

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4831

Newport News, Va. Nov. 20, 1962

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did, at the request of the Owner's Representative, attend the single screw steel steam bulk oil carrier "ESSO BOSTON" of Wilmington, Delaware, Official Number 283,78 on the 8th day of November 1962 and subsequent dates as vessel lay in dry dock and afloat at the Newport News Shipbuilding and Dry Dock Company, Newport News Virginia in order to examine and report upon the installation of new oil lubricated white metal type stern tube bearings and to carry out the Dry Docking Survey, Propeller Shaft Survey, Annual Classification Survey, Annual Load Line Inspection and Annual Survey of Boilers and has to report as follows -

DRY DOCKING -

1. The vessel was placed in dry dock, outside shell plating and other associated underwater parts cleaned, examined and found or placed in satisfactory condition. Wasted and eroded welding of shell seams and butts was chipped clean and satisfactorily rewelded.
2. The rudder, pintles, gudgeons and carrier were checked and all considered satisfactory after welding eroded and wasted areas of rudder plating.
3. The sea valves and sea chests were opened, cleaned, examined, sounded, found satisfactory and were recoated and closed in good order.
4. The anchors and chains, including vessel's stern anchor and chain were ranged, cleaned, examined, considered satisfactory and were restowed in good order. Securing pins of special "NACO" type connecting links were checked and considered satisfactory. The chain locker was cleaned, examined, found satisfactory and recoated.
5. Vessel's underwater body was abrasive blasted and recoated at this time.

Vessel was undocked 11-19-62.

PROPELLER SHAFT SURVEY -

6. The propeller shaft was drawn inboard, cleaned, taper and keyway magnaflux liner sounded, and all examined and considered satisfactory. In connection with installation of new white metal stern bearings, shaft was sent to the shop, liner machined off and external dimensions of shaft machined to suit new bearings.
7. New oil lubricated, white metal, "Waukesha" type stern tube bearings were installed at this time as follows: Bronze liners, together with lignum vitae bearings were removed from stern tube. Stern tube was checked and remachined to proper alignment. Faces of stern tube were machined. Outside dimension of new bearings were machined to suit new dimension of stern tube.

CONTINUED -

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005824

Item 7 continued -

and were press fitted into stern tube and secured. Inner and outer adapter plates were machined and installed on faces of stern tube. A lubricating oil system, consisting of gravity tank, piping, pump and other fittings was installed. Tailshaft was reinstalled and recoupled in good order. New inner and outer oil seals were fitted.

8. The propeller (solid bronze four blades) was examined and considered satisfactory. Propeller hub was machined to suit new rope guard. Propeller was wedged up hard on taper well past reference mark, new rubber sealing ring installed and gland secured. Nut was hardened up, cone reinstalled and together with hub filled with rust inhibitor. New oil seals were fitted and lubricating system tested and proven tight. New rope guard installed and all prepared for sea in good order. Tailshaft Drawn 11-12-62.

ANNUAL CLASSIFICATION SURVEY -HULL:

9. All parts of the steering arrangements including telemotor and follow up system was examined, electro-hydraulic unit tested and all proven satisfactory.
10. All types of exposed ventilators together with their coamings, supports, wooden plugs, canvas boots and other means of closing were examined and considered satisfactory.
11. Machinery casings, pump rooms, other companionways, superstructure end bulkheads and superstructure spaces, together with port lights and their dead covers, openings, sills, closing appliances and means of securing same were considered satisfactory.
12. The cargo tank venting system together with vacuum pressure relief valves and other air escapes and sounding pipes and means of closing same were all examined and considered satisfactory.
13. Hatch coamings of cargo tanks and other tanks and spaces, together with their hinged steel or aluminum covers and means of securing same were examined and found satisfactory.
14. Guard rails, bulwarks, gangways, life lines and all other means of protection provided for openings and for access to crew's quarters were examined and considered satisfactory.
15. No alterations were found to have been made which would affect the load line assignment. The load line markings were checked and found to be in accordance with the freeboard assignment. The Annual Load Line Inspection was carried out at this time; see Newport News, Va., Report No. LL3437 dated November 20, 1962. The International Load Line Certificate No. I-13,694 was endorsed November 20, 1962.

MACHINERY -

16. Vessel's fire extinguishing apparatus was completely overhauled, carbon dioxide bottles and portable extinguishers weighed and recharged as necessary, fire hoses tested, alarms tested and all proven in satisfactory condition.

17. A general examination of vessel's main propulsion and auxiliary machinery, including the anchor windlass and steering gear disclosed all in satisfactory condition.

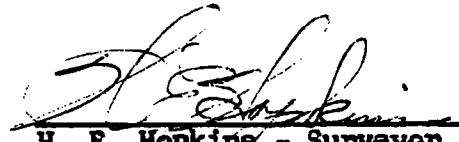
ANNUAL SURVEY OF BOILERS -

18. The port and starboard boilers were opened, fire and water sides cleaned, examined, found satisfactory and boilers closed in good order, hydrostatically tested and proven tight.
19. Valves of both boilers were opened, cleaned, ground in, examined, found satisfactory and closed in good order.
20. The port and starboard steam drum and superheater safety valves were set under steam to the allowable working pressure and proven satisfactory.

