PL-154 (2-63)

INTER-OFFICE CORRESPONDENCE

DATE January 21, 1966

TO	REFERENCE
MR. S. M. ENGLISH	02 438-9 (P)
FROM	**SUBJECT**
JOHN B. IRELAND	SS "ESSO HOUSTON"

THE "ESSO HOUSTON" DOCKED AT NEWPORT NEWS SHIPBUILDING & DRYDOCK COMPANY, NEWPORT NEWS, VIRGINIA 0745, DECEMBER 6, 1965, AND REPAIRS WERE STARTED IMMEDIATELY.

ALL REPAIRS AS SPECIFIED IN SPECIFICATIONS DATED DECEMBER 3, 1965, INCLUDING ADDITIONAL ITEMS, CANCELLATIONS, COPY OF WHICH ARE ENCLOSED WERE CARRIED OUT.

REPAIRS CONSISTED MAINLY OF COMPLETION MID-PERIOD USCG INSPECTION.

ANNUAL LOADLINE, CLASS, BOILER INSPECTION COMPLETED DECEMBER 17, 1965.

VESSEL WAS IN DRYDOCK 0540, 12/8/65 TO 1132, 12/11/65.

OPENED DISTILLER FEED PUMP AND EDUCTOR OVERBOARD SEA VALVES FOR USCG EXAMINATION.

REMOVED AND INSTALLED FOUR (4) 8 FT. LONG ANODES, TWO IN FW'D DEEP TANKS AND TWO (2) IN #6 BALLAST TANKS (ONE IN EACH TANK). CHANGED 4 ANODES IN MACHINERY SPACES.

THE HULL IN WAY OF RUSTY AND BARE AREAS WAS SANDSWEPT CLEAN AND THE FOLLOWING INTERNATIONAL PAINTS APPLIED. KEEL TO LIGHT LOAD LINE: ONE (1) COAT OF BARE METAL PRIMER #1610 TO ALL BARE AREAS. ONE (1) FULL COAT OF ANTI-CORROSIVE AND ONE FULL COAT OF NON-TOXIC RED. LIGHT TO DEEP LOAD LINE: ONE (1) FULL COAT OF HUMBLE MODIFIED FINISH 6591. DEEP LOAD LINE TO RAIL, ONE (1) FULL COAT OF HUMBLE MODIFIED EPOXY FINISH 6597.

STRUCTURAL MODIFICATIONS WERE MADE TO AFTER HOUSE.

AN INVERTED 6" X 4" X 7/16" ANGLE WAS INSTALLED ON EACH HORIZONTAL STRINGER IN EACH WING TANK AT INTERSECTION OF LONGITUDINAL AND TRANSVERSE BULKHEADS. ANGLES TO RUN FROM THIRD OUTBOARD VERTICAL TRANS BULKHEAD STIFFENER TO A POINT 7'0" FORWARD ON LONGITUDINAL BULKHEAD. AS SHOWN ON DWG. #104 2470 REV. "G". ANGLES WERE SANDBLASTED TO BRIGHT METAL AND COATED WITH RUST BAN 191 BEFORE INSTALLATION. WELDS WERE WIRE-BRUSHED AND HAND COATED WITH RUST BAN. INVERTED ANGLE WAS ALSO INSTALLED ON EACH HORIZONTAL STRINGER IN EACH CENTER TANK.

COMPLETED INSTALLATION OF ENGINEER'S ELEVATOR.

BOILER MODIFICATION WAS COMPLETED.

#6 AND #7 BALLAST TANKS - APPLIED VERMICULITE COATING ON SIDE AND AFT BULKHEADS OF #7 SALT WATER BALLAST TANK PORT AND STARBOARD. INSTALLED FLAT BAR COAMING 1-1/2" FORMING WATER WAY ON OPERATING FLAT, AROUND THE SIDE BULKHEADS AND AFT BULKHEADS OF #6 SALT WATER BALLAST TANK AND THE FORWARD BULKHEAD OF NO. 7 SALT WATER BALLAST TANK PORT AND STARBOARD.

