

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

AUG 3 1937

Date of writing Report 19 26 July 37 When handed in at Local Office 26 July 37 Port of SUNDERLAND.
 No. in Survey held at Sunderland Date, First Survey 3 Dec 36 Last Survey 20 July 1937
 Reg. Book. on the CORFIELD Tons ^{Gross} _{Net}
 Built at Burntisland By whom built Burntisland S. B. Co. Ltd. Yard No. 214 When built 1937
 Engines made at Sunderland By whom made N.E. Marine Eng. Co. Ltd. Engine No. 2873 When made 1937
 Boilers made at Sunderland By whom made N.E. Marine Eng. Co. Ltd. Boiler No. 2873 When made 1937
 Registered Horse Power Owners Looy Colliers Ltd. Port belonging to London
 Nom. Horse Power as per Rule 176 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Coal.

ENGINES, &c.—Description of Engines Triple Expansion with poppet valves H.P. & I.P. Revs. per minute
 Dia. of Cylinders 16" 45" 25" Length of Stroke 33" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule appl. Crank pin dia. 9 3/4" Crank webs Mid. length breadth Thickness parallel to axis 6"
 as fitted 9 1/2" Mid. length thickness shrunk Thickness around eye-hole 5" shaft 4 7/8" pin.
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule appl. as fitted 9 1/2"
 as fitted Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule appl. as fitted 10 1/4" Is the ^{tube} shaft fitted with a continuous liner yes
 as fitted Is the _{screw} **Bronze Liners**, thickness in way of bushes as per Rule appl. Thickness between bushes as per Rule appl. as fitted 5/8" Is the after end of the liner made watertight in the 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 If so, state type Hubark Length of Bearing in Stern Bush next to and supporting propeller 2'-5"
Propeller, dia. 13'-6" Pitch 14'-6" No. of Blades 4 Material C. IRON whether Moveable not Total Developed Surface 67.5 sq. feet
Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes
Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes
Feed Pumps No. and size two, 8 1/2" x 6" x 15" Pumps connected to the Main Bilge Line { No. and size two; one 9 1/2" x 11" x 18", one 9" x 10" x 19"
 How driven Steam How driven Steam
Ballast Pumps, No. and size two, 9 1/2" x 11" x 18" & 9" x 10" x 10" 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 Engine Room will use 2 1/2" dia. Boiler Room will use two 2 1/2" dia.
 In Pump Room In Holds, &c. no. 2 Hold two 2 3/4" dia. no. 4 Hold two 2 3/4" dia.

Main Water Circulating Pump Direct Bilge Suctions, No. and size one, 4" dia 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-bozes yes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-bozes, 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 above
 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 Steel bilge suction How are they protected heavy timber
 What pipes pass through the deep tanks please see Link Rpt. 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 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 Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 2506 sq ft
 Is Forced Draft fitted yes No. and Description of Boilers two multi tubular cylindrical 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 Retained for other vessel
PLANS. Are approved plans forwarded herewith for Shafting 18/4/36 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 yes
 State the principal additional spare gear supplied
one C.I. Propeller for this and sister vessel. (for this 9 sister vessel)
one bottom end bearing.
one top end bearing.
one set of valves for the ballast, the general service & the circulating pump.
one set of high pressure piston packing.
one valve of each size with spring rollers for poppet gear.
one spindle & bush for poppet gear.
one set air pump valves.
12 Brake Tubs & stoppers.

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

Archd. P. Berry
 MANAGER

Manufacturer.



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

1936 Dec. 3, 16, 18, 1937 Feb. 12, 17, 18, 23, 24, 25, 31, April 6, 8, 12, 14, 15, 16, 19, 21, 22, 23, 26, 27, 28, 29, 30.
 May 4, 5, 6, 7, 10, 11, 13, 15, 18, 19, 20, 21, 24, 25, 27, 28, 31 June 1, 2, 3, 7, 8, 9, 11, 14, 15, 16, 18, 22, 25, 28, 30.
 July 1, 2, 5, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20.
 Total No. of visits 69.

Dates of Examination of principal parts—Cylinders 27/5/37 Poppets 16/6/37 Slides 15/6/37 Covers 15/6/37
 Pistons 7/6/37 Piston Rods 7/6/37 Connecting rods 20/5/37
 Crank shaft 18/5/37 Thrust shaft 28/5/37 Intermediate shafts —
 Tube shaft — Screw shaft 3/6/37 Propeller 22/6/37
 Stern tube 3/6/37 Engine and boiler seatings 2/6/37 (Lith) Engines holding down bolts 7/7/37
 Completion of fitting sea connections 10/6/37 (Lith)
 Completion of pumping arrangements 13/7/37 Boilers fixed 2/7/37 Engines tried under steam 13/7/37
 Main boiler safety valves adjusted 13/7/37 Thickness of adjusting washers ^{part :- 9/32 part, 1/4" standard 1/4" 5/16" 7/32"} standard: 1/4", 5/16", 7/32"
 Crank shaft material Steel Identification Mark 9245 Thrust shaft material Steel Identification Mark 9442
 Intermediate shafts, material — Identification Marks — Tube shaft, material — Identification Mark —
 Screw shaft, material Steel Identification Mark 9442 Steam Pipes, material Steel Test pressure 660 lbs Date of Test 25, 8/7/37
 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 no
 Is this machinery duplicate of a previous case no If so, state name of vessel

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, Secretary's letters and the requirements of the Rules. Workmanship and materials. The machinery has been efficiently fitted on board and tried under working conditions in accordance with the requirements of the Rules and is eligible, in my opinion for

Notation: + L.M.C. 7.37, CL.

The amount of Entry Fee ... £ 3 : — : When applied for,
 Special ... £ 44 : — : 24 JULY 1937
 Donkey Boiler Fee ... £ : : :
 Travelling Expenses (if any) £ : : : When received
 31 JULY 1937 *know.*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute WED 4 AUG 1937

Assigned + LMC 7.37 Spt FD CH OG



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SUNDERLAND.

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