) Each	4-62-1	- One (1) Each
2-101-1	- One (1) Each	4-166, 167-2	- One (1) Each
2-102, 103-1	- One (1) Each	4-185, 186-1 & 2	- Two (2) Each
2-166-1	- One (1) Each	4-185-1, 0, 2	- Three (3) Each
2-214-1	- One (1) Each	4-209-1, 0	- Two (2) Each
3-34-1 & 2	- Two (2) Each		

ITEM 106 - FIRE HOSES, ANNUAL INSPECTION: (AM)

Accomplish the following to all fire hoses located at the various fire stations throughout ship:

- a. Remove all hoses from ship, including spare hoses to a clean area within the yard. A total of one hundred and twelve (112) 1- $\frac{1}{2}$ " dia. and thirty-six (36) 2- $\frac{1}{2}$ " dia. hoses.
- b. Range all hoses and perform the annual USCG test and inspection of the hoses in accordance with Section 71.25-20 (a) (4) of CG-256 rules and regulations for passenger vessels as last amended. Inspection and test shall be accomplished only in the presence of the USCG and MSTSP Inspectors.
- c. On completion of inspection and testing of hoses, clean the exterior hose fabric and reinstall each length of hose in its original shipboard location.
- d. Removal of hoses from vessel shall be accomplished in a staggered arrangement to insure a degree of fire fighting equipment available in all areas at all times.

ITEM 107 - LIFEFLOAT INSPECTION: (AM)

Accomplish annual inspection of one hundred and fifty-six (156) 25-person and four (4) 60-person balsa wood lifefloats as hereinafter specified.

Remove all lifefloats from their stowed positions aboard ship to a suitable security location ashore and range for inspection by USCG and MSTSP Inspectors.

Remove and restow rations, provisions and equipment. The ship's force will provide replacements for all condemned food, water and equipment while the units are removed from the floats.

Floats found defective will be replaced with new U.S. Government furnished floats.

Renew approximately twenty (20) defective nets.

Renew approximately fifty (50) board feet of damaged or defective platform slats.

Clean surfaces of all floats including platforms, oars and boat hooks free of all dirt, grease, salt, etc. Hand sand floats, platform, oars and boat hooks, in way of cracks, blisters and loose paint. Rub down all surfaces with acetone or other suitable Keytone product, to remove surface sheen, and apply two (2) overall coats of plastic enamel International Orange Color, Fuller Co., #12197 or equal.

Rerig floats as original. Replace with new approximately 1100 of the straps, all hand lines and all float lines. Strap shall be 1-23/32-inch width, plus or minus 1/16-inch, specification MIL-W-4088E, Type VI. Hand lines and float lines shall be polypropylene.

Perform floatation test on floats as designated by USCG Inspector. Approximately four (4) floats to be tested.

Upon completion of inspection, stencil date of inspection and ship's name on each float. Also stencil ship's name on all oars and boat hooks.

Renew approximately twenty (20) lifefloat stowage stanchions. New stanchions shall be the same weight material and design as original installation.

Prepare surfaces, apply pretreatment, primer and paint to all lifefloat stanchions, stanchion sockets, lifefloat supporting structure and deck surfaces in way of the lifefloat stowages in accordance with MSTSPAC Painting Instruction No. 1, Exterior Paintings, issued 1 June 1967.

On completion of all work and acceptance by the USCG and MSTSP Inspectors, reinstall lifefloats as original with wood spacers between each lifefloat and between supporting structure, deck and floats.

Reinstall stanchions and leave ready for use.

ITEM 108 - LIFEBOAT DAVITS: (AM)

Remove all sheaves and pins including idlers and guide rollers from all life-boat davits and other lifeboat handling assemblies throughout the ship, including sheaves in floating blocks of lifeboat falls. (A total of twelve (12) stations.)

Thoroughly clean all sheaves, sheave brackets and floating blocks free of all grease, rust and debris to clean bare metal.

Renew all worn or defective sheave pins and bearings.

Flush all davit arm trackway trunnion rollers free of all grease and debris, thoroughly lubricate and prove free and rolling.

Paint out all normally painted surfaces of sheaves, brackets and floating blocks as follows. Prime all bare metal surfaces with one (1) overall coat of pretreatment wash primer, MSTSP Code 32, followed by two (2) coats of red lead, MSTSP Code 52, followed by two (2) overall coats of haze gray, MSTSP Code 45.

Reinstall all removals and prove all units in good operating condition to the satisfaction of the MSTSP Inspector.

Free-up, clean and lubricate all lifeboat fall turnbuckles.

Weight and operational tests of all boats and boat handling assemblies will be accomplished by another item of these specifications titled "Lifeboat Winch Control Circuits and Tests".

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 109 - CARGO GEAR, ANNUAL INSPECTION: (AM)

Accomplish the following work, as required by National Cargo Bureau, Inc. for annual inspection of all ship's cargo gear.

Completely rig in a ready-for-use condition and conduct a proof load test on each of the following cargo gear assemblies, as required by and to the satisfaction of National Cargo Bureau, Inc. and the **MSTS** Inspector.

<u>QUANTITY</u>	<u>CAPACITY</u>	<u>LOCATION</u>
Two (2)	5-Ton	No. 2 Hatch
Two (2)	5-Ton	No. 3 Hatch
Two (2)	5-Ton	No. 6 Hatch
Two (2)	5-Ton	No. 7 Hatch

With each boom at an angle of not more than 15-degrees to the horizontal or when this is impracticable to the lowest practicable angle, apply proof load to the hook. Lift the proof load and rotate the boom as far as possible in both directions. Hoist, lower and stop proof load using winch brakes.

After tests, all tested gear shall be completely disassembled, to permit inspection to determine actual condition of the goosenecks, heel pins, block pins, sheave pins, sheaves, shackles, shackle pins, swivels and all components. Units shall be 100 percent disassembled and thoroughly cleaned.

On completion of inspection and repairs and when notified by MSTSP Inspector, thoroughly **grease** and lubricate all disassembled units and reassemble and reinstall as original.

The safe working load of each of the tested booms and assembled gear shall be stenciled on a 4 inch by 6 inch by 1/8 inch brass MSTS approved data plate, complete with minimum angle to horizontal at which this load may be applied and date of test. Install data plate near heel of boom on seal welded mounting pads.

All tests and work shall be performed in presence of and to the satisfaction of National Cargo Bureau, Inc. Surveyor and **MSTS** Inspector.

Services of the National Cargo Bureau, Inc. Surveyor will be furnished by the U.S. Government.

On completion of all work specified herein, leave all booms and associated rigging in a stowed or ready-for-use condition as designated by the MSTSP Inspector.

