

Hull Rpt No 32846

Rpt. 4.

# REPORT ON MACHINERY

No. 40985  
THU. 31 MAR. 1921

Received at London Office

Date of writing Report 29. 3. 21 When handed in at Local Office 29. 3. 21 Port of Glasgow. Hull 16-8-21  
No. in Survey held at Coatbridge. Date, First Survey 15. 11. 1920. Last Survey 21. 3. 1921  
Reg. Book. on the (Number of Visits 12)

Master \_\_\_\_\_ Built at Gool. By whom built Gool Shipbuilding Co. No 220 Tons } Gross 553.92  
When built 1921 } Net 244.47

Engines made at Coatbridge By whom made Wm. Beardmore & Co. No 542. when made 1921.  
Boilers made at Bull. By whom made Messrs. C. D. Holmes No 1234. when made 1920

Registered Horse Power \_\_\_\_\_ Owners Glenside SS Co. Ltd. Port belonging to Middlesbrough.  
Nom. Horse Power as per Section 28 85. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

## ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13 2 1/2 1 3/5 Length of Stroke 24" Revs. per minute 82 Dia. of Screw shaft as per rule 4.96" Material of M.S.  
as fitted 8.25" 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 ✓ 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 ✓ Length of stern bush 33"

Dia. of Tunnel shaft as per rule 4.13" Dia. of Crank shaft journals as per rule 4 3/8" Dia. of Crank pin 4 3/8" Size of Crank webs 15x4 1/2" Dia. of thrust shaft under  
collars 4 3/8" Dia. of screw 10.3" Pitch of Screw 14.0" No. of Blades 4. State whether moveable No Total surface 40 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 2 1/2" Stroke 13 1/2" Can one be overhauled while the other is at work Yes

No. of Donkey Engines two duplex Sizes of Pumps 6x4x6 + 6x6x6 No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room two 2" In Holds, &c. two 2"

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 2 1/2"  
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 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  
What pipes are carried through the bunkers forward Suctions How are they protected 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

## BOILERS, &c.—(Letter for record S) Manufacturers of Steel

Total Heating Surface of Boilers 1530 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 Single ended.  
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29-12-20 No. of Certificate 3469.

Can each boiler be worked separately ✓ Area of fire grate in each boiler 47.5 sq ft No. and Description of Safety Valves to  
each boiler \_\_\_\_\_ Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

Smallest distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_

Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Are the shell plates welded or flanged \_\_\_\_\_ Descrip. of riveting: cir. seams \_\_\_\_\_  
long. seams \_\_\_\_\_ Diameter of rivet holes in long. seams \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plates or width of butt straps \_\_\_\_\_

Per centages of strength of longitudinal joint \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell \_\_\_\_\_  
Size of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter \_\_\_\_\_

Length of plain part \_\_\_\_\_ Thickness of plates \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ No. of strengthening rings \_\_\_\_\_  
Working pressure of furnace by the rules 50 Combustion chamber plates: Material \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

Pitch of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Material of stays \_\_\_\_\_ Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam space: \_\_\_\_\_  
Material \_\_\_\_\_ Thickness \_\_\_\_\_ Pitch of stays \_\_\_\_\_ How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_

Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom \_\_\_\_\_  
Thickness \_\_\_\_\_ Material of Lower back plate \_\_\_\_\_ Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules \_\_\_\_\_

Diameter of tubes \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Material of tube plates \_\_\_\_\_ Thickness: Front \_\_\_\_\_ Back \_\_\_\_\_ Mean pitch of stays \_\_\_\_\_

Pitch across wide water spaces \_\_\_\_\_ Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and  
thickness of girder at centre \_\_\_\_\_ Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_

Working pressure by rules \_\_\_\_\_ Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_  
Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_

