

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 11 JUN 1928

Date of writing Report 9-6-1928 When handed in at Local Office 9-6-1928 Port of Aberdeen
 No. in Survey held at Aberdeen Date, First Survey 6-12-27 Last Survey 4-6-1928
 Reg. Book. on the S.S. "ST. CLEMENT." (Number of Visits 26)
 Built at Aberdeen By whom built Hall, Russell & Co. Ltd Yard No. 695 Tons { Gross 449.73
 Engines made at Aberdeen By whom made Hall, Russell & Co. Ltd Engine No. 695 when made 1928 Net 178.65
 Boilers made at Aberdeen By whom made Hall, Russell & Co. Ltd Boiler No. 695 when made 1928
 Registered Horse Power Owners North of Scotland & Orkney & Shetland Steam Nav. Co. Ltd. Port belonging to Aberdeen
 Nom. Horse Power as per Rule 81 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

Triple expansion.

Dia. of Cylinders 12. 20. 34. Length of Stroke 24. Revs. per minute 115. No. of Cylinders 3. No. of Cranks 3
 Dia. of Crank shaft journals as per rule 6.45 as fitted 6.75. Dia. of Crank pin 6.75. Crank webs Mid. length breadth 9 3/4 If shrunk Thickness parallel to axis 4 3/8
 Diameter of Thrust shaft under collars as per rule 6.45 as fitted 6.75. Diameter of Tunnel shaft as per rule 6.14 as fitted 6.14. Diameter of Screw shaft as per rule 6.93 as fitted 7.25. 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 yes. 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 yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes. Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated no. Length of Stern Bush 29". Diameter of Propeller 9.6"
 Pitch of Propeller 10-3". No. of Blades 4. State whether Moveable no. Total Surface 29 sq ft square feet.
 No. of Feed Pumps fitted to the Main Engines 2. Diameter of ditto 2 3/8". Stroke 12". Can one be overhauled while the other is at work yes
 No. of Bilge Pumps fitted to the Main Engines 2. Diameter of ditto 2 3/8". Stroke 12". Can one be overhauled while the other is at work yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps One 5x3 1/2 x 6 Duplex & One 6x6x6 Duplex ballast.
 No. and size of Pumps connected to the Main Bilge Line both the above.
 No. and size of Ballast Pumps One 6x6x6. No. and size of Lubricating Oil Pumps, including Spare Pump none
 Are two independent means arranged for circulating water through the Oil Cooler yes. No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2 @ 2 1/4" dia, One @ 2 1/4" dia. and in Holds, &c. 2 @ 2 1/2", one P & one S.

No. and size of Main Water Circulating Pump Bilge Suctions One 3 1/2". No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges One @ 2 1/2". 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 For. suction. How are they protected Steel cover.
 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 yes. Is it fitted with a watertight door yes worked from yes.

MAIN BOILERS, &c.—(Letter for record P.) Total Heating Surface of Boilers 1510 sq ft.
 Is Forced Draft fitted no. No. and Description of Boilers One S.E. Main. Working Pressure 180 lbs sq in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes.
 IS A DONKEY BOILER FITTED? no. If so, is a report now forwarded? yes.
 PLANS. Are approved plans forwarded herewith for Shafting no. Main Boilers yes. Auxiliary Boilers yes. Donkey Boilers yes.
 General Pumping Arrangements yes. Oil fuel Burning Piping Arrangements yes.

SPARE GEAR. State the articles supplied:— as per Rule requirements, also one set each of air, circulating, feed & bilge pump valves, one main & one auxy. feed check valve, 1/2 set fire bars, 6 junk ring bolts, 5 Condenser tubes & 24 ferrules, one safety valve spring.

The foregoing is a correct description,
 HALL, RUSSELL & CO., LTD.
 Director

Manufacturer.



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1927. 1928.
 Dec. 6. 21. Jan. 12. 25. 31. Feb. 16. 29. Mar. 8. 12. 21. 26. Apr. 10. 12. 17. 23. 25. May. 2
 During progress of work in shops --
 Dates of Survey while building
 During erection on board vessel --
 Total No. of visits 26.

Dates of Examination of principal parts - Cylinders 29-2-28 Slides 8-3-28
 Covers 29-2-28 Pistons 8-3-28 Rods 21-3-28
 Connecting rods 21-3-28 Crank shaft 20-12-27 Thrust shaft 23-4-28
 Tunnel shafts ✓ Screw shaft 25-4-28 Propeller 25-4-28
 Stern tube 25-4-28 Engine and boiler seatings 2-5-28 Engines holding down bolts 21-5-28
 Completion of pumping arrangements Boilers fixed 21-5-28 Engines tried under steam 24-5-28
 Completion of fitting sea connections 2-5-28 Stern tube 2-5-28 Screw shaft and propeller 2-5-28
 Main boiler safety valves adjusted 24-5-28 Thickness of adjusting washers P 2 3/32 S 7/16
 Material of Crank shaft Steel Identification Mark on Do. 1749 A.T.T.
 Material of Thrust shaft Steel Identification Mark on Do. 1751 P.F.
 Material of Tunnel shafts ✓ Identification Marks on Do.
 Material of Screw shafts Steel Identification Marks on Do. 1752 P.F.
 Material of Steam Pipes S.D. Copper Test pressure 360 lbs per sq. in. Date of Test 10-5-28.
 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 & the Rules of this Society. The materials & workmanship are good. The machinery has been efficiently installed on board the vessel, tried under working conditions, & found good. The machinery is eligible in my opinion to have the record - L.M.C. 6.28 C.L. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 6.28 C.L. T. 3cy. 12, 20, 34 - 24 81 NHP. 15B. 3cy. 65.50 H.S. 1510. 180 1/2 (r) HALL RUSSELL & Co, Aberdeen.

P. Fitzgerald
 15/6/28

Certificate to be sent to Aberdeen office.

The amount of Entry Fee ... £ 2 : - :
 Special ... £ 20 : 5 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 9-6-1928.
 When received, 22-6-28.

P. Fitzgerald
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRL 15 JUN 1928
 Assigned June 6. 28
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