

REPORT ON MACHINERY

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 Goole. By whom built Goole Shipbuilding Co. Ltd. No. 244-47
Engines made at Coatbridge By whom made Wm. Beardmore & Co. Ltd. No. 572. When built 1921

Boilers made at Hull. By whom made Messrs. C. D. Holmes & Co. Ltd. No. 1234. when made 1920

Registered Horse Power Owners Glenside S.S. 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" 13 5/8" Length of Stroke 24" Revs. per minute 82 Dia. of Screw shaft as per rule 7.96" 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 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 Length of stern bush 33"

Dia. of Tunnel shaft as per rule 6.8" Dia. of Crank shaft journals as per rule 4.13" Dia. of Crank pin 7 3/8" Size of Crank webs 15x4 1/2" Dia. of thrust shaft under

collars 7 3/8" Dia. of screw 10 3/8" 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 size 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 suction 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 Yes Is it fitted with a watertight door Yes 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 Yes 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 rivets 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 top Thickness of plates crown 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

Material of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

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. 3-9-16²*
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.

Recd 29/8/21 J.M.

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

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

Assigned *Deferred.*

MACHINERY CERTIFICATE WRITTEN.

TUE. SEP. 6 1921

+ LMC 8.21

Lloyd's Register Foundation