GC/lg

100-9

POPE

ITEM 110 - NUMBER ONE STACK REPAIRS: (AM)

Reference (a) Plan No. 2151, Sheets 1, 2 and 5 of 7 sheets.

Location: Upper Deck, #1 Forward Stack

In accordance with Reference (a) renew in its entirety the deteriorated upper deck plating of number one stack, including access cover, drain connections and strainers, sleeves and other attached fittings. Renew all of the existing framing supporting the upper stack deck plating.

All precautions shall be taken to eliminate entrance of soot, dirt or any other extraneous substance into forced draft blower intakes or into machinery spaces below deck during performance of work specified herein.

All new steel members specified herein shall be sandblasted to white metal, prior to installation.

Clean all exterior surfaces of the number one stack deck and all disturbed areas to bare clean metal, free of all rust, scale and all extraneous substance, by vacublasting or power wire brushing and paint as follows. Prime all surfaces with one (1) coat of Laminar X-500 primer, followed by one (1) coat of Laminar X-500 Metalox off color to finish coat and finish paint with one (1) coat of Laminar X-500 Metalox Black.

Paint the new surfaces of undersides of stack top decks, with one (1) coat of pretreatment wash primer, MSTSP Code 32 and two (2) coats of heat resisting aluminum MSTSP Code 54.

Prove drains clear, upon completion of work.

ITEM 111 - PAINTING PLENUM CHAMBERS AND DUCTS: (AM)

<u>Locations</u>	<u>Size</u>
Plenum Chamber C-0201-E	360 square feet
Plenum Chamber C-0202-1E	300 square feet
Chamber Duct 2-155-0 to 02-155-0	560 square feet
Chamber Duct 2-123-0 to 02-123-1	570 square feet

Prepare for painting entire interior surfaces of the above noted Plenum chambers and air intake chamber ducts.

With power or hand tools only, remove all scale, rust, loose paint, grease and all other foreign matter, to bare clean metal, or to a firm paint film.

Sandblasting will not be permitted.

Apply two (2) coats of rust proof primer, MSTSP Code 52 on all bare metal surfaces.

ITEM 112 - MAINMAST AND FOREMAST: (AM)A. Mainmast

Install new ladder on mainmast between crosstree platform and crow's nest platform. Overall length shall be approximately sixteen (16) feet. Overall width shall be twelve (12) inches. Side rails to be 2" x 3/8" galvanized steel flat bar with sixteen (16) 3/4" galvanized steel square stock rungs equally spaced twelve (12) inches center to center. Replace with new a total of eight (8) 5" x 3/8" galvanized steel flatbar ladder support clips.

Install new pipe railings on crosstree platform and on crow's nest platform of mainmast. Overall height of railings shall be 42". Uppermost railings shall be 1" standard galvanized pipe. lower railings shall be 3/4" standard galvanized pipe and stanchion supports shall be 1 $\frac{1}{4}$ " standard galvanized pipe. Total of approximately seventy (70) feet of pipe.

B. Foremast

Install three (3) new 5/8" diameter galvanized steel round stock six (6) inches in width grab rungs in same locations as existing, on foremast under crow's nest platform. Short leg of rung shall extend 3" from foremast and rung shall be set at sixteen (16) degree angle off centerline of ship.

Crop off and install two (2) new navigational towing light foundations on foremast. Approximate dimensions 44" x 48" x 10.2# galvanized steel.

All of the aforementioned work shall be templated from ship.

ITEM 113 - CARGO SIDE PORT DOORS, REPAIRS TO: (AM)

Accomplish repairs to the following side port doors, as hereinafter specified.

A. Remove the two (2) side port doors at the third deck access, frame 160, starboard side.

Straighten both doors including the angle framing, centerline strongbacks, gasket retainer strong back, hinge blades and all other out of line and bent attachments.

Renew hinge pins including spacers, grease fittings, washers, nuts and cotter-keys.

Inspect all dogging studs, bushings, washers and nuts, renewing defective units.

Renew the rubber gaskets on door and door hull frame. Clean gasket retainers free of rust, dirt, grease and other extraneous substances prior to cementing new gaskets into place.

The new rubber gaskets shall be cemented in one continuous piece except where a gap is required at the top and bottom centerline opening on the door framing attached to hull.

Reinstall doors making required adjustments to permit easy opening and closing. Lubricate all fittings. Prove doors water tight when closed and properly dogged.

B. At side port 3-84-2, remove the after door.

Straighten door and bent framing including attachments and re-weld broken sections. Renew two (2) hinge pin assemblies. Straighten one (1) bent stud as designated by MSTSP Representative.

Renew the rubber gaskets on door and door hull frame as specified in section (A) of this item.

Reinstall door making required adjustments to permit easy opening and closing. Lubricate all fittings.

Close both doors, properly dog and prove water tight.

(Continued)

ITEM 113 - CARGO SIDE PORT DOORS, REPAIRS TO: (AM) (Continued)

C. Renew approximately twelve (12) defective side port dogging studs, bushings, washers and nuts in scattered locations as designated by MSTSP Inspector.

D. Renew the two (2) worn fixed wood fenders located forward of side port doors 3-122-1 and 3-122-2.

Install new wood fenders equal to existing when new, approximate sizes of wood are 6" x 6" x 5'-0".

Renew wood fastenings with galvanized materials.

Surfaces of the hull plating in way of removals shall be sand blasted to a commercial blast surfaces and coated with one (1) coat of pretreatment wash primer, MSTSP Code 32, followed by two (2) overall coats of red lead primer, MSTSP Code 52 and two (2) overall finish coats of haze gray, MSTSP Code 45.

ITEM 114. - INSULATION REPAIRS: (AM)

Replace with new the damaged and loose insulation on the following listed structural and ventilation duct surfaces as hereinafter specified.

a. Troop Recreation Area, Compartment 4-147-0:

Replace with new approximately ninety (90) square feet of damaged and loose insulation the side shell, portside between frames 147 and 160. The new insulation shall be one (1') inch thick fibrous glass insulation board conforming to Specification MIL-I-742, Type II and covered with cotton brattice cloth conforming to Specification MIL-C-788 secured to the insulation board with adhesive conforming to Specification MIL-C-3316, Type II.

b. Hospital Area, O1 Deck Level:

Replace with new a total of approximately one hundred-seventy-five (175) square feet of damaged and loose insulation on ventilation ducts at the following listed locations in the hospital area.

1. Soiled linen locker, frames 109-1/2 - 110-1/2, port.
2. Cleaning gear locker, frames 110-1/2 - 112, port.
3. Passageway O1-106-2-L, frames 108 - 111, port.
4. General ward, O1-144-1-L, ventilation duct leading from air conditioning unit #5.
5. General ward, O1-144-2-L, ventilation duct leading from air conditioning unit #6.

