

# REPORT ON MACHINERY.

No. 9763

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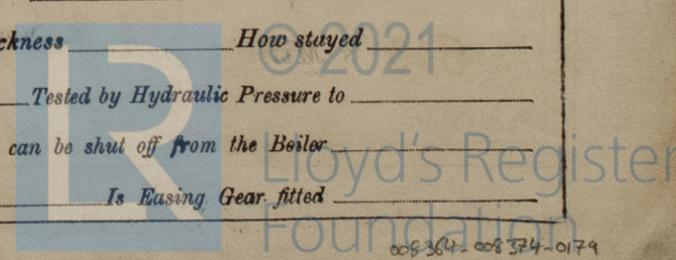
WED. 6 - JUN 1917

Date of writing Report 19 When handed in at Local Office 5/6/1917 Port of Middlesbrough  
 No. in Survey held at Middlesbrough Date, First Survey 24<sup>th</sup> Jan/17 Last Survey 16<sup>th</sup> May 1917  
 Reg. Book. on the steel screw steamer John Gule (Number of Visits 16-7-17)  
 Master Built at Selby By whom built Cochrane Sons Ltd Tons 1917-7  
 Engines made at Middlesbrough By whom made Richardsons, Westgarth & Co. (Ld) (No. 42578) When made 1917-7  
 Boilers made at Hull By whom made C. D. Holmes & Co. Ltd (A) C 272 when made 1917-7  
 Registered Horse Power \_\_\_\_\_ Owners British Admiralty Port belonging to \_\_\_\_\_  
 Nom. Horse Power as per Section 28 87 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 13", 23", 37" Length of Stroke 26 Revs. per minute \_\_\_\_\_ Dia. of Screw shaft as per rule 7.88 Material of Steel  
as fitted 8 1/4" screw shaft) 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  
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If two  
 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 3'-0"  
 Dia. of Tunnel shaft as per rule 7.04 Dia. of Crank shaft journals as per rule 7.39 Dia. of Crank pin 7 1/2" Size of Crank webs 4 3/8" x 4 7/8" Dia. of thrust shaft under  
 rollers 7 1/2" Dia. of screw 9-7 1/2" Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 33 sq ft  
 No. of Feed pumps 1 Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work ✓  
 No. of Bilge pumps 1 Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work ✓  
 No. of Donkey Engines one 4 3" ejector Sizes of Pumps 6", 4 1/4" x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
 in Engine Room two 2" dia In Holds, &c. One 2" dia in each compartment  
all suction also connected to 3" ejector  
 No. of Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 3" ejector  
 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 none  
 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 Food suction How are they protected strong casing fixed with iron  
 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel \_\_\_\_\_  
 Total Heating Surface of Boilers 1440 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 S.B.  
 Working Pressure 200 lb Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_  
 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler 48 sq ft No. and Description of Safety Valves to  
 each boiler \_\_\_\_\_ Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_  
 Smallest distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_  
 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 \_\_\_\_\_  
 Percentages of strength of longitudinal joint \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell \_\_\_\_\_  
 Size of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each boiler 3 p.f. Material \_\_\_\_\_ Outside diameter \_\_\_\_\_  
 Length of plain part \_\_\_\_\_ Thickness of plates \_\_\_\_\_ 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 \_\_\_\_\_ Area 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 \_\_\_\_\_  
 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 \_\_\_\_\_  
 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 \_\_\_\_\_ 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 \_\_\_\_\_

SUPERHEATER. 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 \_\_\_\_\_



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air, feed & bilge pump valves, one main & one donkey check valve, two valves for donkey pump, 6 junk ring studs & nuts, one safety valve spring, 3 condenser tubes, one set of fire bars & a quantity of bolts & nuts & iron of various sizes.*

The foregoing is a correct description,

of and on behalf of RICHARDSONS, WESTGARTH & Co., Ltd.

*J. Inglis*

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1917 Jan 24 Feb 6.10.15.19.23.27 Mar 3.8.14.16.20.21.28.30 Apr 10.12.21.25 May 1.3.11*  
During erection on board vessel --- *See Hull Rpt No 30, 054*  
Total No. of visits *22*

Is the approved plan of main boiler forwarded herewith  
" " " donkey " " "

Dates of Examination of principal parts—Cylinders *28.3.17* Slides *10.4.17* Covers *10.4.17* Pistons *30.3.17* Rods *30.3.17*  
Connecting rods *30.3.17* Crank shaft *6.2.17* Thrust shaft *28.3.17* Tunnel shafts *None* Screw shaft *21.3.17* Propeller *21.3.17*  
Stern tube *21.3.17* Steam pipes tested *3-7-17* Engine and boiler seatings *23-3-17* Engines holding down bolts *2-7-17*  
Completion of pumping arrangements *21-7-17* Boilers fixed *7-7-17* Engines tried under steam *11-7-17*  
Completion of fitting sea connections *23-3-17* Stern tube *23-3-17* Screw shaft and propeller *23-3-17*  
Main boiler safety valves adjusted *7-7-17* Thickness of adjusting washers *7 3/8 & 7/8*

Material of Crank shaft *Steel* Identification Mark on Do. *5884 AB* Material of Thrust shaft *Steel* Identification Mark on Do. *5866* *1" x 8"* If stay part *2.07*

Material of Tunnel shafts *None* Identification Marks on Do.  Material of Screw shafts *Steel* Identification Marks on Do. *5868* of stays *19" x 17"*

Material of Steam Pipes *ad copper* Test pressure *100*  
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 *Therapy Class*

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

*These Engines have been constructed under Special Survey and in accordance with the Rules and Specification. The material and workmanship are good. The engines have now been sent to Hull where they are to be fitted on board the vessel. The machinery of this vessel has been properly fitted secured on board the vessel, the steam pipes tested as above found sound & good. On completion it was tried under full power for two hours, as required by the Admiralty, & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 215 lbs.*

*In my opinion the vessel is eligible for this record + L.M.C. 7.17*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7.17.

The amount of Entry Fee ...	£	<i>1</i>	:	<i>0</i>	:	<i>0</i>	When applied for,	<i>27/6/17</i>
Special (see Hull Rpt)	£	<i>14</i>	:	<i>0</i>	:	<i>0</i>	When received,	<i>26/6/17</i>
Donkey Boiler Fee ...	£	<i>6</i>	:	<i>10</i>	:	<i>0</i>		<i>19/8</i>
Travelling Expenses (if any) £	:	:	:	:	:	:		

*Frank L. Stanger*  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute  
Assigned

FRIDAY JUL 13 1917  
+ L.M.C. 7.17

MACHINERY CERTIFICATE WRITTEN.



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Certificate (if required) to be sent to MIDDLESBORO

The Surveyors are requested not to write on or below the space for Committee's Minute.

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