

Rpt. 4.

REPORT ON MACHINERY.

No. 2133

Received at London Office

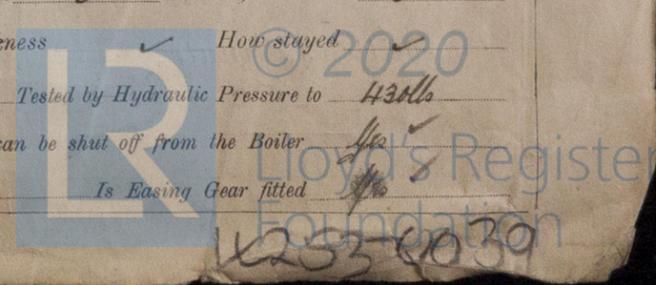
1925

Date of writing Report 6 June 1925 When handed in at Local Office 8 June 1925 Port of Barrow in Furness
 No. in Survey held at Barrow Date, First Survey 5 June 1925 Last Survey 5 June 1925
 Reg. Book. on the Steel single screw steamer "Newfoundland" (bickers 117614) (Number of Visits 117)
 Master Bickers Ltd. Built at Barrow By whom built Bickers Ltd. Tons } Gross 6491
 } Net 3828
 Engines made at Barrow By whom made Bickers Ltd. when made 1925
 Boilers made at X By whom made X when made 1925
 Registered Horse Power 1044 Owners Warren Line Ltd. Port belonging to Liverpool
 Nom. Horse Power as per Section 28 1044 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Balanced Quadruple Expansion No. of Cylinders 4 No. of Cranks 4
 Dia. of Cylinders 31"-43"-62"-90" Length of Stroke 54" Revs. per minute 80 Dia. of Screw shaft as per rule 18.04 Material of Forged steel
as fitted 19 1/8" screw shaft)
 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 Yes 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 Yes Length of stern bush 6'-6"
 Dia. of Tunnel shaft as per rule 16.4 Dia. of Crank shaft journals as per rule 17.22 Dia. of Crank pin 18 3/4" Size of Crank webs 1 1/2" x 3 1/2" Dia. of thrust shaft under
as fitted 17" collars as fitted 18 1/4"
 Dia. of screw 19'-4" Pitch of Screw 19'-12" No. of Blades 4 State whether moveable No Total surface 123.5 sq ft
 No. of Feed pumps 2 Diameter of ditto 10" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 28 1/2" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 5 Sizes of Pumps 4x10, 10x10, 16x24, 6x6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 1 1/2" x 5' 1/2" and 1 1/2" x 3' 1/2" in Tunnel well. In Holds, &c. 2 1/2" x 3' in H7. 2 1/2" x 3' in H2. 2 1/2" x 2' in H3. 2 1/2" x 3' in H4. 2 1/2" x 3' in Rotterdam. and 1 1/2" x 2 1/2" in Duct Keel
 No. of Bilge Injections 1 sizes 1 1/2" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2" x 5'
 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 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 None How are they protected Yes
 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 Bridge or Upper Deck

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Wm Beardmore & Co.
 Total Heating Surface of Boilers 16095 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 5 Single ended. Multi Cyl.
 Working Pressure 215 lbs Tested by hydraulic pressure to 373 lbs Date of test 11/2/25, 16/2/25 No. of Certificate 584, 385, 386, 387, 388
 Can each boiler be worked separately Yes Area of fire grate in each boiler 75.4 sq ft No. and Description of Safety Valves to
 each boiler Two high lift Spring 3 dia Area of each valve 4.07 sq ft Pressure to which they are adjusted 220 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers in stokeholds and bunkers 1'-8" Mean dia. of boilers 16'-9" Length 12'-0" Material of shell plates Steel
 Thickness 1 1/32" Range of tensile strength 50/34 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Overlap
 long. seams W. D.S. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 1/2" Top of plates or width of butt straps 23"
 Per centages of strength of longitudinal joint rivets 88.7, plate 88.1 Working pressure of shell by rules 216 lbs Size of manhole in shell 21 1/2" x 14 1/2"
 Size of compensating ring 1 1/4" x 9" x 1 1/2" No. and Description of Furnaces in each boiler 4 Reighton Material Steel Outside diameter 41 1/2"
 Length of plain part top Thickness of plates crown Description of longitudinal joint Weld No. of strengthening rings Yes
 Working pressure of furnace by the rules 241 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 1/8"
 Pitch of stays to ditto: Sides 10 3/8" x 7 1/4" Back 10 1/2" x 7 1/4" Top 10 3/8" x 8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 214 lbs
 Material of stays Steel Diameter 1 1/4" Area supported by each stay 81.5 sq ft Working pressure by rules 224 lbs End plates in steam space:
 Material Steel Thickness 1 3/16" Pitch of stays 18 1/2" x 16 1/4" How are stays secured Double nuts Working pressure by rules 214 lbs Material of stays Steel
 Area at smallest part 2 3/4" Area supported by each stay 300.6 sq ft Working pressure by rules 218 lbs Material of Front plates at bottom Steel
 Thickness 1 5/16" Material of Lower back plate Steel Thickness 29/32" Greatest pitch of stays 14 1/2" x 10 1/2" Working pressure of plate by rules 217 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" x 4 3/8" Material of tube plates Steel Thickness: Front 1 5/16" Back 29/32" Mean pitch of stays 14 1/2" dia of Cocks
 Pitch across wide water spaces 14" Working pressures by rules 222 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 1/2" x 1 1/2" Length as per rule 2'-8 3/8" Distance apart 8" Number and pitch of stays in each 2 @ 10 3/4"
 Working pressure by rules 220 lbs Steam dome: description of joint to shell Yes % of strength of joint Yes
 Diameter Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes
 Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

