

REPORT ON MACHINERY.

No. 71202

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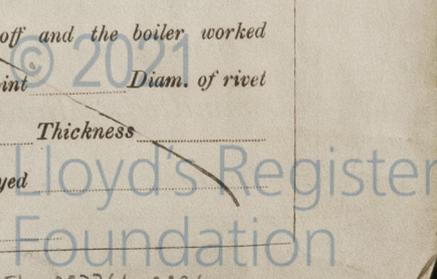
Date of writing Report 16th Nov 1908 When handed in at Local Office 19 Port of London
 No. in Survey held at Gt Yarmouth Date, First Survey Jan 3/1906 Last Survey 14th Nov 1908
 Reg. Book. on the Machinery of Twin steam tug "Consort" (Number of Visits 1)
 Master Telby Built at Telby By whom built Cochrane Sons Tons Gross 133.16
Net 39.34 When built 1908
 Engines made at Gt Yarmouth By whom made Grabbey Ho^d & Co when made 1908.11
 Boilers made at South Shields By whom made J. Y. Eltringham Ho^d when made 1907.12
 Registered Horse Power 72 Owners J. Constant Port belonging to London
 Nom. Horse Power as per Section 28 72 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Twin Compound surface condensing No. of Cylinders two No. of Cranks two
 Dia. of Cylinders 14" x 28" Length of Stroke 18" Revs. per minute 120 Dia. of Screw shaft as per rule 6.24" Material of steel
as fitted 6.6" screw shaft
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liners 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 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 2'-4"
 Dia. of Tunnel shaft as per rule 5.5" Dia. of Crank shaft journals as per rule 5.76" Dia. of Crank pin 6 1/4" Size of Crank webs 9 x 3 1/2 x 4" Dia. of thrust shaft under
 collars 6 1/4" Dia. of screw 7'-0" Pitch of Screw 10'-0" No. of Blades 3 State whether moveable no Total surface 18.57

No. of Feed pumps one on each Diameter of ditto 2 1/8" Stroke 9" Can one be overhauled while the other is at work
 No. of Bilge pumps one on each Diameter of ditto 2 1/8" Stroke 9" Can one be overhauled while the other is at work
 No. of Donkey Engines one double ended Sizes of Pumps 2 1/4", 3", 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room one 2" In Holds, &c. one in each compartment 2" dia

No. of Bilge Injections two sizes 3" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 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 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 none How are they protected
 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 30.9.08 of Stern Tube at Telby Screw Shaft and Propeller 30.9.08
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record Steel) Manufacturers of Steel
 Total Heating Surface of Boilers 12887 Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 130 lbs Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler 487 No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 79" Pressure to which they are adjusted 135 lbs Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers on woodwork 7 1/2" 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 _____
 Per centages 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 _____ 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 _____ 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 _____



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts, one set of coupling bolts, one set of feed valve pump valves, a quantity of bolts & nuts & iron of various sizes*

ORABTREE & CO., LTD.
W. F. Crabtree
 MANAGING DIRECTOR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1906 Jan 31	May 15	July 26	1907 Jan 16	1908 July 23	29
	During erection on board vessel - -	Aug 13 '06	Apr 10 '18	19	30	NOV 14	
	Total No. of visits	13					

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—	Cylinders	20.8.08	Slides	20.8.08	Covers	20.8.08	Pistons	20.8.08	Rods	23.7.08	
Connecting rods	23.7.08	Crank shaft	23.7.08 P	Thrust shaft	23.7.08 P	Tunnel shafts	13.8.08 P	Screw shaft	13.8.08 P	Propeller	13.8.08 P
Stern tube	29.7.08	Steam pipes tested	23.10.08	Engine and boiler seatings	30.9.08	Engines holding down bolts	13.11.08				
Completion of pumping arrangements	13.11.08	Boilers fixed	13.11.08	Engines tried under steam	14.11.08						
Main boiler safety valves adjusted	13.11.08	Thickness of adjusting washers	7/16 P	2 5/16 H S							
Material of Crank shaft	Steel	Identification Mark on Do.	1624 G.W.P	Material of Thrust shaft	Steel	Identification Mark on Do.	1624 G.W.P				
Material of Tunnel shafts	Steel	Identification Marks on Do.	2038 A.T.G.S	Material of Screw shafts	Steel	Identification Marks on Do.	2120 15				
Material of Steam Pipes	Copper	Test pressure	260 see Hull report								

General Remarks (State quality of workmanship, opinions as to class, &c.) *These Engines have been constructed under special survey in accordance with the rules the material has been tested & the workmanship is good. They have been satisfactorily fitted on board & on completion were tried under steam with satisfactory results. The safety valves adjusted to 135 lbs under steam. In my opinion the machinery of this vessel is eligible to be classed & to have record + L.M.C. 11.08 in the Register Book*

It is submitted that this vessel is eligible for THE RECORD. F.L.M.C 11.08

F.R.R.
 19.11.08

The amount of Entry Fee	£ 1 : 0 : 0	When applied for,	
Special	£ 7 : 4 : 0	19.11.08	
Donkey Boiler Fee	£ :	When received,	
Travelling Expenses (if any)	£ 5 : 2 : 6	24.12.19.08	

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

Committee's Minute **FRI. 20 NOV 1908**
 Assigned *+ L.M.C. 11.08*

MACHINERY CERTIFICATE WRITTEN.



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