SUMMARY -

21. The following surveys were satisfactorily carried out to completion at this time.
- (a) Dry Docking Survey
 - (b) Propeller Shaft Survey
 - (c) Annual Classification Survey
 - (d) Annual Load Line Inspection
Lead Line Certificate No. I-13,694 endorsed
 - (e) Annual Survey of Boilers.

Vessel is considered to be seaworthy and fit to retain her present classification with this Bureau.


H. E. Hopkins - Surveyor.

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4831

Newport News, Va. Nov. 20, 1962

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did, at the request of the Owner's Representative, attend the single screw steel steam bulk oil carrier "ESSO BOSTON" of Wilmington, Delaware, Official Number 283,784 on the 8th day of November 1962 and subsequent dates as vessel lay in dry dock and afloat at the Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia in order to examine and report upon the installation of new oil lubricated white metal type stern tube bearings and to carry out the Dry Docking Survey, Propeller Shaft Survey, Annual Classification Survey, Annual Load Line Inspection and Annual Survey of Boilers and has to report as follows -

DRY DOCKING -

1. The vessel was placed in dry dock, outside shell plating and other associated underwater parts cleaned, examined and found or placed in satisfactory condition. Wasted and eroded welding of shell seams and butts was chipped clean and satisfactorily rewelded.
2. The rudder, pintles, gudgeons and carrier were checked and all considered satisfactory after welding eroded and wasted areas of rudder plating.
3. The sea valves and sea chests were opened, cleaned, examined, sounded, found satisfactory and were recoated and closed in good order.
4. The anchors and chains, including vessel's stern anchor and chain were ranged, cleaned, examined, considered satisfactory and were restowed in good order. Securing pins of special "NACO" type connecting links were checked and considered satisfactory. The chain locker was cleaned, examined, found satisfactory and recoated.
5. Vessel's underwater body was abrasive blasted and recoated at this time.

Vessel was undocked 11-19-62.

PROPELLER SHAFT SURVEY -

6. The propeller shaft was drawn inboard, cleaned, taper and keyway magnafluxed, liner sounded, and all examined and considered satisfactory. In connection with installation of new white metal stern bearings, shaft was sent to the shop, liner machined off and external dimensions of shaft machined to suit new bearings.
7. New oil lubricated, white metal, "Waukesha" type stern tube bearings were installed at this time as follows: Bronze liners, together with lignum vitae bearings were removed from stern tube. Stern tube was checked and remachined to proper alignment. Faces of stern tube were machined. Outside dimension of new bearings were machined to suit new dimension of stern tube

CONTINUED -

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005827

Item 7 continued -

and were press fitted into stern tube and secured. Inner and outer adapter plates were machined and installed on faces of stern tube. A lubricating oil system, consisting of gravity tank, piping, pump and other fittings was installed. Tailshaft was reinstalled and recoupled in good order. New inner and outer oil seals were fitted.

8. The propeller (solid bronze four blades) was examined and considered satisfactory. Propeller hub was machined to suit new rope guard. Propeller was wedged up hard on taper well past reference mark, new rubber sealing ring installed and gland secured. Nut was hardened up, cone reinstalled and together with hub filled with rust inhibitor. New oil seals were fitted and lubricating system tested and proven tight. New rope guard installed and all prepared for sea in good order. Tailshaft Drawn 11-12-62.

ANNUAL CLASSIFICATION SURVEY -HULL:

9. All parts of the steering arrangements including telemotor and follow up system was examined, electro-hydraulic unit tested and all proven satisfactory.
10. All types of exposed ventilators together with their coamings, supports, wooden plugs, canvas boots and other means of closing were examined and considered satisfactory.
11. Machinery casings, pump rooms, other companionways, superstructure end bulkheads and superstructure spaces, together with port lights and their dead covers, openings, sills, closing appliances and means of securing same were considered satisfactory.
12. The cargo tank venting system together with vacuum pressure relief valves and other air escapes and sounding pipes and means of closing same were all examined and considered satisfactory.
13. Hatch coamings of cargo tanks and other tanks and spaces, together with their hinged steel or aluminum covers and means of securing same were examined and found satisfactory.
14. Guard rails, bulwarks, gangways, life lines and all other means of protection provided for openings and for access to crew's quarters were examined and considered satisfactory.
15. No alterations were found to have been made which would affect the load line assignment. The load line markings were checked and found to be in accordance with the freeboard assignment. The Annual Load Line Inspection was carried out at this time; see Newport News, Va., Report No. LL3437 dated November 20, 1962. The International Load Line Certificate No. I-13,694 was endorsed November 20, 1962.

MACHINERY -

16. Vessel's fire extinguishing apparatus was completely overhauled, carbon dioxide bottles and portable extinguishers weighed and recharged as necessary, fire hoses tested, alarms tested and all proven in satisfactory condition.