The insulation on the ventilation duct shall be three-quarters (3/4) inch thick unfaced fibrous glass insulation board conforming to Specification MIL-I-742, Type II and covered with cotton brattice cloth conforming to Specification MIL-C-788, secured to the insulation board with adhesive conforming to Specification MIL-C-3004.

c. Surface Preparation:

Prior to installation of new insulation all surfaces in way of removals shall be cleaned free of all dust, dirt, grease, rust, loose or blistered paint and other extraneous substances. Prime all surfaces with one (1) coat of zinc chromate, MSTSP Color Code 32.

(Continued)

ITEM 114 - INSULATION REPAIRS: (AM) (CONT'D)d. Installation:

1. The shell insulation shall be secured with Benjamin Foster Company No. 81-33, Minnesota Mining Company EC-816, or equal as approved adhesive. Insulation shall be additionally secured with metal clips, pins, or equal as approved, mounted on preforated metal base secured with mastic, spaced not to exceed 12-inches centers and not more than four (4) inches from edges and ends of boards. The fiber-glass boards shall be impaled upon the clips or pins and edges of clips or ends of pins bent over to secure the boards. Cover the fiber-glass boards with brattice cloth as specified in sub-paragraph "a" of this item.

2. The ventilation duct insulation shall be secured with Bengamin Foster Company No. 81-33, Minnesota Mining Company EC-816, or equal as approved adhesive. Insulation shall be additionally secured by tying in place with 0.049-inch diameter galvanized iron wire or fibrous glass thread, Specification MIL-C-20079. Cover the fiber-glass boards with brattic cloth as specified in sub-paragraph "b" of this item.

e. Coating and Painting:

Apply one (1) coat of vapor barrier coating, Specification MIL-P-876, to all new and disturbed brattice cloth covering, followed by two (2) color coats of paint to match existing color scheme.

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 115 - VENTILATION SYSTEM, CLEANING OF: (AM)

All interior surfaces of the below listed ventilation systems shall be thoroughly cleaned free of all dirt, grease, lint, scale and other foreign debris from their beginning to and including their weather deck terminus. Interior surfaces to be cleaned shall include ducts, trunks, screens, hoods and fan casings. Clean all pre-heaters in place.

Cleaning shall be accomplished by the vacuum suction systems, augmented by the use of hand-tools.

Where required, additional clean-cut openings may be cut in ducts to facilitate the work. Such openings shall be fitted with suitable metal covers of same thickness as ducts, neatly installed air-tight with gaskets and securing devices.

Replace all deteriorated inspection plates.

Work in way of galley, pantries and food serving spaces shall be accomplished at such times as not to interfere with the normal operation of said areas.

All new and disturbed areas shall be primed and painted to match adjacent surface.

All dirt, grease and debris shall be removed from ship daily. Areas worked in or traversed by workmen or equipment shall be cleaned and left ready-for-use.

<u>Location</u>	<u>Space Served</u>	<u>System's</u>
3-85-0-Q	Troop Galley	S-1-89-2 E-01-78-2 E-01-78-3 S-1-89-5 S-1-89-1
1-128-1	Main Galley	E-02-134-1 S-02-137-2
6-102-0E	Engine Room #1	S-02-108-1 S-02-108-4
6-130-0E	Engine Room #2	S-02-140-5 S-02-140-2
Evaporator Flat 4-118-1-0	Aux. Machy Space Main Landry	S-1-129-2 E-1-120-1 S-2-125-2

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 116 - MANUAL FIRE DAMPER INSTALLATION: (AM)

Reference (a) MSTS Plan 501-1172983 titled "Fire Damper Remote Manual and Fusible Link."

Install one (1) new multiple vane remote manual and fusible link fire damper. Approximate size of duct opening is 60" x 60" and located at frame 130, first platform, starboard of ship's centerline, forward of bulkhead to after engine casing. Damper to be operational from both sides of bulkheads and have a visual indication on after side of bulkhead. New damper installation to be similar to that shown on Reference (a).

Modify vent ducting and/or insulation to facilitate installation of damper.

Paint in bulkhead markings in accordance with aforementioned plan.

Conduct operational tests of new installations to the satisfaction of the U.S. Coast Guard and MSTS Representatives.

ITEM 201 - MISCELLANEOUS PIPING RENEWALS: (BK)

Renew the deteriorated and leaking sections of below listed piping, using material equal to original when new, complete with flanges, fittings, hangers and lagging.

Length and sizes specified are approximate. The contractor shall take exact dimensions from installed locations aboard ship.

Exact locations of piping to be designated by ship's Chief Engineer.

Test new piping to one and one-half (1½) times working pressure.

The following sections of piping to be dealt with.

A. Main Circulator Cross-Over Piping:

Twenty (20) feet of 10-inch, shaped, flanged copper pipe, bonding straps and two (2) pipe hangers.

Piping is located in the after engine room 7-140-0.

B. Steam Heating Drain Piping:

Forty (40) feet of 2-inch IPS schedule 40 black iron pipe. Pipe is shaped, flanged with one (1) short nipple offsticker, one (1) union and one (1) welded globe valve. Piping makes one (1) bulkhead penetration. Install one (1) bootleg at penetration welded on both sides.

Piping starts in the troop compartment No. 4, frame 92, fourth deck, centerline.

ITEM 202 - SCUPPER VALVES: (BK)

Accomplish the following repairs to a total of ten (10) scupper valves in the below listed sizes and locations.

<u>Size</u>	<u>Location</u>	<u>Quantity</u>
3" Inlet 6" Outlet	4-187-1	1
6" Inlet 8" Outlet	4-216-1	1
4" Inlet 6" Outlet	4-217-1	1
5" Inlet 5" Outlet	4-218-1	1
6" Inlet 8" Outlet	4-224-1	1
5" Inlet 5" Outlet	4-214-2	1
4" Inlet 6" Outlet	4-214-2	1
6" Inlet 8" Outlet	4-215-2	1
6" Inlet 8" Outlet	4-217-2	1
5" Inlet 5" Outlet	4-218-2	1

Open valves for inspection. Clean interior of valves to bare metal and paint with two (2) coats of Apexior No. 3 paint, or equal as approved.

Renew clappers and hinge pads and install clappers with new stainless steel hinge pins.

Reseat new clappers and seats.

On completion of inspection and acceptance of work, reassemble all removals utilizing new gaskets and securements.

