

REPORT ON MACHINERY.

No. 69644
THU. FEB. 22. 1917

Received at London Office

of writing Report 21st Feb 1917 When handed in at Local Office 13 FEB 1917 Port of Newcastle-on-Tyne
in Survey held at Newcastle-on-Tyne Date, First Survey 17th Aug 1916 Last Survey 14th Feb 1917
Book. (Number of Vents 30)

on the **SCREEN STEAMER "JARRIX"** Tons Gross 435
Net

ster Built at Selby By whom built Cochran & Co. When built 1914

ines made at H. Shields By whom made Shields Eng. & Dry Dock Coy. when made 1914

ilers made at Helburn-on-Tyne By whom made Palmer S.S. & C. Coy. Ltd. when made 1914

gistered Horse Power I.H.P. 430 Owners Humber Steam Coasters L^{td} Port belonging to Hull

m. Horse Power as per Section 28 69.5 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

GINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three

a. of Cylinders 12"-20"-34" Length of Stroke 24" Revs. per minute 113 Dia. of Screw shaft as per rule 4.25" Material of screw shaft Scrap Iron

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 No 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 If two

ers are fitted, is the shaft lapped or protected between the liners Length of stern bush 2.8"

ia. of Tunnel shaft as per rule 6.2" Dia. of Crank shaft journals as per rule 6.52" Dia. of Crank pin 6.2" Size of Crank webs 4.25" Dia. of thrust shaft under

llars 6.2" Dia. of screw 9.4" Pitch of Screw 9.3:4 10.3: No. of Blades 4 State whether moveable No. Total surface 30.2 sq. ft.

o. of Feed pumps 2 Diameter of ditto 2.4" Stroke 12" Can one be overhauled while the other is at work Yes

o. of Bilge pumps 2 Diameter of ditto 2.4" Stroke 12" Can one be overhauled while the other is at work Yes

o. of Donkey Engines Two Sizes of Pumps 6x8x6 6x6x6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 3:2 dia In Hold, &c. Three 2 dia

o. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump No Is a separate Donkey Suction fitted in Engine room & size Yes 2 dia

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

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 Hold Suctions How are they protected By strong 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

Dates of examination of completion of fitting of Sea Connections 12/1/14 of Stern Tube 12/1/14 Screw shaft and Propeller 12/1/14

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons Ltd

Total Heating Surface of Boilers 146 Is Forced Draft fitted No No. and Description of Boilers One Cylinder must Single

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29/9/16 No. of Certificate 8900

Can each boiler be worked separately Area of fire grate in each boiler 33 sq ft No. and Description of Safety Valves to

each boiler 2 Direct Spring loaded Area of each valve 5.9" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork about 2 ft. Mean dia. of boilers 5.25" Length 12.5" Material of shell plates Report

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 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 Diameter 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

Diameter 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 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

RETAIN

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 2 main Bearing Bolts & nuts, 2 Crank pin Bolts & nuts, 2 Crosshead Bolts & nuts, 1 set Coupling Bolts & nuts, 2 Piston pump valves and seats, 2 Bilge pump valves and seats, 1 main Check valve, 1 Auxiliary Check valve, 1 set Air pump valves, 1 set Circulating pump valves, 6 Junk Ring Bolts & nuts, 20 Condenser tube ferrules 24 Bolts & nuts, Iron of various sizes.

The foregoing is a correct description,

E. M. Bradshaw

Manufacturer. Feb 20/17.

Dates of Survey while building: During progress of work in shops -- Aug 17, 21, 25, 28, Oct 2, 5, 9, 11, 20, 24, 30, Nov 1, 9, 13, 17, Dec 5, 12, 1917; During erection on board vessel --- 23, 26 Feb, 1, 6, 7, 12, 14; Total No. of visits 30.

Is the approved plan of main boiler forwarded herewith? No.

Is the approved plan of donkey boiler forwarded herewith? No.

Dates of Examination of principal parts: Cylinders 30/9/16, Slides 25/10/16, Covers 7/2/17, Pistons 30/9/16, Rods 5/9/16, Connecting rods 5/9/16, Crank shaft 25/9/16, Thrust shaft 18/9/16, Tunnel shafts, Screw shaft 24/10/16, Propeller 20/10/16, Stern tube 4/1/17, Steam pipes tested 1/2/17, Engine and boiler seatings 4/4/17, Engines holding down bolts 16/1/17, Completion of pumping arrangements 26/1/17, Boilers fixed 7/2/17, Engines tried under steam 7/2/17, Main boiler safety valves adjusted 7/2/17, Thickness of adjusting washers 5 valves 3/2 P. Valves 5/6.

Material of Crank shaft Steel Identification Mark on Do. 2410, Material of Thrust shaft Steel Identification Mark on Do. 2410, Material of Tunnel shafts Identification Marks on Do., Material of Screw shafts Iron Identification Marks on Do. 2410.

Material of Steam Pipes Copper 3 1/2" dia x 8uf, Test pressure 400 lbs.

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.)

The Engines and Boilers of this vessel were built under special order and the materials and workmanship are good. When completed they were steamed under steam and found to work well.

The machinery is now in good and efficient condition and eligible in my opinion to have the record of LMC 2.17. marked in the Society's Register Book.

It is submitted that this vessel is eligible for LMC BROOD + LMC 2.17.

APB *JWR* 23/2/17

The amount of Entry Fee ... £ 1 : : Special ... £ 6 : 9 Donkey Boiler Fee ... £ Travelling Expenses (if any) £

When applied for. 13 FEB 1917

When received. 26/3/17

Wm. Austin Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. - 2 MAR. 1917

Assigned

+ LMC 2.17

MACHINERY CERTIFICATE

NEWCASTLE-ON-TYNE

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



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ter spaces 14"

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Dates of Survey while building: During progress of work in shop, During erection on board vessel

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Travelling Expenses

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