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MILITARY SEA TRANSPORTATION SERVICE, PACIFIC AREA
Fort Mason
San Francisco, California

SPECIFICATION NUMBER: MSTSP 66-78

30 December 1965

ADDITION NUMBER 1

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

For

REGULAR OVERHAUL

USNS PATRICK (T-AP 124)

These specifications consist of pages 42 to 52 inclusive.

SUPT PORT ENGINEER:

Approved: Director, Transport-Tanker Engineering Div. *W. D. Dethman*

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I N D E X

MSTSP 66-78

ITEM

TITLEPAGECATEGORY "A" ITEMS

60	PRESSES	43
61	PURIFIERS	43
62	FIREMAIN CUT OUT VALVE	43
63	MAIN FEED PUMP ROTATING ELEMENT	43
64	NO. 7 CENTERLINE FUEL OIL TANK HEATING COIL PIPING REPAIRS	44
65	LIFEBOAT PROPELLER SHAFT RENEWAL	44
66	SIDEPORTS - REPAIRS TO	45
67	BULKHEAD REPAIRS	45
68	BOILER ECONOMIZER ELEMENT, RENEWAL OF	45-46
69	CROSSWALK REPAIRS, MAINMAST	46
70	HAND RUNGS, RENEWAL	46
71	VOLTAGE REGULATORS	46
72	VENTILATION SET	46
73	REEFER COMPRESSOR MOTOR	47
74	CARGO LIGHTS AND CABLE	47
75	BALLOON HOUSE DOOR	48
76	WATERTIGHT DOORS, REPAIRS	48
77	FUEL OIL SETTLING TANK - REPAIRS TO	49
78	NO. 3 CARGO GEAR	49
79	TROOP BUNK FRAME STOW RACK	49
80	VINYL DECK TILE - RENEWAL OF	49
26	CERAMIC TILE REPAIRS (ADDENDUM 1)	50
39	BOILER REPAIRS (ADDENDUM NO. 1)	51
46	BOILER REMOTE LIQUID LEVEL INDICATORS (ADDENDUM NO. 1) LIST OF PLANS	51
		52

RES/kr

PATRICK

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 60 - PRESSES: (BK) (WR-94,95)

Accomplish the following work to the two (2) ship's presses in the main laundry.

Conduct an operational test to the presses for improper operation. Make all adjustments required, renew all minor parts not to exceed one hundred and twenty five (\$125.00) dollars, and prove presses in good operating condition to the MSTS Representative.

DATA: Mfr. American
Model No. 51-5138
Serial No. 611M38178

Mfr. Ajax
Type Class "E" 38-inch
Serial No. SPHB9621799
Model 239, Mfg. 9-62

ITEM 61 - PURIFIERS: (LJF) (WR-90)

Completely disassemble, thoroughly clean, inspect and accomplish parts renewals and machine work to place three (3) Delaval model 55-13 lube oil purifiers in designed operating condition.

Repair to include but not limited to following repairs.

Dynamically balancing of bowls, inspection and repair of bowl spindle, top bearing, brake, bottom screw, baffle plates, worm wheel, friction clutch, frame cover, inlet arm, housing plate and pumps.

Renewing all defective bearings, bushings, gaskets, seals, springs and brake lining.

Reassemble all removals, conduct operational test and prove units in designed operating condition to MSTS Representative.

DATA: Delaval, 150 GPM, Model 55-13
Lube oil purifiers,
Serial Nos. 3507805, 3507803 and 3510015.
Located: No. 1 & 2 engine rooms and starboard motor room.

ITEM 62 - FIREMAIN CUT OUT VALVE: (LJF) (WR-91)

Furnish and install one (1) additional six (6") inch flanged fire main gate valve, complete with companion flanges, bolting, insulation and lagging, located approximately frame 106-1, 5th deck.

DATA: Six (6") inch, 150 PSI
Flanged steel gate valve, with non-rising stem and indicator,
for salt water service.

ITEM 63 - MAIN FEED PUMP ROTATING ELEMENT: (LJF) (WR-85)

Remove from ship to shop one (1) spare Ingersoll Rand main feed pump rotating assembly.

Disassemble, thoroughly clean and inspect all component parts for conformance to original design.