ITEM 301 - ANNUAL INSPECTION; BOILERS: (LNP) *Ch #9, #13, #15, #16, #19, #20*

Accomplish annual inspection, boilers, on numbers 1, 2, 3 and 4 Foster Wheeler "D" type boilers, P2-S2-R2 design, in accordance with U.S. Coast Guard Rules and Regulations and additional work as specified herein.

Remove all access doors from the boilers and open access to furnace. Remove all fuel oil burner registers.

Preliminary Hydrostatic Test of Boilers

Prior to commencement of any work on boilers mentioned in these specifications and when boilers are cooled sufficiently, apply a preliminary hydrostatic test equal to that of the boilers working pressure. In the presence of both the MSTSP Inspector and ship's Chief Engineer, conduct a complete survey of the boiler with particular attention being made to leaking and/or defective tubes, hand hole plates, valves, joints etc. (Testing shall be held at full pressure during time of survey). All defects found shall be plainly marked with paint.

The preliminary hydro shall be accomplished as early as practicable to permit completion of repairs found during hydrostatic test, including known repairs and those that may develop during progress of work.

Firesides Cleaning

Clean all fireside surfaces of the two (2) stacks. Thoroughly clean the firesides, including the uptakes, wind boxes, furnaces, superheaters, economizers, induced draft ducts, superheater header vestibules, waterwall header vestibules and economizer vestibules at both the header and loop ends in their entirety by mechanical means, steam lancing and waterwashing. Provide canvas covers to protect the refractory material and insulation.

Watersides Cleaning

Remove all manhole plates, hand hole plates and steam drum internal fittings.

Thoroughly clean to bare metal all internal surfaces of the steam drums, water drums, waterwall and superheater headers and the steam drum internal fittings, using power wire brush method.

Upon completion of cleaning all drums and headers, thoroughly washdown all waterside surfaces of boilers including tubes.

Dryout, using compressed air, all drums, tubes and headers immediately after boilers are washed down. After the boilers have dried, each cleaned section shall be thoroughly examined internally to determine that all traces of scale or other foreign matter have been removed. If evidence of scale or other foreign matter is present on examination of cleaned surfaces of watersides, the work outlined above shall be repeated.

(Continued)

ITEM 301 - ANNUAL INSPECTION; BOILERS: (LNP) (CONT'D)Valve, Safety

The steam drum and superheater safety valves shall be removed from their respective boilers or locations. Completely disassemble and make ready for internal examination by representatives of the U.S. Coast Guard and MSTSP Inspector.

Upon completion of examinations, valves shall be overhauled, reassembled, shop-tested, utilizing steam at the boilers design pressure and temperature and reinstalled, utilizing new gaskets and heat-treated studs, bolts and nuts.

Boiler Mountings and Miscellaneous Valves

All boiler mountings shall be opened for U.S. Coast Guard and MSTSP Inspection.

Upon completion of examination, valves shall be cleaned, grind in seats and discs to a true fit and make tight, polish stems and chase threads on stems and nuts. Rejoint, repack and reassemble using new packing and jointing material and all new heat-treated nuts, studs and bolts.

Close Up and Test

Renew gaskets on the internal desuperheater lines, reface flanges and separately hydrostatically test at not to exceed 300 PSI.

Reinstall all steam drum internal fittings.

Thoroughly clean all manhole and handhole plates except economizer clean out plugs, together with all header seating surfaces.

Close up watersides. Install all manhole and handhole plates, renewing all gaskets. Install necessary steel blind flanges for the protection of main and auxiliary equipment and machinery, pressure vessels other than boilers and reducing valves.

Apply hydrostatic tests in accordance with U.S. Coast Guard Regulations as applicable, in the presence of the USCG and MSTSP Inspectors. Test shall include all main steam piping serving the high pressure turbines and ship's service turbo generators.

Remove and install flange insulation pads as required to facilitate inspection during hydrostatic test.

Clean and resurface a total of ten (10) designated steam line flanges serving the main propulsion turbines and ten (10) designated steam line flanges serving the turbo ship's service generators.

The temperature of the water used for the hydrostatic test shall be 70°F minimum. Tighten all manhole and handhole fitting during the hydrostatic test.

Upon completion of all examinations, tests, cleaning and repairs, remove blind flanges installed for purposes of tests and remake all joints so disturbed using new gaskets and heat-treated bolts, studs and nuts.

(Continued)

ITEM 301 - ANNUAL INSPECTION; BOILERS: (LNP) (CONT'D)

Fair-up all access doors renew all gaskets and reinstall, using 1/2-inch asbestos wire inserted gasket material (Beaded or flat as applicable) riveted in place using straight, flat-head copper rivets.

Reinstall all fuel oil burner registers.

Renew all disturbed insulation and lagging pads and replace all interference removals.

Upon initial warming up of boilers, follow-up on all gaskets and joints disturbed during performance of work and make same tight.

When steam is raised to operating pressure, safety valves shall be set to conform to U.S. Coast Guard Regulations as last amended and approved.

Accomplish all removal and reinstallation of boiler insulation and brickwork required for inspection.

Gasket material shall be in accordance with Standard Plan Application of packing and gaskets, BuShips B-153 Alt., 8.

Power tool shall not be used in the installation of handhole plates.

ITEM 302 - BOILER WATERSIDE; CLEANING OF: (LNP)

Accomplish the following on numbers 1, 2, 3 and 4 Foster Wheeler "D" Type Boilers, P2-S2-R2 design.

Clean the watersides of all generator, screen, floor, roof tubes, all water wall tubes (front, rear and sidewall) and the superheater tubes. Cleaning shall be accomplished by turbining using air or electric power wire brush.

Upon completion of cleaning, all tubes shall be thoroughly washed down using clean, warm, fresh water.

Dry out, using compressed air, all tube immediately after the boiler tubes are washed down. After the tubes have dried, each section shall be thoroughly examined internally to determine that all traces of scale or other foreign matter has been removed. If evidence of scale or other foreign matter is present on examination of watersides, the work specified above shall be repeated.

Opening and closing of boilers for access for waterside cleaning is covered in another item in these specifications titled "Annual Inspection; Boiler."

ITEM 303 - BOILER BRICKWORK: (LNP)

Accomplish the following refractory material repair on numbers 1,2,3, and 4 Foster Wheeler "D" Type Boilers, P2-S2-R2 design.

Renew all refractory material corbels and refractory material over the mud drum.

Patch the superheater support baffles.

Install a total of six (6) bladed cones for the burner register.

BOILER #1:

Renew the plastic burner front including all insulation and necessary anchor bolts. Each burner angle shall be formed and checked to an angle of 45° with a ship furnished metal sweep and proven concentric and centered on the centerline of the burner atomizer in the presences of the Ship's Chief Engineer and MSTS Inspector.

