

REPORT ON MACHINERY.

No. 21224

Received at London Office FRI. 28 MAY 1909

Date of writing Report 25.5.09 When handed in at Local Office 25/5/09 Port of Hull
 No. in Survey held at Hull Date, First Survey Feb. 3rd Last Survey 21st May 1909
 Reg. Book. 655 on the Steel Twin Sc. "La Loire" (Number of Visits 32)
 Master Hull Built at Hull By whom built Messrs Earle's Co. Ltd Tons } Gross 604
 } Net 272
 Engines made at Hull By whom made Messrs Earle's Co. Ltd when made 1909
 Boilers made at Hull By whom made Messrs Earle's Co. Ltd when made 1909
 Registered Horse Power 149 Owners Filbury Contracting & Dredging Co. Ltd Port belonging to London
 Nom. Horse Power as per Section 28 149 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 6 No. of Cranks 6
 Dia. of Cylinders each 18" - 20 1/2" - 33" Length of Stroke 18" Revs. per minute 170 Dia. of Screw shafts as per rule 6.72 Material of Steel
as fitted 6.75 screw shafts
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the shaft made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned No liners 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 bushes 29"
 Dia. of Tunnel shafts as per rule 5.88 Dia. of Crank shaft journals as per rule 6.17 Dia. of Crank pin 6 3/4" Size of Crank webs 13 1/2" x 4 1/2" Dia. of thrust shaft under
 collars 6 3/4" Dia. of screws 7'-6" Pitch of Screws 6'-6" No. of Blades 4 State whether moveable No Total surface 46 sq ft - 23 sq ft on each
 No. of Feed pumps each one on each Diameter of ditto 2 3/4" Stroke 9" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps one on each Diameter of ditto 2 3/4" Stroke 9" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines 3 Sizes of Pumps one 6" x 6" + one 6" x 6" + one 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 2 1/2", Two 2" In Holds, &c. One 2 1/2" to fore hold Star, one ditto to port.
One each 2", to each aft peak, port star fore peak and store room
 No. of Bilge Injections 2 sizes 3 1/2" Connected to condenser, or to circulating pump pumps Is a separate Donkey Suction fitted in Engine room of 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 1.5.09 of Stern Tube 1.5.09 Screw shaft and Propeller 1.5.09
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S ✓) Manufacturers of Steel Phoenix A&L, Ges. A. H. Verein
 Total Heating Surface of Boilers 3850 sq ft Is Forced Draft fitted No No. and Description of Boilers Two Cyl. Mult. Single Ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 24.4.09 No. of Certificate 1700
 Can each boiler be worked separately Yes Area of fire grate in each boiler 56 sq ft No. and Description of Safety Valves to
 each boiler Two Spring Area of each valve 7.06 sq ft 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 14" Mean dia. of boilers 14'-6" Length 10'-3" Material of shell plates Steel
 Thickness 1 3/8" Range of tensile strength 28 - 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. D.
 long. seams D. B. S. J. R. Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 7 1/8" Lap of plates or width of butt straps 17 1/2"
 Per centages of strength of longitudinal joint 94.3 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 32 1/4" x 28 1/4" x 1 1/4" No. and Description of Furnaces in each boiler 3 Deighton's Material Steel Outside diameter 3'-9 1/4"
 Length of plain part top 9 1/2" Thickness of plates bottom 9 1/2" Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 194 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/8" Back 3 1/2" Top 5 1/8" Bottom 1 1/8"
 Pitch of stays to ditto: Sides 9 1/4" x 8" Back 8" x 9" Top 8" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 205 lbs
 Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 64 sq ft Working pressure by rules 185 lbs End plates in steam space:
 Material Steel Thickness 1 3/2" Pitch of stays 15" x 19" How are stays secured D. T. Working pressure by rules 182 lbs Material of stays Steel
 Diameter at smallest part 2 1/8" Area supported by each stay 285 sq ft Working pressure by rules 188 lbs Material of Front plates at bottom Steel
 Thickness 1 1/8" Material of Lower back plate Steel Thickness 3/8" Greatest pitch of stays 14 1/2" x 8" Working pressure of plate by rules 193 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/4" + 4 3/4" Material of tube plates Steel Thickness: Front 1 5/16" Back 1/8" Mean pitch of stays 9 1/2"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 181 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 3/4" x 1 3/4" Length as per rule 2'-7 1/2" Distance apart 8" Number and pitch of stays in each Three 8"
 Working pressure by rules 189 lbs 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 —

W1443-0201

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
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
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:— *Eight coupling bolts, and nuts, 4 top end corner rod bolts, 4 bottom end connecting rod bolts, 6 main bearing bolts, 2 Stern bushes, 2 check valves, 2 safety valve springs, two sets each, air circulating feed bilge pump valves, a quantity of assorted bolts nuts etc*

The foregoing is a correct description,

F. J. Galethorpe Manufacturer.

SECRETARY. 1909:— Feb. 3, 9, 10, 13, 15, 24. Mar. 3, 5, 12, 19, 27, 31. Apr. 5, 14, 21, 22, 23, 24, 27, 28. May 1, 3, 5, 6, 7, 10, 11, 13, 15, 17, 18, 21.

Dates of Survey while building: During progress of work in shops - - - - -
 During erection on board vessel - - - - -
 Total No. of visits 32.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 19.3.09 Slides 19.3.09 Covers 27.4.09 Pistons 19.3.09 Rods 15.2.09
 Connecting rods 15.2.09 Crank shaft 27.3.09 Thrust shaft 1.5.09 Tunnel shafts 1.5.09 Screw shafts 1.5.09 Propellers 1.5.09
 Stern tubes 1.5.09 Steam pipes tested 11.5.09 Engine and boiler seatings 1.5.09 Engines holding down bolts 13.5.09
 Completion of pumping arrangements 18.5.09 Boilers fixed 12.5.09 Engines tried under steam 18.5.09
 Main boiler safety valves adjusted 18.5.09 Thickness of adjusting washers *5/16 aft 9/32 for 3/16*

Material of Crank shafts *Steel* Identification Mark on Do. *164 G.A.H* Material of Thrust shafts *steel* Identification Mark on Do. *6489 W.C.*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *6489 W.C.* Material of Screw shafts *Steel* Identification Marks on Do. *6489 W.C.*
 Material of Steam Pipes *Solid drawn Copper.* Test pressure *400 lbs*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines boilers of this vessel have been constructed under special survey in accordance with the Society's Rules, the approved plan and Secretary's letter of the 9th Decr 1908. The material and workmanship are good, the boiler tested by hydraulic pressure and found satisfactory, the engine and boilers secured on board and tested under steam. they are now in good order and safe working condition, and respectfully submitted as being eligible in my opinion to have the notation of $\frac{1}{2}$ L.M.C 5.09 in the Register Book.*

It is submitted that this vessel is eligible for THE REGISTRATION + L.M.C. 5.09

Jed. HED 28/5/09

The amount of Entry Fee	£ 2	When applied for,	25/5/09
Special	£ 26	When received,	4.6.09
Donkey Boiler Fee	£ -		
Travelling Expenses (if any)	£ -		

Committee's Minute *10th. 31 AUG 1909*
 Assigned *+ L.M.C 5.09*

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



Certificate (if required) to be sent to

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