

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-5 AUG 1925

Date of writing Report 25-7-1925 When handed in at Local Office 27-7-1925 Port of Greenock
 No. in Survey held at Port Glasgow Date, First Survey 12th January, 1925 Last Survey 29th July 1925
 Reg. Book. on the Twin Screw Hopper Dredger. No 35. (Number of Visits 3)
 Built at Port Glasgow By whom built Ferguson Bros (Port Glasgow) Sta Yard No. 246. Tons } Gross 1101
 Engines made at " By whom made " Engine No. 246 when made 1925 } Net 465
 Boilers made at Greenock By whom made J. & C. Kincaid & Co. Boiler No. 162. when made 1925
 Registered Horse Power Owners Mersey Docks & Harbour Board Port belonging to Liverpool
 Nom. Horse Power as per Rule 210 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Twin Screw Triple.

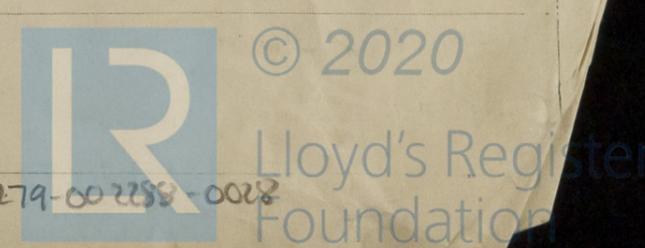
Dia. of Cylinders 15-25-40 Length of Stroke 24 Revs. per minute 125 No. of Cylinders 6 No. of Cranks 6
 Dia. of Crank shaft journals as per rule 4.53 Dia. of Crank pin 4 3/4 Crank webs Mid. length breadth 14 3/4 Thickness parallel to axis 5 1/16
 as fitted 4 3/4 Mid. length thickness 5 1/16 shrunk Thickness around eye-hole 3 1/2
 Diameter of Thrust shaft under collars as per rule 4.53 Diameter of Tunnel shaft as per rule 4.14 Diameter of Screw shaft as per rule 8.2 Is the Screw shaft
 as fitted 4 3/4 as fitted 4 3/4 as fitted 8 1/4
 fitted with a continuous liner the whole length of the stern tube No liners Is the after end of the liner made watertight in the propeller boss
 If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated yes. Ferguson type. Length of Stern Bush 3'-11 1/2" Diameter of Propellers 9'-3"
 Pitch of Propeller 11'-9" No. of Blades 3 State whether Moveable No Total Surface 28 1/4 square feet.
 No. of Feed Pumps fitted to the Main Engines 4 Diameter of ditto 2 7/8 Stroke 13 Can one be overhauled while the other is at work yes
 No. of Bilge Pumps fitted to the Main Engines 4 Diameter of ditto 2 7/8 Stroke 13 Can one be overhauled while the other is at work yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps Feed 1-5'x4'x12. 1-6'x8 1/2'x18. Bilge 1-8'x10 1/2'x18.
 No. and size of Pumps connected to the Main Bilge Line One - 8'x10 1/2'x18. (main bilge pumps)
 No. and size of Ballast Pumps No. and size of Lubricating Oil Pumps, including Spare Pump None.
 Are two independent means arranged for circulating water through the Oil Cooler None. No. and size of suctions connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room Three - 3" diam. (1-STOKEHOLD OIL GUTTERWAY 3" DIAM.) and in Holds, &c. One - for hold 3" dia.
One - 3" port bunker. One - 3" star bunker. One - 3" port buoyancy comp't. One - 3" star buoyancy
comp't. One - 3" port oil gutterway. One - 3" star oil gutterway.
 No. and size of Main Water Circulating Pump Bilge Suctions Two - 5" diam. No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges One 3 1/4" diam. 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 connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks both.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes. Are the Discharge Pipes 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 are carried through the bunkers Bilge suction to fore compartments and steam to cranes. How are they protected Watertight steel pipe.
 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 Screw Shaft Tunnel watertight None. Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 3800
 Is Forced Draft fitted No. No. and Description of Boilers Two. Single ended. Working Pressure 180 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.
 IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?
 PLANS. Are approved plans forwarded herewith for Shafting Yes. Main Boilers Yes Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 General Pumping Arrangements Yes. Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—Two propellers. 1 pair Crank pin brasses. One set of coupling bolts
2 main bearing bolts & nuts. 2 top end bolts & nuts. 2 bottom end bolts & nuts. 1 set of feed pump
valves & seats for main & auxiliary feed pumps. 1 set of air pump valves. 2 eccentric strap
bolts & nuts. 4 feed check valves. 24 condenser tubes. 2 bilge pump valves 50 fine bars.
1 set of springs for safety valves. 12 boiler tubes. Assorted bolts and nuts.
Iron of various sizes.