Renew approximately four (4) square feet of insulation behind the roof tubes adjacent to the bend, at the rear of furnace. Remove and install side and roof casing and all necessary interference to accomplish insulation repair.

BOILER #3:

Renew the furnace floor in its entirety. This shall include all refractory material and insulation down to the floor pan.

Renew the furnace floor pan in its entirety. New material size, thickness and installation shall be inaccordance with the manufacturer's original design specifications. All plating and structural members shall be thoroughly cleaned prior to installation. Apply one (1) overall coat of heat resistant aluminum paint to both sides of the new furnace floor pan.

Install new insulating material on the underside of the new furnace floor pan. New insulation shall be the same thickness and covered with sheet metal equal to existing.

All refractory material shall meet the following specifications as amended and approved:

Chrome ore	MIL-P-15384B
Fire Brick Class "B"	MIL-B-15606C
Insulating brick	MIL-I-16008A
Insulating Block Class "C"	MIL-I-2819A
Insulating Cement Class "B"	MIL-C-2861
Mortar	MIL-M-15842A

ITEM 304 - BOILER REPAIR: (LNP)

Accomplish the following repair on boilers 1, 2, 3, and 4, Foster Wheeler "D" Type, P2-S2-R2 Design.

Vee cut to good metal and weld approximately eighty (80) linear feet of scattered boiler casing cracks and open seams in locations designated by the MSTSP Inspector. (Approximately twenty (20) linear feet on each boiler.)

Renew approximately five (5) broken, missing or damaged boiler casing studs, nuts, bolts, clamps or dogs on each boiler. (Approximately twenty (20) total.)

Machine to a true gasket seating surface, using an approved reseating tool, five (5) scattered handhole seats in locations as designated by the Ship's Chief Engineer, on each boiler (an approximate total of twenty (20) header handhole seats).

Clean and repair all fuel oil burner registers.

Boiler #1:

Remove the rear waterwall and side waterwall drain nipples.

Renew one (1) 2" OD circulating tube connecting the steam drum to the upper rear waterwall header.

Repair the forced draft blower expansion joint.

Plug weld approximately ten (10) holes in the front and rear casing. Hole sizes range from 1/4" to 1/2" DIA.

Repair casing leaks adjacent to the superheater outlet nozzle.

Boiler #2:

Install a doubler plate over the deteriorated section of roof casing, approximately four (4) square feet.

Repair casing leaks adjacent to the superheater outlet nozzle.

Plug weld approximately ten (10) holes in the front and rear casing. Hole sizes range from 1/4" to 1/2" DIA.

Boilers #3 & #4:

Crop out the deteriorated casing adjacent to the economizer soot box access doors and insulation rear casing and insulation. Deteriorated area is located at the front of each boiler, from the economizer soot box access door to the mud drum adjacent to the bottom of the boilers. Approximately four (4) square feet of deteriorated area on each boiler.

ITEM 305 - D.C. HEATERS: (LNP)

Open up the D.C. heaters in Numbers 1 and 2 engine rooms for U.S. Coast Guard and MSTS Inspection and accomplish the following repairs. Total of two (2) heaters.

Clean the interior of the D.C. heaters to clean metal, including swash plates and steam and water chambers. Free-up and adjust the ball float linkages. Renew defective baffles and swash plates.

Paint the interior of the D.C. tanks with two (2) coats of Apexior No. 1 or equal.

Open-up spray nozzles, clean and lap in. Free-up the valves and replace defective springs and set valves to proper tension. A total of five (5) valves each heater. Open-up the vent condensers, clean the tubes and replace defective ferrules and packing. Hydro-test the tube nests and roll leaking tubes. Retest and prove tight.

Remove the safety and auxiliary atmospheric exhaust relief valves from ship to shop. Open, lap in, assemble and set to designed pressures. Open-up the swing check valves, clean and free-up.

Remove the spill-over valves, from ship to shop. Disassemble valves and thoroughly clean all parts for inspection. Grind in the double seats and discs. Re-assemble valves, using new packing and gasket material. Shop test at operating temperature and pressure and adjust valves to manufacturer's specifications. Re-install valves in ship. Close up and test heaters, renewing all gaskets.

Clean, service, calibrate and put in design operating condition the Mason-Neilan D.C. heater level indicators, including D.C. heater gauges on the Engineer's throttle boards.

On completion of survey and work close up all removals and leave units ready-for-use, proving all vents free and clear.

DATA: Mfr.: Elliott Co. Dwg. X2528-H-A

Type: De-aerating Marine Type

Cap: 74,000 P.P.H. from 175° F. to 240° F.

Vent Condenser - 102 tubes 5/8 inch C.D. x 18 BWG
Adm material 2'-9" long

Relief Valve: Lonergan 2 $\frac{1}{2}$ inch set at 25 PSI.

M H.

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 306 - UNFIRED PRESSURE VESSELS: (LNP)

Open-up and thoroughly clean all unfired pressure vessels throughout the ship, with exception of the main evaporators. When passed by U.S. Coast Guard Inspector and MSTSP Inspector, close all units and prove tight.

Set all relief valves to lift and reseat at manufacturer design pressures as required by U.S. Coast Guard Rules and Regulations as amended and approved.

Leave all units in a ready-to-use condition.

Hydro-test as required where internal inspection is not possible.

DC/cs

300-48

POPE

ITEM 401 - VENTS FOR SMOKE DETECTOR: (JCH)

Remove the existing three-inch vent tubes, total of three (3) each, from smoke detector motor cabinet flange, located on top of wheelhouse 04-90-1, to the first fitting inside fire control room on bridge.

Cut out and remove the three (3) existing deck penetrations, install a doubler plate with three (3) new deck penetrations.

Install new three-inch (3") vent tubes of the same type material as removed vent tubes.

Hose test and prove watertight integrity to satisfaction of MSTSP Inspector.

This item shall be completed prior to starting Item Number 402 in these specifications titled "Smoke Detecting SYStem".

ITEM 402 - SMOKE DETECTING SYSTEM: (TC)

Service, adjust and make repairs to the Walter Kidde Co. smoke detecting system. Thoroughly check the entire system including timer motor, indicator, photo unit, blower motors, and all components of the cabinet for proper operation.

Renew silk flickers, clean lenses, mirror and cabinet interior.

Blow out lines with compressed air or CO_2 .

Test trouble buzzers, simulating normal working conditions to determine all possible sources of malfunction.

Smoke test all compartments.

Prove system satisfactory to the U.S. Coast Guard and the MSTSP Inspector.

This item shall include repair of replacement parts not exceeding one hundred (100) dollars. If any repair parts are required above this amount, they will be covered by a specification change order.

DATA: Kidde Smoke Detecting System

NOTE: This item shall be started after completion of Item 401 of these specifications titled "Vents for Smoke Detector".

