

REPORT ON MACHINERY.

No. 29453.

Date of writing Report 24-10 1910 When handed in at Local Office 29/10/1910 Port of Glasgow. 22nd Nov. 1910
 No. in Survey held at Glasgow Date, First Survey 17th Feb. 1910 Last Survey 27th Feb. 1910
 Reg. Book. on the Twin Screw S.S. "Albion" (Number of Visits 43)
 Master T. D. Billing Built at Glasgow By whom built Alex Stephen & Sons Ltd (H39) Tons { Gross 4066.48
 Engines made at Glasgow By whom made Alex Stephen & Sons Ltd (H39) Net 1683.90.
 Boilers made at ditto By whom made ditto when made 1910
 Registered Horse Power Owners British India MCo Ltd when made 1910
 Nom. Horse Power as per Section 28 1317 Is Refrigerating Machinery fitted for cargo purposes No Port belonging to Glasgow.

ENGINES, &c. Description of Engines Quadruple Expansion (2 Sets) No. of Cylinders 8 No. of Cranks 8
 Dia. of Cylinders 24 1/2, 35 1/2, 50, 40 Length of Stroke 48 Revs. per minute Dia. of Screw shaft as per rule 14.08 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 5.4
 Dia. of Tunnel shaft as per rule 13.16 Dia. of Crank shaft journals as per rule 13.81 Dia. of Crank pin 4 3/4 Size of Crank webs 9 1/4 Dia. of thrust shaft under
 collars 1 1/4 Dia. of screw 16.0 Pitch of Screw 19.0 No. of Blades 3 State whether moveable yes Total surface 83
 No. of Feed pumps 2 Pair of screws Diameter of ditto 26 Stroke 15 1/2 x 11 1/2 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 3 Diameter of ditto 9 1/4 Stroke 15 1/2 x 11 1/2 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps Ball 9 x 11 1/2 Gel 26 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-3" Strokehold 2-3" In Holds, &c. 2" 3" in each hold Tunnel 3-3"
 No. of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size yes 3" (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
 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 below
 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 None How are they protected
 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 31. 8-10 of Stern Tube 31. 8-10 Screw shaft and Propeller 31. 8-10
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Upper Engine Room Platform
 BOILERS, &c. (Letter for record S) Manufacturers of Steel Steel Co of Scotland
 Single ended 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
 Total Heating Surface of Boilers 10,666 Is Forced Draft fitted yes No. and Description of Boilers 2 Double Ended.
 Working Pressure 215 Tested by hydraulic pressure to H30 Date of test 8-15-8-10 No. of Certificate 10532, 10543
 Can each boiler be worked separately yes Area of fire grate in each boiler 135.64 No. and Description of Safety Valves to
 each boiler 3 direct springs Area of each valve 11 Pressure to which they are adjusted 220 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 11 Mean dia. of boilers 15.6 Length 21.0 Material of shell plates S
 Thickness 12 3/32 Range of tensile strength 28/32 Are the shell plates welded or flanged Descrip. of riveting: cir. seams TR
 long. seams TR DBS Diameter of rivet holes in long. seams 23/32 Pitch of rivets 10 1/8 Lap of plates or width of butt straps 24 1/4
 Per centages of strength of longitudinal joint rivets 94.5 plate 83.82 Working pressure of shell by rules 248 Size of manhole in shell 16 x 12
 Size of compensating ring McNeil No. and Description of Furnaces in each boiler 8 Corrugated Material S Outside diameter 3-6 3/8
 Length of plain part top 39 1/4 bottom 39 1/4 Thickness of plates crown 39 1/4 bottom 39 1/4 Description of longitudinal joint weld No. of strengthening rings
 Working pressure of furnace by the rules 230 Combustion chamber plates: Material S Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 6 1/64
 Pitch of stays to ditto: Sides 4 1/2 x 9 Back 4 1/2 x 9 Top 4 1/2 x 9 Bottom 4 1/2 x 9 If stays are fitted with nuts or riveted heads yes Working pressure by rules 220
 Material of stays S Diameter at smallest part 1 1/2 Area supported by each stay 64.5 Working pressure by rules 238 End plates in steam space:
 Material S Thickness 1 1/32 Pitch of stays 9 1/2 x 13 1/4 How are stays secured DN Working pressure by rules 220 Material of stays S
 Diameter at smallest part 1 1/2 Area supported by each stay 299.25 Working pressure by rules 250 Material of Front plates at bottom S
 Thickness 1 1/8 Material of Lower back plate S Thickness 1 1/8 Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes 23 1/4 Pitch of tubes 4 x 37 1/8 Material of tube plates S Thickness: Front 1 1/8 DP Back 1 Mean pitch of stays 4 1/8
 Pitch across wide water spaces 13 1/2 Working pressures by rules 224 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 16 1/4 x 13 1/2 (2) Length as per rule 4-6 1/4 Distance apart 9 1/2 Number and pitch of stays in each 6 at 4 1/2
 Working pressure by rules 241 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
 plates Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 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

Manufacturers of Steel

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Alex. Stephen & Sons Ltd.
Ind. M. Email Secy.

Is the approved plan of main boiler forwarded herewith

“ ” “ donkey ” ”

General Remarks (State quality of workmanship, opinions as to class, &c.)

Material of Steam Pipes
General Remarks (State quality of workmanship, opinions as to class, &c. These Engines & Boilers have been built under Special Survey in accordance with the Approved plan. & the workmanship & material are of good quality. These Engines & Boilers have been securely fitted on board. & are eligible in my opinion for the record of

LMC -11-10

It is submitted that
this vessel is eligible for
THE RECORD, + LMC. 11. 10.

2DB. & 4SB.

FD.

| | | | | | |
|--------------------------------|----|---|----|---|-------------------|
| The amount of Entry Fee .. £ | 3 | : | - | : | When applied for, |
| Special £ | 77 | : | 18 | : | 27/10/19.10. |
| Donkey Boiler Fee £ | | : | | : | When received, |
| Travelling Expenses (if any) £ | | : | | : | 29/10/19.10. |

Committee's Minute **GLASGOW**

Assigned + LMC 11.10

WRITTEN. 2/11/10

Wm Gordon Muellicr

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

© 2021

Lloyd's Register
Foundation