AMERICAN BUREAU OF SHIPPING

APPOINTED BY THE COMMANDANT, U. S. COAST GUARD TO ASSIGN LOAD LINES UNDER THE PROVISIONS OF THE ACT OF MARCH 2, 1929, AND COASTWISE LOAD LINE ACT, 1935, AMENDED JUNE 2, 1937

REPORT OF ANNUAL LOAD LINE INSPECTION

REPORT NO. LL 3437	NAME OF SHIP S/S "ESSO BOSTON"		DATE November 20, 1962
GROSS TONNAGE 30680	OFFICIAL NUMBER 283,784	PORT OF REGISTRY Wilmington, Del.	PORT OF SURVEY Newport News, Va.
OWNERS Humble Oil & Refining Co			
ITEM EXAMINED	CONDITION	RECOMMENDATIONS — REPAIRS EFFECTED	
1. HATCHWAYS Coomings, stiffeners, stays, beams, fore and afters, carriers, covers, tarpaulins, cleats, battens, wedges and lashings	Satisfactory		
2. MACHINERY CASINGS Fiddley openings, casings, doors, sills, skylights	Satisfactory		
3. FLUSH BUNKER SCUTTLES Attachments	-----		
4. COMPANIONWAYS Doors, sills, fastenings	Satisfactory		
5. VENTILATORS Coomings, supports, deck connections, closing arrangements	Satisfactory		
6. AIRPIPES Closing arrangements	Satisfactory		
7. GANGWAY, CARGO AND COALING PORTS In ship's sides and superstructures	-----		
8. SCUPPERS AND SANITARY DISCHARGES Valves	Satisfactory		

ITEM EXAMINED	CONDITION	RECOMMENDATIONS — REPAIRS EFFECTED
9. AIRPORTS Deadcovers	Satisfactory	
10. GUARD RAILS OR BULWARKS	Satisfactory	
11. FREEING PORTS Shutters, bars	-----	
12. PROTECTION AND ACCESS TO CREW'S QUARTERS Gangways	Satisfactory	
13. LIFE LINES	Satisfactory	
14. END BULKHEADS OF SUPERSTRUCTURES Closing appliances and fastenings	Satisfactory	
15. TIMBER, TANKER AND SPECIAL TYPE Supplementary fittings	Satisfactory	
16. LOAD LINE MARKS	Satisfactory	

I have surveyed the above mentioned ship and am satisfied:—

(i) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition, and

(ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.

ANNUAL:—

I have endorsed the load line certificate number I - 13,694 as follows:—

H. E. Hopkins

Signature

Newport News, Va.

Place

11-20-62

Date

RENEWAL:—

I have renewed the load line certificate number _____ as follows:—

Signature

Place

Date

Renewed until _____

H. E. Hopkins

Surveyor, American Bureau of Shipping

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Fee
Expenses

This vessel is classed American Bureau of Shipping

Has this survey been carried out at the same time as a corresponding survey required for maintenance of class and for which a fee has been charged? Yes

If so, give report number 11-1931

Total

This survey was requested by: Owner's Representative

AMERICAN BUREAU OF SHIPPING

REPORT NO. NN206CHG	SURVEY REPORT		PORT OF SURVEY Newport News
NO. IN RECORD 3830	NAME OF VESSEL S/S "ESSO BOSTON"		PORT OF REGISTRY Wilmington, Del
OFFICIAL NO. 283,784	OWNERS Humble Oil & Refining Co		GROSS TONNAGE 30680
HULL BUILT BY NN S & DD CO	HULL NO. 541	DATE 11-1960	
CLASS IN FULL *ALE *AMS			
DESCRIPTION OF SURVEY - ANNUAL INSPECTION CARGO GEAR -			
Fee shown on Invoice NN6822 with surveys carried out on report NN4831			
INVOICE NO. 6822	DATE 12-17-62	ATTENDING:	
TO: Humble Oil & Refg Co - Marine Div.			
P. O. Box 1512			
Houston 1, Tex.			
FEES CHARGED			REPORT DISTRIBUTION:
SS (H)	SS (M)	SS (E)	OWNERS/AGENTS 2
DD	TS	BS	ABS NEW YORK 1
AS	CONVERSION	ACG \$45.	COPY (IF ANY)
SE	SR	QCG	
ALL	RLL	DAMAGE	
SS (RMC)	INT (RMC)	SEMI-AN (RMC)	
CONT. (RMC)	WT	OTHER	
APPROXIMATE COST OF REPAIRS		TANK VESSEL CARGO:	
FOR ENTRIES BY REPORT DEPT. ONLY			

FEES \$45.00	FIRST VISIT 11-20-62	LAST VISIT
See above -	NO. OF VISITS CHARGEABLE 1	Surveyor
EXPENSES Nil		H. E. Hopkins Surveyor
TOTAL \$ 45.00		H. E. Hopkins Surveyor
Billed		

