

REPORT ON MACHINERY.

No. 18580

TUES. DEC 18 1906

Port of Hull

Received at London Office

No. in Survey held at Hull Date, first Survey Sep 10th Last Survey 13th Dec 1906

Reg. Book. 9 Supt. on the Steel S.S. Venture (Number of Visits 32)

Master Hull Built at Hull By whom built Messrs Earles & Co Ltd Tons Gross 288
Net 113

Engines made at Hull By whom made Messrs Earles & Co Ltd when made 1906

Boilers made at Hull By whom made Messrs Earles & Co Ltd when made 1906

Registered Horse Power 47 Owners G. Blashill Port belonging to Hull

Com. Horse Power as per Section 28 47 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 12 3/4 - 22 - 36 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft 7.44 Material of Iron
as fitted 8" 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 one length 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 34 1/2"

Dia. of Plain part as per rule 6.74 Dia. of Crank shaft journals 7.08 Dia. of Crank pin 7 1/2 Size of Crank webs 14 x 4 7/8 Dia. of thrust shaft under

rollers 4 1/2 Dia. of screw 9 - 0 Pitch of Screw 11 - 0 - 6 12 - 0 No. of Blades 4 State whether moveable No Total surface 27 sq

No. of Feed pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work —

No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work —

No. of Donkey Engines Two Sizes of Pumps 6 x 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two 2" & One 3 1/2" In Holds, &c. One each 2" To fore slush well,

to aft slush well, to fore compartment, and ejector suction from holds & R. bilge

No. of Bilge Injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump pump 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 0

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 Hold suction How are they protected wood casing

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 17. 12. 06 of Stern Tube 17. 11. 06 Screw shaft and Propeller 17. 11. 06

Is the Screw Shaft Tunnel watertight — Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record 8) Manufacturers of Steel Steel Co of Scotland

Total Heating Surface of Boilers 1260 sq Is Forced Draft fitted No No. and Description of Boilers One cyl. Multi.

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 26. 11. 06 No. of Certificate 1530

Can each boiler be worked separately — Area of fire grate in each boiler 40 sq No. and Description of Safety Valves to

each boiler Two Spring Area of each valve 4.9 sq Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 13 - 0 Length 10 - 6 Material of shell plates Steel

Thickness 1 3/16" Range of tensile strength 28 - 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. D.

Long. seams ONS. J. R. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 7 1/16" Lap of plates or width of butt straps 17 1/2"

Percentages of strength of longitudinal joint rivets 90.1 Working pressure of shell by rules 200 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 40 x 30 x 1 3/16" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 37"

Length of plain part top 5 - 7 Thickness of plates crown 3/4" Description of longitudinal joint Welded No. of strengthening rings 0

Working pressure of furnace by the rules 213 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 5/8" Top 1/16" Bottom 1/16"

Pitch of stays to ditto: Sides 9 1/2" x 8" Back 8" x 7 7/8" Top 8" x 7 5/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 212 lbs

Material of stays Steel Diameter at smallest part 1 5/8" Area supported by each stay 76 sq Working pressure by rules 245 lbs End plates in steam space:

Material Steel Thickness 1 3/16" Pitch of stays 15 1/4" x 17 3/4" How are stays secured D. Nuts Working pressure by rules 231 lbs Material of stays Steel

Diameter at smallest part 2 13/16" Area supported by each stay 270.68 sq Working pressure by rules 229 lbs Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14 1/2 - 10" Working pressure of plate by rules 213 lbs

Diameter of tubes 3 1/4" Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates Steel Thickness: Front 1" Back 5/8" Mean pitch of stays 9 1/2"

Pitch across wide water spaces 14" Working pressures by rules 208 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 9 1/2" x 1 3/4" Length as per rule 2' - 11" Distance apart 7 7/8" Number and pitch of stays in each 3 - 8"

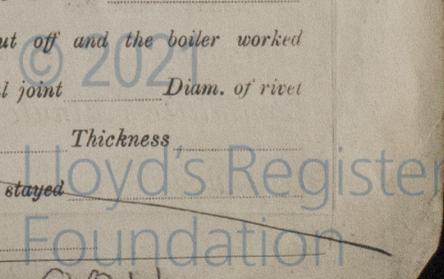
Working pressure by rules 216 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivets

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

W705 - 0011



VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description			When made	Where fixed
Made at	By whom made				
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 each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts nuts, one set feed & bilge pump valves, and a quantity of bolts nuts etc.*

The foregoing is a correct description,
F. J. Palethorpe Manufacturer.

Dates of Survey while building: During progress of work in shops - 1906 - Sep 10, 19, 20, 27, Oct 3, 5, 22, 25, Oct 29, 31, Nov 1, 2, 6, 7, 10, 12, 13, 15, 17, 21, 23, 24.
 During erection on board vessel - Nov 26, 29, 30, Dec 3, 4, 6, 7, 10, 11, 13.
 Total No. of visits 32
 Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 12.11.06 Slides 15.11.06 Covers 7.11.06 Pistons 7.11.06 Rods 7.11.06
 Connecting rods 7.11.06 Crank shaft 29.10.06 Thrust shaft 29.10.06 Tunnel shafts Screw shaft 29.10.06 Propeller 7.11.06
 Stern tube 7.11.06 Steam pipes tested 6.12.06 Engine and boiler seatings 26.11.06 Engines holding down bolts 6.12.06
 Completion of pumping arrangements 11.12.06 Boilers fixed 6.12.06 Engines tried under steam 11.12.06
 Main boiler safety valves adjusted 7.12.06 Thickness of adjusting washers Port 1/4" Starboard 1/6"
 Material of Crank shaft *Steel* Identification Mark on Do. 1771 ATG Material of Thrust shaft *Steel* Identification Mark on Do. 68 GAH
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do. 68 GAH
 Material of Steam Pipes *Solid drawn Copper* Test pressure *400 lbs per sq inch*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines and boiler of this vessel have been inspected during construction in accordance with the Society's Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines placed 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 be classed with the notation of L.M.C. 12.06 in the Register Book.*

These engines and boiler, are similar to those fitted on the "Spider" Hull Report No. 18488. Attached to this report, are letters from builders Owners, agreeing to one feed, one bilge pump to main engines, Forging reports for shafts, & steel advice notes for plates furnaces, & steel castings.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 12.06

The amount of Entry Fee... £ 1 : : : :
 Special ... £ 11 : 14 : : : :
 Donkey Boiler Fee ... £ - : - : : : :
 Travelling Expenses (if any) £ - : - : : : :

When applied for, 15/12/1906
 When received, 19/12/06
James Barclay
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. 21 DEC 1906
 Assigned H.M.C. 12.06



Certificate (if required) to be sent to Hall