

REPORT ON MACHINERY.

No. 17035

Received at London Office WED. 16 AUG. 1916

Date of writing Report 8 Aug 1916 When handed in at Local Office 18 Aug 1916 Port of Greenock
 No. in Survey held at Greenock & Port Glasgow Date, First Survey Mar 25 1915 Last Survey 9 Aug 1916
 Reg. Book. on the Steel Steamer "Osvego" (Number of Visits 132)
 Master A. Montgomery Built at Port Glasgow By whom built Russell & Co. Tons { Gross 579.3
 Engines made at Greenock By whom made John & Kincaid & Co. Ltd. when made 1916 Net 370.2
 Boilers made at Greenock By whom made John & Kincaid & Co. Ltd. when made 1916 When built 1916
 Registered Horse Power Owners Thos Wilson & Co. Ltd. Port belonging to Steel
 Nom. Horse Power as per Section 28 546 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple Compound No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 27"-45"-74" Length of Stroke 51" Revs. per minute 70 Dia. of Screw shaft as per rule 15.25 Material of 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 62"
 Dia. of Tunnel shaft as per rule 13.65 Dia. of Crank shaft journals as per rule 14.33 Dia. of Crank pin 14 1/2" Size of Crank webs 26 1/2" x 9 1/2" Dia. of thrust shaft under
 collars 14 1/2" Dia. of screw 18 1/2" Pitch of Screw 16:9 No. of Blades 4 State whether moveable Yes Total surface 110 sq ft
 No. of Feed pumps One Diameter of ditto 4 1/2" Stroke 28" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two Diameter of ditto 4 1/2" Stroke 28" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Three Sizes of Pumps 15" x 10" & 6" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3 1/2" In Holds, &c. Eight 3 1/2" Summit 5"

No. of Bilge Injections One sizes 9" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 5 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 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 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
 What pipes are carried through the bunkers Yes How are they protected Yes

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 26/4/16 of Stern Tube 2/5/16 Screw shaft and Propeller 7/7/16

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Cop. Platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel White Iron - Glasgow Iron Works

Total Heating Surface of Boilers 8070 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Three single ended
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 5 June 16 No. of Certificate 1254
 Can each boiler be worked separately Yes Area of fire grate in each boiler 66 sq ft No. and Description of Safety Valves to
 each boiler Two Spring Area of each valve 9.62 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 24" Mean dia. of boilers 15' 9" Length 12' 0" Material of shell plates Steel
 Thickness 1 1/4" Range of tensile strength 28-32 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes
 long. seams all ship side Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 19 1/2"
 Per centages of strength of longitudinal joint 86.44 Working pressure of shell by rules 180 lb Size of manhole in shell 16" x 12"
 Size of compensating ring Flanged 1 1/4" No. and Description of Furnaces in each boiler 3 Brighton Material Steel Outside diameter 50 1/2"
 Length of plain part top 19 1/2" Thickness of plates crown 19 1/2" Description of longitudinal joint welded No. of strengthening rings One
 Working pressure of furnace by the rules 185 lb Combustion chamber plates: Material Steel Thickness: Sides 10 1/16" Back 10 1/16" Top 10 1/16" Bottom 12 1/16"
 Pitch of stays to ditto: Sides 9 1/8" x 8 1/8" Back 8 1/8" x 8 1/8" Top 9 1/8" x 8 1/8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 181 lb
 Material of stays Steel Diameter at smallest part 1 7/8" Area supported by each stay 66 sq in Working pressure by rules 182 lb End plates in steam space:
 Material Steel Thickness 1 9/32" Pitch of stays 21" x 20 1/2" How are stays secured all nut Working pressure by rules 180 lb Material of stays Steel
 Diameter at smallest part 7.5" Area supported by each stay 430 sq in Working pressure by rules 181 lb Material of Front plates at bottom Steel
 Thickness 1 5/16" Material of Lower back plate Steel Thickness 1 3/16" Greatest pitch of stays 13 1/8" Working pressure of plate by rules 182 lb
 Diameter of tubes 5" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 1 5/16" Back 1 1/16" Mean pitch of stays 5 1/2"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 185 lb Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 37 1/2" Distance apart 9 1/8" Number and pitch of stays in each 3 - 5 1/8"
 Working pressure by rules 182 lb Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked
 separately Yes 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 180 lb End plates: Thickness — How stayed —
 Working pressure of end plates — Area of safety valves to superheater 3.98 sq in Are they fitted with easing gear Yes

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IS A DONKEY BOILER FITTED?

no ✓

If so, is a report now forwarded

SPARE GEAR.