AMERICAN BUREAU OF SHIPPING

DATE Dec. 12, 1961

NO. NN4530		SURVEY REPORT		PORT OF Newport News																														
NO. IN RECORD 3739		NAME OF VESSEL S/S "ESSO BOSTON"		PORT OF REGISTRY Wilmington, Del																														
OFFICIAL NO. 283,784		OWNERS Humble Oil & Refining Co		GROSS TONNAGE 29673																														
HULL BUILT BY NN S & DD Co		HULL NO. 541 DATE 1960																																
ENGINES BUILT BY		DATE																																
BOILERS BUILT BY		DATE																																
DESCRIPTION OF ENGINES																																		
DESCRIPTION OF BOILERS																																		
CLASS IN FULL *A1E *AMS		SPECIAL SURVEY NO.		DUE																														
PROPELLER SBP		TYPE OF TAIL SHAFT LINER OB		SEAL IN HUB																														
TYPE AND MATERIAL				DATE TAIL SHAFT DRAWN 12-61																														
SURVEY HELD DD & Afloat NN S & DD Co		DATE UNDOCKED 12-11-61		THIS REPORT COVERS ☒ HULL & EQUIP. ☒ MACH. ☒																														
(State where) Newport News, Va.																																		
- DRY DOCKING - HULL REPAIRS - MACHINERY REPAIRS - ANNUAL CLASSIFICATION SURVEY - ANNUAL BOILER SURVEY - TAILSHAFT SURVEY - ANNUAL CARGO GEAR INSPECTION - INSTALLATION OF CATHODIC PROTECTION SYSTEM -																																		
INVOICE NO. NN6532 DATED 12-19-61 ATTENDING: TO: Humble Oil & Refining Co P. O. Box 1512 Houston 1, Texas Mr. J. Ireland - Rep. Owners Mr. W. Howell - Rep. U.S.C.G. Mr. H. Miller - " " FEE BREAKDOWN <table border="0"> <tr> <td>SS (H)</td> <td>(M)</td> <td>(E)</td> <td></td> </tr> <tr> <td>DD \$90.</td> <td>TS 65.</td> <td>RPRS \$70.</td> <td></td> </tr> <tr> <td>AS 90.</td> <td>BS \$125.</td> <td>ALT.</td> <td></td> </tr> <tr> <td>ALLI</td> <td>IMS</td> <td>OTHERS 80.</td> <td></td> </tr> </table> DISTRIBUTION OF REPORTS: <table border="0"> <tr> <td>6 TO OWNERS/AGENTS</td> <td>2 TO OFFICE FILE</td> </tr> <tr> <td>2 TO NEW YORK</td> <td>EXTRA COPY TO</td> </tr> </table> Approximate cost of repairs FOR TANK VESSELS STATE TYPE CARGO CARRIED: <table border="0"> <tr> <td>For New York office use only</td> <td>DD & Afloat 12.61</td> <td>TS 12.61</td> </tr> <tr> <td></td> <td>As 12.61</td> <td>BS 12.61</td> </tr> <tr> <td></td> <td>ANN 12.61</td> <td></td> </tr> </table>						SS (H)	(M)	(E)		DD \$90.	TS 65.	RPRS \$70.		AS 90.	BS \$125.	ALT.		ALLI	IMS	OTHERS 80.		6 TO OWNERS/AGENTS	2 TO OFFICE FILE	2 TO NEW YORK	EXTRA COPY TO	For New York office use only	DD & Afloat 12.61	TS 12.61		As 12.61	BS 12.61		ANN 12.61	
SS (H)	(M)	(E)																																
DD \$90.	TS 65.	RPRS \$70.																																
AS 90.	BS \$125.	ALT.																																
ALLI	IMS	OTHERS 80.																																
6 TO OWNERS/AGENTS	2 TO OFFICE FILE																																	
2 TO NEW YORK	EXTRA COPY TO																																	
For New York office use only	DD & Afloat 12.61	TS 12.61																																
	As 12.61	BS 12.61																																
	ANN 12.61																																	

FEES \$520.00		FIRST VISIT 12-6-61	LAST VISIT 12-12-61
EXPENSES 7.50		NO. OF VISITS 5	
\$ 527.50		Charles R. Hudson Chief Surveyor	
TOTAL Billed -		Charles R. Hudson Surveyor	

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4530

Newport News, Va. Dec. 12, 1961

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did, at the request of the Owner's Representative, attend the steel screw S/S "ESSO BOSTON", Official Number 283,784 of Wilmington, Del. on December 6, 1961 and subsequent dates as vessel lay on dry dock and afloat at Newport News Shipbuilding and Dry Dock Co., Newport News, Virginia in order to examine and report upon the condition of the vessel relative to Dry Docking, Hull Repairs, Machinery Repairs, Annual Classification Survey, Annual Boiler Survey, and Tailshaft Survey and has to report as follows:

1. The vessel was placed on dry dock and the keel, stem, stern frame and shell plating cleaned, examined and found in satisfactory condition.
 - (a) The port and starboard bilge keels were found part broken away from shell and were resecured. A total of approximately 57 ligaments on the port keel and 8 on the starboard keel were chipped to sound material and rewelded.
 - (b) Entire outside surfaces of the shell plating were recoated.
2. The rudder was examined including pintle clearance and found satisfactory.
3. The propeller, 4 blade solid bronze, was examined and found satisfactory.
4. Overboard discharge and suction openings in shell plating were examined and found satisfactory.
5. A wedge was taken on the stern bearing and wear down found to be 11/32". The tailshaft was disconnected, drawn in, shaft and bronze liner examined including magnetic particle inspection and found satisfactory. Forward and after stern tube bearings were rewooded of lignum-vitae and bored to size. Shaft reinstalled, connected, propeller wedged on, nut driven up, void spaces filled with rust inhibitor and all left ready for sea. The stern gland was repacked. Tailshaft drawn 12-1961.
6. Steering gear arrangements, crosshead, hydraulic pumps, motors and connections examined, telemotor rams and visible piping examined and found in order.
7. Watertight doors in bulkheads and vessel's sides, closing appliances in the superstructure bulkheads and for air and sounding pipes examined and found satisfactory.
8. Coamings of ventilators to spaces below the freeboard deck and below decks of superstructure examined and found satisfactory.

CONTINUED -

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005833

9. Hatchway coamings, covers, expansion trunks and all their supports and means for closing examined and found satisfactory.
10. Machinery casings, guard rails and all other means of protection provided for openings and for access to crew's quarters were examined and found satisfactory.
11. No material alteration has been made in the hull, superstructures, or means of closing openings in the superstructures which affect the position of the load line.
12. The Annual Load Line Inspection was carried out at this time and the International Load Line Certificate No. I-13,694 was endorsed on Dec. 12, 1961. See Newport News, Va. Report No. LL 3375 dated December 12, 1961.
13. A general examination of main and auxiliary machinery, anchor windlass, and fire extinguishing apparatus was made and all found satisfactory so far as seen.
14. The two main watertube boilers together with their superheaters were opened, cleaned, examined externally and internally and found in satisfactory condition. Brickwork and refractory part renewed and pointed up as necessary.
15. Main mountings of both boilers were opened as considered necessary, examined and found satisfactory.
16. On completion of repairs, drum safety valves and superheater relief valves were set and floated under steam to allowed working pressure.

MACHINERY REPAIRS

17. The main HP and LP turbines were opened, upper half casings removed, turned over for access and the rotors raised. All parts were examined, found satisfactory, and the following parts renewed.
 - (a) Tap bolts holding nozzle block to casing. (HP)
 - (b) Tap bolts holding ahead and astern nozzle blocks to casing. (LP)
 - (c) Tap bolts in ring holding the astern casing in place. (LP)

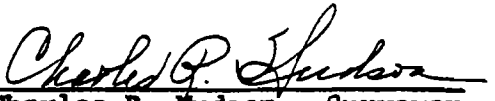
On completion of work the HP and LP turbines were closed up in good order.

CATHODIC PROTECTION SYSTEM

18. Anode installation (Capac system, impressed current cathodic protection) manufactured by Charles Engelhard, Inc., East Newark, N. J. was installed in vessel at this time. Sea chests fabricated of 12" diameter extra heavy pipe were installed in way of shell penetrations in the fore peak, forward cofferdam, after cofferdam and engine room, tested and proven tight together with connected conduit piping. Conduit piping consists of 2 1/2" double extra heavy piping installed in way of fore peak and forward and after cofferdams and in way of deck penetrations. Conduit piping on weather deck under fore and aft gangway is 2 1/2" diameter brass. All conduit piping and sea chest enclosures tested to 50 psi air pressure and proven tight. Above work was carried out in accordance with NN S & DD Co drawing No. 184841, Rev. O., Elementary Wiring Diagram and Deck plan - Cathodic Protection System, and under supervision of the manufacturer's representative.

19. Vessel undocked December 11, 1961.

It is recommended that vessel be retained in present class with this Bureau.


Charles R. Hudson - Surveyor.

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4530

Newport News, Va. Dec. 1

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did at the request of the Owner's Representative, attend the steel screw S/S "BOSTON", Official Number 283,784 of Wilmington, Del. on December 6, 1961, subsequent dates as vessel lay on dry dock and afloat at Newport News Shipbuilding and Dry Dock Co., Newport News, Virginia in order to examine and report upon the condition of the vessel relative to Dry Docking, Hull Repairs, Repairs, Annual Classification Survey, Annual Boiler Survey, and Tailshaft and has to report as follows:

1. The vessel was placed on dry dock and the keel, stem, stern frame and bottom plating cleaned, examined and found in satisfactory condition.
 - (a) The port and starboard bilge keels were found part broken away from shell and were resecured. A total of approximately 57 ligaments on the port keel and 8 on the starboard keel were chipped to sound material and rewelded.
 - (b) Entire outside surfaces of the shell plating were recoated.
2. The rudder was examined including pintle clearance and found satisfactory.
3. The propeller, 4 blade solid bronze, was examined and found satisfactory.
4. Overboard discharge and suction openings in shell plating were examined and found satisfactory.
5. A wedge was taken on the stern bearing and wear down found to be satisfactory. Tailshaft was disconnected, drawn in, shaft and bronze liner examined including magnetic particle inspection and found satisfactory. Following after stern tube bearings were rewooded of lignum-vitae and bore was reinstalled, connected, propeller wedged on, nut driven up and filled with rust inhibitor and all left ready for sea. The stern was repacked. Tailshaft drawn 12-1961.
6. Steering gear arrangements, crosshead, hydraulic pumps, motors and controls examined, telemotor rams and visible piping examined and found satisfactory.
7. Watertight doors in bulkheads and vessel's sides, closing appliances on superstructure bulkheads and for air and sounding pipes examined and found satisfactory.
8. Coamings of ventilators to spaces below the freeboard deck and in superstructure examined and found satisfactory.

