

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19 17 DEC 1943 When handed in at Local Office Sunderland Port of Sunderland Received at London Office 20 DEC 1943  
 No. in Survey held at Sunderland Date, First Survey 12 Dec 1942 Last Survey 13 Apr 1943  
 Reg. Book on the S/S "EMPIRE HONDURAS" (Number of Visits 22)

Built at Sunderland By whom built G. Lamb (1938) L. Yard No. NEM(W) 3054 Tons {Gross      Net      When built 1943  
 Engines made at Sunderland By whom made North & Marine Eng. Co. (1938) Ltd. Engine No. 3081 When made       
 Boilers made at Wallsend Owners Ministry of War Transport Boiler No.      When made       
 Registered Horse Power 514 Port belonging to Sunderland  
 Nom. Horse Power as per Rule 514 Is Refrigerating Machinery fitted for cargo purposes      Is Electric Light fitted       
 Trade for which vessel is intended     

ENGINES, &c.—Description of Engines Triple Expansion  
 Dia. of Cylinders 24 1/2 - 34 - 40 Length of Stroke 48" No. of Cylinders 3 Revs. per minute 9-NP, MP  
 Crank shaft, dia. of journals as per Rule 13.99 as fitted 14 1/4 Crank pin dia. 14 1/4 Crank webs Mid. length breadth 29 1/2 No. of Cranks 9-NP, MP Thickness parallel to axis 9 1/2 - LP  
 Intermediate Shafts, diameter as per Rule      as fitted      Crank webs Mid. length thickness 9 1/2 - LP shrunk Thickness around eye-hole 4 1/8 - phi.  
 Thrust shaft, diameter at collars as per Rule      as fitted 4 5/8 - journal

Tube Shafts, diameter as per Rule      as fitted      Screw Shaft, diameter as per Rule      as fitted      Is the {tube / screw} shaft fitted with a continuous liner {      }  
 Bronze Liners, thickness in way of bushes as per Rule      as fitted      Thickness between bushes as per Rule      as fitted      Is the after end of the liner made watertight in the propeller boss       
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner       
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive       
 If two liners are fitted, is the shaft lapped or protected between the liners      Is an approved Oil Gland or other appliance fitted at the after end of the tube     

Propeller, dia.      Pitch      No. of Blades      Material      Length of Bearing in Stern Bush next to and supporting propeller      whether Moveable      Total Developed Surface      sq. feet  
 Feed Pumps worked from the Main Engines, No.      Diameter      Stroke      Can one be overhauled while the other is at work       
 Bilge Pumps worked from the Main Engines, No. Two Diameter 4 1/2 Stroke 26 Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size      How driven      Pumps connected to the Main Bilge Line { No. and size      How driven      }  
 Ballast Pumps, No. and size      Lubricating Oil Pumps, including Spare Pump, No. and size       
 Are two independent means arranged for circulating water through the Oil Cooler      Suctions, connected to both Main Bilge Pumps and Auxiliary In Pump Room      In Holds, &c.     

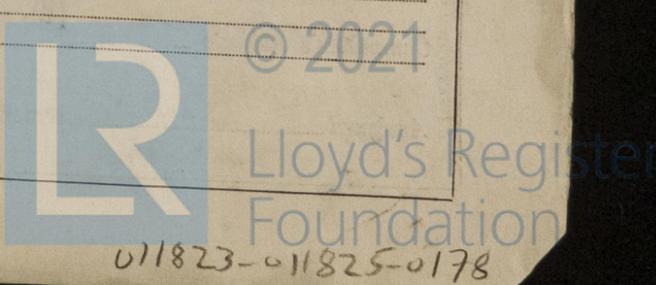
Main Water Circulating Pump Direct Bilge Suctions, No. and size      Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size      Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes       
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges       
 Are all Sea Connections fitted direct on the skin of the ship      Are they fitted with Valves or Cocks       
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates      Are the Overboard Discharges above or below the deep water line       
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel      Are the Blow Off Cocks fitted with a spigot and brass covering plate       
 What Pipes pass through the bunkers      How are they protected       
 What pipes pass through the deep tanks      Have they been tested as per Rule       
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times       
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another      Is the Shaft Tunnel watertight      Is it fitted with a watertight door      worked from     

MAIN BOILERS, &c.—(Letter for record     ) Total Heating Surface of Boilers       
 Which Boilers are fitted with Forced Draft      Which Boilers are fitted with Superheaters       
 No. and Description of Boilers      Working Pressure       
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?       
 IS A DONKEY BOILER FITTED?      If so, is a report now forwarded?       
 Can the donkey boiler be used for domestic purposes only     

PLANS. Are approved plans forwarded herewith for Shafting      Main Boilers      Auxiliary Boilers      Donkey Boilers       
 Superheaters      General Pumping Arrangements      Oil fuel Burning Piping Arrangements     

SPARE GEAR.  
 Has the spare gear required by the Rules been supplied no. (no spare gear in specification)  
 State the principal additional spare gear supplied     

The foregoing is a correct description.  
 Archibald Berry, Manufacturer.



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Dates of Survey while building  
 During progress of work in shops - - { 1943. Dec 1, 1943. Jan 4, 5, 11, 18 Feb 1, 8, 9, 23, March 12, 13, 14, 17, 24, 30 April 1, 2, 5, 6, 8, 13  
 During erection on board vessel - - - {  
 Total No. of visits. 22

Dates of Examination of principal parts—Cylinders *MP. 23/2/43 MP. 12/3/43*  
 Slides *16/3/43* Covers *(40 Cyls.)*  
 Pistons *16/3/43* Piston Rods *14/3/43* Connecting rods *13/4/43*  
 Crank shaft *4/1/43* Thrust shaft - Intermediate shafts -  
 Tube shaft - Screw shaft - Propeller -  
 Stern tube - Engine and boiler seatings - Engines holding down bolts -  
 Completion of fitting sea connections - Boilers fixed - Engines tried under steam -  
 Completion of pumping arrangements - Thickness of adjusting washers -  
 Main boiler safety valves adjusted -  
 Crank shaft material *Infot Steel* Identification Mark *N° 3054 W.M.F.* Thrust shaft material - Identification Mark  
*4/1/43*  
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark  
 Screw shaft, material - Identification Mark Steam Pipes, material Test pressure Date of Test  
 Is an installation fitted for burning oil fuel - Is the flash point of the oil to be used over 150° F.  
 Have the requirements of the Rules for the use of oil as fuel been complied with -  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. If so, have the requirements of the Rules been complied with  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with  
 Is this machinery duplicate of a previous case. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been built under Special Survey in accordance with the approved plans, Specification & the rules of the Society. The materials & workmanship are good.*

*After Erection the engine has been dismantled & stored at the works of Messrs J. Dickinson & Son L<sup>td</sup> Sunderland awaiting allocation to a ship.*

*Note: This engine hull probably became North Eastern trans. Eng. Co L<sup>td</sup> (Wallsend) contract N° 3081.*

3112

*This engine has been efficiently fitted on board S/S EMPIRE HONDURAS, Short Bros Yards 486.*

*Aulatt Newcastle on Tyne*

*J. H. K. K. K.*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to SUNDERLAND (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£ 6	When applied for,
2/5 Special	£ 40 : 6	7 DEC 1943
Duty on Boiler Fee	£ 10 - 1 - 6	When received,
Travelling Expenses (if any)	£	19

FRI. 30 NOV 1943

Committee's Minute  
 Assigned *See P.E. machy spl*

