

REPORT ON MACHINERY.

No. 41745.

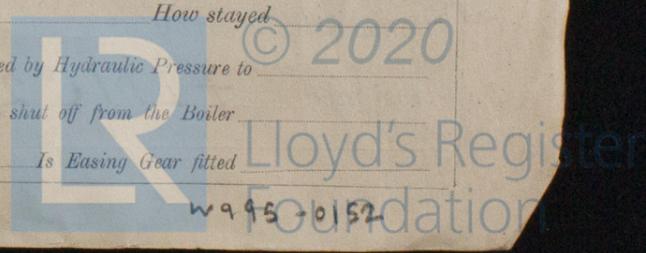
Received at London Office

Date of writing Report 21. 2. 1922 When handed in at Local Office 21. 2. 1922 Port of Glasgow.
 No. in Survey held at Coatbridge. Date, First Survey 27th May 1921 Last Survey 18th Feb 1922
 Reg. Book. on the Machinery for S.S. "LADY ANSTRUTHER" (Number of Visits 27)
 Master Built at Dublin By whom built Dublin Shipbuilders Ltd. Tons { Gross 535
 Engines made at Coatbridge. By whom made Wm Beardmore & Co. Ltd. No. 545. when made 1922
 Boilers made at Glasgow. By whom made D. Rowan & Co. Ltd. No. 303 when made 1921
 Registered Horse Power Owners Nobel's Explosives Co. Ltd. (of Glasgow) Port belonging to Glasgow.
 Nom. Horse Power as per Section 28 114 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 14 1/2" 24" 40" Length of Stroke 24" Revs. per minute 95 Dia. of Screw shaft as per rule 8.28 Material of screw shaft M.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 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 3'-1"
 Dia. of Tunnel shaft as per rule 7.3" Dia. of Crank shaft journals as per rule 7.66" Dia. of Crank pin 7 3/4" Size of Crank webs 16 x 4 3/4" Dia. of thrust shaft under collars 4 3/4" Dia. of screw 10.8" Pitch of Screw 11.6" No. of Blades 4 State whether moveable No. Total surface 39 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes.
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 13 1/2" Can one be overhauled while the other is at work Yes.
 No. of Donkey Engines 2. Sizes of Pumps 6 x 4 x 6 + 6 x 4 x 8 duplex No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-2 1/4" Eng. Rm. off. Stokehold. P + S. In Holds, &c. 2-2 1/4" Port + Starboard.
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump C. pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/4"
 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 Valves + Cocks.
 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 Bilge Suctions How are they protected Strong wood casings
 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 No tunnel Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers 2100 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 1 Single ended multitubular
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 7-6-21 No. of Certificate 15844
 Can each boiler be worked separately Yes Area of fire grate in each boiler 57 3/4 sq. ft. No. and Description of Safety Valves to each boiler See spring loaded Area of each valve 7.06 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers 18" Mean dia. of boilers 18" Length 18" Material of shell plates
 Thickness 1/2" Range of tensile strength 45,000 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams lap
 long. seams lap Diameter of rivet holes in long. seams 1/4" Pitch of rivets 2" Lap of plates or width of butt straps 1 1/2"
 Per centages of strength of longitudinal joint 85% Working pressure of shell by rules 185 lbs Size of manhole in shell 18"
 Size of compensating ring No No. and Description of Furnaces in each boiler 1 Material Cast Iron Outside diameter 18"
 Length of plain part 18" Thickness of plates 1/2" Description of longitudinal joint lap No. of strengthening rings 1
 Working pressure of furnace by the rules 185 lbs Combustion chamber plates: Material Cast Iron Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"
 Pitch of stays to ditto: Sides 18" Back 18" Top 18" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 185 lbs
 Material of stays Cast Iron Area at smallest part 18" Area supported by each stay 18" Working pressure by rules 185 lbs End plates in steam space: See
 Material Cast Iron Thickness 1/2" Pitch of stays 18" How are stays secured See Working pressure by rules 185 lbs Material of stays Cast Iron
 Area at smallest part 18" Area supported by each stay 18" Working pressure by rules 185 lbs Material of Front plates at bottom See
 Thickness 1/2" Material of Lower back plate Cast Iron Thickness 1/2" Greatest pitch of stays 18" Working pressure of plate by rules 185 lbs
 Diameter of tubes 1 1/2" Pitch of tubes 18" Material of tube plates Cast Iron Thickness: Front 1/2" Back 1/2" Mean pitch of stays 18"
 Pitch across wide water spaces 18" Working pressures by rules 185 lbs Girders to Chamber tops: Material Cast Iron Depth and thickness of girder at centre 18" Length as per rule 18" Distance apart 18" Number and pitch of stays in each 18"
 Working pressure by rules 185 lbs Steam dome: description of joint to shell See % of strength of joint 85%
 Diameter 18" Thickness of shell plates 1/2" Material Cast Iron Description of longitudinal joint lap Diam. of rivet holes 1/4"
 Pitch of rivets 2" Working pressure of shell by rules 185 lbs Crown plates 1/2" Thickness 1/2" How stayed See