CONTINUED -

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005836

9. Hatchway coamings, covers, expansion trunks and all their supports and means for closing examined and found satisfactory.
10. Machinery casings, guard rails and all other means of protection provided for openings and for access to crew's quarters were examined and found satisfactory.
11. No material alteration has been made in the hull, superstructures, or means of closing openings in the superstructures which affect the position of the load line.
12. The Annual Load Line Inspection was carried out at this time and the International Load Line Certificate No. I-13,694 was endorsed on Dec. 12, 1961. See Newport News, Va. Report No. LL 3375 dated December 12, 1961.
13. A general examination of main and auxiliary machinery, anchor windlass, and fire extinguishing apparatus was made and all found satisfactory so far as seen.
14. The two main watertube boilers together with their superheaters were opened, cleaned, examined externally and internally and found in satisfactory condition. Brickwork and refractory part renewed and pointed up as necessary.
15. Main mountings of both boilers were opened as considered necessary, examined and found satisfactory.
16. On completion of repairs, drum safety valves and superheater relief valves were set and floated under steam to allowed working pressure.

MACHINERY REPAIRS

17. The main HP and LP turbines were opened, upper half casings removed, turned over for access and the rotors raised. All parts were examined, found satisfactory, and the following parts renewed.
 - (a) Tap bolts holding nozzle block to casing. (HP)
 - (b) Tap bolts holding ahead and astern nozzle blocks to casing. (LP)
 - (c) Tap bolts in ring holding the astern casing in place. (LP)

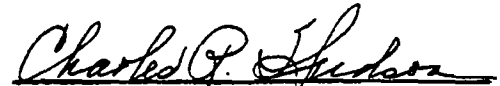
On completion of work the HP and LP turbines were closed up in good order.

CATHODIC PROTECTION SYSTEM

18. Anode installation (Capac system, impressed current cathodic protection) manufactured by Charles Engelhard, Inc., East Newark, N. J. was installed in vessel at this time. Sea chests fabricated of 12" diameter extra heavy pipe were installed in way of shell penetrations in the fore peak, forward cofferdam, after cofferdam and engine room, tested and proven tight together with connected conduit piping. Conduit piping consists of 2 1/2" double extra heavy piping installed in way of fore peak and forward and after cofferdams and in way of deck penetrations. Conduit piping on weather deck under fore and aft gangway is 2 1/2" diameter brass. All conduit piping and sea chest enclosures tested to 50 psi air pressure and proven tight. Above work was carried out in accordance with NN S & DD Co drawing No. 184841, Rev. 0., Elementary Wiring Diagram and Deck plan - Cathodic Protection System, and under supervision of the manufacturer's representative.

19. Vessel undocked December 11, 1961.

It is recommended that vessel be retained in present class with this Bureau.


Charles R. Hudson - Surveyor.

AMERICAN BUREAU OF SHIPPING

APPOINTED BY THE COMMANDANT, U. S. COAST GUARD TO ASSIGN LOAD LINES UNDER THE PROVISIONS OF THE ACT OF MARCH 2, 1929, AND COASTWISE LOAD LINE ACT, 1935, AMENDED JUNE 2, 1938

REPORT OF ANNUAL LOAD LINE INSPECTION

REPORT NO. LL 3375	NAME OF SHIP S/S "ESSO BOSTON"		DATE Dec. 12, 1961
GROSS TONNAGE 29673	OFFICIAL NUMBER 283,784	PORT OF REGISTRY Wilmington, Del.	PORT OF SURVEY Newport News, Va.
OWNERS Humble Oil & Refining Co			
ITEM EXAMINED	CONDITION	RECOMMENDATIONS — REPAIRS EFFECTED	
1. HATCHWAYS Coomings, stiffeners, stays, beams, fore and afters, carriers, covers, tarpaulins, cleats, battens, wedges and lashings	Satisfactory		
2. MACHINERY CASINGS Fiddley openings, casings, doors, sills, skylights	Satisfactory		
3. FLUSH BUNKER SCUTILES Attachments	Satisfactory		
4. COMPANIONWAYS Doors, sills, fastenings	Satisfactory		
5. VENTILATORS Coomings, supports, deck connections, closing arrangements	Satisfactory		
6. AIRPIPES Closing arrangements	Satisfactory		
7. GANGWAY, CARGO AND COALING PORTS In ship's sides and superstructures	Satisfactory		
8. SCUPPERS AND SANITARY DISCHARGES Valves	Satisfactory		

