

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 11390

Report of writing Report 13th Nov. 1922. When handed in at Local Office 14th Nov. 1922 Port of Southampton
 Date, First Survey December 14 Last Survey Nov. 4 1922.
 (Number of Visits 47.)

in Survey held at Cowes.
 g. Book. 260 on the STEEL S.S. "HITHERWOOD."
 Built at Cowes. By whom built J.S. White & Co. Ltd. Yard No. 1562. Tons Gross 1580. Net 1000.
 Engines made at Cowes. By whom made J.S. White & Co. Ltd. Engine No. 1562. When built 1922.
 Boilers made at " By whom made " " " " Boiler No. 1562. when made 1922.
 Registered Horse Power Owners C.A. Stewart & Co. Port belonging to London.
 n. Horse Power as per Rule 200. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted yes.

GINES, &c.—Description of Engines Triple expansion.
 No. of Cylinders 19, 32, 52. Length of Stroke 36" Revs. per minute 80. No. of Cylinders 3. No. of Cranks 3.
 of Crank shaft journals as per rule 10.125 as fitted 10 1/4. Dia. of Crank pin 10 1/4. Crank webs Mid. length breadth 18 1/4. Mid. length thickness 6 1/4. Thickness parallel to axis 6 1/4. Thickness around eye-hole 4.
 Diameter of Thrust shaft under collars as per rule 10.125 as fitted 10 1/4. Diameter of Tunnel shaft as per rule 9.63 as fitted 9 1/16. Diameter of Screw shaft as per rule 10.72 as fitted 11 1/4. Is the Screw shaft 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.
 Between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes.
 If the liner does not fit tightly at the part between the bearings, is the shaft lapped or protected between the liners yes.
 Is an approved appliance fitted at the after end of the shaft to permit being efficiently lubricated no.
 Length of Stern Bush 3' 9" Diameter of Propeller 13' 0".
 No. of Propeller 14' 9" No. of Blades 4. State whether Moveable no. Total Surface 53 sq. feet.
 of Feed Pumps fitted to the Main Engines 2. Diameter of ditto 3" Stroke 22". Can one be overhauled while the other is at work yes.
 of Bilge Pumps fitted to the Main Engines 2. Diameter of ditto 4" Stroke 22". Can one be overhauled while the other is at work yes.
 Number and size of power driven Feed and Bilge Auxiliary Pumps Aux Feed Pump 7' x 5 1/4' x 14" SIMPLEX. GENERAL SERVICE PUMP 6' x 4 1/4' x 6" DUPLEX.
 and size of Pumps connected to the Main Bilge Line Two 6' x 4 1/4' x 6" GENERAL SERVICE PUMP. 8' x 9' x 8" BALLAST PUMP.
 and size of Ballast Pumps ONE - 8' x 9' x 8" DUPLEX. No. and size of Lubricating Oil Pumps, including Spare Pump None.
 two independent means arranged for circulating water through the Oil Cooler No. and size of suction connected to both Main Bilge Pumps and Auxiliary Pumps;—In Engine and Boiler Room 2 - 2 1/4", 1 - 2 1/2" and in Holds, &c. 2 - 2 1/4" FOR HOLD, 2 - 2" x 1 - 2 1/2" AFT HOLD.
 2 1/2" TUNNEL WELL.

and size of Main Water Circulating Pump Bilge Suctions One, 6" dia.
 Engine Room Bilges 1 - 2 1/2. No. and size of Donkey Pump Direct Suctions
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes.
 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.
 All connections with the sea direct on the skin of the ship yes. Are they Valves or Cocks Valves.
 They fitted 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.
 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.
 Pipes are carried through the bunkers None. How are they protected yes.
 All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes.
 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 top platform.