Check shaft for straightness and concentricity.

Renew wearing, casing and channel rings, shaft sleeves and spacers.

Polish bearing journals and thrust collar.

Upon completion return to vessel.

DATA: Ingersoll Rand Co.

Size: 2 1/2 RTM,

Capacity 280 GPM at 745 PSI

Mfr. Dwg. - W-254 RTM 500X1

Located: Ship's machine shop

ITEM 64 - NO. 7 CENTERLINE FUEL OIL TANK HEATING COIL PIPING REPAIRS: (LJF)

The No. 7 centerline fuel oil tank will be chemically sea washed and pumped down to with-in limits of the ship's pumps, prior to arrival in Contractor's yard.

Contractor shall remove all remaining oil, sludge, solidified sludge, water and debris from tanks and lines.

Provide and post gas free certificates before commencing and during accomplishment of hot work.

Conduct a hydrostatic test of 150 PSI on all fuel oil tank heating coil piping located within No. 7 centerline fuel oil tank.

Search out and mark all leaking and excessively deteriorated sections of piping located within the No. 7 centerline fuel oil tank.

Inspect the sections of fuel oil tank heating coil steam supply and return piping located in the bilges, adjacent to tank top penetrations, mark all leaking and deteriorated sections.

Renew approximately sixty (60') feet of deteriorated and leaking fuel oil heating coil piping and two (2) tank top penetrations, in scattered locations as designated by MSTSP Inspector.

After repairs hydrostatic test to 150 PSI the fuel oil tank heating piping and prove tight.

Close up the fuel oil tank using new gaskets, wicking, washers and nuts.

Air test the fuel oil tank and prove the tank openings and penetrations tight.

DATA: No. 7 centerline F.O. tank, frame 128-142, 121.7 tons.

ITEM 65 - LIFEBOAT PROPELLER SHAFT RENEWAL: (LJF) (WR-87)

Furnish and install in true alignment a new replacement propeller shaft and stern tube bearing complete with packing in the No. 1 lifeboat. Polish, straighten, repair nicks and reinstall existing propeller.

DATA: Mfr. Gray Marine, Detroit, Michigan
Lugger sea scout 91, engine No. D-20413
Located: 01-75-1

ITEM 66 - SIDEPORTS - REPAIRS TO: (AS)

Accomplish the following repairs to sideports located at third deck, frame 80, port and starboard.

Remove rubber gaskets in their entirety from the periphery of the two (2) double sideport doors at above locations. Clean gasket channels to clean bare metal free of all rust, scale, dirt, grease, ect. by power scaling and wire brushing.

Install new rubber gaskets secured with a compatible adhesive, new gaskets shall be same as and equal to existing when new.

Examine all dogs, dog studs and nuts on each door, chase threads removing all paint, dirt and grease.

Remove all hinge pins clean and examine for wear, replacing worn hinge pins. Properly lubricate and reinstall as original installation.

Chalk test and prove doors tight and in proper operation to the satisfaction of the MSTs Inspector.

Prime and finish paint disturbed areas in accordance with COMSTS Instructions 4750.1B.

ITEM 67 - BULKHEAD REPAIRS: (AS)

Renew lower deteriorated section of bulkheads located at 02 deck level, frame 98 port, 2nd deck, frame 46, starboard and 2nd deck, frame 60, starboard. The MSTs Inspector will designate the exact locations.

a. Remove cracked and deteriorated section of bulkhead at frame 98 in way of approximately 12-inch long horizontal crack, from flush to deck up not less than 18-inches and to extend not less than 3-inches beyond each end of crack to sound metal.

b. Remove deteriorated section of bulkhead at 2nd deck, frame 46 and 60, from flush to 2nd deck up not less than 18-inches and not less than six (6) feet long to sound metal.

Remove ceramic deck tile back approximately 4-inches in way of bulkhead removals.

Install new seal welded inserts in way of bulkhead removals using material same as and equal in thickness to existing bulkheads.

(Continued)

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 67 - BULKHEAD REPAIRS: (AS) (Cont'd)

Install new ceramic tile in way of removed tile using tile same in color and equal to existing and installed as original installation.