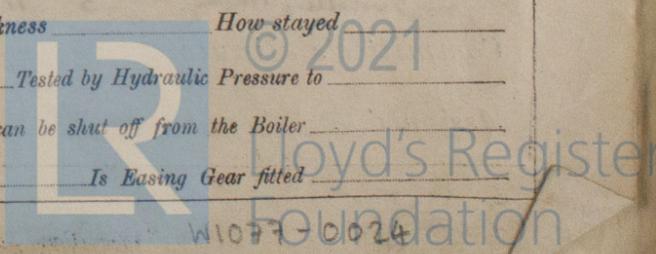
Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

## SUPERHEATER. Type \_\_\_\_\_ 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 \_\_\_\_\_  
Number of Safety Valves \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

Vertical text on left margin: No. 542

Diagonal stamp: Separate Report Hull Rpt No. 32519



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

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts; two bottom end bolts & nuts; 2 main bearing bolts & nuts; 1 set of coupling bolts; 1 set of feed & bilge pump valves; 1 main & 1 donkey check valve; a quantity of assorted bolts & nuts & iron of various sizes.

The foregoing is a correct description,

**WILLIAM BEARDMORE & CO., LIMITED.**

Manufacturer. per R. Breddon

Dates of Survey while building { During progress of work in shops -- } 1920 Nov 15 Dec 22 (1921) Jan 11-18-28 Feb 1-9-17-28 Mar 4-10-21  
 { During erection on board vessel --- } Hull 1921: - Mar 16-17 Apr 7-15, 26-27 May 5 Jul 27 Aug. 3-9-16<sup>2</sup>  
 Total No. of visits 12 + 12 = 24. Is the approved plan of main boiler forwarded herewith yes  
 " " " donkey " " " yes

Dates of Examination of principal parts—Cylinders 1-2-21 Slides 17-2-21 Covers 1-2-21 Pistons 17-2-21 Rods 17-2-21  
 Connecting rods 28-2-21 Crank shaft 28-1-21 Thrust shaft 9-2-21 Tunnel shafts none Screw shaft 9-2-21 Propeller 9-2-21  
 Stern tube 28-1-21 Steam pipes tested 15-4-21 Engine and boiler seatings 17-3-21 Engines holding down bolts 7-4-21

Completion of pumping arrangements 9-8-21 Boilers fixed 5-5-21 Engines tried under steam 9-8-21  
 Completion of fitting sea connections 28-2-21 Stern tube 28-2-21 Screw shaft and propeller 28-2-21

Main boiler safety valves adjusted 27-7-21 Thickness of adjusting washers 5/16 P & S.

Material of Crank shaft M.S. Identification Mark on Do. 6434 Material of Thrust shaft M.S. Identification Mark on Do. 83  
 Material of Tunnel shafts none Identification Marks on Do. 28-1-21 Material of Screw shafts M.S. Identification Marks on Do. 9-2-21

Material of Steam Pipes S. D. Copper. Test pressure 400 lbs per sq in ✓  
 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 ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been built under Special Survey in accordance with the Rules of the Society. The materials and workmanship are good. The engine has been dispatched to Hull to be fitted on board the vessel.

This machinery has been properly fitted & secured on board the s.s. "Glenside". The steam pipe has been tested as above, & the safety valves adjusted under steam & tested for accumulation. On completion the machinery was tested under full power & found satisfactory.

In my opinion the vessel is eligible for the record + LMC 8.21.  
P. Fitzgerald.

**It is submitted that this vessel is eligible for THE RECORD. + LMC. 8.21. CL.**

Reed 29/8/21 J.M.

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

The amount of Entry Fee ... £ 2 : - : When applied for,  
 Special ... £ 8 : 10 + 30/3/1921  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ 5 : 11 : 26/6/5 When received, 15/10/21  
Committee's Minute GLASGOW, 30 MAR 1921

Assigned Deferred

TUE. SEP. 6 1921  
 + L.M.C. 8.21  
 Lloyd's Register Foundation  
 MACHINERY CERT WRITTEN.

Glasgow

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