

REPORT ON MACHINERY.

No. 19274

Port of Hull

Received at London Office 10 AUG 1907

No. in Survey held at Hull Date, first Survey Dec 17/06 Last Survey July 25 1907.
 Reg. Book. 1409 on the Trench Hawker "Conquest" 172 (Number of Visits 27)
 Master Built at Dundee By whom built When built 1907
 Engines made at Hull By whom made Charles D. Holmes & Co. when made 1907
 Boilers made at do By whom made do when made 1907
 Registered Horse Power Owners A. L. Black Port belonging to Gurnsey
 Nom. Horse Power as per Section 28 76 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12½", 22", 35" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft as per rule 7.39" Material of screw shaft 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 Tunnel shaft as per rule 6.6" Dia. of Crank shaft journals as per rule 6.9" Dia. of Crank pin 7½" Size of Crank webs 13½" x 4½" Dia. of thrust shaft under
 collars 7½" Dia. of screw 8" x 7½" Pitch of Screw 11-0" No. of Blades 4 State whether moveable No Total surface 27½ sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2½" Stroke 24" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2½" Stroke 24" Can one be overhauled while the other is at work
 No. of Donkey Engines One Sizes of Pumps 2½" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" dia. In Holds, &c. Five 2" dia.
 Ejector suction from all bilges & discharge on deck.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & sized 2½" 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 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 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 29. 6. 07 of Stern Tube 29. 6. 07 Screw shaft and Propeller 29. 6. 07
 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 David Colville & Sons Ltd.
 Total Heating Surface of Boilers 12674 sq. ft. Forced Draft fitted No No. and Description of Boilers One L.T. Cyl. boiler
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 14. 6. 07 No. of Certificate 1569
 Can each boiler be worked separately Area of fire grate in each boiler 36 sq. ft. No. and Description of Safety Valves to
 each boiler Two spring Area of each valve 3.9" 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 5½" Mean dia. of boilers 13-0" Length 10-0" Material of shell plates Steel
 Thickness 1½" Range of tensile strength 29-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.T. Lap
 long. seams L.T. 5 Rivets Diameter of rivet holes in long. seams 1½" Pitch of rivets 7½" Lap of plates or width of butt straps 17½"
 Per centages of strength of longitudinal joint rivets 92.5 Working pressure of shell by rules 206 lbs Size of manhole in shell 16 x 12
 Size of compensating ring 7 x 1½" No. and Description of Furnaces in each boiler Two Holmes Material Steel Outside diameter 3-9"
 Length of plain part top Thickness of plates crown 3/4" Description of longitudinal joint Welded No. of strengthening rings
 bottom Thickness of plates bottom 3/4" Working pressure of furnace by the rules 210 Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 23/32" Top 23/32" Bottom 3/4"
 Pitch of stays to ditto: Sides 9 x 8½" Back 9 x 9" Top 9½ x 8½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 213
 Material of stays Steel Diameter at smallest part 1½" Area supported by each stay 109.7 Working pressure by rules 197 End plates in steam space:
 Material Steel Thickness 1½" Pitch of stays 18 x 18 How are stays secured on + w Working pressure by rules 206 lbs Material of stays Steel
 Diameter at smallest part 7.5 Area supported by each stay 324 Working pressure by rules 230 Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 15" Working pressure of plate by rules 200
 Diameter of tubes 3¼" Pitch of tubes 4½ x 4½ Material of tube plates Steel Thickness: Front 1" Back 29/32" Mean pitch of stays 9¼"
 Pitch across wide water spaces 14½ Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9¼ x 1½ Length as per rule 2-7 29 Distance apart 9½ Number and pitch of stays in each 3 @ 8½"
 Working pressure by rules 208 lbs Superheater or Steam chest; how connected to boiler None 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 & two bottom end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Main & donkey feed check valves. Assorted bolts & nuts &c.*

The foregoing is a correct description,

PER PRO CHARLES D. HOLMES & Co.

H. Allon

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1906 - Dec 17. 1907 - Jan 15. 30. Feb 28. Mar 15. 20. 26. Apr 9. 10. 13. 26. May 7. 10. 22.
During erection on board vessel - May 30. Jun 6. 14. 18. 27. 29. July 1. 6. 8. 10. 16. 19. 25
Total No. of visits 27

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

Dates of Examination of principal parts—Cylinders 18.6.07 Slides 1.7.07 Covers 1.7.07 Pistons 27.6.07 Rods 18.6.07
Connecting rods 18.6.07 Crank shaft 27.6.07 Thrust shaft 27.6.07 Tunnel shafts ✓ Screw shaft 27.6.07 Propeller 27.6.07
Stern tube 27.6.07 Steam pipes tested 16.7.07 Engine and boiler seatings 29.6.07 Engines holding down bolts 6.7.07
Completion of pumping arrangements 19.7.07 Boilers fixed 10.7.07 Engines tried under steam 19.7.07
Main boiler safety valves adjusted 19.7.07 Thickness of adjusting washers $F \frac{5}{16}$ " $A \frac{5}{16}$ "
Material of Crank shaft *Iron* Identification Mark on Do. 349 J.K. 27.6.07 Material of Thrust shaft *Iron* Identification Mark on Do. 349 J.K. 27.6.07
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. 349 J.K. 27.6.07
Material of Steam Pipes *Solid drawn copper* Test pressure 400 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 7.07 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. *+LMC 7.07*

H.C. 15.8.07
12.8.07

The amount of Entry Fee. £ 1 : . :
Special . . . £ 11 : 8 :
Donkey Boiler Fee . . . £ : :
Travelling Expenses (if any) £ : :
When applied for. 9/8/07
When received. 27/8/07

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

Committee's Minute

TUES. 13 AUG 1907

Assigned

+LMC 7.07

MACHINERY CERTIFICATE
WRITTEN.

Lloyd's Register
Foundation