Prime and finish paint new and disturbed surfaces in accordance with COMSTS Instructions 4750.1B.

ITEM 68 - BOILER ECONOMIZER ELEMENT, RENEWAL OF: (JAB)

Renew one (1) 2" O.D. x 5 1/2" Foster Wheeler economizer element, Number 20 tube in the "E" row, boiler number will be designated by ship's Chief Engineer. Remove plugs from top and bottom headers in "E" pass of economizer.

New economizer element will be U.S. Government furnished.

Contractor shall provide new return bend, backing rings and all additional material to accomplish renewal.

Thoroughly clean, degrease and pickle new element prior to installation.

Blank off economizers and apply a separate hydrostatic test.

All work, materials and hydrostatic test shall be in accordance with U.S. Coast Guard and AES Rules and Regulations as last amended.

ITEM 69 - CROSSWALK REPAIRS, MAINMAST: (RAL)

Deck Accomplish the following repairs to crosswalk between kingposts, mast at frame 60.

Crop off and renew a total of thirty four (34) feet of 1 1/2" steel pipe railing and six (6) three foot vertical angle bar stanchions.

Material to be same as existing when new.

ITEM 70 - HAND RUNGS, RENEWAL: (RAL)

Deck Crop off and replace with new a total of six (6) deteriorated hand rungs on mast, above mast light at frame 162.

Material to be 7/8-inch steel round stock and approximately eight (8) inches long with an offset.

ITEM 71 - VOLTAGE REGULATORS: (JCH)

Disconnect and remove to shop a total of four (4) voltage regulators and their associated equipment, two (2) on forward, and two (2) on aft. switchboards.

Completely checkout, service, adjust and accomplish repairs required to restore the units to design operating condition.

Renew all worn or defective parts with new design replacements.

Reinstall the units aboard ship as original, achieve proper alignment and adjustments, conduct operational tests to approval of MSTSP Inspector.

DATA: Mfg. General Electric - Model 3GFA4M21
Type GFA-4M, 115 Volts, 2 Amps, Exciter 120

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 72 - VENTILATION SET: (JCH)

Disconnect and remove to shop vent motor and impeller 03-133-0 located in aft stack.

Disassemble motor and impeller, clean impeller to clean metal, fair up and rebuild damaged or deteriorated impeller blades and hub to original design when new. Apply one (1) coat primer paint and dynamically balance.

Steam clean windings by means of a saturated steam and detergent spray under pressure not to exceed twenty five (25) lbs. PSI, place in a drying oven and bake until all trace of moisture is removed.

Oven heat windings to baking temperature, vacuum dip in approved baking insulating varnish, and rebake until varnish is cured.

Undercut, build up and machine finish shaft and bearing housings in way of bearings to design dimensions when new.

Dynamically balance rotor.

Replace both bearings with new bearings equal in design to manufacturer's original specified part numbers.

Check the associated controller for condition, dress up burned contacts and adjust relays.

Reassemble the motor, coat shaft with lead plate or equal before installing impeller, and reinstall the unit in place aboard ship as original, achieve proper alignment and adjustments, conduct operational tests to approval of MSTSP Inspector.

DATA: Mfg. Wagner Elect. MC17413, Type MDP-5
Model 19-E-153-J253, Frame 365, 15/10 HP
1750/1160 RPM, 18.6/13.4 Amps, 440 VAC
3 Phase, 60 Cycles

ITEM 73 - REEFER COMPRESSOR MOTOR: (JCH)

Disconnect and remove to shop the No. 1 reefer compressor motor.

Disassemble motor, remove the stator windings, and completely rewind, using new coils of size and design equal to existing when new. Oven heat, vacuum dip in approved varnish and rebake until varnish is cured.

Undercut, build up and machine finish shaft and bearing housings in way of bearings to design dimensions when new.

Replace both bearings with new bearings equal in design to manufacturer's original specified part numbers.

Check the associated controller for condition, dress up burned contacts and adjust relays.

Reassemble the motor and reinstall the unit in place aboard ship as original, achieve proper alignment and adjustments, conduct operational tests to approval of MSTSP Inspector.