ITEM 403 - KIDDE FIRE DETECTION SYSTEM: (TC)

Provide the services of a Walter Kidde Company Representative to completely check out, adjust and make repairs to the Kidde Zonite Automatic Fire Detection System and its component manual test circuits for compliance with manufacturer's recommended design operating condition and U.S. Coast Guard Rules and Regulations.

Test and prove satisfactory to the MSTSP Inspector.

This item shall include repair or replacement parts not exceeding fifty (50) dollars. If any repair parts are required above this amount, they will be covered by a specification change order.

DATA: Kidde Fire Detecting System, Zonite Type, approximately forty-five (45) stations.

ITEM 404 - GENERAL ALARM SYSTEM: (TC)

Thoroughly check out, clean, service, adjust and accomplish repairs to place the existing General Alarm System in proper operating condition.

Free up, repair and adjust all bells not working properly.

Check warning and directive signs at each alarm for condition, and repaint marred or obscured signs.

This item shall include repair or replacement parts not exceeding fifty (50) dollars. If any repair parts are required above this amount, they will be covered by a specification change order.

On completion of repairs, test the entire system to the approval of the U.S. Coast Guard and MSTSP Inspector.

ITEM 405 - GENERAL ALARM INSTALLATIONS (SOLAS): (TC)

Install a separate General Alarm System for Crew's quarters and machinery spaces to comply with U.S. Coast Guard Regulations 113.25-5.

MSTSP Plan T-AP 110-401-1173095 title "Crew Alarm System, Circuit CA. Elementary and Isometric Wiring Diagram" is issued to form a part of this item.

Install all material and wiring in accordance with the foregoing plan.

Test the entire system to the approval of the U.S. Coast Guard and MSTSP Inspector.

ITEM 406 - LIFEBOAT WINCH CONTROL CIRCUITS & TESTS: (TC)

Open up and inspect all limit, interlock and Master Switches and controllers for the twelve (12) lifeboat winches and twelve (12) sets of davits, for moisture and operational deficiencies. Report deficiencies found which are not covered herein, to the MSTSP Inspector.

Rewire all switch contacts and controllers. Replace excessively burned contacts in controllers and adjust relays. Replace with new, all cover gaskets of switches and controllers.

Perform an operational test and weight test on each lifeboat handling assembly. Weight test each lifeboat over open water and prove all release gear in proper operation, in accordance with U.S. Coast Guard Rules and Regulations as last amended. All tests shall be conducted in the presence of and to the satisfaction of the U.S. Coast Guard and MSTSP Inspector.

The U.S. Department of Labor Safety and Health Regulations of Ship Repairing provides, "Before employees are permitted to work in or on a lifeboat, either stowed or in a suspended position, the employer shall ensure that precautions have been taken to prevent the boat from falling due to accidental tripping of the releasing gear, movement of davits or capsizing of a boat in chocks." Compliance with this requirement is a prerequisite to commencing work on this item.

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 407 - VENT SET: (JCH)

Install a new exhaust Vent Set complete with Controller in place of and of same size as missing Vent Set E-1-58-1.

Modify existing bulkhead opening and extend existing cables to new Controller and Vent Set.

Data of missing Vent Set E-1-58-1:

General Electric, 1/2 HP, 240 VDC, 1725 RPM, Type BC, Mod. #5BC74AB1252, Frame 74A, GEI 667.

ITEM 408 - MOTOR FIELD REWIND: (JCH)

Pickup from Ship's Electric Shop one (1) motor field frame only, Mfg. Baldor Elect. Co., 3/1.6 HP, 230 VDC, 1725/1400 RPM, Winding #C808X, NOBS #11539-66385, Serial #H21892, 11.8/6.9 amps.

Remove existing field windings and completely rewind using new coils of size and design equal to existing when new.

Oven-heat, vacuum dip windings in approved varnish and rebake until cured. Repeat complete process two (2) times.

Bench test fields to approval of MSTSP Inspector.

On completion return field frame to Ship's Chief Engineer.

ITEM 409 - ARMATURE REWINDS: (JCH)

Pickup from ship's Electric Shop a total of six (6) armatures as listed below:

Perform the following on each armature:

Remove existing windings and completely rewind using new coils of size and design equal to existing when new.

Undercut, build up, and machine-finish shaft in way of bearings to original dimensions when new.

Oven-heat, vacuum dip windings in approved varnish and rebake until cured.. Repeat complete process two (2) times.

Turn commutator to a true concentric within .001 inch plus or minus, properly undercut mica segments, burnish carbon brush surface, and dynamically balance armature, with impeller where furnished.

Bench test all armatures to the approval of the MSTSP Inspector.

On completion return all armatures to ships' Electric Shop.

In addition to the above work perform the following:

ITEM C: Install a new commutator on the General Electric 1-1/2 HP motor armature for Vent Set Sl-95-2.

ITEM D: Weld broken armature cooling fan.

DATA: A. Vent Set E02-127-2 armature:

MFG. ILG, 5/8 HP, 230 VDC, 2.9 amps 1750 RPM.

B. Vent Set E01-172-1 armature:

MFG. Wesche, 3/4 HP, 230 VDC, 3.8 amp, frame 5840, Type MV, Ser. #77918, 1750 RPM.

C. Vent Set 1-95-2 armature: MFG. General Electric, 1½ HP, 230 VDC, 6.2 amp, Frame 224, Ser. #2011475, 1150 RPM.

D. Vent Set EJ-210-2 armature: MFG. ILG, 2-3/4 HP, 230 VDC, 11 amps, Serial #154158, 1750 RPM.

E. Lifeboat Davit Motor Armature: General Electric, 25 HP, 90 amps, 230 VDC, 1750 RPM, Mod. 55A655, CID #172501121.

F. Vent Set E-1-127-2 Armature: MFG. Wesche, 1.3/3HP, 230 VDC, 5.9/12 amps, 1310/1750 RPM, Fr. 225, Serial #77467.

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 410 - IMPELLERS: (JCH)

Pickup the following three (3) Vent Set Impellers from Ships' Electric Shop:

- A. Impeller for Vent Set 02-127-2:
Fabricate a new Impeller of the same size and design as sample.
Dynamically balance new Impeller.
- B. Impeller for Vent Set 1-95-2:
Weld Impeller Spider Supports, straighten blades and dynamically balance.
- C. Impeller for Vent Set E3-115-2:
Renew Impeller Hub, straighten blades and dynamically balance.

