

REPORT ON MACHINERY.

No. 27544

Received at London Office
 Date, First Survey Jan 15th Last Survey May 25th 1914
 (Number of Visits 28)

Writing Report 22nd May 1914 When handed in at Local Office 28-5-14 Port of Hull
 Survey held at Hull
 Book on the steel Se K "BARLE."
 Built at Hull By whom built Cochrane & Sons Ltd
 When made 1914
 By whom made Amos & Smith Ltd when made 1914
 Owners G.W. & H.B. Jeffe Port belonging to Grimsby

Horse Power as per Section 28 87¹ Is Refrigerating Machinery fitted for cargo purposes no¹ Is Electric Light fitted yes¹

INES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 of Cylinders 13, 22¹/₂, 37 Length of Stroke 24 Revs. per minute Dia. of Screw shaft as per rule 7.68 Material of screw shaft as fitted 8¹/₂ S.
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes¹ Is the after end of the liner made water tight
 Is the propeller boss 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
 Shafts are fitted, is the shaft lapped or protected between the liners Length of stern bush 3'-0" V
 of Tunnel shaft as per rule 6.7 Dia. of Crank shaft journals as per rule 7.1 Dia. of Crank pin 7¹/₂ Size of Crank web 4³/₄ x 4³/₄ of thrust shaft under
 as fitted 7¹/₂ Dia. of screw 9'-6" Pitch of Screw 4'-0" No. of Blades 4 State whether moveable no Total surface 33 S.
 of Feed pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work
 of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work
 of Donkey Engines 1 Sizes of Pumps 6¹/₄ x 4³/₄ x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2-2 One forward, one aft In Holds, &c. 4-2 Fore peak, Fishroom
 Forward Slushwell, After Slushwell, 2 ejector from all bilges
 of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating 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
 That 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 13.3.14 of Stern Tube 13.3.14 Screw shaft and Propeller 13.3.14
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from
 MILERS, &c.—(Letter for record S. Manufacturers of Steel The Phoenix Co Harde
 Total Heating Surface of Boilers 1484 Is Forced Draft fitted No. and Description of Boilers One single-ended
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 27.4.14 No. of Certificate 2080
 Can each boiler be worked separately Area of fire grate in each boiler 48.2 No. and Description of Safety Valves to
 Each boiler 2-Spring loaded Area of each valve 4.9 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 7¹/₂ Ext Mean dia. of boilers 13'-6" Length 10'-6" Material of shell plates S.
 Thickness 1⁵/₃₂ Range of tensile strength 29-33 Are the shell plates welded or flanged Descrip. of riveting: cir. seams DR Lap
 Long. seams 10 BS rivets Diameter of rivet holes in long. seams 1¹/₃₂ Pitch of rivets 8¹/₄ Lap of plates or width of butt straps 17³/₄
 Percentages of strength of longitudinal joint rivets 90.5 plate 88.2 Working pressure of shell by rules 202 Size of manhole in shell 16 x 12
 Size of compensating ring 40 x 30 x 1⁵/₃₂ No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 3'-4¹/₈
 Length of plain part top 80.5 Thickness of plates crown 13 Description of longitudinal joint welded No. of strengthening rings One
 bottom 80.5 Thickness 16 Working pressure of furnace by the rules 203 Combustion chamber plates: Material S. Thickness: Sides 32 Back 16 Top 32 Bottom 32
 Pitch of stays to ditto: Sides 8¹/₂ x 9¹/₂ Back 8¹/₂ x 9¹/₂ Top 9¹/₂ x 8¹/₂ If stays are fitted with nuts or riveted heads nuts Working pressure by rules 219
 Material of stays S. Area 2.06 Area supported by each stay 80.75 Working pressure by rules 230 End plates in steam space:
 Material S. Thickness 1¹/₈ Pitch of stays 17 x 17¹/₄ How are stays secured Nuts & Ws. Working pressure by rules 230 Material of stays S.
 Area at smallest part 7.24 Area supported by each stay 298.25 Working pressure by rules 250 Material of Front plates at bottom S.
 Thickness 1 Material of Lower back plate S. Thickness 7/8 Greatest pitch of stays 13¹/₄ x 9 Working pressure of plate by rules 200
 Diameter of tubes 3¹/₂ Pitch of tubes 4¹/₈ x 4¹/₄ Material of tube plates S. Thickness: Front 1 Back 7/8 Mean pitch of stays 9¹/₂ x 12¹/₁₆
 Pitch across wide water spaces 15³/₄ Working pressures by rules 277 Girders to Chamber tops: Material S. Depth and
 thickness of girder at centre 9 x 1³/₄ Length as per rule 2'-9¹/₂ Distance apart 8¹/₂ Number and pitch of stays in each 30 x 8¹/₂
 Working pressure by rules 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

© 2020

Lloyd's Register
W1269-0066
Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two each top & bottom end connecting rod bolts nuts, Two main bearing half nuts, One set each feed & bilge valves, A quantity of assorted bolts nuts, Iron of various sizes. 1 set of coupling bolts. see HUL ltr 6/6/14. JWD

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

J. Rachenbury

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914. Jan 15. 27. Feb 5 Mar 9. 10. 11. 13. 17. 23. 30. Apr 1. 27. 29. 30 May 1. 4. 12
During erection on board vessel - - - May 13. 14. 20. 25
Total No. of visits 21

Is the approved plan of main boiler forwarded herewith

yes ✓

Dates of Examination of principal parts—Cylinders 1. 4. 14. Slides 1. 4. 14. Covers 29. 4. 14. Pistons 1. 5. 14. Rods 1. 5. 14. Connecting rods 1. 5. 14. Crank shaft 27. 4. 14. Thrust shaft 27. 4. 14. Tunnel shafts Screw shaft 11. 3. 14. Propeller 11. 3. 14. Stern tube 11. 3. 14. Steam pipes tested 14. 5. 14. Engine and boiler seatings 13. 3. 14. Engines holding down bolts 12. 5. 14. Completion of pumping arrangements 12. 5. 14. Boilers fixed 12. 5. 14. Engines tried under steam 20. 5. 14. Main boiler safety valves adjusted 10. 5. 14. Thickness of adjusting washers PV 9/32 SV 9/32.

Material of Crank shaft S. Identification Mark on Do. 1213. Material of Thrust shaft S. Identification Mark on Do. 1213.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts S. Identification Marks on Do. 1213.

Material of Steam Pipes Copper solid drawn. ✓ Test pressure 400 lbs. 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 no yes ✓ If so, state name of vessel S.S. "Hane" ✓

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 and safe working condition and respectfully submitted as being eligible in my opinion to the classed with the notation of + LMC 5.14. in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.14.

The amount of Entry Fee ... £ 1 : : When applied for.
Special ... £ 13 : 1 : 0 2/6/14
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : 8 : 2 30/6/14

Committee's Minute FRI. JUN. 5-1914

Assigned

+ LMC 5.14

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

MACHINERY CERTIFICATE
WRITTEN



© 2020

Lloyd's Register
Foundation