

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 28 DEC 1935 18 FEB 1936

Date of writing Report 19 When handed in at Local Office 27 DEC 1935 Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey 16 Aug Last Survey 23 Dec 1935  
 Req. Book on the Screw Steamer "FULHAM" (Number of Visits 39)  
 Built at Burntisland By whom built Burntisland S.B. Co. Ltd. Yard No. 193. Tons { Gross / Net }  
 Engines made at Sunderland By whom made North East Man. Eng. Co. Ltd. Engine No. 2829. When made 1935  
 Boilers made at Sunderland By whom made North East Man. Eng. Co. Ltd. Boiler No. 2829. When made 1935  
 Registered Horse Power Owners Fulham Borough Council Port belonging to  
 Nom. Horse Power as per Rule 185. Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted  
 Trade for which Vessel is intended Coasting.

**ENGINES, &c.**—Description of Engines Triple Expansion Revs. per minute 82.  
 Dia. of Cylinders 16 1/2" x 24 1/2" x 46" Length of Stroke 33" No. of Cylinders 3. No. of Cranks 3.  
 Crank shaft, d.a. of journals as per Rule 9.164 as fitted 9 1/2" Crank pin dia. 9 1/2" Crank webs Mid. length breadth 1-3 3/8" Thickness parallel to axis 5 3/4" Mid. length thickness 5 3/4" shrunk Thickness ground eye-hole 4 3/4"  
 Intermediate Shafts, diameter as per Rule as fitted none. Thrust shaft, diameter at collars as per Rule 9.164 as fitted 9 7/8"  
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 10.348 as fitted 10 3/4" Is the shaft fitted with a continuous liner no.  
 Bronze Liners, thickness in way of bushes as per Rule as fitted none. Thickness between bushes as per Rule 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. 13'-6" Pitch 14-18"-11-6" No. of Blades 4 Material Bronze whether Moveable no. Total Developed Surface 58 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 One 6" x 4" x 6" How driven Steam Pumps connected to the Main Bilge Line { No. and size Two 9" x 10" x 10" How driven Steam  
 Ballast Pumps, No. and size Two 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 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4"  
 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 stowage 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 none. Is it fitted with a watertight door worked from

**MAIN BOILERS, &c.** (Letter for record r.) Total Heating Surface of Boilers 2750 sq. ft.  
 Is Forced Draft fitted Yes. No. and Description of Boilers 1 S.B. Working Pressure 200.  
 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 Main Boilers Yes. 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, 1 pair Crank pin brasses, 12 cylinders Cover Studs Nuts, 12 junk ring studs 24 Condenser tubes & 50 ferrules, one set air pump valves, 2 main feed Check valve lids, 2 aux. feed Check valve lids, one Safety valve Spring, one dozen plain tubes for boiler, one set of valves, Reels & piping for each auxiliary pump.

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

Ando J. Berry, MANAGER

Manufacturer.



002659-002666-00914

During progress of work in shops -- 1935 Aug. 16 Sep. 2, 4, 9, 11, 13, 18, 20, 23, 25, 27 Oct. 4, 7, 9, 11, 14, 18, 21, 23, 25, 29  
 Nov. 1, 11, 20, 21, 22, 24, 27, 28 Dec. 2, 4, 9, 11, 2, 16, 18, 19, 20, 23

Dates of Survey while building  
 During erection on board vessel ---

Total No. of visits 39

Dates of Examination of principal parts—Cylinders 1/11/35 10/11/35 27/11/35 Slides 9/12/35 Covers 26/11/35  
 Pistons 26/11/35 Piston Rods 2/12/35 Connecting rods 4/12/35  
 Crank shaft 21/11/35 Thrust shaft 21/11/35 Intermediate shafts none.  
 Tube shaft none. Screw shaft 21/11/35 Propeller see Ltr Rpt.  
 Stern tube 21/11/35 22/11/35 Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections  
 Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers  
 Crank shaft material Steel Identification Mark Lloyd's No 8233 W H F 21. 11. 35 Thrust shaft material Steel Identification Mark Lloyd's No 8233 W H F 21. 11. 35  
 Intermediate shafts, material ✓ Identification Marks Lloyd's No 8233 W H F 21. 11. 35 Tube shaft, material ✓ Identification Mark Lloyd's No 8233 W H F 21. 11. 35

Screw shaft, material Identification Mark Lloyd's No 8233 W H F 21. 11. 35 Steam Pipes, material Test pressure Date of Test

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 material for Ice Strengthening is desired, state whether the requirements in this respect have been complied with not req. ✓

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.)  
 This machinery has been built under Special Survey in accordance with the Rules of the Society.  
 The material & workmanship are good.

This machinery has been despatched to Buntisland when securely fitted on board & satisfactorily tried under steam will be eligible in my opinion to have notation of L.M.C. with date, T.S. O.G. in the Register Book.

The amount of Entry Fee £ 3 : - :  
 1/5 Special £ 34 : - :  
 Donkey Boiler Fee £ 9 : 5 :  
 Travelling Expenses (if any) £ : : 16-1-1936

When applied for, 17 DEC 1935  
 When received, 16-1-1936  
 J. H. Fraser  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 21 FEB 1936 FRI. 6 MAR 1936

Assigned See minute on Ltr Rpt. 19016



Date of writing  
 No. in Reg. Book.  
 Master  
 Engines ma  
 Boilers ma  
 Nominal H  
 MULTI  
 Manufactu  
 Total Heat  
 No. and D  
 Tested by  
 Area of FI  
 Area of ea  
 In case of  
 Smallest d  
 Smallest d  
 Largest in  
 Thickness  
 long, seams  
 Percentage  
 Percentage  
 Thickness  
 Material  
 Length of  
 Dimension  
 End plate  
 How are s  
 Tube plat  
 Mean pite  
 Girders to  
 at centre  
 in each  
 Tensile st  
 Pitch of st  
 Working  
 Thickness  
 Pitch of s  
 Working  
 Diameter  
 Working  
 Diameter