ITEM 411 - ELEVATORS AND DUMBWAITERS: (TC)

Furnish services of a qualified elevator repair and inspection facility to inspect, service and adjust the below mentioned elevators and dumbwaiters for compliance with all recommended provisions of the American Standard Safety Code for Elevators, Dumbwaiters and Escalators. Perform operational and load tests as necessary to determine conformity with or deviation from the aforementioned code.

Check guide rails for alignment, and lubricate.

Renew guide shoe gibs.

Align and adjust all brakes. Correct brake solenoid over-ride.

Lubricate hoisting mechanisms and drive assemblies.

Clean and adjust hatch and cab doors and gate hardware, door mechanisms and interlocks. Tighten all loose hardware in shafts and cages.

Inspect and lubricate wire ropes, fittings and sheaves.

Measure and record insulation resistance values of all motors, controllers, control circuits and magnetic brakes. Resurface line contactors, and adjust all contacts and relays for correct operational sequences and control.

Perform static load tests of 100% over capacity, set brakes at 50% over capacity and perform running load tests of 100% capacity.

All work shall be accomplished to the satisfaction of and all testing witnessed by MSTSP inspector.

Three (3) copies of load certificates shall be submitted to MSTSP inspector and one (1) copy shall be posted within elevator cabs and dumbwaiters.

Furnish written report in triplicate of all work accomplished, of conditions found, and megger resistance readings.

DATA: One (1) Westinghouse 2000 Pound Freight Elevator - (01-127-2-E)
One (1) Westinghouse 2000 Pound passenger Elevator - (2-85-0-E)
One (1) Kiesling 750 Pound Dumbwaiter (5 HP) - (3-77-0/L)
Four (4) Kiesling 300 Pound Dumbwaiters (3/4 HP) - (Troop Mess)

NOTE: The 300 pound capacity dumbwaiter in the hospital area is inactivated and not to be worked on. (1-127-2)

M/H

CATEGORY "A" ITEMS

MSTSP 70-11

ITEM 412 - FIRE MAINS LOW PRESSURE ALARMS: (TC)

Install a fire main low pressure alarm in each Engine Room to comply with U.S. Coast Guard Regulation 76.10-3.

MSTS Plan No. 506PAC-B-3043 titled "Fire Main Pressure Alarm System, Installation and Wiring Diagram" is issued to form a part of this item, and for guidance.

Install all material and wiring in accordance with the foregoing plan.

Prior to installation the contractor shall prepare a specific wiring and installation plan applicable to the USNS Pope, and obtain U.S. Coast Guard approval thereof.

Test the alarms to the satisfaction of the MSTS and U.S. Coast Guard Representatives.

ITEM 413 - DEEP FAT FRYERS: (TC)

Perform the following, on a total of five (5) deep fat fryers, one (1) located in main galley and four (4) in troop's galley.

Remove existing disconnect switches and install all equipment as listed on MSTS Sketch No. 611-PAC-E-644 ALT.A, including DSGA4, or equal cable and connect as shown. Turn over the removed disconnect switches to the ship's Chief Electrician.

Test the operation of the new equipment to the satisfaction of the MSTS Representative.

DATA: Edison-General Electric
Cat. 132KL6, 230 volts DC

SM/cn

100-3

POPE

ITEM 501 - EXTENSION OF ANNOUNCING SYSTEMS: (MO)

Reference: (a) 401-PAC-11053; Title - Announcing Systems Extension, One Line Cabling Diagram.
(b) Figure 1. Power Modification for General and Emergency Announcing Systems.

REPLACEMENT AND REINSTALLATION

1. Pull back DSGA-3 cable from each of forty-seven loudspeaker locations on weatherdecks to areas directly below deck or behind bulkhead, shorten and terminate in watertight connection boxes. Loudspeaker locations will be designated by the MSTSP Electronics representative. Install and connect a DSGA-3 cable between each new connection box and associated loudspeaker. Average length of cable required for each speaker is eight feet.

2. Disconnect and replace ten loudspeakers at the following locations with Government furnished LS-387/SIC loudspeakers:

04 Level, Centerline, frame 81.
01 Level, Starboard, frame 81.
01 Level, Port, frame 88.
Main Deck, Centerline, bow.
Main Deck, Starboard, frame 135.
Main Deck, Port, frame 165.
Main Deck, Starboard, frame 173.
Main Deck, Centerline, frame 188.
Main Deck, Centerline, frame 210.
Aft Stack, Centerline, frame 137.

Fabricate and install new supports for LS-387/SIC loudspeakers; remove old supports. Connect existing cables to new loudspeakers.

3. Disconnect and remove nine talkback switches from weatherdeck locations to be designated by the MSTSP Electronics representative. Pull back cable from each switch to area below deck, shorten and terminate in a watertight connection box.

Install Government furnished replacement switches in areas of removed switches and connect with DSGA-4 cable to new associated connection boxes. Average length of cable required for each switch is ten feet.

4. Disconnect and remove loudspeaker with associated talkback switch from L-124-1. Pull both cables below deck, shorten and terminate in watertight connection boxes (two). Fabricate supports and reinstall loudspeaker and a new Government furnished talkback switch at L-130-1. Connect switch and loudspeaker with DSGA-4 and DSGA-3 cables respectively to new connection boxes.

(Continued)

ITEM 501 - EXTENSION OF ANNOUNCING SYSTEMS: (MO) (Continued)

5. Install forty-two Government furnished exterior loudspeakers at weather-deck locations designated by the MSTS Electronics representative. Majority of supports are existing; fabricate and install eleven new supports.

6. Disconnect and remove line matching transformer from 114 loudspeakers associated with the General Announcing System, and replace with a Government furnished replacement transformer.

INSTALLATIONS.

1. Fabricate supports for the following Government furnished items and install in locations shown on reference (a):

a. Loudspeaker, Type LS-387/SIC	3 each
b. Loudspeaker, Type LS-305/SIC	15 each
c. Connection box (J.B. 1A and 2A)	2 each

Install cables in accordance with reference (a) and connect. In some areas, installation of cables will require panelling removal and reinstallation.

Loudspeaker connection boxes shown on plan are to be installed with brass watertight glands.

2. Remove one storage cabinet (23" x 24" x 33") from below telephone test panel in I.C. Room (2-86-0).

Disconnect and relocate the gyro motor/generator with associated foundation from port bulkhead to aft bulkhead. Remove associated cable (L-C4) to gyro control panel (6 feet).

Install and connect an MSCA-19 cable between relocated motor generator and gyro control panel (approximately 30 feet).

3. Disconnect and remove two 1 KW motor generators with associated controller panel, foundations and cables from within I.C. Room.

Disconnect and remove cable between General Announcing System cabinet and 115 V.A.C. distribution panel within I.C. Room.

