

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 10 FEB 1925 When handed in at Local Office 10 FEB 1925 Port of London (Essex)
 No. in Survey held at Great Yarmouth Date, First Survey 10th August 1917 Last Survey 29th January 1925
 Reg. Book. 89777 on the S.S. "Margaret Birch" (Number of Visits 3)
 Built at New Holland By whom built Harland (New Holland) Shipyard Ltd Yard No. 156 Tons { Gross
 Engines made at Great Yarmouth By whom made Graftree & Co. Ltd. Engine No. 545 when made 1925. Net
 Boilers made at Stockton By whom made Riley Bros Ltd. Boiler No. 5057 when made 1920
 Registered Horse Power Owners G. F. Birch & Son (1919) Ltd. Port belonging to Hull. fitted 1925
 Nom. Horse Power as per Rule 71. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound, Surface condensing
 Dia. of Cylinders 17" + 34" Length of Stroke 24 Revs. per minute 110 No. of Cylinders 2 No. of Cranks 2
 Dia. of Crank shaft journals as fitted 7 1/2" Dia. of Crank pin 7 1/2" Crank webs Mid. length breadth 10" Thickness parallel to axis 4 1/2" x 5 1/2" P.
 Diameter of Thrust shaft under collars as fitted 7 1/2" Diameter of Tunnel shaft as per rule Diameter of Screw shaft as fitted 8 1/2" Is the Screw shaft
 fitted with a continuous liner the whole length of the stern tube No liner 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 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 appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated No Length of Stern Bush 2'-10 1/2" Diameter of Propeller 9'-0"

Pitch of Propeller 10'-6" No. of Blades 4 State whether Movable No Total Surface 28.5 square feet.

No. of Feed Pumps fitted to the Main Engines one Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge Pumps fitted to the Main Engines one Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work

Total number and size of power driven Feed and Bilge Auxiliary Pumps one 5 1/2" x 3 1/2" x 5" Duplex

No. and size of Pumps connected to the Main Bilge Line

No. and size of Ballast Pumps No. and size of Lubricating Oil Pumps, including Spare Pump

Are two independent means arranged for circulating water through the Oil Cooler No. and size of suctions connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room One 2" from Main Engine + One 2" from Donkey and in Holds, &c. Two 2" in Hold one 2" from
 fore peak + after peak respectively

No. and size of Main Water Circulating Pump Bilge Suctions one 4" dia No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges one 2" 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 connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valve + cocks

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 Suctions to hold fore peak How are they protected Under wood ceiling

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 Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1430 sq ft
 Forced Draft fitted No No. and Description of Boilers One single ended Working Pressure 130 lb

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 Boiler 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:—

- 2 Connecting rods, top end both nuts
- 2 " " both end both nuts
- 2 Main bearing bolts
- 1 set coupling both nuts
- 1 set feed pump valves
- 1 set of piston pumps
- A quantity of assorted bolts nuts + iron of various sizes

The foregoing is a correct description

GRAFTREE & CO. LTD.

J. A. Chamberlain

Manufacturer.



© 2021

Lloyd's Register
Foundation

014513-014530-0341

During progress of work in shops - - (1917) Aug 10-17-23 SEP 7-28 OCT 30. (1919) Oct 2-16 DEC 10-31 (1920) JAN 14 FEB 6 MAR 25 MAY 14
 JUNE 30 NOV 20 DEC 7-16. (1924) FEB 25 APR 10-16 MAY 8 OCT 31 (NOV 14 20-24 DEC 4-10)
 During erection on board vessel - - - 14-11-24, NOV 20-24 DEC 4-10-17-22 (1925) JAN 23
 Total No. of visits 31

Dates of Examination of principal parts - Cylinders 17.8.17. 28.9.17. Slides 25.2.24
 Covers 25.2.24 Pistons 25.2.24 Rods 23.8.17. 7.9.17
 Connecting rods 30.10.17. Crank shaft 25.2.24 Thrust shaft 28.9.17.
 Tunnel shafts ✓ Screw shaft 16.4.24, 8.5.24 Propeller 20.11.24
 Stern tube 8.5.24 Engine and boiler seatings 20.11.24. 4.12.24 Engines holding down bolts 4.12.24
 Completion of pumping arrangements 22.12.24 Boilers fixed 20.11.24. 4.12.24 Engines tried under steam 22.12.24
 Completion of fitting sea connections 20.11.24 Stern tube 24.11.24 Screw shaft and propeller 24.11.24
 Main boiler safety valves adjusted 22.12.24 Thickness of adjusting washers P. $\frac{7}{32}$ " S. $\frac{1}{4}$ "
 Material of Crank shaft Steel Identification Mark on Do. N° 4459 G.A.H.
 Material of Thrust shaft Steel Identification Mark on Do. N° 4460 AEF
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓
 Material of Screw shaft Steel Identification Marks on Do. N° 2267 AEF
 Material of Steam Pipes Copper Test pressure 260 lb. Date of Test 17.12.24 ✓
 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 machinery of this vessel has been constructed under Special Survey in accordance with the approved plans & rules of this Society, the materials & workmanship are good, the steam pipes have been tested as above & found sound & good.

The machinery has been examined whilst being installed in the vessel, tried under working conditions & found satisfactory. The safety valves adjusted under steam to blow at 130 lbs.

In my opinion the vessel is eligible for the period of + L.M.C. 1-25.

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 1.25.

J.W.D. 12/2/25 P.M.S.

The amount of Entry Fee £ 2-0-0
 Special Tonnage £ 17-15-0
 3/5 for survey during construction and
 Donkey Boiler Fee ... £ 11-17-0
 Travelling Expenses (if any) £ 7-18-10
 When applied for, FEB 1925
 When received, 12.2.1925

A.E. Lammier
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

13 FEB 1925

+ LMC 125



© 2021

Lloyd's Register Foundation