ITEM EXAMINED	CONDITION	RECOMMENDATIONS — REPAIRS ETC.
9. AIRPORTS Deadcovers	Satisfactory	
10. GUARD RAILS OR BULWARKS	Satisfactory	
11. FREEING PORTS Shutters, bars	-----	
12. PROTECTION AND ACCESS TO CREW'S QUARTERS Gangways	Satisfactory	
13. LIFE LINES	-----	
14. END BULKHEADS OF SUPERSTRUCTURES Closing appliances and fastenings	Satisfactory	
15. TIMBER TANKER AND SPECIAL TYPE Supplementary fittings	-----	
16. LOAD LINE MARKS	Satisfactory	Repainted

I have surveyed the above mentioned ship and am satisfied:—

(i) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition, and

(ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.

ANNUAL:—

I have endorsed the load line certificate number I 13,694 as follows:—

Charles R. Hudson

Newport News, Va.

Dec. 12, 1961

Signature

Place

Date

RENEWAL:—

I have renewed the load line certificate number _____ as follows:—

Signature

Place

Date

Renewed until _____

Charles R. Hudson

Charles R. Hudson

Surveyor, American Bureau of Shipping

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Fee
Expenses

Total

This vessel is classed American Bureau of Shipping

Has this survey been carried out at the same time as a corresponding survey required for maintenance of class and for which a fee has been charged? Yes

If so, give report number MM4530

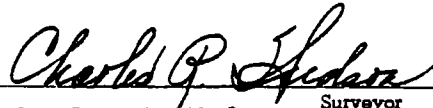
This survey was requested by: Mr. J. Ireland - Rep. Owners

AMEF CAN BUREAU OF SHIPPING

DATE Dec. 17 1961

SURVEY REPORT

NO. NN190CHG		PORT OF Newport News	
NO. IN RECORD 3739		PORT OF REGISTRY Wilmington, Del	
OFFICIAL NO. 283,784		GROSS TONNAGE 29673	
NAME OF VESSEL S/S "ESSO BOSTON"		OWNERS Humble Oil & Refining Co	
HULL BUILT BY NN S & DD Co	HULL NO. 541	DATE 1960	
ENGINES BUILT BY		DATE	
BOILERS BUILT BY		DATE	
DESCRIPTION OF ENGINES			
DESCRIPTION OF BOILERS			
CLASS IN FULL SAID	AMS	SPECIAL SURVEY NO.	DUE
PROPELLER SBP	TYPE OF TAIL SHAFT LINER OB	SEAL IN HUB	DATE TAIL SHAFT DRAWN 12-61
SURVEY HELD DD & Afloat NN S & DD Co	DATE UNDOCKED 12-11-61	THIS REPORT COVERS HULL & EQUIP. MACHY.	
(State where) Newport News, Va.			
- ANNUAL CARGO GEAR INSPECTION -			
Fee shown on Invoice NN6532 with surveys carried out on Report NN4530			
INVOICE NO. NN6532	DATED 12-19-61	ATTENDING:	
TO: Humble Oil & Refining Co		Mr. J. Ireland - Rep. Owners	
P. O. Box 1512			
Houston 1, Texas			
FEE BREAKDOWN			
SS (H)	(M)	(E)	
DD	TS	RPRS	
AS	BS	ALT.	
ALLI	IMS	OTHERS	\$45.
Approximate cost of repairs		FOR TANK VESSELS STATE TYPE CARGO CARRIED:	
For New York office use only			

FEE \$45.00	FIRST VISIT 12-11-61	LAST VISIT 12-11-61
EXPENSES Nil	NO. OF VISITS 1	
TOTAL \$45.00	 Charles R. Hudson Surveyor	
Billed	Chief Surveyor	Surveyor

Printed in U.S.A.

EXX-MOR-005841

AMERICAN BUREAU OF SHIPPING

DATE May 24, 1961

REPORT NO. NN4316	SURVEY REPORT		PORT OF Newport News, Va.
NO. IN RECORD 3739	NAME OF VESSEL S/S "ESSO BOSTON"		PORT OF REGISTRY Wilmington, Del.
OFFICIAL NO. 283,784	OWNERS Humble Oil and Refining Company		GROSS TONNAGE
HULL BUILT BY NN S & DD Co	HULL NO. 541	DATE 11 - 1960	
ENGINES BUILT BY	DATE		
BOILERS BUILT BY	DATE		
DESCRIPTION OF ENGINES			
DESCRIPTION OF BOILERS			
CLASS IN FULL SALE *AMS	SPECIAL SURVEY NO.		DUE
PROPELLER SBP TYPE AND MATERIAL	TYPE OF TAIL SHAFT LINER OB	SEAL IN HUB	DATE TAIL SHAFT DRAWN
SURVEY HELD DD & Afloat - NN S & DD Co (State where) Newport News, Va.	DATE UNDOCKED 5-23-61	THIS REPORT COVERS HULL & EQUIP. ☒ MACHY.	
- DRY DOCKING - INSTALLATION OF 3/4" PIPING TO MAIN TURBINES -			
INVOICE NO. NN6318 DATED 5-26-61 TO: Humble Oil and Refining Co Americana Building 811 Dallas Avenue Houston, Texas		ATTENDING: XXXXXXXXXXXXXXXXXXXX Mr. J. Ireland - Rep. Owners Mr. Richter - U.S.C.G.	
FEE BREAKDOWN SS (H) (M) (E) DD \$90. TS RPRS AS BS ALT. ALLI IMS OTHERS \$45.		DISTRIBUTION OF REPORTS: 6 TO OWNERS/AGENTS 2 TO OFFICE FILE 2 TO NEW YORK EXTRA COPY TO	
Approximate cost of repairs		FOR TANK VESSELS STATE TYPE CARGO CARRIED:	
For New York office use only		Ok (cup) 5.6	

