

Rpt. 4.

REPORT ON MACHINERY.

No. 45026

Received at London Office -1 OCT 1925

Date of writing Report 24th Sept. 1925 When handed in at Local Office 25th Sept. 1925 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 26.5.25 Last Survey 23rd Sept. 1925
 Reg. Book. 39466 on the S.S. MEREL (Number of Visits 45)
 Master [Signature] Built at Inver By whom built Argentine Dockyard Ltd. When built 1925-9
 Engines made at Paisley By whom made Mumferson & Co. Ltd. when made 1925
 Boilers made at Paisley By whom made Do. (N^{os} 1149+50) when made 1925
 Registered Horse Power _____ Owners General Steam Nav. Co. Ltd. Port belonging to London
 Nom. Horse Power as per Section 28 298 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

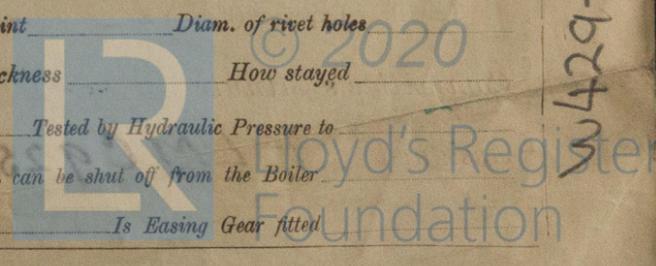
ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 22-35-57 Length of Stroke 39 Revs. per minute 87 Dia. of Screw shaft as per rule 12-14 Material of screw shaft steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern 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 yes If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 4-2
 Dia. of Tunnel shaft as per rule 11-064 Dia. of Crank shaft journals as per rule 11-61 Dia. of Crank pin 11-7/8 Size of Crank webs 22-7/8-7/4 Dia. of thrust shaft under collars 11-7/8 Dia. of screw 13-0 Pitch of Screw 16-9 No. of Blades 4 State whether moveable no Total surface 62.8 sq
 No. of Feed pumps 2 Diameter of ditto 3-1/2 Stroke 19-1/2 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3-1/2 Stroke 19-1/2 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 3 Sizes of Pumps 6x6x6 7x8x8 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3 @ 2-1/4 In Holds, &c. forward 4 @ 2-1/2 aft 3 @ 2-1/2

No. of Bilge Injections one sizes 7 Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 3
 Are all the bilge suction pipes fitted with roses yes Are the manholes in Engine room always accessible yes Are the staves on Engine room bulkheads always accessible yes
 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 Bilge & Ballast How are they protected Steel Plating
 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
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from above Bulkhead Deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel William Beardmore & Co. Ltd.
 Total Heating Surface of Boilers 5446 sq Is Forced Draft fitted no No. and Description of Boilers 2 Cylindrical D.C.
 Working Pressure 200 lbs Tested by hydraulic pressure to 350 lbs Date of test 23.7.25 No. of Certificate 16897
 Can each boiler be worked separately yes Area of fire grate in each boiler 69 sq No. and Description of Safety Valves to each boiler Two Direct Spring Area of each valve 9.62 sq Pressure to which they are adjusted 200 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8-0 Mean dia. of boilers 15-7/8 Length 11-6 Material of shell plates steel
 Thickness 1-1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. Lap long. seams F.R.D.B.S. Diameter of rivet holes in long. seams 1-1/16 Pitch of rivets 10 Lap of plates or width of butt straps 1-9/16
 Per centages of strength of longitudinal joint rivets 89.0 Working pressure of shell by rules 201 lbs Size of manhole in shell 16x12 plate 85.6
 Size of compensating ring _____ No. and Description of Furnaces in each boiler 3 corrugated (Doughty) Material steel Outside diameter 4-2-3/16
 Length of plain part top Thickness of plates bottom 8-3/32 Description of longitudinal joint weld No. of strengthening rings _____
 Working pressure of furnace by the rules 201 lbs Combustion chamber plates: Material steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 13/16
 Pitch of stays to ditto: Sides 9x9 Back 9-1/2x8-1/2 Top 8-1/2x9 If stays are fitted with nuts or riveted heads heads at C.C. ends Working pressure by rules 203 lbs also all margin stays
 Material of stays steel Area at smallest part 2.03 Area supported by each stay 81 sq Working pressure by rules 223 lbs End plates in steam space: Material steel Thickness 13/16 Pitch of stays 18x17 How are stays secured Double Nut Working pressure by rules 214 lbs Material of stays steel
 Area at smallest part 6.1 Area supported by each stay 306 sq Working pressure by rules 220 lbs Material of Front plates at bottom steel
 Thickness 1-1/16 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 19 inch Working pressure of plate by rules 207 lbs
 Diameter of tubes 3-1/4 Pitch of tubes 4-1/4 Material of tube plates steel Thickness: Front 1-1/16 Back 27/32 Mean pitch of stays 12-3/4 x 8-1/4
 Pitch across wide water spaces 14-1/4 x 9-1/2 Working pressures by rules 205 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 10 Length as per rule 34.5 Distance apart 8-1/2 Number and pitch of stays in each 3 @ 9
 Working pressure by rules 209 lbs Steam dome: description of joint to shell None % of strength of joint _____
 Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____
 Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type None Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____
 Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____
 Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