SUPERHEATER. Type North Eastern Date of Approval of Plan Yes Tested by Hydraulic Pressure to 430 lbs
 Date of Test 16-4-25 & 24-4-25 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 3" Pressure to which each is adjusted 225 lbs Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 2 Top end bolts & nuts. 2 Bottom end bolts & nuts. 2 main bearing bolts & nuts. 1 set of Coupling bolts. 1 set of Wood & Bilge pump valves. 1 pair of Bottom end Bushes. 1 No pump rod & head valve. 1 HP slide spindle. 1 screw shaft complete. 3 main safety valve springs. 3 Superheater safety valve springs. Piston rings for HP, 4 MP, 2nd MP & HP pistons. 1 Piston rod shoe. 1 Bilge pump ram. 1 Circulating pump impeller & spindle. Crosshead branes & crank pin frames. Assorted bolts & nuts. sheet & rod steel etc.

The foregoing is a correct description, FOR VICKERS LIMITED,

J. Galland

Manufacturer.

1924 - June 26. July 26 Aug 26 Sept 5 12 Oct 22 Nov 29 Dec 17 24 28. 1925 - Jan 5 11 15 16 19 20 21 23 24 25 29 30. Feb 2 3 6 7 11 13 14 19 23 25 27. March 2 4 30 31. April 6 7 9 10 11 15 16 21 23 24 28 30. May 4. June 2 3 4 5. July 30. August 4 9 10 13 18 20 26. Sept 3 4 11 15 19 20 23 24 27. Oct 12 13 15 20 24. Nov 2 11 12 13 14 18 25. Dec 2 3 4 5. Is the approved plan of main boiler forwarded herewith Yes
" " " donkey " " ✓

Dates of Examination of principal parts—Cylinders 10-2-25. Slides 2-2-25. Covers 2-2-25. Pistons 2-2-25. Rods 2-2-25. Connecting rods 2-2-25. Crank shaft 27-1-25. Thrust shaft 8-1-25. Tunnel shafts 9-1-25. Screw shaft 9-1-25. Propeller 8-1-25. Stern tube 24-12-24. Steam pipes tested 14/25 16/45/25. Engine and boiler seatings 23-1-25. Engines holding down bolts 8-4-25. Completion of pumping arrangements 3-6-25. Boilers fixed 8-4-25. Engines tried under steam 4-6-25. Completion of fitting sea connections 23-1-25. Stern tube 16-1-25. Screw shaft and propeller 23-1-25. Main boiler safety valves adjusted 11-5-25. Thickness of adjusting washers 24 PV 3/2 SV 3/2 Sep 1922. 8 5 PV 3/2 SV 1/2 Sep 22.

Material of Crank shaft Soft Steel Identification Mark on Do. 389 48 Material of Thrust shaft Soft Steel Identification Mark on Do. 389 48
Material of Tunnel shafts Soft Steel Identification Marks on Do. 389 48 Material of Screw shafts Soft Steel Identification Marks on Do. 389 48
Material of Steam Pipes Soft drawn steel Test pressure 645 lb. per sq. inch
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150° F. Yes
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. The engines and boilers of this vessel have been built under special survey. The materials and workmanship are good. They have been efficiently fitted on board and proved satisfactory under working conditions. The vessel is eligible in my opinion to have the notation of 6.25 made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.25. FD. CL. Fitted for oil fuel 6.25. FP. above 150° F.

W.D.
11/6/25

Wm. Lewis
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : 0 : 0
Special ... £ 126 : 3/6 : 0
Donkey Boiler Fee ... £ - : - : -
Travelling Expenses (if any) £ 1 : 12/6 : 0
When applied for, 8th June 1925
When received, 11/6/25

Committee's Minute FRI. 12 JUN 1925

Assigned + 6.25 FD. CL.
Fitted for oil fuel 6.25 FP. above 150° F.



Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.