

REPORT ON MACHINERY.

No. 39608

Received at London Office

WED. FEB. 11. 1920

Date of writing Report

19

When handed in at Local Office

9/2/1920 Port of GLASGOW

No. in Survey held at Reg. Book.

on the

Glasgow S.S. TREVERBYN

Date, First Survey 19th June 1918 Last Survey 29th Jan'y 1920

(Number of Visits 61)

Gross 5281

Net 3294

Master

Built at Glasgow By whom built Harland & Wolff Ltd (No 530) When built 1920

Engines made at

Glasgow By whom made Harland & Wolff Ltd (No 561) when made 1920

Boilers made at

Do By whom made Wainman & Jackson (No 113) when made

Registered Horse Power

Owners Hain S.S. Co. Ltd Port belonging to St Innes

Com. Horse Power as per Section 28

517 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

No. of Cylinders 27 44-73 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 14.7" Material of screw shaft as fitted 15.2" 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

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

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fits whole length If two

are fitted, is the shaft lapped or protected between the liners — Length of stern bush 5'-0 1/2"

Tunnel shaft as per rule 13.3" Dia. of Crank shaft journals as per rule 13.9" Dia. of Crank pin 14 1/2" Size of Crank webs 9x28" Dia. of thrust shaft under

14 3/4" Dia. of screw 17-6 Pitch of Screw 16-6 No. of Blades 4 State whether moveable No Total surface 98.24

Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes

Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes

Donkey Engines 3 Sizes of Pumps 1 9/16" x 7 x 18 2 1 1/2" x 7 x 18 3 1 1/2" x 7 x 18 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room (2) 3 1/2" stokehold (2) 3 1/2" In Holds, &c. No 1-2-3-4-5 two each 3 1/2"

Annular well (1) 3 1/2"

Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"

Are 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 No

connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks No

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

How are they protected Wood casings

Are the pipes carried through the bunkers 7 Suctions

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 Platform in Engine room

MANIFIESTS, &c.—(Letter for record) S 5 Manufacturers of Steel See separate Report

Heating Surface of Boilers 7668 Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 27.6.19 No. of Certificate 14792-14800

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.34 No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 9.620 Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes

Least distance between boilers or uptakes and bunkers or woodwork 1-9 Mean dia. of boilers Length Material of shell plates

Are the shell plates welded or flanged Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

of compensating ring No. and Description of Furnaces in each boiler 3 corrugated Material Outside diameter

Thickness of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

bottom Thickness of plates bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Working pressure of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:

Material of stays Area at smallest part Area supported by each stay Working pressure by rules

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

Working pressures by rules Girders to Chamber tops: Material Depth and

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

Working pressure of shell by rules Crown plates Thickness How stayed

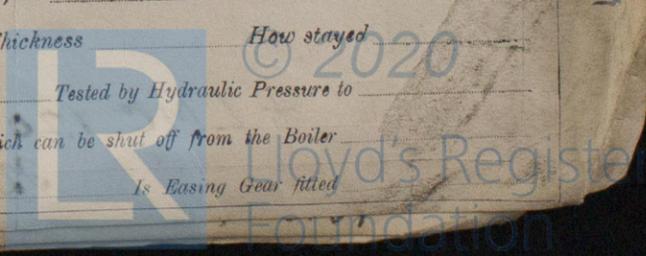
PERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Is Easing Gear fitted

Diameter of Safety Valve Pressure to which each is adjusted

89107911M



IS A DONKEY BOILER FITTED? *No*

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

SPARE GEAR. State the articles supplied:— 2 Top end bolts and nuts, 2 bottom end bolts and nuts, 1/2 main bearing bolts and nuts, 1 set coupling bolts and nuts fixed and bilge pump valves iron, bolts and nuts assorted and other articles

The foregoing is a correct description,
For HARLAND & WOLFF, LTD.

W. Green
MANAGER DIESEL ENGINE WORKS

Engine Manufacturer.

Dates of Survey while building: During progress of work in shops - 1918 June 19, 24, 27, July 12, 5, 8, 10, 11, 24, 29, 30, 31, Aug 2, 19, 22, 26, 27, 28, Sept 14, 19, 23, 26, Oct 2, 4, 17, 29, 29, 30, Dec 1919 Jan 14, Feb 19, Mar 13, 20, Apr 11, May 1, 2, June 4, 12, 23, July 1, 10, Aug 28, Sept 1, 15, 22, 20, 24, 26, 30, Oct 13, 20, 22, Nov 1919 Dec 2, 20, 1920 Jan 12, 22, 29. Total No. of visits 61. Is the approved plan of main boiler forwarded herewith *-*

Dates of Examination of principal parts—Cylinders 14.1.19 Slides 9.12.18 Covers 9.12.18 Pistons 14.1.19 Rods 14.1.19 Connecting rods 14.4.19 Crank shaft 14.4.19 Thrust shaft 1.9.19 Tunnel shafts 22.9.19 Screw shaft 22.9.19 Propeller 22.10.19 Stern tube 22.9.19 Steam pipes tested 1.5.19, 2.5.19 Engine and boiler seatings 20.10.19 Engines holding down bolts 20.12.19 Completion of pumping arrangements 22.1.20 Boilers fixed 22.1.20 Engines tried under steam 22.1.20, 29.1.20 Completion of fitting sea connections 22.10.19 Stern tube 22.10.19 Screw shaft and propeller 22.10.19 Main boiler safety valves adjusted 22.1.20 Thickness of adjusting washers Sta 3 1/2, 3 1/2 Centre 3 1/2, 3 1/2 "pt 1 1/2, 1 1/2"

Material of Crank shaft *Steel* Identification Mark on Do. 561 Material of Thrust shaft *Steel* Identification Mark on Do. 289 Material of Tunnel shafts *Steel* Identification Marks on Do. * Material of Screw shafts *Steel* Identification Marks on Do. 370 Material of Steam Pipes *Iron* Test pressure 540 lb

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 *Yes* If so, state name of vessel *Standard A*

General Remarks (State quality of workmanship, opinions as to class, &c.)
* 3172 2236 2482 4742A1 2239 2238
2342 429 571 441 471 470
W.G.H. W.G.H. W.G.H. W.G.H. R.M.F. W.G.H.

The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved Plans and has been seen working satisfactorily under steam, materials and workmanship are good.

The machinery is eligible in our opinion to be classed + LMC 1-20.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 1-20 F.D.

JWR 12/2/20 *ARR*

The amount of Entry Fee ... £ 3 : 0 } When applied for, 1921 20
Special ... £ 34 : 8 }
Donkey Boiler Fee ... £ : : }
Travelling Expenses (if any) £ 34 : 0 } When received, 12/5/20
Chargable Exp. 24/12/20

Easthope M. Curran
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **GLASGOW** 10 FEB 1920
Assigned + LMC 120
MACHINERY CERT. WHITTEN 11-2-20
FRI. DEC. 3 1920

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