DATA: Mfg. Wagner Elect. Dwg. #MC17413
Type MDP-5, Frame 365, 15/10 HP
18.6/13.4 Amps, 440 VAC, 3 Phase
60 Cycles, 1750/1160 RPM

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 74 - CARGO LIGHTS AND CABLE: (JCH)

Disconnect and remove the four (4) cargo lights, outlet boxes, their mounting brackets, and pull back below the weather deck their associated feeder cables, located on #5 and #6 kingpost, frame 160, O1 deck.

Furnish and install four (4) junction boxes, and four (4) Russell and Stow #171-45, or equal, outlets with matching plugs.

Renew the mounting brackets and install four (4) new ship furnished cargo lights, with outlets mounted in same original area.

Install junction boxes below the weather deck with new DSGA-4, or equal, cable to each new outlet box. Total cable required approximately 200 feet, with approximately one hundred new cable straps.

Paint all new cable, mounting brackets, and disturbed areas with one coat prime and one (1) coat of finish paint to match surrounding area.

Hook up and test to approval of MSTSP Inspector.

ITEM 75 - BALLOON HOUSE DOOR: (JCH)

Motor and Gear Housing:

Remove motor from electric shop aboard ship to shop.

Disassemble motor and gear box, remove existing stator windings and completely rewind using new coils of size and design equal to existing when new. Oven heat windings, vacuum dip in approved varnish and rebake until varnish is cured.

Undercut, build-up and machine finish shaft and bearing housings in way of bearings in motor and gear housing to design dimensions when new.

Replace all bearings in motor and gear housing with new bearings equal in design to manufacturer's original specified part numbers.

Reassemble, reinstall, unit as original, align, adjust, and conduct operational tests to approval of MSTSP Inspector.

Limit Switch:

Disconnect and remove limit switch, clean adjust and replace one (1) missing gear.

Reinstall.

Corrigated Door:

DECK
Free-up, adjust tracks, and grease all components of the corrugated door.

Conduct both electrical and mechanical operational test of balloon house door unit and adjust limit switches to the approval of MSTSP Inspector.

DATA: Door unit Mfg. - Pacific Rolling Door Co., Oakland, Calif.

Motor: U.S. Elect. Motors, frame 6, Syncrogear Motormount, Gear Ratio 39-0, Type GW, Final RPM 45, Input RPM 1800, Serial #3602734

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 76 - WATERTIGHT DOORS, REPAIRS: (RAL)

Accomplish the following repairs on two (2) 18" x 30" watertight doors to plenum chambers, O1 level, frame 75, port and starboard side. Renew knife edges.

D/E/C Grind a true surface throughout with radius on edge equal to existing when new.

Chalk test and prove tight to the satisfaction of the MSTSP Inspector.

ITEM 77 - FUEL OIL SETTLING TANK - REPAIRS TO: (RAL)

Repair cracked weld (approx. 12-inches long) located in No. 17 F.O. settling tank, frame 120-128, port side. The Chief Engineer will designate the exact location.

Crop out existing 4" x 4" x 3/8" flanged doubler plate, 12-inches long located on after side of engine room bulkhead, (6-128-2), and on underside of platform at deck stringers, adjacent to F.O. tanks.

Drill 1/4" diameter stopper hole at each end of crack. Chip cracked weld flush in the interior of tank and reweld. Chip weld flush at the exterior side of tank and vee out crack to sound metal and reweld.

Install new doubler plate similar to existing and to be of sufficient length to extend beyond both ends approximately three inches.

Prior to any chipping or welding, clean tanks. Ship's force will pump tanks down to within limits of ship's pumps. The Contractor will remove remaining oil, sludge, etc. Obtain and post a chemist "Gas Free" certificate that the tank is safe for men and fire.

Upon completion of repairs close up tank, renewing gaskets and defective bolting, prove tank tight to the satisfaction of the MSTSP Inspector and regulatory bodies.

The following tanks are to be cleaned.

No. 17 port F.O. Settling tank (6-120-4-F) frame 120-128, 102.15 Tons

No. 18 port F.O. tank (6-120-6-F) frame 120-128, 163.64 Tons

ITEM 78 - NO. 3 CARGO GEAR: (JW)

D/E/C Crop off and replace with new one (1) 3-inch by 6-inch pad with 3/4-inch diameter hole and connecting link, for securing scooner guy, on number three (3) cargo gear assembly.

