

Rpt. 4. **REPORT ON MACHINERY.** No. 27358
 Received at London Office TUE. APR. - 7. 1914

Date of writing Report 31st Mar 14 when handed in at Local Office 6-4-14 Port of Hull
 No. in Survey held at Hull Date, First Survey Oct 7th Last Survey Mar 28th 1914
 Reg. Book. 78 Sep on the steel Le K "MAROC." (Number of Visits 35)
 Master Selby Built at Selby By whom built Cochrane & Sons Ltd Tons Gross 6384 Net 368
 Engines made at Hull By whom made Amos & Smith Ltd Hull when made 1914
 Boilers made at Hull By whom made Amos & Smith Ltd when made 1914
 Registered Horse Power J. Huret Owners J. Huret Port belonging to Boulogne
 Nom. Horse Power as per Section 28 128 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple-Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 15.25" 42" Length of Stroke 27 Revs. per minute 108 Dia. of Screw shaft 8.53 Material of screw shaft S
 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 in the propeller boss yes
 If the liner is in more than one length are the joints burned no 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 no
 If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 3'-4"
 Dia. of Tunnel shaft 7.47 Dia. of Crank shaft journals 7.8 Dia. of Crank pin 8 Size of Crank webs 15.75x5.5 Dia. of thrust shaft under collars 8 Dia. of screw 10.72 Pitch of Screw 11.42 No. of Blades 4 State whether moveable no Total surface 40.5
 No. of Feed pumps 2 Diameter of ditto 2.2 Stroke 18 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 1 Diameter of ditto 2.2 Stroke 18 Can one be overhauled while the other is at work no
 No. of Donkey Engines 2 Sizes of Pumps 6x4.5x6 7x7x8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2" One forward One aft In Holds, &c. 2-2" Reserve bunker & slush well
2" ejector from all bilges 1.2" ejector from fore peak
 No. of Bilge Injections 1 sizes 4" dia Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 2" ejector
 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 none
 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 Hold suction How are they protected 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
 Dates of examination of completion of fitting of Sea Connections 13.1.14 of Stern Tube 13.1.14 Screw shaft and Propeller 13.1.14
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Messrs Phoenix Abt. Harder Verein of Herde
 Total Heating Surface of Boilers 2371 Is Forced Draft fitted no No. and Description of Boilers One Single-ended
 Working Pressure 180lbs Tested by hydraulic pressure to 360lbs Date of test 5.2.14 No. of Certificate 2056
 Can each boiler be worked separately no Area of fire grate in each boiler 74 No. and Description of Safety Valves to each boiler 2-Spring loaded Area of each valve 5.94 Pressure to which they are adjusted 180lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7.2 Mean dia. of boiler 15.6 Length 11.0 Material of shell plates S
 Thickness 1.3/16 Range of tensile strength 29-33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams brd
 long. seams TRAB Diameter of rivet holes in long. seams 1.4 Pitch of rivets 8.75 Lap of plates or width of butt straps 18.78
 Per centages of strength of longitudinal joint 87.9 Working pressure of shell by rules 180 Size of manhole in shell 16x12
 Size of compensating ring 30x40x1.7/16 No. and Description of Furnaces in each boiler 4 plain Material S Outside diameter 38.7/8
 Length of plain part 82 Thickness of plates 1.3/16 Description of longitudinal joint welded No. of strengthening rings 13/16
 Working pressure of furnace by the rules 208 Combustion chamber plates: Material S Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/16
 Pitch of stays to ditto: Sides 7.2x9.4 Back 9x10 Top 7.2x9.4 stays are fitted with nuts or riveted heads nuts Working pressure by rules 182
 Material of stays S Diameter at smallest part 2.06 Area supported by each stay 90 Working pressure by rules 206 End plates in steam space: Material S Thickness 1.4 Pitch of stays 21x18.7/8 How are stays secured Ns x Ns Working pressure by rules 184 Material of stays S
 Diameter at smallest part 7.24 Area supported by each stay 393 Working pressure by rules 185 Material of Front plates at bottom S
 Thickness 3/32 Material of Lower back plate S Thickness 29/32 Greatest pitch of stays 13.2 Working pressure of plate by rules 205
 Diameter of tubes 3.4 Pitch of tubes 4.7/4 Material of tube plates S Thickness: Front 3/32 Back 27/32 Mean pitch of stays 9.4
 Pitch across wide water spaces 13.2 Working pressures by rules 198 Girders to Chamber tops: Material S Depth and thickness of girder at centre 9.4x7.8 Length as per rule 34 Distance apart 9.3/4 Number and pitch of stays in each 30x9.3/4
 Working pressure by rules 182 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

004378-004386-0106

IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two each top and bottom connecting rods bolts and nuts, two main bearing 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, Propeller, Tail shaft, Piston rod nut, Valve spindle, nut washers, Bilge pump plunger, eccentric pulley & strap, Main & bottom end connecting rod brasses, Piston rings and springs for each cylinder. 4 White metal liners for thrust shoes. 20 plain & 6 stay tubes. Bucket & piston rings for donkey 16 condenser tubes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

J. Prachebury

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - } 1913. - Oct 7, 17, 28. Nov 11, 18, 26. Dec 2, 9, 17, 23 1914. - Jan 2, 9, 13, 15, 19, 21, 27, 30. Feb 4, 5.
{ During erection on board vessel - - - } Feb 9, 11, 13, 14, 20. Mar 4, 5, 11, 13, 20, 21, 23, 25, 26, 28.
Total No. of visits 35

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders *27.1.14.* Slides *27.1.14.* Covers *27.1.14.* Pistons *20.2.14.* Rods *11.2.13.*
Connecting rods *11.2.13.* Crank shaft *21.1.14.* Thrust shaft *9.1.14.* Tunnel shafts *✓* Screw shaft *9.1.14.* Propeller *9.1.14.*
Stern tube *9.1.14.* Steam pipes tested *13.3.14.* Engine and boiler seatings *13.1.14.* Engines holding down bolts *11.3.14.*
Completion of pumping arrangements *23.3.14.* Boilers fixed *11.3.14.* Engines tried under steam *21.3.14.*
Main boiler safety valves adjusted *21.3.14.* Thickness of adjusting washers *F.V. 3/4 full AV 13/16"*

Material of Crank shaft *S.* Identification Mark on Do. *1200.* Material of Thrust shaft *S.* Identification Mark on Do. *1200.*
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *S.* Identification Marks on Do. *1200.*

Material of Steam Pipes *Copper solid drawn.* Test pressure *300 lbs. hyd. press.*

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 Section 49 of the Rules 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 & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure and with the engines secured on board and tested under steam they are now in good order & safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of + LMC 3.14. in the Register book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 14.

JWD. 8/4/14 *J.P.R.*

The amount of Entry Fee ... £ 2 : :
Special ... £ 19 : 4 : } When applied for, 6/4/1914
Donkey Boiler Fee ... £ : : }
Travelling Expenses (if any) £ : 8 : 2 } When received, 30/4/1914

J. G. Mackillop.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute THUR. APR. 9 - 1914

Assigned + LMC 3. 14

Certificate (if required) to be sent to Hull

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

MACHINERY CERTIFICATE WRITTEN



© 2021

Lloyd's Register Foundation