429-0077



IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

SPARE GEAR. State the articles supplied: 2-Connecting rod top end bolts & nuts;
2-Connecting rod bottom end bolts & nuts;
2- Main bearing bolts;
1 set - Coupling bolts;
1 set - Feed & bilge pump valves;
A quantity of assorted bolts & nuts and
Iron of various sizes.

The foregoing is a correct description,

John Baseler

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1925. Mar 26-30. Apr 6-9. 14-16. 23-25. 30. May 6. 11. 14-15. 19. 22-26.
During erection on board vessel - June 3-11. 16-25. 29. July 2-3. 6-7. 9. 15. 22-23. 24-25. 31. Aug 10-18. 1924-25. 31. Sep 3-14. 17-22-23
Total No. of visits 43 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 3.6.25 Slides 3.7.25 Covers 3.6.25 Pistons 11.6.25 Rods 3.6.25
Connecting rods 3.6.25 Crank shaft 3.7.25 Thrust shaft 3.7.25 Tunnel shafts 3.7.25 Screw shaft 3.7.25 Propeller 6.7.25
Stern tube 15.6.25 Steam pipes tested 25.8.25 Engine and boiler seatings 7-7-25 Engines holding down bolts 25.8.25
Completion of pumping arrangements 22-9-25 Boilers fixed 25.8.25 Engines tried under steam 23-9-25
Completion of fitting sea connections 7.7.25 Stern tube 2.7.25 Screw shaft and propeller 9.7.25
Main boiler safety valves adjusted 8.9.25 Thickness of adjusting washers Pat. Sh. 1/2 SR 9/16 London Sh. 1/2 SR 1/2
Material of Crank shaft steel Identification Mark on Do. LLOYDS N° 9867 3.7.25 A.D.M. Material of Thrust shaft steel Identification Mark on Do. LLOYDS N° 9867 3.7.25 A.D.M.
Material of Tunnel shafts steel Identification Marks on Do. LLOYDS N° 9867 3.7.25 A.D.M. Material of Screw shafts iron Identification Marks on Do. LLOYDS N° 9867 3.7.25 A.D.M.
Material of Steam Pipes Solid drawn steel Test pressure 600 lbs

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 Yes

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. These Engines & Boilers have been built under special survey in accordance with the Rules & the approved plans. The material & workmanship are good. They have been properly fitted on board and tried under steam with satisfactory results.

This Machinery is eligible in our opinion, to be classed in the Register Book with notation: L.M.C. - 9.25. C.L.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.25. CL.

J.W.D. 2/10/25

The amount of Entry Fee ... £ 4 : 0 :
Special ... £ 69 : 14 :
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : - :
When applied for, 30 SEP 1925
When received, 16 11 25

J.D. Boyle & A.H. Mannion
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 30 SEP 1925

Assigned + LMC 9.25

CERTIFICATE WRITTEN 1/10/25



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GLASGOW
No 25-9-25

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