

REPORT ON MACHINERY.

No. 27166

Date of writing Report 29th Jan 1914 When handed in at Local Office 30 - 1 to 14 Port of Hull Received at London Office MON. FEB. 9 - 1914

No. in Survey held at Hull
Reg. Book.

Date, First Survey Oct 7th Last Survey Jan 27th 1914
(Number of Visits 20)

Sup. 30 on the steel s.s. "ORINO."
Master Sully Built at Sully By whom built Locke & Sons Ltd Tons Gross 241 Net 94
Engines made at Hull By whom made Amos & Smith Ltd When built 1913
Boilers made at Hull By whom made Amos & Smith Ltd when made 1914
Registered Horse Power 72 Owners H. L. Taylor when made 1914
Nom. Horse Power as per Section 28 72 Is Refrigerating Machinery fitted for cargo purposes no Port belonging to Grimsby Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 12 1/4, 21, 34 Length of Stroke 24 Revs. per minute ✓ Dia. of Screw shaft as per rule 7 3/8 Material of ✓
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 ✓
Dia. of Tunnel shaft as per rule 6 3/4 Dia. of Crank shaft journals as per rule 6 3/8 Dia. of Crank pin 6 7/8 Length of stern bush 33
collars 6 7/8 Dia. of screw 8 1/2 Pitch of Screw 10 1/2 No. of Blades 4 State whether moveable no Total surface 29 1/2
No. of Feed pumps 1 Diameter of ditto 2 3/4 Stroke 12 Can one be overhauled while the other is at work ✓
No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work ✓
No. of Donkey Engines one Sizes of Pumps 6 1/4 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 Forehold, Slushwell
No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump no 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 no
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 Suctions 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 14. 11. 13. of Stern Tube 14. 11. 13. Screw shaft and Propeller 14. 11. 13.
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 Abt Harder Verein of Horde
Total Heating Surface of Boilers 1256 Is Forced Draft fitted no No. and Description of Boilers One Single-ended
Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 31. 12. 13. No. of Certificate 2048
Can each boiler be worked separately ✓ Area of fire grate in each boiler 35 1/2 No. and Description of Safety Valves to
each boiler 2 spring-loaded Area of each valve 3.98 Pressure to which they are adjusted 183 lbs. Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8 Mean dia. of boilers 12 1/2 Length 10 1/2 Material of shell plates S
Thickness 1 Range of tensile strength 29-33 Are the shell plates welded or flanged ✓ Descrip. of riveting: cir. seams OR.R.
long. seams OR.B. Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 7/8 Lap of plates or width of butt straps 16 1/2
Per centages of strength of longitudinal joint 100 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12
Size of compensating ring 40 x 30 x 1 No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 43 9/16
Length of plain part 72 Thickness of plates 2 1/2 Description of longitudinal joint welded No. of strengthening rings ✓
Working pressure of furnace by the rules 186 Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 1/16
Pitch of stays to ditto: Sides 9 x 9 1/4 Back 9 x 8 1/4 Top 9 1/4 x 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 196
Material of stays S Diameter at smallest part 2 1/16 Area supported by each stay 83.25 Working pressure by rules 223 End plates in steam space:
Material S Thickness 1 Pitch of stays 16 x 15 1/4 How are stays secured NUTS Working pressure by rules 187 Material of stays S
Diameter at smallest part 6 1/10 Area supported by each stay 252 Working pressure by rules 251 Material of Front plates at bottom S
Thickness 1 5/16 Material of Lower back plate S Thickness 2 1/2 Greatest pitch of stays 14 3/4 Working pressure of plate by rules 193
Diameter of tubes 3 1/2 Pitch of tubes 4 3/4 x 4 3/4 Material of tube plates S Thickness: Front 1 5/16 Back 2 1/2 Mean pitch of stays 9 1/2 x 9 1/2
Pitch across wide water spaces 14 1/2 Working pressures by rules 182 Girders to Chamber tops: Material S Depth and
thickness of girder at centre 8 1/4 x 1 3/4 Length as per rule 2 - 8 Distance apart 9 Number and pitch of stays in each 2 at 9 1/4
Working pressure by rules 196 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 ✓

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 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.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

W. H. H. H.

Managing Director.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1913: Oct 7. 17. 28 Nov 7. 11. 14. 18. 26 Dec 9. 17. 22. 23. 31. 1914: Jan 2. 5. 12. 15. During erection on board vessel -- Jan 20. 22. 27. Total No. of visits 20

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 18.11.13. Slides 18.11.13. Covers 18.11.13. Pistons 9.12.13. Rods 5.1.14. Connecting rods 22.12.13. Crank shaft 22.12.13. Thrust shaft 22.12.13. Tunnel shafts 7.11.13. Screw shaft 7.11.13. Propeller 7.11.13. Stern tube 7.11.13. Steam pipes tested 15.1.14. Engine and boiler seatings 7.11.13. Engines holding down bolts 20.1.14. Completion of pumping arrangements 20.1.14. Boilers fixed 20.1.14. Engines tried under steam 22.1.14. Main boiler safety valves adjusted 22.1.14. Thickness of adjusting washers PY 3/32 SV 3/8.

Material of Crank shaft S. Identification Mark on Do. 1192. Material of Thrust shaft S. Identification Mark on Do. 1192. Material of Tunnel shafts S. Identification Marks on Do. S. Material of Screw shafts S. Identification Marks on Do. 1192. Material of Steam Pipes Copper Solid Drawn. Test pressure 360lbs. 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 & 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 and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of +LMC 1.14. in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 1.14.

The amount of Entry Fee ... £ 1 : : When applied for, Special ... £ 10 : 16 : 7-2-1914 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ 4 : 1 28/2/1914

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

Committee's Minute

TUE MAR. 10. 1914

Assigned

+ LMC 1.14.

MACHINERY CERTIFICATE WRITTEN



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