

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19 1937 When handed in at Local Office - 8 JULY 1937 Port of SUNDERLAND
 Received at London Office JUL - 9 1937
 No. in Survey held at SUNDERLAND Date, First Survey 18 Dec 36 Last Survey 1st July 1937
 Reg. Book. on the LOCH DON (Number of Visits 70)
 Built at Sunderland By whom built J. L. THOMPSON & Sons, Ltd. Yard No. 580 Tons { Gross 5249
 Engines made at Sunderland By whom made N.E. Marine Eng. Co. Engine No. 2875 When built 1937 Net 2977
 Boilers made at Sunderland By whom made N.E. Marine Eng. Co. Ltd Boiler No. 2875 When made 1937
 Registered Horse Power 409 Owners MacLay & McIntyre, Ltd Port belonging to Glasgow
 Nom. Horse Power as per Rule 409 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended General Cargo 23. 88- 65

ENGINES, &c.—Description of Engines Triple Expansion, Reheat valves in H.P. Revs. per minute
 Dia. of Cylinders 23" 6.5" 38" Length of Stroke 4.5" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule appd. Crank pin dia. 1-1/2" Crank webs Mid. length breadth — Thickness parallel to axis 8 3/8" (I.P. aft 8 3/8")
 as fitted 1-1/2" Mid. length thickness — shrunk Thickness around eye-hole 7/8" (shaft)
 Intermediate Shafts, diameter as per Rule appd. Thrust shaft, diameter at collars as per Rule appd.
 as fitted 1-0 3/4" as fitted 1-1/2"
 Tube Shafts, diameter as per Rule — Screw Shaft, diameter as per Rule appd. Is the { tube } shaft fitted with a continuous liner { yes }
 as fitted — as fitted 1-3" as screw }
 Bronze Liners, thickness in way of bushes as per Rule appd. Thickness between bushes as per Rule appd. Is the after end of the liner made watertight in the
 as fitted 3/4" as fitted 5/8" propeller boss yes 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
 shaft no If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 5'-0"
 Propeller, dia. 18'-4" Pitch 18'-9" No. of Blades 4 Material Hard Bronze whether Movable not Total Developed Surface 109 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 2 1/4" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size Two, 6" x 8 1/2" x 18" Pumps connected to the { No. and size two, one 9 1/2" x 12" x 21" one 10 1/2" x 14" x 24" }
 { How driven Steam Main Bilge Line { How driven Steam }
 Ballast Pumps, No. and size 2, 10 1/2" x 14" x 24" & 9 1/2" x 12" x 21" 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 2 @ 3 1/2" dia. port & 2 @ 3 1/2" dia. starboard, one at 1 1/2", two Runs
 In Pump Room — In Holds, &c. Fore hold, 2 @ 3 1/2" dia.; Fore main, 2 @ 3 1/2" dia.;
After main, 2 @ 3 1/2" dia.; after 2 @ 3 1/2" dia. and one 1/2" drain to tunnel well (self-closing cock).
 Main Water Circulating Pump Direct Bilge Suctions, No. and size one - 8" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size one, 5" dia. Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 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 yes
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks yes
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Overboard Discharges above or below the deep water line both
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes
 What Pipes pass through the bunkers Fore hold suction How are they protected Heavy timber sheathing
 What pipes pass through the deep tanks after hold bilge suction Have they been tested as per Rule yes
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 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 yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Fore hold Deck
level in Eng. Room

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 5682 sq ft
 Is Forced Draft fitted yes No. and Description of Boilers Three multitubular Working Pressure 220 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? —
 Is the donkey boiler intended to be used for domestic purposes only —