SUPERHEATER. Type See Date of Approval of Plan See Tested by Hydraulic Pressure to See
 Date of Test See Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve See Pressure to which each is adjusted See Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 shaft of top bottom end, main bearing & coupling bolts and nuts, 1 shaft of feed, bilge, air & circulating pump valves, 6 condenser tubes & 12 ferrules, 1 set of feed check valves, 3 plain boiler tubes, 6 cylinder cover studs & nuts, 6 junk ring bolts, 2 spare valves for donkey pumps, 1 safety valve spring, assorted bolts, nuts & washers.

The foregoing is a correct description,

For WILLIAM BEARDMORE & CO., LIMITED Manufacturer. *R Sneddon*

Dates of Survey while building: During progress of work in shops -- 1921 May 27 Jun 7, 10, 29 Jul 12 Aug 9, 17, 22 Sep 14 Oct 7, 12, 18, 28 Nov 11, 15 Dec 8, 21; During erection on board vessel --- 1922 Jan 12, 29, Feb 6, 13, 17, 18; Total No. of visits 27.

Is the approved plan of main boiler forwarded herewith

Is the approved plan of donkey boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 21-6-21, Slides 18-10-21, Covers 29-6-21, Pistons 12-7-21, Rods 14-9-21, Connecting rods 7-10-21, Crank shaft 4-6-21, Thrust shaft 28-10-21, Tunnel shafts ✓, Screw shaft 28-10-21, Propeller 28-10-21, Stern tube 7-12-21, Steam pipes tested 10-2-22, Engine and boiler seatings *Dublin Rpt*, Engines holding down bolts 30-7-22, Completion of pumping arrangements 17-2-22, Boilers fixed 30-1-22, Engines tried under steam 18-2-22, Completion of fitting sea connections *Dublin Rpt*, Stern tube *Dublin Rpt*, Screw shaft and propeller *Dublin Rpt*, Main boiler safety valves adjusted 13-2-22, Thickness of adjusting washers P. 7/16" S 7/16"

Material of Crank shaft M.S. Identification Mark on Do. *Lloyd's 3295*, Material of Thrust shaft M.S. Identification Mark on Do. *Lloyd's 3295*, Material of Tunnel shafts ✓ Identification Marks on Do. ✓, Material of Screw shafts M.S. Identification Marks on Do. *28-10-21*, Material of Steam Pipes *Seamless Copper*, Test pressure *3 bolts*

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 *"Meynart"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery has been built under special survey. The materials & workmanship are good. The engines have been forwarded to Glasgow to be fitted on board the vessel.*

These engines and boiler have been fitted on board in an efficient manner, tried under working conditions and found satisfactory and are eligible in our opinion to be classed with record of + L.M.C. 2-22.

It is submitted that this vessel is eligible for THE RECORD. *+ L.M.C. - 2.22. C.L.*

L.J. 23/2/22

John Barr. & J. Selles
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 24 FEB. 1922

GLASGOW 21 FEB 1922

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 17 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 21/2/1922.
When received, 10/4/22.

Committee's Minute

Assigned + L.M.C. 2,22

subject to class. of hull

As now without spl. cord
CERTIFICATE WRITERS

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