

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report **31 JAN 1928** When handed in at Local Office **31 JAN 1928** Received at London Office
 No. in Survey held at **Great Yarmouth** Port of **London (Burch)** Date, First Survey **10 Aug. 1927** Last Survey **24 JAN 1928**
 Reg. Book. on the **Single Screw Steamer "ROBIN"** (Number of Visits **15**)
 Built at **Great Yarmouth** By whom built **Crabtree & Co. Ltd.** Yard No. **185** Tons **Gross 217.00**
 Engines made at **Great Yarmouth** By whom made **Crabtree & Co. Ltd.** Engine No. **603** when built **1928** Net **83.50**
 Boilers made at **Stockton** By whom made **Riley Bros.** Boiler No. **5733** when made **1927**
 Registered Horse Power **✓** Owners **General Steam Navigation Co. Ltd.** Port belonging to **London**
 Nom. Horse Power as per Rule **50 ✓** Is Refrigerating Machinery fitted for cargo purposes **no ✓** Is Electric Light fitted **no ✓**

ENGINES, &c.—Description of Engines **Compound surface condensing ✓**
 Dia. of Cylinders **14 7/8 ✓** Length of Stroke **21 ✓** Revs. per minute **✓** No. of Cylinders **2 ✓** No. of Cranks **2 ✓**
 Dia. of Crank shaft journals as per rule **5.90" ✓** as fitted **6.0" ✓** Dia. of Crank pin **6" ✓** Crank webs Mid. length breadth **8" ✓** Thickness parallel to axis **4 1/4" ✓**
 Diameter of Thrust shaft under collars as per rule **5.62" ✓** as fitted **5.75" ✓** Diameter of Tunnel shaft **5.62" ✓** as per rule **5.62" ✓** as fitted **5.75" ✓** Diameter of Screw shaft **6.375" ✓** as per rule **6.375" ✓** as fitted **6.375" ✓** Is the Screw shaft
 fitted with a continuous liner the whole length of the stern tube **Yes ✓** 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 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 **✓** Length of Stern Bush **26" ✓** Diameter of Propeller **7'-0" ✓**
 Pitch of Propeller **9'-0" ✓** No. of Blades **4 ✓** State whether Moveable **no ✓** Total Surface **20.2 ✓** square feet.
 No. of Feed Pumps fitted to the Main Engines **1 ✓** Diameter of ditto **2 1/4" ✓** Stroke **10 1/2" ✓** Can one be overhauled while the other is at work **✓**
 No. of Bilge Pumps fitted to the Main Engines **1 ✓** Diameter of ditto **2 1/4" ✓** Stroke **10 1/2" ✓** Can one be overhauled while the other is at work **✓**
 Total number and size of power driven Feed and Bilge Auxiliary Pumps **1 Feed pump, 4 1/2" x 2 3/4" x 4 7/8" / 1 Bilge pump, 5 1/2" x 4 3/4" x 5" Direct steam driven.**
 No. and size of Pumps connected to the Main Bilge Line **Two ✓**
 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 suction connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room **one 2 1/4" ✓** and in Holds, &c. **In Hold.—2, 2 1/4" dia / Fore peak, 1-2" dia**
 ✓ **Yt peak 1-2" dia. ✓**

No. and size of Main Water Circulating Pump Bilge Suctions **one 3 1/2" dia ✓** No. and size of Donkey Pump Direct Suctions
 the Engine Room Bilges **one 2 1/4" ✓** 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 **Valves + 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 ✓**
 How are they protected **✓**
 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 **1050 # ✓**
 For ced Draft fitted **no ✓** No. and Description of Boilers **One Single ended Marine ✓** Working Pressure **120 lb ✓**
IS A REPORT ON MAIN BOILERS NOW FORWARDED?
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 **✓**
IF ANY SPARE GEAR. State the articles supplied:—
 2 piston rod top end bolts + nuts ✓ 1 set of feed + bilge pump valves ✓
 2 bon. rod top end bolts + nuts ✓ A quantity of assorted bolts + nuts. ✓
 2 main bearing bolts + nuts. ✓
 1 set coupling bolts + nuts. ✓

The foregoing is a correct description
Woods, P. P. Crabtree & Co Ltd Manufacturer.



Dates of Survey while building

During progress of work in shops -- 1927: Aug 10, Sep 1, 23, Oct 7, 17, 24, 25, Nov 2, 7, 22, 25, Dec 2, 29

During erection on board vessel --- 1928: Jan 6, 24

Total No. of visits 15.

Dates of Examination of principal parts - Cylinders 10-8-27 + 10-10-27 Slides 17-10-27

Covers 10-10-27 Pistons 1-9-27 Rods 1-9-27 + 17-10-27

Connecting rods 1-9-27 + 17-10-27 Crank shaft 1-9-27, 10-10-27, 17-10-27 + 21-10-27 Thrust shaft 17-10-27 + 2-11-27

Tunnel shafts ✓ Screw shaft 17-10-27, 21-10-27 + 24-10-27 Propeller 17-10-27 + 24-10-27

Stern tube 10-10-27 Engine and boiler seatings 25-10-27 Engines holding down bolts 22-11-27

Completion of pumping arrangements 29-10-27 Boilers fixed 2-11-27 Engines tried under steam 29-12-27

Completion of fitting sea connections 24-10-27 Stern tube 24-10-27 Screw shaft and propeller 24-10-27

Main boiler safety valves adjusted 29-12-27 Thickness of adjusting washers P 1/2 S 1/32

Material of Crank shaft Steel Identification Mark on Do. LLOYDS No. 5468 D. A.S.

Material of Thrust shaft + Int shaft. Steel Identification Mark on Do. LLOYDS No. 1900. A.S.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓

Material of Screw shafts Steel Identification Marks on Do. LLOYDS No. 1900 A.S.

Material of Steam Pipes Copper ✓ Test pressure 240 lbs ✓ Date of Test 2-12-27

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 ✓ 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 + the Rules of this Society, the materials + workmanship are good. The machinery examined while installed in the vessel + on completion tested under working conditions. The safety valves have been adjusted under steam to 125 lbs. In my opinion the vessel is eligible for the record of F.L.M.C. 1-28 in the R.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1. 28. CL.

J.W.D.
3/2/28

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

The amount of Entry Fee £ 2.0.0

Special Donkey Boiler Fee £ 10-4-0

Travelling Expenses (if any) £ 3-1-6

When applied for, 31 JAN 1928

When received, 13.4.28

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

Committee's Minute F.M.L. 24 FEB 1928

Assigned + L.M.C. 1:28



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