

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 1st December 42 When handed in at Local Office 3rd December 42 Received at London Office 16 APR 1947
 Port of MANCHESTER
 No. in Survey held at BOLTON Date, First Survey 9th December 41 Last Survey 1st December 1942
 Reg. Book (Number of Visits 23)
 on the M.O.S. 151 LAGOSIAN Tons {Gross 5106.5
 Built at Sunderland By whom built Shipbuilding Corporation (Wear Rev) Yard No. // Net 1908.34
 Engines made at BOLTON By whom made Hick Hargreaves Co. Engine No. E.156 When built 1947
 Boilers made at - By whom made - Boiler No. - When made -
 Registered Horse Power - Owners - Port belonging to -
 Nom. Horse Power as per Rule 383 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
 Trade for which vessel is intended -

ENGINES, &c.—Description of Engines Vertical Triple Expansion Revs. per minute 75
 Dia. of Cylinders 23.5" x 37.5" x 68" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule Approved Crank pin dia. 13.75" Crank webs Mid. length breadth 20.5" Thickness parallel to axis 8.75"
as fitted 13.75" Mid. length thickness 8.75" Thickness around eye-hole 6.25"
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule
as fitted as fitted
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the {tube screw} shaft fitted with a continuous liner {
as fitted as fitted
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
as fitted as fitted 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
 at If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of Blades Material 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. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Feed Pumps {No. and size Pumps connected to the {No. and size
 How driven Main Bilge Line {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
 Bilge Pumps:—In Engine and Boiler Room 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
That Pipes pass through the bunkers How are they protected
That 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

IN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers Which Boilers are fitted with Superheaters
Which Boilers are fitted with Forced Draft Working Pressure
No. and Description of Boilers

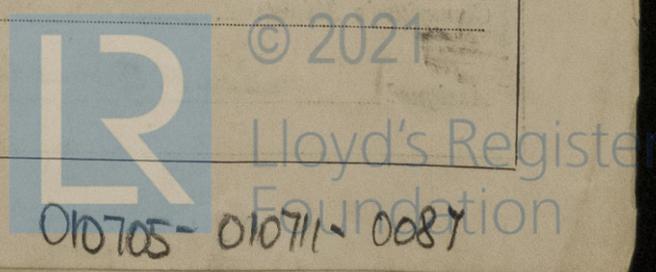
A REPORT ON MAIN BOILERS NOW FORWARDED?
A DONKEY BOILER FITTED? If so, is a report now forwarded?
Is the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 27.5.40 Main Boilers - Auxiliary Boilers - Donkey Boilers -
 (If not state date of approval)
 Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.
Is the spare gear required by the Rules been supplied Yes
Is the principal additional spare gear supplied

The foregoing is a correct description.

Sgd. by Hick Hargreaves & Co. Ltd. Manufacturer.



Dates of Survey while building

During progress of work in shops --

1941. Dec. 9. 1942. Jan. 6, 20, 30. Mar. 17, 31, April 15, 16, 27. May 4, 19, 26. June 2, 16
 July 9, 16, 24. Aug. 17. Sept. 15, 29. Oct. 27. Nov. 10. Dec. 1.

During erection on board vessel ---

Total No. of visits 23.

Dates of Examination of principal parts—Cylinders 15, 27, 4, 42. Slides 26, 5, 42. Covers 15, 27, 4, 42 & 26, 5, 42.
 Pistons 29, 9, 42. Piston Rods 22 & 29, 9, 42. Connecting rods 15, 9, 42.
 Crank shaft 4, 5, 42. 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 --- LLOYD'S 27, 4, 42. J.W.L. Thrust shaft material --- Identification Mark ---
 Crank shaft material O.H. Ingot Steel. Identification Mark --- Tube shaft, material --- Identification Mark ---

Intermediate shafts, material --- Identification Marks --- Test pressure --- Date of Test ---
 Screw shaft, material --- Identification Mark --- Steam Pipes, material ---

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 ---

Is 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. Yes. --- If so, state name of vessel. Manchester Report No. 11,019.

General Remarks (State quality of workmanship, opinions as to class, &c.) THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE, ON COMPLETION OF ERECTION, HAS BEEN EXAMINED IN SHOP AND FOUND SATISFACTORY. IN MY OPINION, THIS ENGINE IS SUITABLE FOR THE PURPOSE INTENDED AND, WHEN INSTALLED ON BOARD AND SATISFACTORILY REPORTED UPON BY THE SOCIETY'S SURVEYORS, WILL BE ELIGIBLE FOR THE NOTATION LLOYD'S MACHINERY CERTIFICATE (WITH DATE).

THE ENGINE HAS BEEN DESPATCHED TO:-
 MESSRS. RICHARDSON WESTGARTH,
 MIDDLESBROUGH.

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

The amount of Entry Fee	£	:	:	When applied for,
2/3 Special	£	5	:0	19
Donkey Boiler Fee	£	53	:12	Q
Travelling Expenses (if any)	£	4	:18	6
				When received,
				19

SGD. J.W. LEICESTER.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
 Assigned *Su F.E. mch. rpt.*

FRI. 26 SEP 1947