

REPORT ON MACHINERY.

No. 27798

Received at London Office THU. AUG. - 6. 1914

Date of writing Report 22nd July 1914 When handed in at Local Office 25. 7. 14 Port of Hull
 No. in Survey held at Hull Date, First Survey Jan 15th Last Survey July 17th 1914
 Reg. Book. 544 on the steel se K "OTILIE." No. 2350 (Number of Visits 20)
 Master Bomerley Built at Bomerley By whom built Amos & Smith Ld. Tons { Gross 226
 Engines made at Hull By whom made Amos & Smith Ld. when made 1914 Net 113
 Boilers made at Hull By whom made Amos & Smith Ld. when made 1914
 Registered Horse Power 68 Owners Marshall Line Ste. Fishing Co Port belonging to Grimsby
 Nom. Horse Power as per Section 28 68 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12" 21" 34" Length of Stroke 24" Revs. per minute 723 Dia. of Screw shaft 7 1/2" 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 ✓ 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 ✓ Length of stern bush 34"
 Dia. of Tunnel shaft 6 1/4" Dia. of Crank shaft journals 6 1/8" Dia. of Crank pin 7" Size of Crank web 13 1/4" x 4 3/8" of thrust shaft under collars 7" Dia. of screw 8 1/2" Pitch of Screw 11 1/2" No. of Blades 4 State whether moveable no Total surface 29 sq
 No. of Feed pumps 1 Diameter of ditto 2 5/8" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2 1/8" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 6 3/4" x 4 3/4" x 6" 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" Fourpeak & Rushwell
2" ejector from all bilges.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump 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 10.3.14 of Stern Tube 10.3.14 Screw shaft and Propeller 10.3.14
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Messrs. Phoenix Co of Horde
 Total Heating Surface of Boilers 1099 sq Is Forced Draft fitted no No. and Description of Boilers One Single-ended
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 12.6.14 No. of Certificate 2096
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 32.34 sq No. and Description of Safety Valves to each boiler Two Spring Area of each valve 3.9 sq Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 12'0" Length 10'0" Material of shell plates S.
 Thickness 1 1/16" Range of tensile strength 29-33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.L.
 long. seams ABS 5/16" Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 7 3/8" Lap of plates or width of butt straps 15 7/8"
 Per centages of strength of longitudinal joint 89.2 Working pressure of shell by rules 203 Size of manhole in shell 16 x 12"
 Size of compensating ring 40 x 30 x 1 1/16" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 3'0"
 Length of plain part 76" Thickness of plates 3/4" Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 206.8 combustion chamber plates: Material S. Thickness: Sides 3/4" Back 23/32" Top 1 1/16" Bottom 3/4"
 Pitch of stays to ditto: Sides 9 1/2" x 8 Back 9 1/2" x 8 Top 9 1/2" x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 211
 Material of stays S. Diameter at smallest part 2.06 Area supported by each stay 80.75 Working pressure by rules 230 End plates in steam space:
 Material S. Thickness 1 1/2" Pitch of stays 16 x 15 1/4" How are stays secured Ns & Ws Working pressure by rules 204 Material of stays S.
 Diameter at smallest part 6.1 Area supported by each stay 244 Working pressure by rules 260 Material of Front plates at bottom S.
 Thickness 1" Material of Lower back plate S. Thickness 1 1/16" Greatest pitch of stays 13 3/4" x 8" Working pressure of plate by rules 239
 Diameter of tubes 8 1/2" Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates S. Thickness: Front 1" Back 7/8" Mean pitch of stays 9 1/2" x 11 1/8"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 203 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 8 1/2" x 2" Length as per rule 2'8 3/4" Distance apart 8" Number and pitch of stays in each 2 at 9 1/2"
 Working pressure by rules 238 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

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IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:—

Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & bidge pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

S. A. Robinson

Manufacturer.

Secretary.

Dates of Survey while building { During progress of work in shops - 1914 Jan 15 Feb 28 Mar 9 10 17 23 Apr 1 27 May 21 27 28 Jun 5 9 12 24 29 30
During erection on board vessel - July 7 11 17
Total No. of visits 20 -

Is the approved plan of main boiler forwarded herewith *Rpt No. 27357*

Dates of Examination of principal parts—Cylinders *21.5.14* Slides *21.5.14* Covers *27.5.14* Pistons *27.5.14* Rods *5.6.14*
Connecting rods *5.6.14* Crank shaft *9.6.14* Thrust shaft *9.6.14* Tunnel shafts *10.3.14* Screw shaft *10.3.14* Propeller *10.3.14*
Stern tube *10.3.14* Steam pipes tested *29.6.14* Engine and boiler seatings *17.3.14* Engines holding down bolts *24.6.14*
Completion of pumping arrangements *7.7.14* Boilers fixed *24.6.14* Engines tried under steam *30.6.14*
Main boiler safety valves adjusted *30.6.14* Thickness of adjusting washers *Py 7/16" SV 3/8"*
Material of Crank shaft *S.* Identification Mark on Do. *1212* Material of Thrust shaft *S.* Identification Mark on Do. *1212*
Material of Tunnel shafts *V* Identification Marks on Do. *V* Material of Screw shafts *S.* Identification Marks on Do. *1212*
Material of Steam Pipes *Copper solid drawn* Test pressure *400lbs hyd. press.*

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 *yes*. If so, state name of vessel *S.S. "Layahue."*

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 & 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 June 7.14. in the Register Book.*

It is submitted that this vessel is eligible for

THE RECORD. + LMC 7.14

S/S 6.8.14 *GRS*

The amount of Entry Fee ... £ 1 :

Special ... £ 10 : 4 :

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for,

5/8/- 1914

When received,

31.9.14

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

Committee's Minute

FRI. AUG. - 7. 1914

Assigned

+ LMC 7.14

ORIGINAL CERTIFICATE
WRITTEN



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Foundation