4. Install the following Government furnished equipment in the I.C. Room:

- a. Motor/Generator, 5 KW.
- b. Controller/regulator.
- c. Line transfer contactor.
- d. Circuit breaker enclosure.

Fabricate foundations and supports for above equipment and install in locations designated by the MSTS Electronics representative.

(Continued)

ITEM 501 - EXTENSION OF ANNOUNCING SYSTEMS: (MO) (Continued)

Install cables in accordance with reference (b) and connect.

GENERAL.

1. Identify cables with embossed aluminum cable tags. Install marked synthetic sleeving on all cable conductors.
2. Install engraved phenolic nameplates on new items installed.
3. All equipment securing hardware shall be cadmium plated.
4. Upon completion, adjust sound levels on 130 loudspeakers associated with the General Announcing System as directed by the MSTSP Electronics representative.
5. All work on this item shall be completed no less than seven days prior to contract completion date.

(Continued)

SM/cs

500-3

POPE

ITEM 501 - EXTENSION OF ANNOUNCING SYSTEMS: (MD) (CONT'D)

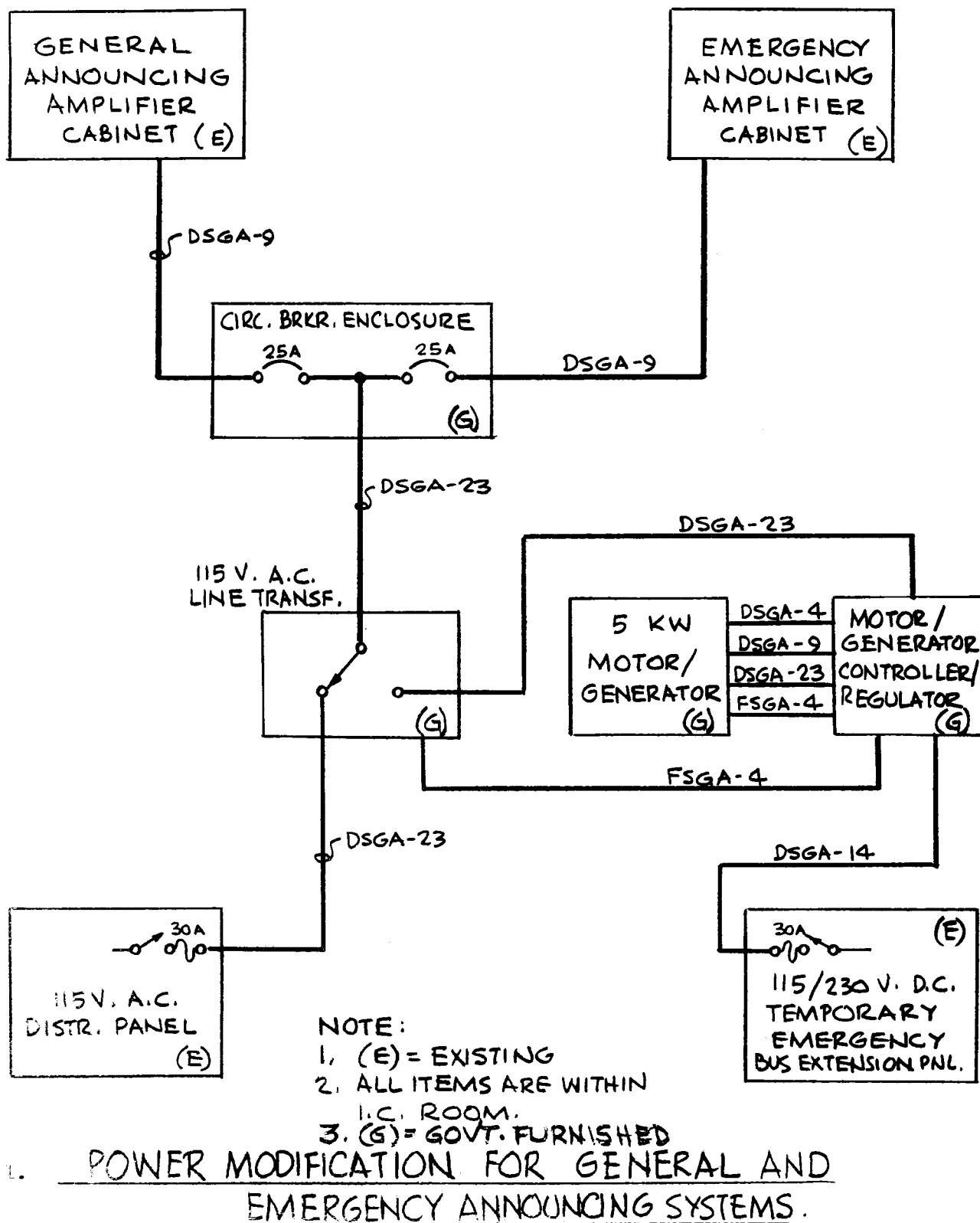


FIGURE 1. POWER MODIFICATION FOR GENERAL AND EMERGENCY ANNOUNCING SYSTEMS.

MILITARY SEA TRANSPORTATION SERVICE, PACIFIC
NAVAL SUPPLY CENTER
OAKLAND, CALIFORNIA 94625

SPECIFICATION NUMBER: MSTSP 70-11

6 August 1969

ADDITION NUMBER 1

To

S P E C I F I C A T I O N

For

REGULAR OVERHAUL

USNS GEN. JOHN POPE (T-AP 110)

These specifications consist of the following page:

Page: 200-3 only

ITEM 203 - VALVE RENEWAL: (PB)

Renew (complete with bonding straps) one (1) existing 8-inch IPS flanged, cast steel, monel trimmed, rising stem, 150 PSI circulating sea water supply valve, adjacent to and serving the #2 ship's service generator turbine condenser inlet-outlet water box, located forward engine room lower level, frame 110, Port Side.

Exact location to be designated by the Chief Engineer.

Prove renewal and installation tight and satisfactory under ship's normal load to the MSTS Representative.

ITEM 204 - PIPING REPAIRS: (PB)

Remove one (1) deteriorated and leaking section of $1\frac{1}{2}$ -inch IPS steel, schedule 80, shaped, bottom blow overboard piping, approximately twenty (20) feet long, serving the #3 and #4 boilers located aft engine room lower level, frame 130 Port Side, running athwartships between bulkhead and insulated steam line and two (2) lube oil day tanks.

Exact location to be designated by the Chief Engineer.

Using the removed section as a template, fabricate a new section equal to original when new utilizing the existing flange and butt weld by flanged tee.

Hydrostatically test new section at $1\frac{1}{2}$ times working pressure and prove tight.

Install new section, test under ship's normal load and prove installation tight to the MSTS Representative.