

MEMORANDUM (A-GEB)

TO Mr. S. M. English	SUBJECT REPAIRS SS "ESSO HOUSTON"	
FROM E. J. Forus	DATE May 29, 1969	FILE NO. 02-438-9 (P)

The SS "ESSO HOUSTON" arrived at Newport News Shipbuilding & Dry Dock Company at 07:00 on May 10, 1969.

Vessel completed all requirements for issuance of new USCG Biennial Certificate.

Also, completed ABS First Special Hull and Machinery Surveys.

Vessel was in graving dock from 18:00 on May 13, 1969, until 16:00 May 19, 1969.

Anchor chains were ranged. All sea valves were opened or examined as necessary.

Tailshaft was pulled because of leaky after Waukesha seals. New liners and seals were installed on shaft at both ends.

Pintle nut was checked and found tight.

Hambe Paints were applied to entire outer hull area during this drydocking.

All interior areas of all cargo tanks were searched out for fractures and defects in internals. All defects were repaired as deemed necessary with approval of ABS and USCG. List of all fractures located are included in copy of completed specifications submitted with invoice.

"B" Main Cargo Pump (Bingham) was lifted out of vessel to shop for repairs. Bushing wear was slightly excessive throughout. Top section of shafting was badly grooved in way of packing. All impellers looked good. This pump was reassembled with a new section of topshaft with new properly fitted bushings and then reinstalled and tested aboard vessel for satisfactory operation.

New tank washing machines were installed in #3 wing tanks, four machines per tank.

A new steam turbine driven "Bird Johnson" bow thruster was installed at this time, details are as included in specifications. At the time of leaving at Contractor's yard, unit had run satisfactorily but required minor alterations to governor assembly before becoming self-controlled from bridge.

Opened up and overhauled two (2) Warren main feed pumps and Whiton feed pump turbines.

Installed new impeller assembly in stbd main circulating pump. Rebuilt assembly was installed in port casing.

New Main Condensate rotating assembly was installed in stbd casing. Port casing received a rebuilt unit.

- Overhauled Butterworth Pump Whiton Turbine.
- Overhauled Gould Salt Water Service Pump.
- Overhauled Emergency Fire Pump.
- Overhauled Bilge Pump.

Installed a new "Goulds" horizontal salt water service pump, in place of Vertical "Ingersoll Rand". Searched out water boxes and pipelines of main condenser for electrolytic action and properly prepared and rewelded all defects found. Applied "Red Hand" cement to all bare spots accessible.

Renewed two (2) rubber expansion 28" diameter joints on inlet-outlet water box lines. Also, renewed two (2) rubber expansions on discharge side of main circulators.

Installed a new compact cooling coil assembly for fwd tailshaft Waukesha oil chamber. Examined all main gears and found same to be in excellent condition with 100% contact surface throughout, no pitting, galling, wire edging noted.

Opened main H.P. and L.P. casings. Found last row of L.P. rotating blades to be heavily eroded at leading edge, approx. 1/8" depth. 3" to 4" long. This condition to be carefully rechecked at any available opportunity to see if it worsens or stagnates.

Also, found broken springs in labyrinth packings in various locations. All H.P. springs were renewed at this time, due to possible defect in material.

Outboard forced draft blower was removed to shop for cleaning and rebalancing and then reinstalled with new bearings.

All boiler valves were opened for USCG.

Hydrostatic boiler pressure was applied to boiler and related steam lines as required by USCG for four-year hydro.

Exotic new back pressure installation was completed at this time but not functioning in automatic position. During manual sequence control, bonnet on 14" cast iron gate valve cracked, and this prevented further operation as vessel was due to sail shortly. New valve is to be installed at next loading port.

Vessel departed contractor's pier at approximately 08:30 on May 28, 1969.

E. J. PORUS

EJP:lro