

TO	SUBJECT	
FROM	DATE	FILE NO.
MR. S. M. ENGLISH	SS "ESSO BOSTON"	
J. B. IRELAND	OCTOBER 15, 1965	

The "ESSO BOSTON" docked at Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia, on September 20, 1965 at 1128 and repairs were started immediately.

All repairs as specified in specifications dated September 15, 1965 including additional items, cancellations, copy of which are enclosed, were carried out.

Repairs consisted mainly of:

Vessel was in drydock from 1715 Sept. 21 until 0822 September 25, 1965.

ABS Special Survey #1 was completed and loadline certificate renewed October 1, 1965.

Sea valves were examined and repaired as found necessary. Anchor chains were ranged.

Aft tail shaft seal was drained, flushed and refilled. Clearance readings were taken.

Heated and faired bent edges of three propeller blades, also dressed all trailing edges and old welds.

Removed damaged parts of rubber blanket on starboard side forward engine room, sandblasted and applied capastic. Changed 6 anodes. Sandblast 6 present Capastic shields for repair and enlarged 2 shields in forward cofferdam port and starboard to 10'0" x 18'0" each. Enlarged 2 shields to 10'0" x 14'0" each in fore peak tank. Enlarged 2 shields to 10'0" x 14'0" each in aft cofferdam port and starboard and applied Capastic. Removed 36 studs and welded 64 new studs for the 6 new type anodes. Installed 300 amp. power supply and 10KVA transformer in midship air condition compressor room. Installed new guard for forward port anode. For Impressed Current Cathodic Protection System. Hull-P.

Hull Painting-The area from light load line to bottom of turn of bilge previously coated with Humble Vinyl's, was found covered with a thick green moss like growth which would not wash off with high pressure water hose, also the entire area had many blisters of various size. The area was sand swept and Baltimore Copper Paints applied from flat heel to light load line. The faired areas from light load line to deep load line were sandswept clean and Amercoat primer 68 applied to areas (primer furnished by vessel) and then coated with Humble Modified Epoxy finish 6591. Deep Load Line to rail was coated with 1 full coat of Humble #6597. The new shell plates in way hull damage port and starboard sides were coated with two coats of zinc chromate and one coat of Humble color paint.

Bottom Damage located in #1 starboard, #2 starboard and #2 port tank, also hull damage located in port and starboard deep tanks, #1 starboard, #2 starboard and #3 starboard cargo tanks was repaired.

Machinery - The L.P. turbine was opened for examination and repaired as found necessary. The high, low and main condenser overboard valves were changed to air operated butterfly valves.

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The three woodward governor assemblies from the three feed pumps were repaired, tested and adjusted by Diesel Injection Sales and Service of Norfolk.

Main thrust clearance is .045.

Peabody Control System was installed. System was not passed by the U.S.C.G..

Cargo System - All reported cargo valves and pipe leaks also found during test were repaired and proved tight. The four owner furnished gate valves were installed in the following locations. One (1) 8" gate valve starboard, stripper loading drop on fore deck. One (1) 6" gate valve cut off in starboard stripper discharge line into #7 center. One (1) 6" gate valve cut off in port stripper discharge line into #7 center. One (1) 4" gate valve on deck from stripper overboard line. Renewed defective parts of Flexibox mechanical seals also bearings only of #2 and #3 cargo pumps.

Machined rods, renewed neck bushings, rebushed packing glands, renewed cylinder liners, plunger packing, renewed one follower plate and 10 - 1/2" studs for one plunger of liquid cylinders of steam stripper pumps.

Installed welded seats in turbine throttle valve assemblies of #2, 3, 4, ballast pump also fore and Butterworth pump turbine. Open casing of #5 Cargo Pump Turbine and gears, realign turbine and refitted exhaust pipe to turbine. Renewed nozzle bolts, shake proof washers, intermediate spacers and allen head bolts of #3 and #5 cargo pump turbines.

Installed Leslie Level - Metac Floatless Control Pilot for first stage heater and drain cooler.