SPARE GEAR. State the articles supplied:— The top and bottom. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set Dead Pump valves. One set Balge Pump valves. Bolts nuts &c. One Propeller. Three cylinder escape valves and springs 12 Air valves. 12 Condenser tubes. 120 Donuts. &c.

The foregoing is a correct description.

John G. Kirkcaldy & Co Ltd

Manufacturer.

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Total No. of visits
(1915) Nov 25, Apr 9, 14, 15, 16, 22, 24, May 3, 18, 21, 24, 31, June 8, 11, 15, July 16, 20, 22, 27, 28, Aug 3, 11, 20, 26	Sept 3, 7, 9, 10, 17, 30 Oct 2, 5, 6, 8, 12, 15, 19, 21, 25, 27, 29 Nov 2, 5, 8, 16, 17, 18, Dec 2, 25, Dec 24, 27, 30, 31, (1916) Jan 1, 14, 19, 27, 28, Feb 3, 4, 16, 17, 28, Mar 14, 16, 21, 24, 25, 31, Apr 3, 5, 7, 11, 12, 13, 14, 17, 19, 20, 24, 25, 26, 27, 28, May 1, 2, 3, 4, 5, 8, 10, 11, 15, 17, 19, 22, 23, 25, 26, June 2, 5, 6, 7, 9, 12, 14, 15, 19, 21, 22, 26, 28, 30, July 4, 5, 6, 7, 12, 15, 17, 18, 24, 26, 27, 28, Aug 1, 19	26, 28, 30, July 4, 5, 6, 7, 12, 15, 17, 18, 24, 26, 27, 28, Aug 1, 19	26, 28, 30, July 4, 5, 6, 7, 12, 15, 17, 18, 24, 26, 27, 28, Aug 1, 19
Total	132		

Dates of Examination of principal parts—Cylinders 10/5/16 Slides 2/6/16 Covers 10/5/16 Pistons 2/6/16 Rods 2/6/16
Connecting rods 23/7/16 Crank shaft *See Rep.* Thrust shaft *See Rep.* Tunnel shafts *See Rep.* Screw shaft 25/4/16 Propeller 27/4/16
Stern tube 19/4/16 Steam pipes tested ^{and as per report attached} 29/3/17/16. Engine and boiler seatings 26/4/16 Engines holding down bolts 18/7/16
Completion of pumping arrangements 18/7/16 Boilers fixed 27/7/16 Engines tried under steam 9/8/16
Main boiler safety valves adjusted 1 August 16 Thickness of adjusting washers *See Rep.* ^{Pat} 23/4/16 5 1/2. ^{Anti} 29/2 5 1/2. ^{Wash} 24/4/16 5 1/2. ^{Separators} 24/4/16 5 1/2. 24/4/16 5 1/2.
Material of Crank shaft *See Rep.* Identification Mark on Do. 4765 Material of Thrust shaft *See Rep.* Identification Mark on Do. 4737
Material of Tunnel shafts *See Rep.* Identification Marks on Do. 4732 &c Material of Screw shafts *See Rep.* Identification Marks on Do. 4731
Material of Steam Pipes *See Rep.* Test pressure *See Rep.* 400 lbs
Is an installation fitted for burning oil fuel — 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. *Workmanship good.*

This vessel is fitted with Schmidt Superheaters, one set to each boiler, and is arranged, that Superheated Steam, Saturated Steam or a mixture of both can be used. One 2 1/2" Safety Valve is fitted to each and adjusted to blow at 190 lbs per square inch.

The Machinery and boilers of this steamer have been
constructed under Special Survey and placed on board in accord-
-ance with the Coastwise Rules. They are now in my opinion in
safe working condition, and the case is respectfully submitted
for the ratification of L. N. C. S. 16. in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 8.16. F.D.

The amount of Entry Fee	...	£	3 : 0	:	} When applied for, 10/8/1916
Special	...	£	47 : 6	:	
Donkey Boiler Fee	...	£	:	:	
Travelling Expenses (if any)	£	:	:	:	
					When received, 12/8/1916

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

Committee's Minute GLASGOW 15 AUG. 1916

Assigned + LMC 816

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