

## REPORT ON MACHINERY

No. 22999  
TUE. 27 SEP 1910

Date of writing Report 19 When handed in at Local Office 19<sup>th</sup> Sept 1910 Port of Hull

No. in Survey held at Hull Beverley Date, First Survey Apr 22<sup>nd</sup> Last Survey 15<sup>th</sup> Sept 1910  
Reg. Book. 27 Supp. on the Hull S. K. Corientes (Number of Visits 37)

Master Built at Beverley By whom built Cook, Wilson & Gemmell Tons Gross 280 Net 119  
Engines made at } Hull By whom made } Messrs when made 1910  
Boilers made at } Hull By whom made } Charles D. Holmes & Co. Ltd. when made 1910  
Registered Horse Power Owners T. Bascomb Port belonging to Grimsby

Nom. Horse Power as per Section 28 88.83 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.—Description of Engines** Triple Expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 13" ~ 23" ~ 37" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft as per rule 7.57 Material of Iron  
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  
in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 36"  
Dia. of Thrust shaft as per rule 6.8 Dia. of Crank shaft journals as per rule 7.16 Dia. of Crank pin 7 1/4" Size of Crank webs 14 1/2" x 4 1/2" Dia. of thrust shaft under  
collars 7 1/4" Dia. of screw 9 ~ 1 1/2" Pitch of Screw 11 ~ 6" No. of Blades 4 State whether moveable No Total surface 30  
No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines One Sizes of Pumps 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Two 2" & one 3" Ejector In Holds, &c. One each 2" to Slush well,  
Forehold, and fore peak,  
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 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 No  
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 peak suction How are they protected Wood & Iron 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 8.7.10 of Stern Tube 8.7.10 Screw shaft and Propeller 8.7.10  
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

**OILERS, &c.—(Letter for record 3.)** Manufacturers of Steel Phoenix A. G. A. H. V. of Hörde

Total Heating Surface of Boilers 13500 Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi. Single Ended  
Working Pressure 198 lbs Tested by hydraulic pressure to 396 lbs Date of test 19.8.10 No. of Certificate 1763  
Can each boiler be worked separately — Area of fire grate in each boiler 45 sq ft No. and Description of Safety Valves to  
each boiler Two Spring Area of each valve 4.9 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 24" Int. Mean dia. of boilers 13 ~ 3 5/8" Length 10 ~ 6" Material of shell plates S  
Thickness 1 3/16" Range of tensile strength 28 ~ 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. D.  
Long. seams D. B. S. L. R. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 16 5/8"  
Per centages of strength of longitudinal joint rivets 85. plate 85. Working pressure of shell by rules 198 lbs Size of manhole in shell 16" x 12"  
Size of compensating ring 7" x 1 3/16" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 37 1/2"  
Length of plain part top 72" Thickness of plates crown 3/4" Description of longitudinal joint Welded No. of strengthening rings 0  
bottom 64" Thickness of plates bottom 3/4"  
Working pressure of furnace by the rules 204 lbs Combustion chamber plates: Material S Thickness: Sides 3/4" Back 23/32" Top 3/4" Bottom 3/4"  
Pitch of stays to ditto: Sides 9 1/2" x 10" Back 10" x 8" Top 9 1/2" x 10" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 198 lbs  
Material of stays S Diameter at smallest part 1 5/8" Area supported by each stay 95 sq in Working pressure by rules 198 lbs End plates in steam space:  
Material S Thickness 1 1/4" Pitch of stays 19 1/4" x 19 1/4" How are stays secured D. N. W. Working pressure by rules 198 lbs Material of stays S  
Diameter at smallest part 3 3/32" Area supported by each stay 370.56 sq in Working pressure by rules 210 lbs Material of Front plates at bottom S  
Thickness 1 1/2" Material of Lower back plate S Thickness 1 1/2" Greatest pitch of stays 15 1/2" x 17" Working pressure of plate by rules 200 lbs  
Diameter of tubes 3 1/4" Pitch of tubes 4 5/8" x 4 3/4" Material of tube plates S Thickness: Front 1 1/2" Back 29/32" Mean pitch of stays 9 1/2" x 9 1/4"  
Pitch across wide water spaces 14 1/2" Working pressures by rules 198 lbs Girders to Chamber tops: Material S Depth and  
Thickness of girder at centre 9" x 2" Length as per rule 2 ~ 9 1/2" Distance apart 9 1/2" Number and pitch of stays in each Two 10"  
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 rivet  
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
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	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 each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air, circulating, feed and bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

p. pro **CHARLES D. HOLMES & Co. Ltd.**

Manufacturer.

*Harold S. Thompson* DIRECTOR. 1910. - Apr 22. 28. May 7. 25. 31. Jun 2. 14. 17. 21. July 2. 5. 8. 12. 20. 26. 29 Aug 4  
 Dates of Survey while building { During progress of work in shops - - -  
 { During erection on board vessel - - -  
 Total No. of visits 39

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

Dates of Examination of principal parts—Cylinders 20. 7. 10 Slides 23. 8. 10 Covers 23. 8. 10 Pistons 23. 8. 10 Rods 12. 7. 10  
 Connecting rods 23. 8. 10 Crank shaft 12. 7. 10 Thrust shaft 23. 8. 10 Tunnel shafts Screw shaft 5. 7. 10 Propeller 5. 7. 10  
 Stern tube 2. 7. 10 Steam pipes tested 2. 9. 10 Engine and boiler seatings 25. 8. 10 Engines holding down bolts 6. 9. 10  
 Completion of pumping arrangements 15. 9. 10 Boilers fixed 6. 9. 10 Engines tried under steam 15. 9. 10  
 Main boiler safety valves adjusted 7. 9. 10 Thickness of adjusting washers  $\frac{3}{8}$  -  $\frac{1}{4}$

Material of Crank shaft *I* Identification Mark on Do. 701. J.B. Material of Thrust shaft *S* Identification Mark on Do. 701 J.B.  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *I* Identification Marks on Do. 616 J.B.

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 machinery of this vessel has been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure, and with the engines secured on board, tested under steam, and found satisfactory. They are now in good order and safe working condition and respectfully submitted as being eligible in our opinion to be classed with the notation of  $\frac{1}{2}$  L.M. 6. 9. 10. in the Register Book

It is submitted that this vessel is eligible for THE RECORD. 4 LMC 9 10

The amount of Entry Fee .. £ 1 : 9 :  
 Special .. £ 13 : 4 :  
 Donkey Boiler Fee .. £ - : - :  
 Travelling Expenses (if any) £ - : 4 : 9

When applied for. 26. 9. - 19. 10

When received. 30. 9. 1910

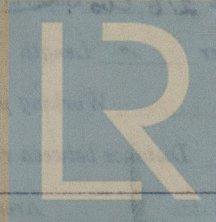
Committee's Minute

Assigned

FRI 30 SEP 1910

MACHINERY CERTIFICATE  
 WRITTEN.

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



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