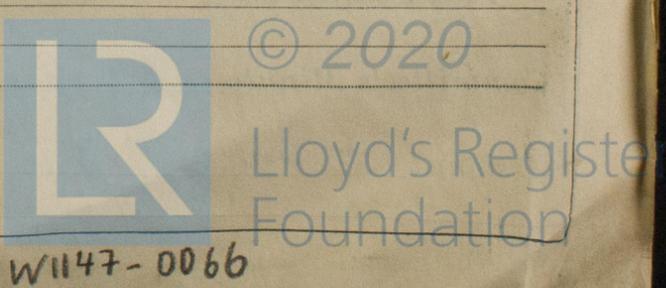
PLANS. Are approved plans forwarded herewith for Shafting 14/9/36 Main Boilers yes Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval)
 Superheaters — General Pumping Arrangements yes Oil fuel Burning Piping Arrangements —

SPARE GEAR.
 Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied
 one propeller.
 one screw shaft.
 6 Boiler tubes.
 6 Condenser tubes.
 1 Safety valve spring.
 1 Bottom end bearing.
 1 Top end bearing.
 1 set H.P. piston rod packing.
 one set air pump valves.
 one set pads for thrust block.
 10% total no. stud plugs for superheaters.
 5% " " studs & nuts " " "
 2% " " clamps " " "
 one safety valve spring " " "

The foregoing is a correct description,
 FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

Archie J. Berry
 MANAGER

Manufacturer.



NOTE.—The records which do not apply should be deleted.

Dates of Survey while building:

 During progress of work in shops - - - 36/ Dec. 18, 30, 37/ Jan 4, 14, 19, 20, Feb. 3, 5, 8, 12, 15, 22, 23, 25, Mar. 1, 2, 3, 4, 8, 9, 12, 15, 17, 18, 23, 24, 31, Apr. 1, 2, 6, 7, 8, 12, 13, 14, 15, 16, 19, 21, 23, 26, 27, 28, 29, 30, May 3, 4, 5, 6, 8, 10, 13, 14, 18, 21, 24, 25, 28, June 1, 3, 4, 8, 9, 10, 12, 15, 25, 28, July 1

 During erection on board vessel - - -

 Total No. of visits 70

Dates of Examination of principal parts—Cylinders 27/4/37 Slides 21/5/37, Poppets 6/5/37 Covers 21/5/37

 Pistons 13/4/37 Piston Rods 5/5/37 Connecting rods 24/5/37

 Crank shaft 27/4/37 Thrust shaft 27/4/37 Intermediate shafts 18/5/37

 Tube shaft — Screw shaft 18/5/37 Propeller 18/5/37

 Stern tube 14/5/37 Engine and boiler seatings 30/4/37 Engines holding down bolts 15/6/37

 Completion of fitting sea connections 10/5/37

 Completion of pumping arrangements 25/6/37 Boilers fixed 15/6/37 Engines tried under steam 15/6/37

 Main boiler safety valves adjusted 15/6/37 Thickness of adjusting washers PORT 3/8" Pat, 7/16" Starboard 1/4" Superheated. STARBOARD 13/32" Pat, 13/32" Starboard, 1/4" Superheated. Centre 13/32" Pat, 7/16" Starboard, 3/16" Superheated.

 Crank shaft material steel Identification Mark 6772 Thrust shaft material steel Identification Mark 6772

 Intermediate shafts, material steel Identification Marks 6772 Tube shaft, material — Identification Mark —

 Screw shaft, material steel Identification Mark 6772 Steam Pipes, material steel Test pressure 66 lbs Date of Test 21.5.37

 Is an installation fitted for burning oil fuel no 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 no 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 yes If so, state name of vessel LOKH DEE.

General Remarks (State quality of workmanship, opinions as to class, &c.)

 The machinery of this vessel has been constructed under special survey in accordance with the approved plans, the Secretary's letters and the requirements of the Rules. Workmanship and materials are good. The machinery has been efficiently installed on board and tried under working conditions and found satisfactory and is eligible, in my opinion, for

 Notation + L.M.C. 7.37.

L.R. Home
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : : When applied for,

 Special ... £ 86 : 7 : 5 July 1937

 Donkey Boiler Fee £ : : When received,

 Travelling Expenses (if any) £ : : 12.7.37

Committee's Minute TUE 13 JUL 1937

 Assigned + Linc 7.37 Spt F& CL

in duplicate SUNDERLAND.



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