

Rpt. 4.

REPORT ON MACHINERY.

No. 27980

Received at London Office

FRI. NOV. 19 1920

Date of writing Report 16-11-20 When handed in at Local Office 17-11-20 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 8 Sep 19 Last Survey 15 Nov 1920
Reg. Book. on the S.S. GLANMOR. (Number of Visits 34)

Master Built at Lowestoft By whom built Messrs. Colby Bros. Ltd (N^o 105) When built 1920

Engines made at Sunderland By whom made Messrs. MacCall & Collock, Ltd (N^o 309) when made 1920

Boilers made at do By whom made do do when made 1920

Registered Horse Power Owners Port belonging to

Nom. Horse Power as per Section 28 83 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 12 1/2, 21, 35 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft as per rule 7 7/8 as fitted 7 7/8 Material of screw shaft Iny 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 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 2-8 1/2

Dia. of Tunnel shaft as per rule 6-26 as fitted 6-58 Dia. of Crank shaft journals as per rule 6-26 as fitted 6-41 Dia. of Crank pin 7/8

collars 7/8 Dia. of screw 10-0 Pitch of Screw 9-3 No. of Blades 4 State whether moveable No Total surface 34

No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 14 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 14 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 6x6x6, 5 1/4 x 3 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 @ 2" In Holds, &c. Main Hold - 2 @ 2"

No. of Bilge Injections 3 sizes 3 1/2 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes, 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 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 Main below others 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 None How are they protected

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 Machinery aft

BOILERS, &c.—(Letter for record S) Manufacturers of Steel John Spencer & Sons Ltd John Brown & Co Ltd

Total Heating Surface of Boilers 14940 Is Forced Draft fitted No No. and Description of Boilers One S.E. Marine

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 Date of test 29-3-20 No. of Certificate 3677

Can each boiler be worked separately Yes Area of fire grate in each boiler 50.52 No. and Description of Safety Valves to

each boiler 2 spring loaded Area of each valve 4.9 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12 Mean dia. of boilers 13-3 1/2 Length 10-6 Material of shell plates Steel

Thickness 13/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.

long. seams T.R., D.B.S. Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/4 Lap of plates or width of butt straps 17 5/8

Per centages of strength of longitudinal joint rivets 91.2 plate 85.6 Working pressure of shell by rules 182.3 Size of manhole in shell 16x12

Size of compensating ring 29x24x1 3/32 No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3-4

Length of plain part top 6-4 bottom 5-9 3/8 Thickness of plates crown 3/4 bottom 3/4 Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 186 Combustion chamber plates: Material Steel Thickness: Sides 11/16 Back 11/16 Top 11/16 Bottom 7/8

Pitch of stays to ditto: Sides 8 1/4 x 9 1/4 Back 9 3/4 x 8 1/2 Top 10 3/8 x 8 1/4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 186 top

Material of stays Steel Area at smallest part 1.73 Area supported by each stay 76.3 Working pressure by rules 181.4 End plates in steam space:

Material Steel Thickness 1 3/16 Pitch of stays 19x18 1/2 How are stays secured D.N.T.W. Working pressure by rules 182 Material of stays Steel

Area at smallest part 6.1 Area supported by each stay 34.7 Working pressure by rules 182 Material of Front plates at bottom Steel

Thickness 31/32 Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 13 Working pressure of plate by rules 189

Diameter of tubes 3 1/4 Pitch of tubes 4 5/8 x 4 5/8 Material of tube plates Steel Thickness: Front 31/32 Back 27/32 Mean pitch of stays 11 9/16

Pitch across wide water spaces 14 Working pressures by rules 183.8 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 7 3/8 x 2 Length as per rule 2-4 1/4 Distance apart 10 3/8 Number and pitch of stays in each 2 @ 8 1/4

Working pressure by rules 183.6 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

UPERHEATER. 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

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

WS11-0146

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *Two connecting rod top and bottom end bolts and nuts; two main bearing bolts and nuts; one set of coupling bolts and nuts; one set of feed and Bilge pump valves; assorted bolts nuts, and iron; one propeller.*

The foregoing is a correct description,

MACCOLL & POLLOCK, LTD.

J. P. Richardson

Manufacturer.

Director.

Dates of Survey while building { During progress of work in shops -- } *1919 Sept. 22 Oct. 1, 7, 14, 20 Nov. 2, 19 Dec. 5, 18 Jan. 7, 21, 29 Feb. 5, 12, 25 Mar. 11, 23, 29 Apr. 14, 22, 29, 29*
{ During erection on board vessel -- } *May 3, June 18, Oct. 22, 25, 29, 29 Nov. 1, 4, 10, 12, 15*
Total No. of visits *(24)*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *12-12-19* Slides *29-4-20* Covers *29-4-20* Pistons *3-11-19* Rods *3-11-19*

Connecting rods *23-3-20* Crank shaft *29-8-19* Thrust shaft *13-9-19* Tunnel shafts *✓* Screw shaft *13-9-19* Propeller *29-4-20*

Stern tube *28-7-20* Steam pipes tested *1-11-20* Engine and boiler seatings *LWT* Engines holding down bolts *4-11-20*

Completion of pumping arrangements *10-11-20* Boilers fixed *4-11-20* Engines tried under steam *10-11-20*

Completion of fitting sea connections *LWT* Stern tube *27-10-20* Screw shaft and propeller *27-10-20*

Main boiler safety valves adjusted *10-11-20* Thickness of adjusting washers *P. washer 5/16, S. washer 5/16*

Material of Crank shaft *Ing. Steel* Identification Mark on Do. *4974 J.R.W.* Material of Thrust shaft *Ing. Steel* Identification Mark on Do. *4974 J.R.W.*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Ing. Steel* Identification Marks on Do. *4974 J.R.W.*

Material of Steam Pipes *Solid drawn copper tube* Test pressure *360 lbs. sq.*

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 *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good.

*The Machinery has been constructed under Special Survey, and is eligible in my opinion for Classification and the record of * LMC 11, 20*

It is submitted that this vessel is eligible for THE RECORD. + LMC. 11. 20

Roll 19/11/20 ARR

SUNDERLAND.

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

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 12 : 9 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *18 NOV 1920*
When received, *1. 12. 20 Ebb.*

Ed. W. Putter
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. NOV. 30 1920

Assigned

+ LMC 11. 20

FRI. DEC. 24 1920

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CERTIFICATE WRITTEN.

TUE. 11 OCT. 1921

FRI. 2 JUN. 1922

Lloyd's Register Foundation