

REPORT ON MACHINERY

No. 25881

THU. FEB. 20. 1913

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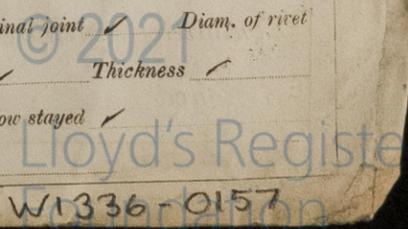
Date of writing Report 19 When handed in at Local Office 19. 2. 13 Port of Hull
 No. in Survey held at Hull Date, First Survey Dec 7th 1909 Last Survey Feb. 19th 1913.
 Reg. Book. on the steel screw steamer Saint Michel (Number of Visits 101)
 Master Built at Abbeverdon By whom built Tons { Gross 575
 Engines made at Hull By whom made Parle's Co. La when made 1913-2
 Boilers made at Hull By whom made Parle's Co. La when made 1913-2
 Registered Horse Power Owners Vic Favale de l'Oceanie Port belonging to Budeaux
 Nom. Horse Power as per Section 28 64 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3
 Dia. of Cylinders 13-18-31 Length of Stroke 21 Revs. per minute Dia. of Screw shaft as per rule 7.19 Material of steel
 as fitted 7.3/8 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 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'-6 1/2"
 Dia. of Tunnel shaft as per rule 6.01 Dia. of Crank shaft journals as per rule 6.31 Dia. of Crank pin 6 1/2" Size of Crank webs 13x4 1/2" Dia. of thrust shaft under
 as fitted 6 1/8" collars 6 1/2" Dia. of screw 8'-6" Pitch of Screw 8'-3" No. of Blades 4 State whether moveable no Total surface 26 sq ft
 No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work
 No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work
 No. of Donkey Engines two duplex Sizes of Pumps 6" 4 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room three 2" one in tunnel well In Holds, &c. one 2" in each hold, one 2 1/2" in
 each peak
 No. of Bilge Injections one sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 2 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 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 28-1-13 of Stern Tube 29-1-13 Screw shaft and Propeller 5-2-13
 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 Steel Co. of Scotland
 Total Heating Surface of Boilers 1210 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 300 lbs Date of test 8-11-12 No. of Certificate 1941
 Can each boiler be worked separately Area of fire grate in each boiler 36.6 sq ft No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 3.97 sq in 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 11" lagged Mean dia. of boilers 142" Length 10'-0" Material of shell plates steel
 Thickness 1" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. seams T.R. & B. 1 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 5/8" Lap of plates or width of butt straps 16"
 Per centages of strength of longitudinal joint rivets 86.6 Working pressure of shell by rules 186 Size of manhole in shell 12" x 16"
 Size of compensating ring 9" x 1" No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 41 1/2"
 Length of plain part top 79 1/4" Thickness of plates crown 7 25/32" Description of longitudinal joint welded No. of strengthening rings
 bottom 72" Working pressure of furnace by the rules 187 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 10" x 8 1/2" Top 12" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181
 Material of stays steel Diameter at smallest part 2.07" Area supported by each stay 90 sq in Working pressure by rules 207 End plates in steam space:
 Material steel Thickness 1 1/32" Pitch of stays 17" x 15 1/2" How are stays secured D. T. Working pressure by rules 180 Material of stays steel
 Area at smallest part 5 1/8" Area supported by each stay 263.5 sq in Working pressure by rules 204 Material of Front plates at bottom steel
 Thickness 1 5/16" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 14 1/4" x 8 1/2" Working pressure of plate by rules 192
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 7/8" Material of tube plates steel Thickness: Front 15/16" Back 13/16" Mean pitch of stays 9 3/8"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 7 3/4" x 1 1/2" Length as per rule 29 1/4" Distance apart 8 1/2" Number and pitch of stays in each two 9 1/2"
 Working pressure by rules 196 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

If a Report also sent on the Hull of the Ship, THE SURVEYORS ARE REQUESTED NOT TO SIGN THE SURVEYORS ARE REQUESTED NOT TO SIGN THE SURVEYORS ARE REQUESTED NOT TO SIGN

Im. 2. 12-7.



W1336-0157

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

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

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 casing 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 _____ Radius of do. _____ 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 & nuts, one set of coupling bolts & nuts, one screw shaft 7/8" 1011 FLS, one crank shaft 7/8" 1013 FLS one set of piston rings all cylinders, one eccentric strap.*

FOR EARLE'S
SHIPBUILDING & ENGINEERING CO. LIMITED
The foregoing is a correct description,
F. J. Salethorpe Manufacturer.

Dates of Survey while building	During progress of work in shops --	1909: Dec 7, 16, 21, 22, 30. 1910: Jan 5, 8, 20. Feb 3, 8, 17, 23, 25, 26. Mar 2, 5, 7, 8, 9, 21. Apr 1, 4, 7, 8, 16, 22, 26, 27.
	During erection on board vessel --	May 10, 23, 28. Jun 6, 9. Dec. 1, 5, 8, 13, 16, 19, 1911 Jan 3, 7, 10, 12, 14, 18, 24, 31. Feb. 8. April. Dec 21, 1912: Feb 6, Feb 23, 27. Mar 6, 9, 18, 27. Apr 19. May 1, 7, 9, 15, 23. Jul 11, 20, 24, 26. Aug 16, 28. Sep 6, 9, 10, 13, 23. Oct 21, 29. Nov 1, 6, 11. Dec 17, 1913: Jan 3, 7, 9, 10, 16, 20, 23, 24, 28, 29, 31. Feb 5, 8, 10, 4-13-15, 17, 19.
	Total No. of visits	101

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

Dates of Examination of principal parts—Cylinders *28-8-12* Slides *28-8-12* Covers *28-8-12* Pistons *28-8-12* Rods *28-8-12*

Connecting rods *28-8-12* Crank shaft *28-8-12* Thrust shaft *9-9-12* Tunnel shafts *11-11-12* Screw shaft *11-11-12* Propeller *23-1-12*

Stern tube *28-1-13* Steam pipes tested *10-2-13* Engine and boiler seatings *28-1-13* Engines holding down bolts *11-2-13*

Completion of pumping arrangements *11-2-13* Boilers fixed *11-2-13* Engines tried under steam *13-2-13*

Main boiler safety valves adjusted *13-2-13* Thickness of adjusting washers *P 5/16 S 9/16*

Material of Crank shaft *Steel* Identification Mark on Do. *603JB* Material of Thrust shaft *Steel* Identification Mark on Do. *1006FLS*

Material of Tunnel shafts *Steel* Identification Marks on Do. *1010FLS* Material of Screw shafts *Steel* Identification Marks on Do. *1012FLS*

Material of Steam Pipes *Copper solid drawn* Test pressure *400 lbs*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The Machinery for this vessel has been constructed under special survey in accordance with the approved plans & the rules of this society, the materials & workmanship are good. The Boiler has been tested by hydraulic pressure to 200 lbs found sound & tight. The Machinery has been properly fitted & secured on board & on completion was tried under steam & found to work satisfactorily.*

These Engines were completed, with the exception of fitting the pistons & the shafting, in 1910 they have now been completely opened up, overhauled, cleaned & examined. In my opinion the vessel is eligible for the record + L.M.C. 2-13.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 2.13.

J.W.D. G.R. JL
21/2/13.
Frank A. Sturgeon
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee	£ 1 : 0 :	When applied for.
Special	£ 9 : 12 :	18-2-13
Donkey Boiler Fee	£ 1 : 0 :	When received.
Travelling Expenses (if any)	£	20/2/13

Committee's Minute
Assigned

LMC 2-13



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