INSTALLED OWNER FURNISH WAUKESHA FLEXIBOX SEAL MAIN CARGO PUMP LOCATED IN #5 CENTER TANK.

ALTERATIONS TO QUARTERS ON UPPER DECK PORT AND STARBOARD COMPLETED.

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OPENED FOR EXAMINATION HP AND LP HIGH SPEED COUPLINGS. SEE PICTURES OF LP COUPLING DAMAGED GEAR TEETH A TOTAL OF 3 PICTURES. EXAMINED MAIN TURBINE AND STEAM GENERATOR TURBINE REDUCTION GEARS. GEARS FOUND IN VERY GOOD CONDITION.

CARGO TANK 3" STRIPPER SUCTION, RELOCATED THE 3" STRIPPER SUCTION APPROX. 3 FEET INBOARD OF THEIR PRESENT LOCATIONS IN EACH OF THE FOLLOWING CARGO TANKS, #2 PORT, FORWARD; #2 AFT PORT; #3 PORT; #4 FORWARD PORT; #4 FORWARD MIDDLE; #5 CENTER, RELOCATED THE 3 INCH AND 8 INCH SUCTION TO AFT END OF TANK BETWEEN THE 7'6" AND 15'0" VERTICAL GRIDERS OFF CENTER LINE PORT SIDE.

ENCLOSED PLEASE FIND COPIES OF INSPECTORS DATES AND REPAIR REQUIREMENTS, DRYDOCKING AND PAINTING REPORT, INSPECTOR RECORD, BOILER CLEANING AND SCALING REPORT AND MISCELLANEOUS REPORTS.

REPAIRS WERE COMPLETED AND VESSEL LEFT YARD 1715, 12/21/65.

John B. Leland Jr.

RECOMMENDATIONS:

INSULATE DECK STEAM LINE FROM AFT HOUSE TO FORECASTLE BULKHEAD AND COVER WITH WATERPROOF MATERIAL. DIA. OF PIPE 5 INCH, LENGTH 533 FT.

THE SINGLE END AND DOUBLE END EXPANSION JOINTS IN THE FIREMAIN, FOAM, DECK STEAM AND DECK EXHAUST LINES HAVE CHROME PLATED SLEEVES ALSO PACKING GLANDS WHICH ARE BEGINNING TO BE OR ARE BAD AND ARE GOING TO REQUIRE RENEWING in THE NEAR FUTURE.

FIREMAIN SIZE 5" - 4 DOUBLE END AND 1 SINGLE END EXPANSION JOINT
FOAM SIZE 6" - 4 DOUBLE END AND 1 SINGLE END EXPANSION JOINT
DECK STEAM " 5" - 4 DOUBLE END AND 1 SINGLE END EXPANSION JOINT
DECK EXHAUST SIZE UNKNOWN

THE HUMBLE RUST BAN #373 COATING IN DEEP TANK NO. 1 P&S; WING TANK NO. 6 AND NO. 7 P&S IS BEGINNING TO FAIL AND WILL REQUIRE RECOATING IN THE NEAR FUTURE.

JBI.sb

PAINTING HULL OF S/S ESSO HOUSTON.

December 8, 1965.

Ship in dry dock # 10 @ 0600.
Ship's hull wasted down with fresh water.
Oil and grease removed from hull with Humble solvent # 6868.

1 300-Survey of ship's hull.

Deep load line to rail.
This area is in good condition.

Light load line to deep load line.
This area is in good condition except from bow to frame #99, port and stb'd, Humble # 6591 Boat top red had about 90% came off the body coat grey.

Keel to light load line.
Approx 70% of the paint has come off and heavy rusting started.

Rudder.
The rudder is glass coated and is in good condition.
The top ¼ of the rudder had some paint remaining, but the remainer had no paint at all.

December 9, 1965.

2nd and 3rd. shifts sand swept from keel to light load line.
0700-Inspection. Got a good sand sweep of this area.
0800-Started painting using International Bare Metal Primer #1610.
1 300-Started painting using International anticorrosive #1606.