The foregoing is a correct description,
 FERUGSON BROTHERS (PORT GLASGOW) LTD.
 P. Ferguson DIRECTOR

Manufacturer.



PILLARS,
 Centre
 Stiffener
 Plating
 STRINGER
 Upper
 Stringer
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 MIDSHIP
 COLLISION
 AFTER PEAK

(1925) January 12-19-27. February 3-5. March 4-16-24-26-31. April 2-8-15-24. May 5-8-12-18-27-29.
 June 2-5-8-10-15-17-19-26-29. July 27-29.
 Dates of Survey while building
 During progress of work in shops --
 During erection on board vessel ---
 Total No. of visits 31.

Dates of Examination of principal parts - Cylinders 15-4-25. Slides 24-3-25.
 Covers 24-3-25. Pistons 8-4-25. Rods 8-4-25.
 Connecting rods 26-3-25. Crank shaft 30-3-25. Thrust shaft 12-5-25.
 Tunnel shafts 12-5-25. Screw shaft 12-5-25. Propeller 12-5-25.
 Stern tube 5-5-25. Engine and boiler seatings 5-5-25. Engines holding down bolts 29-5-25.
 Completion of pumping arrangements 17-6-25. Boilers fixed 29-5-25. Engines tried under steam 29-4-25.
 Completion of fitting sea connections 18-5-25. Stern tube 8-5-25. Screw shafts and propellers 18-5-25, 29-5-25.
 Main boiler safety valves adjusted 24-4-25. Thickness of adjusting washers P 3/8" S 1/32" F. P 1/32" S 3/8".
 Material of Crank shaft Steel. Identification Mark on Do. LLOYDS. 942.30-3-25.J.D.
 Material of Thrust shaft Steel. Identification Mark on Do. " 1046 " "
 Material of Tunnel shafts Steel. Identification Marks on Do. " 1046 " "
 Material of Screw shafts Steel. Identification Marks on Do. LLOYDS 1046. " "
 Material of Steam Pipes Solid drawn Copper. Test pressure 360 lbs. Date of Test 15-6-25.
 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 carrying and burning oil fuel been complied with ✓
 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 Engines and Boilers have been built under special survey in accordance with the Rules and the approved plans. They have now been securely fitted on board the vessel, and tried under full power with satisfactory results. The materials and workmanship are good. The machinery of this vessel, is eligible, in our opinion for record of + L M C 4-25.

It is certified that this vessel is eligible for THE RECORD. + L M C 7-25. O.G.

[Signature]
 18/5/25

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for,
 Special 3/5. ... £ 31 : 10 : 0 1-8-1925
 Donkey Boiler Fee ... £ ✓ : : When received,
 Travelling Expenses (if any) £ ✓ : : 13-8-1925

Committee's Minute GLASGOW 4-AUG-1925
 Assigned + L M C 7,25

[Signature]
 J. Avey
 Engineer Surveyor to Lloyd's Register of Shipping.

GREENOCK

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



Rpt. 5a.
 Date of writing
 No. in Reg. Book
 Master
 Engines made
 Boilers made
 Registered H
 MULTITU
 (Letter for re
 Boilers
 No. of Certif
 safety valves
 Are they fitte
 Smallest dist
 Material of s
 Descrip. of r
 Laps of plates
 rules 180
 boiler 360
 Description of
 plates: Mate
 Top 9 1/2 x 8
 smallest part
 Pitch of stay
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 Lower back p
 Pitch of tubes
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 girder at cent
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