FEES \$135.00	FIRST VISIT 5-19-61	LAST VISIT 5-24-61
EXPENSES 4.50	NO. OF VISITS 3	
TOTAL \$139.50		
Billed -	Chief Surveyor	Surveyor J. F. Cox -

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4316

Newport News, Va. May 24, 1961

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did, at the request of the Owner's Representative, attend the S/S "ESSO BOSTON" of Wilmington, Del., Official Number 283,784 while vessel was on dry dock and afloat at the Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia on the 19th day of May 1961 and subsequent dates relative to Dry Docking and Repairs and report as follows -

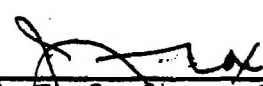
1. Vessel was placed on dry dock and cleaned. The stem, bottom and side plating, stern frame, welds and rivets were examined and found in satisfactory condition.
2. Rudder, gudgeon, pintle pin and bushing were examined and found satisfactory.
3. The solid bronze propeller was examined and placed in satisfactory condition by fairing tip of one (1) blade and dressing in way of nicks on two (2) blades.
4. Clearance of stern tube bearing taken by wedge and found 1/4".
5. The hull was recoated and vessel undocked on May 23, 1961.

WARM UP LINES TO PIPING OF HP AND LP TURBINES

6. A 3/4" diameter carbon moly pipe was connected up to drain line from main steam line bulkhead stop to the gauge line located behind the throttle board. The line was then reduced to 1/2" diameter, one leading to steam line to the astern turbine and one leading to steam line to the HP turbine. Orifice plate in line to astern turbine .100" dia and to HP turbine .130". All lines are provided with necessary valves and upon completion of installation the pipe lines were hydrostatically tested to 1400 psi and proven tight. Pipes were suitably bracketed and insulated.

The vessel was undocked May 23, 1961.

This vessel being considered in a seaworthy condition, it is recommended that she be retained in her present class with this Bureau.


J. F. Cox - Surveyor.

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005843

American Bureau of Shipping

45 BROAD STREET, NEW YORK 4, N. Y.

(THIS FORM IS TO BE USED IN CONFIRMATION OF CLASS ONLY.)

Report No. NN4316

Newport News, Va. May 24, 1961

S/S "ESSO BOSTON"

THIS IS TO CERTIFY that the undersigned Surveyor to this Bureau did, at the request of the Owner's Representative, attend the S/S "ESSO BOSTON" of Wilmington, Del., Official Number 283,784 while vessel was on dry dock and afloat at the Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia on the 19th day of May 1961 and subsequent dates relative to Dry Docking and Repairs and report as follows -

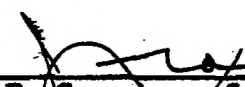
1. Vessel was placed on dry dock and cleaned. The stem, bottom and side plating, stern frame, welds and rivets were examined and found in satisfactory condition.
2. Rudder, gudgeon, pintle pin and bushing were examined and found satisfactory.
3. The solid bronze propeller was examined and placed in satisfactory condition by fairing tip of one (1) blade and dressing in way of nicks on two (2) blades.
4. Clearance of stern tube bearing taken by wedge and found 1/4".
5. The hull was recoated and vessel undocked on May 23, 1961.

WARM UP LINES TO PIPING OF HP AND LP TURBINES

6. A 3/4" diameter carbon moly pipe was connected up to drain line from main steam line bulkhead stop to the gauge line located behind the throttle board. The line was then reduced to 1/2" diameter, one leading to steam line to the astern turbine and one leading to steam line to the HP turbine. Orifice plate in line to astern turbine .100" dia and to HP turbine .130". All lines are provided with necessary valves and upon completion of installation the pipe lines were hydrostatically tested to 1400 psi and proven tight. Pipes were suitably bracketed and insulated.

The vessel was undocked May 23, 1961.

This vessel being considered in a seaworthy condition, it is recommended that she be retained in her present class with this Bureau.


J. F. Cox - Surveyor.

This Report is issued subject to the condition that it is understood and agreed that neither the Bureau nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Bureau or its Surveyors or in any entry in the Record or other publication of the Bureau or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

Printed in U.S.A.

EXX-MOR-005844