Deep load line to rail.
Painting one coat of Humble #6597-Hull Grey Black using Airless Spray equipment.

Weather-Clear. Temp.- 42 to 53 Deg. F. Humidity-65%.

December 10, 1965.

Keel to light load line.
0700-Painting using International Non-Toxic Red # 1604

Light load line to deep load line.
1 300-Painting using Humble #6591 Boat top Red using Airless Spray equipment. Second coat of Humble # 6591 applied from bow draft figures, port side, to frame # 99.

Weather-Clear. Temp.-45 to 56 Deg. F. Humidity-70%.

2300-Draft figures, mame, hailing port, Esso emblem on bow, and painting on the hull all completed, except where they are working on hull damage.

December 12, 1965.

Ship out of Drydock # 10 @ 1200.

EXX-MOR-006283

HULL PAINTING CONTINUED.

December 15, 1965.

Hull damage repairs completed.
Fourth plate down, frame 61-62, Stb'd. side. Needle gun area on shell plate where strong backs were attached, and heating of the plate and Rust Ban # 191 Applied by brush. Needle gun welds and top of shell plate and deck plate from frame# 14-18, Stb'd. side and Rust Ban # 191 applied by brush.

December 16, 1965.

Humble # 6566 Brushed on areas of hull damage that was coated on Dec. 15, 1965.

1 300-Humble Gray Black # 6597 spray on from frame # 14-18, Stb'd. side, From deep load line to rail.
Humble Boat top Red 6591 rolled on from frame # 61-62 Stb'd side and from light load line to deep load line.
Hull painting completed.

AMOUNT OF PAINT USED ON THE HULL.

International Paints.

395 Gals.-International Bare Metal Primer # 1610.
460 Gals.-International Anticorrosive # 1606.
485 Gals.-International Non-Toxic Red. # 1604.

Humble Paints.

130 Gals.-Humble Hull Gray Black # 6597.
185 Gals.-Humble Boat Top Red. # 6591.
15 Gals.-Humble Solvent # 6868.

Amount of Rust Ban # 191 Used.

6-5 Gal. Pails of Liquid. Used on plates, angles, supports,
6-5 Gal. Pails of Powder. pipes, Etc:

REMAINING IN THE SHIPYARD.

11-5 Gal. Pails of Humble # 6597. Hull Grey Black.
1-5 Gal. Pail of Humble # 6591 Boat top Red.
8-5 Gal. Pails of Humble Solvent # 6868.

13-5 Gal Pails of Humble Rust Ban # 191-Liquid.
13-5 Gal. Pails of Humble Rust Ban # 191-Powder.

Curtis W. Keech Jr.
Curtis W, Keech, Jr.
December 17, 1965.

EXX-MOR-006284

SURVEY OF COATING IN THE CARGO TANKS ON THE S/S ESSO HOUSTON.

DATE:-December 1965.

PLACE:-Newport News Shipbuilding & D. D. Co.
Newport News, Va.

The Following conditions were found.

1.-Small amount of failure in some welds where ship sections were joined together at construction.

2.-Small areas of overblast on web frames, angles, I beams, Etc. were coating is now less than one mil and starting to rust.

3.-Some tank bottoms, the coating has a reddish dark brown color, But found no failures.

In summary, the amount of failures of the coating is a very small amount. The over all condition of the coating in the cargo tanks is in very good condition.

General Notes:

5 Stb'd. Wing Tank.
Hull damage repairs, Frame # 61-#62, 4 plate down, All welding, heating and fairing damage area was needle gun and Rust Ban # 191, applied by brush.

Item # 13-Cargo Tank Structure.
The angles (72 in all.) that were installed on each horizontal stringer were coated before installation. Welds were needle gun, and Rust Ban # 191 was applied by brush. There was no provision to repair heat damage of the coating from welding on the underneath side of the stringer. This would have meant staging underneath stringers.

Curtis W. Keech, Jr.
December 17, 1965.

EXX-MOR-006285