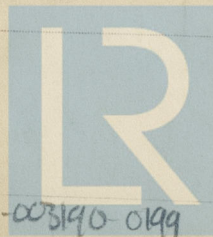
MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 3,400 sq. ft.
 Forced Draft fitted No. No. and Description of Boilers Two single-ended. Working Pressure 180 lbs.
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.
 A DONKEY BOILER FITTED? yes. If so, is a report now forwarded? yes.
 ANS. Are approved plans forwarded herewith for Shafting yes. Main Boilers yes. Auxiliary Boilers yes. Donkey Boilers yes.
 Pumping Arrangements yes. Oil fuel Burning Piping Arrangements none.

1. GEAR. State the articles supplied:— Two each top and bottom end connecting bolts and nuts, one set of coupling bolts and nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts, etc. Main bearing quag.
 One Propeller. Two Main Bearing Bolts and Nuts. One set Escape Valve Springs.
 One Pump Link Beasses. Thirty six Condenser Tubes with Eighteen Felleules.
 Twenty four Main Boiler Tubes. One set Safety Valve Springs. Two Feed Check Valves.
 Twelve Piston Junk Ring Studs & Nuts.

The foregoing is a correct description
 For J. SAMUEL WHITE & COMPANY, Ltd.

Manufacturer.

Managing Director.



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Lloyd's Register
Foundation

003181-003190-0199

1920. 1921. 1922.
 Dec 14 Jan 25 Mar 11 Apr 26 May 2 10 25 June 9 28 July 16 22 28 Aug 17 Sept 8 9 27 Oct 14 20 31
 During progress of work in shops - -
 Dec 16 20 Jan 10 30 Feb 16 Mar 2 7 14 21 29 Apr 26 May 5 26 29 31 June 16 27 July 4 10 20
 Dates of Survey while building
 During erection on board vessel - -
 July 27 Sept 1 6 21 25 29 Oct 3 Nov 4 10.
 Total No. of visits **48**

Dates of Examination of principal parts - Cylinders **16.2.22. 7.3.22.** Slides **7.3.22.**
 Covers **7.3.22.** Pistons **7.3.22.** Rods **29.3.22.**
 Connecting rods **29.3.22.** Crank shaft **31.5.22.** Thrust shaft **21.9.21.**
 Tunnel shafts **20.7.21. to 28.9.21.** Screw shaft **31.5.22.** Propeller **31.5.22.**
 Stern tube **31.5.22.** Engine and boiler seatings **4.7.22.** Engines holding down bolts **27.7.22.**
 Completion of pumping arrangements **25.9.22.** Boilers fixed **27.7.22.** Engines tried under steam **25.9.22.**
 Completion of fitting sea connections **16.7.22.** Stern tube **4.7.22.** Screw shaft and propeller **4.7.22.**
 Main boiler safety valves adjusted **25.9.22.** Thickness of adjusting washers **PBS = $\frac{11}{32}$ " P = $\frac{3}{16}$ " SBP = $\frac{3}{16}$ " S = $\frac{3}{16}$ "**
 Material of Crank shaft **Steel.** Identification Mark on Do. **2249.**
 Material of Thrust shaft **"** Identification Mark on Do. **5773.**
 Material of Tunnel shafts **"** Identification Marks on Do. **5774.5895.5896.5897.**
 Material of Screw shafts **"** Identification Marks on Do. **4569.**
 Material of Steam Pipes **Copper.** Test pressure **360 lbs.** Date of Test **1.9.22.**
 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 of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The Boilers tested by hydraulic pressure, with engines secured on board and tested under steam, they now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed and have notation of **LMC 11.22** in the Register book, subject the I.P. Cylinder being again examined in six months (see letter to Secretary attached.)*

It is submitted that
 this vessel is eligible for
THE RECORD. + L.M.C. 11.22. C.L.

Subject to the I.P. cylinder being again examined
 before the end of May 1923.

A.H.B.

16/11/22

Cond.

The amount of Entry Fee ... £ **4** : 0 : 0
 Special ... £ **30** : 0 : 0
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ **5** : 10 : 0

When applied for,
 14/11/1922

When received,
 17/11/1922

J.G. MacKillop

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE. NOV. 21 1922

Assigned

+ L.M.C. 11.22. C.L.

subject.

MACHINERY DEPT.
 11/11/22



Lloyd's Register
 Foundation