

REPORT ON MACHINERY.

No. 72512

Received at London Office

V. 29. 1919

of writing Report 19 When handed in at Local Office 28 NOV 1919 Part of Newcastle on Tyne

in Survey held at South Shields Date, First Survey 19th Dec 1918 Last Survey 20th Jan 1919

Book 787 on the SS "Gregois" ex SS "War Aconite" (Number of Visits 6)

Master A.C. Burlace Built at Sunderland By whom built W. Dufford & Sons Ltd Tons { Gross 5298
Net 3229

When built 1918

Engines made at Glasgow By whom made Harland & Wolff Ltd when made 1918

Boilers made at Sunderland By whom made W. Dufford & Sons Ltd when made 1918

Registered Horse Power 369 Owners Hain S.S. Co. Ltd (E. Hain & Son Super) Port belonging to

Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

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

of Cylinders 27, 44, 73 Length of Stroke 48 Revs. per minute 47 Dia. of Screw shaft as per rule 14.66 Material of screw shaft as fitted 16.5 screw shaft 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

Is the propeller boss fitted with a continuous liner the whole length of the stern tube Yes If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part

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

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

of Tunnel shaft as per rule 13.33 Dia. of Crank shaft journals as per rule 14 Dia. of Crank pin 14 1/2 Size of Crank webs 9 x 22 1/2 Dia. of thrust shaft under

as fitted 13 1/2 as fitted 14 1/2

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

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

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

Ballast 10 1/2 x 14 x 24 In Holds, &c. Two 3 1/2 in Nos 1, 2, 3, holds & 1 in No 4

Engine Room 3 1/2

of Bilge Injections sizes 10 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2

Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible No

Are the 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 Both

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 casing

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 Top platform

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

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

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test No. of Certificate

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 sq ft No. and Description of Safety Valves to

each boiler Two spring Area of each valve 9.6 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Least distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 15'-6" Length 11'-6" Material of shell plates S

Thickness 1/4" Range of tensile strength 28/32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams B Lap

Material of rivets 2 B.S. Y. Rivets Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 9 1/2 Lap of plates or width of butt straps 19 1/2

Angles of strength of longitudinal joint rivets 88.3 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12

Material of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Dighton Material S Outside diameter 50 3/4

of plain part top Thickness of plates crown 19/32 Description of longitudinal joint Welded No. of strengthening rings

bottom 19/32

Working pressure of furnace by the rules 188 lbs Combustion chamber plates: Material S Thickness: Sides 23/32 Back 1/16 Top 23/32 Bottom 23/22

of stays to ditto: Sides 10 5/8 x 9 1/4 Back 10 1/4 x 8 1/4 Top 10 9/8 x 9 1/4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181

Material of stays Steel Area at smallest part 2.39 Area supported by each stay 99.3 Working pressure by rules 216 End plates in steam space:

Material Steel Thickness 1 1/2 Pitch of stays 21 3/4 x 21 3/4 How are stays secured 82 x 11 Working pressure by rules 180 Material of stays Steel

Area at smallest part 8.29 Area supported by each stay 473 Working pressure by rules 182 Material of Front plates at bottom Steel

Material of Lower back plate Steel Thickness 27/32 Greatest pitch of stays 13 5/8 Working pressure of plate by rules 187

Material of tube plates Steel Thickness: Front 31/32 Back 3/4 Mean pitch of stays 9 7/8

Material of wide water spaces 13 5/8 Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and

Material of girder at centre 10 x 1 3/4 Length as per rule 35 1/2 Distance apart 10 5/8 Number and pitch of stays in each 3, 9 1/2

Working pressure by rules 188 Steam dome: description of joint to shell Ann % of strength of joint

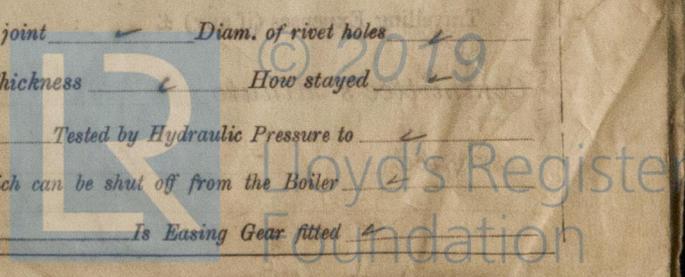
Material Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Material Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type None Date of Approval of Plan Tested by Hydraulic Pressure to

Material 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? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *Two bolts + nuts for connecting rod top end. Two bolts + nuts for connecting rod bottom. Two bolts + nut for main bearings. Two bolts + nuts for shaft couplings. One feed pump section + one discharge valve. One bilge pump section and one discharge valve. Three main check valves. Three donkey feed check valves. 24 Assorted bolts + nuts. Side lifter cover studs + nuts. Steam chest cover studs + nuts. 12 junkering studs + nuts. 5 Bars of iron 3/8" 1/2" 5/8" 3/4" and 1"*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *21/10/19* Slides *21/10/19* Covers *21/10/19* Pistons *21/10/19* Rods *21/10/19*
Connecting rods *21/10/19* Crank shaft *21/10/19* Thrust shaft *21/10/19* Tunnel shafts *21/10/19* Screw shaft *20/10/19* Propeller *20/10/19*
Stern tube *20/10/19* Steam pipes tested *✓* Engine and boiler seatings *21/10/19* Engines holding down bolts *21/10/19*
Completion of pumping arrangements *21/10/19* Boilers fixed *21/10/19* Engines tried under steam *✓*
Completion of fitting sea connections *20/10/19* Stern tube *20/10/19* Screw shaft and propeller *20/10/19*
Main boiler safety valves adjusted *14/11/19* Thickness of adjusting washers *9/16 1/2 9/16 9/16 9/16*
Material of Crank shaft *Steel* Identification Mark on Do. *BC* Material of Thrust shaft *Steel* Identification Mark on Do. *BC*
Material of Tunnel shafts *✓* Identification Marks on Do. *BC* Material of Screw shafts *✓* Identification Marks on Do. *BC*
Material of Steam Pipes *Iron* Test pressure *✓*

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 Type*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under the supervision of the British Corporation Surveyors in accordance with the approved plans and Specification for the "A" Type of Standard Vessel.*

The machinery has been examined and found in good order see Report No.

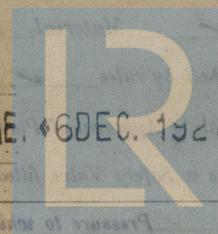
Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : : When applied for, 19
Special *As to have 1/4 1/4* ... £ *40.00* : :
Donkey Boiler Fee ... £ : : When received, 19
Travelling Expenses (if any) £ : : *29/11 20/11/19*

W. L. Hall
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned *L.M. 6.11.19*
F. D.



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DEC. 6 1921