New pad shall be equal in thickness to existing pad and secured with continuous full strength weld.

ITEM 79 - TROOP BUNK FRAME STOW RACK: (RAL)

D/E/C Install one (1) portable stowage rack for troop bunk frames in No. 2 troop compartment. Exact location as designated by the MSTSP Inspector.

Install four (4) 3" x 3" x 1/4" steel angle stanchions from deck to deck head approximately ten feet high and a total of eight (8) deck and deck head sockets fabricated from 3/16-inch steel plate flanged three sides, approximately 4 1/2" x 4 1/2" x 3" high and slotted to receive portable stanchions.

Rack to be assembled and installed to fit existing bunk frames.

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 80 - VINYL DECK TILE - RENEWAL OF: (AS)

Renew vinyl deck tile in its entirety at the following locations. Masters Office and Stateroom, (02-75-2-Q) and (02-75-1-Q). First Officer's Stateroom, (02-83-1-L). Ship's Officer's Day Room, (01-120-0-L). Stairwell 01 deck to 2nd deck, frames 104-110, and from centerline of ship to port and starboard longitudinal ladderwell bulkheads.

Remove existing deck covering, cove base and underlay in its entirety from above specified locations.

Stairwell removals shall include all decks, landings between decks, steps, risers and stringers.

Remove all rust, scale, dirt, etc. to clean bare metal by use of hand or hand powered tools to insure a thoroughly clean surface.

The new deck covering shall be laid on a 3/8-inch thick underlay "DEX-O-TEX" subcote #1, as manufactured by Crossfield Products Co., or equal. Underlay shall be perfectly smooth without bumps or indentations.

Prior to installation of underlay the deck shall be coated with one (1) coat of tar pitch emulsion, equal to "FABERTITE BITUMINOUS COMPOSITION" as manufactured by Briggs Bituminous Composition Corp.

Install new vinyl tile and cove base equal to, same in color and thickness to existing.

CATEGORY "A" ITEMS

MSTSP 66-78

ITEM 26 - CERAMIC TILE REPAIRS: (ADDENDUM 1) (AS)

Add the following paragraph to the basic item.

(3) Renew ceramic deck and cove base tile and underly in its entirety in Womens Toilet located at 3rd Deck, Frame 166, starboard, (3-166-5-L).

Deck preparation and installation of ceramic tile and underlay shall be as specified in paragraph (2) of basic item.

ITEM 39 - BOILER REPAIRS: (ADDENDUM NO. 1) (JAB)

ON NO. 2 BOILER:

Renew the approximate size 3/8-inch O.D. X 60 feet long seamless steel gage line from steam drum to the Hagen Combustion Control Board, including new clamps and necessary fittings.

ON NOS. 3 AND 4 BOILERS:

Renew the sheathing, insulation and refractory in the Inner Front Super-heater Access Pillow Blocks and Cross Trees fairup Access Door Framing, renew all broken or missing securing studs and repair all defective insulation surrounding framing.

ON NO. 4 BOILER:

Renew the rear, lower waterwall header box access door framing in its entirety, including all securing studs, dogs and nuts. Renew all insulation within the Header Box and renew the Insulation and Sheathing on the Rear Lower Waterwall Access Cover.

Renew the 3/4-inch 600 PSI Water Connection Shut-Off Valve on the Copes Feedwater Regulator using an approved 3/4" 600 PSI Flanged Bonnet Type Valve in lieu of the Existing Union Bonnet Type Valve.

ITEM 46 - BOILER REMOTE LIQUID LEVEL INDICATORS: (ADDENDUM NO. 1) (JAB)

ON NO. 1 BOILER ONLY:

Renew two (2) approximate 20 foot long sections, (total 40 feet) of 3/8 inch O.D. Steel Tubing on the Yarway Water Level Indicator Lines.

The following list of plans form a part of these specifications.

112 PAC-B-289	Chocks for Boiler Foundation
200-PAC-B-2822	SOOT BLOWER PIPING
TAP-120-S5102 1085514 ALT A	AIR SEALS FOR BOILER CASING