

REPORT ON MACHINERY.

No. 8198.

Received at London Office

Date of writing Report Sept 23rd 1919 When handed in at Local Office Sept 26th 1919 Port of DUNDEE
 To. in Survey held at Dundee Date, First Survey April 24th 1919 Last Survey Sept 20th 1919
 Log. Book. on the Shul S.S. "CHALDON" (Number of Vials 38)

Master Built at Dundee By whom built Dundee S.B. Co. Ltd When built 1919
 Engines made at Dundee By whom made Cooper & Greig Ltd. when made 1919
 Boilers made at Birkenhead By whom made Cammell Laird & Co. Ltd. when made 1919
 Registered Horse Power Owners Guinness, Fletcher & Co Port belonging to London
 Nom. Horse Power as per Section 28 1 1/2 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion, Surface condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 18" 30" 50" Length of Stroke 33 Revs. per minute 84 Dia. of Screw shaft as per rule 10 1/4 Material of Steel
 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 water tight
 Is 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 Length of stern bush 3'-7"
 Dia. of Tunnel shaft as per rule 9.03 Dia. of Crank shaft journals as per rule 9.48 Dia. of Crank pin 9 3/4" Size of Crank webs 13 1/2 x 5 3/8 Dia. of thrust shaft under
 collars 9 3/4" Dia. of screw 13'-3" Pitch of Screw 14'-6" No. of Blades 4 State whether moveable No Total surface 60 sq
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps Feed 7 x 5 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 in Engine Room 3 @ 2 1/2" dia. In Holds, &c. Fore hold 1 @ 3" dia. A. hold 1 @ 3" dia.
in hold 2 @ 2 1/2" dia. aft hold 3 @ 2 1/2" Tunnel well 1 @ 2 1/2" Tank suction as per pumping plan.
 No. of Bilge Injections 1 sizes 7" Connected to condenser or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible 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 Forward bilge suction How are they protected Strong wood casing.
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers 2886 sq Is Forced Draft fitted No No. and Description of Boilers 2 S. L. marine
 Working Pressure 180 lb sq Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
 each boiler Two spring loaded Area of each valve 4.9 sq Pressure to which they are adjusted 185 lb sq Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 Long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell 16"
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part Thickness of plates Description of longitudinal joint No. of strengthening rings
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
 SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:—2 Top end bolts + nuts. 2 Bottom end bolts + nuts. 2 bearing bolts + nuts. Set of coupling bolts + nuts. Set of valves for air, fuel, bilge + circulating pumps. 2 main + 2 aux. fuel check valves. 6 Cylinder covers + 6 valve cover studs + nuts. 12 pinhead ring studs + nuts. Assorted bolts + nuts of various sizes. Assorted round + flat iron bars of various sizes.

The foregoing is a correct description,

FOR ROYAL LLOYD REGISTER.

M. R. Cooper

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1919 APR. 24. 29. MAY 13. 22. JUNE 2. 19. 24. JULY 1. 24. AUG. 4. 13. 19. 22. 26. SEP. 2. 11. 19. 26. OCT. 2. 9. 1919 OCT. 14. 14. 24 NOV. 3. 6. 4. 13. 14. 21. 24. DEC. 3. 4. 5. 10. 12. 15. 16. 20. Total No. of visits 38.

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " "

no

Dates of Examination of principal parts—Cylinders 26.9.19 Slides 24.10.19 Covers 26.9.19 Pistons 24.10.19 Rods 2.10.19 Connecting rods 2.10.19 Crank shaft 22.5.19 Thrust shaft 22.5.19 Tunnel shafts 11.9.19 Screw shaft 11.9.19 Propeller 11.9.19 Stern tube 11.9.19 Steam pipes tested 4.12.19 Engine and boiler seatings 19.9.19 Engines holding down bolts 21.11.19 Completion of pumping arrangements 16.12.19 Boilers fixed 13.11.19 Engines tried under steam 16.12.19 Completion of fitting sea connections 6.11.19 Stern tube 6.11.19 Screw shaft and propeller 6.11.19 Main boiler safety valves adjusted 12.12.19 Thickness of adjusting washers 1/16" for all valves.

Material of Crank shaft Steel Identification Mark on Do. 865 T.H.M. Material of Thrust shaft Steel Identification Mark on Do. 865 T.H.M.

Material of Tunnel shafts Steel Identification Marks on Do. 865 T.H.M. Material of Screw shafts Steel Identification Marks on Do. 865 T.H.M.

Material of Steam Pipes S.D. Copper, 4" Bore x 6 Wt. Test pressure 360 lbs per sq. in.

Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules 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.)

These engines and boilers have been built under special survey and in accordance with the Society's Rules. The materials & workmanship are sound & good. The machinery has been satisfactorily fitted on board, tried in full working conditions & found in good order. It is eligible in my opinion to have record of L.M.C. 12.19.

The engines of this vessel were originally intended for use in a C.S. Standard vessel. But as from July last this vessel has been privately owned.

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 12.19

To be fixed in London. Please see our letter of Dec 20th 1919.

The amount of Entry Fee ... £ 13 : 18 : 0
Survey of ship ... £ 6 : 19 : 0
Special Fitting on board ... £ 2 : 0 : 0
Donkey Boiler Fee ... £
Charges by ...
Travelling Expenses (if any) £

When applied for, 31/12/19
When received, 22/1/20

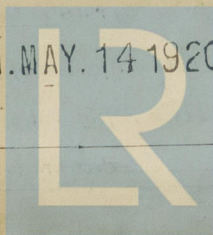
John H. Mackintosh
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

+ L.M.C. 12.19

FRI. MAY. 14 1920



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