Renewed 3 superheater tubes bottom row 2nd pass port boiler. Tubes furnished by vessel.

Renewed 3 tubes 4th row from bottom
 1 tube 5th row from bottom (inside tube)
 3 tubes 7th row from bottom
 3 tubes 8th row from bottom
 3 tubes 12th row from bottom 1st pass starboard

boiler superheater. Tubes taken from Owners stock held in storage by M.N.S. & D.D. Company.

The superheaters of both boilers were acid cleaned. The L.P. turbine rotor was fly ash.

Enclosed please find copies of Dates and Repair Requirements Drydocking and Painting Report, Inspector Record, Repair Specification Report and miscellaneous reports.

Started dock trial 1355 finished 1430 Sept. 8, 1965.

Repairs were completed and vessel left yard for sea trial at 1627 Oct. 8, 1965. Anchored Old Point Comforts.

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Left vessel 0025 and arrived Newport News Shipbuilding & Dry Dock Company pier at 0130 October 9, 1965. Vessel was supposed to sail 0800 October 9, 1965.

The following material left over from Peabody installation, is being held in storage for the "ESSO SEATTLE":

- 70 feet M10 cable
- 100 feet M10 cable
- 500 feet M44 cable.
- 10 gallons Humble Modified Epoxy 6591 (Boat top red)
- 90 gallons Humble Modified Epoxy 6597 (Hull Gray Black)

John B. Ireland Jr.
JOHN B. IRELAND

JBI/sb

RECOMMENDATIONS

The defective main circulator impeller assembly sent to U.S. Metallic Packing Co. to be repaired and returned to vessel.

The following parts are required to repair spare rotating element and port main condensate pumps.

Allis - Chalmers Style "B"
 Type 10 x 4 CP82V
 #64487 & 64490
 Brg. # 08-300-918

- | | | |
|-----------|-----------|--|
| Require 2 | Part # 54 | 1st stage impeller assembly (includes part # 59 impeller, #60 2 rings bronze). |
| 2 | # 56 | casing rings 1st stage |
| 2 | # 33 | inner stage stuffing sleeve |
| 2 | # 30 | inner stage shaft sleeve |
| 2 | # 31 | shaft nut - R.H. lower |
| 2 | # 34 | casing rings 2nd stage |
| 2 | # 44 | Garlock Klosure |
| 2 | # 52 | "G" rings |
| 2 | # 29 | shaft sleeves |

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Require 1 Butterworth Heater
 Richmond Engineering
 150# PSI
 400°-F
 Mfg. # K142191K1
 Ser. # 59RE1722

Require 1 Butterworth Heater Drain Cooler
 Richmond Engineering
 Design Press 150 shell
 250 tube
 Max. Temp. 400
 Mfg. # K142191K1
 Serial # 59RE1724.

Renew micarata staves of pintle bushing.

Mushroom Ventilators for machinery spaces, remove, sandblast to white metal and coat with Humble Rust Ban 191 and apply two coats of Humble Modified Epoxy Primer 6566 to inside surface of seven machinery space mushroom ventilators.

Install means of closing the three butterfly valves in case of air failure as required by ABS.

Forward and aft Cofferdams port and starboard, chip, wire brush rusty areas, apply one touch up coat of red lead primer to all base and rusty areas, then apply one full coat of red lead primer to all areas of the cofferdams.

Due to the poor condition of the rubber coating it is recommended that the following sea chests be sandblasted and coated with approved coating: Main Injection High and Low, Port and starboard pump room and auxiliary condenser sea chests.

Superheater Inner Access Doors - Renew insulation, anchor bolts and refractory (using Kaccast) on six access doors. Install heat resistant metal lining over refractory. Approx. size each door 26" x 42". Prove doors in good working order.

The following gate valves were removed from vessel and shipped to "HENZE" Pritchard, Alabama.

Two (2) 26", one (1) 24" gate valves, from high & low injection and main condenser overboard.

One (1) 8", two (2) 6", one (1) 4" gate valves from cargo system.