

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

APR 19 1938

Date of writing Report 19 When handed in at Local Office 16 APR 1938 Port of BUNDERLAND.
 No. in Survey held at BUNDERLAND. Date, First Survey 7 June 37 Last Survey Apr 8 1938
 Reg. Book. on the S.S. A ELYBRYN (Number of Visits 87) Tons } Gross 4986
 } Net 2947
 Built at Sunderland By whom built W. J. Loring & Sons Ltd Yard No. 719 When built 1938
 Engines made at Sunderland By whom made H. E. Mannie Eng. Co Engine No. 2886 When made 1938
 Boilers made at Sunderland By whom made H. E. Mannie Eng. Co Boiler No. 2886 When made 1938
 Registered Horse Power Owners Minster S.S. Co. Ltd Port belonging to London
 Nom. Horse Power as per Rule 353 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended _____

ENGINES, &c.—Description of Engines Triple Expansion; Poppet Valves HP Revs. per minute _____
 Dia. of Cylinders 2 1/2", 37" 62" Length of Stroke 42" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule appl. Crank pin dia. 12 5/8" Crank webs shrunk Thickness parallel to axis 7 3/4", 8 1/2", 6 1/2"
 Intermediate Shafts, diameter as per Rule appl. Thrust shaft, diameter at collars as fitted 12 5/8" Thickness around eye-hole from 6 1/2"
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule appl. Is the tube shaft fitted with a continuous liner? Yes
 Bronze Liners, thickness in way of bushes as per Rule appl. Thickness between bushes as fitted 3/4" 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? no
 Propeller, dia. 17' 6" Pitch 18 3/4" No. of Blades 4 Material Eng. Br. whether Moveable fixed Total Developed Surface 99.5 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 3 1/2" Stroke 1'-10 1/2" Can one be overhauled while the other is at work? Yes
 Feed Pumps { No. and size 2, 6 x 8 1/2 x 18" Pumps connected to the Main Bilge Line { No. and size 1, 9 x 11 x 10"
 { How driven Steam { How driven Steam
 Ballast Pumps, No. and size 1, 9 x 11 x 10" Lubricating Oil Pumps, including Spare Pump, No. and size _____
 Are two independent means arranged for circulating water through the Oil Cooler _____
 Bilge Pumps;—In Engine and Boiler Room Eng. Rm. one 3" dia. port + starboard. Suctions, connected to both Main Bilge Pumps and Auxiliary In Pump Room main hold 3 1/2" dia. port + starboard, fore hold 3" dia. port + starboard, main hold 'A' 2 1/2" dia. port + starboard.

MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size 1, 7" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1, 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 tilting 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? none 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? 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 upper deck with in Eng. Rm.

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 5087 1/2
 Is Forced Draft fitted to main Boilers? Yes No. and Description of Boilers 3 Multitubular Cylinders Working Pressure 220 lbs.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes (2 Spk)
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 15/16/36 Main Boilers? Yes Auxiliary Boilers? Yes Donkey Boilers? _____
 Superheaters? Yes 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 shaft complete
one oil piston rings set H.L. piston
Piston and valves spindle for circulating pump
Top & bottom end bearings
3 main check valve lids
4 low' check valve lids
1 main A.V. Spring
1 Aux' H.L. Spring

The foregoing is a correct description,
 FOR THE NORTH EASTERN MARINE ENGINEERS CO. (1938) LTD.

A. J. Berry Manufacturer.



Dates of Survey while building

During progress of work in shops -- 1937 June 7, 28, 29 July 8, 19, 23 Aug 6, 10, 12, 13, 18, 19, 26, 27 Sep 1, 15, 17, 29 Nov 8, 12, 18, 19, 23, 24, 26, 29 Dec 3, 8, 10, 14, 16, 20, 21, 24, 28, 29, 30 1938 Jan 5, 7, 11, 12, 13, 14, 17, 18, 20, 21, 24, 27, 31 Feb 1, 2, 4, 7, 9, 10, 14, 15, 16, 17, 21, 22, 23, 25, 28 Mar 1, 2, 3, 4, 5, 7, 9, 10, 11, 14, 15, 18, 22, 23, 24, 25, 28, 29, 30, 31 Apr 7, 8

Total No. of visits 87

Dates of Examination of principal parts

Cylinders 14/2/38 Slides 28/2/38 (4 poppets) Covers 14/2/38

Pistons 28/1/38, 28/2/38 Piston Rods 28/2/38 Connecting rods 5/3/38

Crank shaft 11/2/38 & 16/2/38 Thrust shaft 16/2/38 Intermediate shafts 8/2/38

Tube shaft --- Screw shaft 10/3/38 Propeller 10/2/38

Stern tube 25/2/38 Engine and boiler seatings 15/2/38 Engines holding down bolts 25/2/38

Completion of fitting sea connections 1/3/38 Boilers fixed 22/3/38 Engines tried under steam 29/3/38

Completion of pumping arrangements 30/3/38 Thickness of adjusting washers 5/16" alt. Pist. 9/32" Std. 5/16" Pist. 1/4" Superheat

Main boiler safety valves adjusted 29/3/38 Thrust shaft material steel Identification Mark 7048

Crank shaft material steel Identification Mark 7048 Tube shaft, material --- Identification Mark ---

Intermediate shafts, material steel Identification Marks 7048 Test pressure 660 lb Date of Test 11.3.38

Screw shaft, material steel Identification Mark 7048 Steam Pipes, material steel

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 not required

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.

The workmanship and materials are good. The machinery has been efficiently fitted on board and tried under working conditions with satisfactory results and is slight, in my opinion, for the

NOTATION * L.M.C. 438

LLOYD'S REGISTER OF SHIPPING

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

Special ... £ 77 : 19 : 14 Ad 19.38

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 21.4 19.38

Committee's Minute **FRI. 22 APR 1938**

Assigned **+ L.M.C. 4.38**
 J.D. Cl.
 2 S.B. (S.A.) 1 Amp L.B.

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

