

## REPORT ON MACHINERY.

No. 29553

Received at London Office

Date of writing Report 15-9-16 When handed in at Local Office 19-9-16 Port of Hull SAT. 30 SEP 1916  
 To. in Survey held at Hull Date, First Survey 22nd September 1915 Last Survey 14-9-16 19  
 Reg. Book. 136 on the steel screw trawler "St. Hubert" (Number of Visits 43) Gross 349  
 Master Beverley Built at Beverley By whom built Cook, Weller & Gemmell Tons 140  
 Engines made at Hull By whom made C. D. Holmes & Co. Ltd when made 1916-9  
 Boilers made at Hull By whom made C. D. Holmes & Co. Ltd when made 1916-9  
 Registered Horse Power 82 Owners St. Andrews S. F. Co. Ltd Port belonging to Hull  
 Nom. Horse Power as per Section 28 82 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 12 1/4" - 23" - 37" Length of Stroke 26" Revs. per minute 105 Dia. of Screw shaft 7 1/2" 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  
 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 yes If two  
 liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 35 1/2"  
 Dia. of Tunnel shaft 6 9/16" Dia. of Crank shaft journals 7 1/2" Dia. of Crank pin 7 1/2" Size of Crank webs 14 1/2" x 5" Dia. of thrust shaft under  
 collars 7 1/2" Dia. of screw 9' - 7 1/2" Pitch of Screw 11' - 4 1/2" No. of Blades 4 State whether moveable no Total surface 35 1/2"  
 No. of Feed pumps one Diameter of ditto 2 3/4" Stroke 16 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps one Diameter of ditto 2 3/4" Stroke 16 Can one be overhauled while the other is at work yes  
 No. of Donkey Engines one Sizes of Pumps 6" 3 1/2" x 6" 4 wheel No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room two 12" dia In Holds, &c. one 2" dia in each compartment  
all suction also connected to 2 1/2" ejector  
 No. of Bilge Injections one size 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" 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 Forward suction How are they protected strong wooden casings  
 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 9-6-16 of Stern Tube 9-6-16 Screw shaft and Propeller 9-6-16  
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes  
 BOILERS, &c.—(Letter for record S) Manufacturers of Steel D. Colville & Sons  
 Total Heating Surface of Boilers 12500 Is Forced Draft fitted no No. and Description of Boilers one single ended  
 Working Pressure 200 lbs Tested by hydraulic pressure to 410 lbs Date of test 8-8-16 No. of Certificate 3154  
 Can each boiler be worked separately yes Area of fire grate in each boiler 46.5 No. and Description of Safety Valves to  
 each boiler two spring loaded Area of each valve 4.9 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 6" lagged Mean dia. of boilers 165" Length 10'-6" Material of shell plates steel  
 Thickness 1 15/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double  
 long. seams RA & B Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 8 1/8" Lap of plates on width of butt straps 18"  
 Per centages of strength of longitudinal joint 86.8 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"  
 Size of compensating ring 7" x 1 1/4" No. and Description of Furnaces in each boiler Three plain Material steel Outside diameter 39"  
 Length of plain part 76 3/8" Thickness of plates 3 3/32" Description of longitudinal joint welded No. of strengthening rings yes  
 Working pressure of furnace by the rules 202 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 2 3/32" Top C 5/16" Bottom 1 1/16"  
 Pitch of stays to ditto: Sides 9" x 9" Back 10 1/2" x 8 1/2" Top 10 1/2" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202  
 Material of stays steel Diameter at smallest part 2 07" Area supported by each stay 92.25 Working pressure by rules 202 End plates in steam space  
 Material steel Thickness 1 1/4" Pitch of stays 19 1/2" x 19 1/2" How are stays secured 8 7/8" x W Working pressure by rules 202 Material of stays steel  
 Diameter at smallest part 7 5/8" Area supported by each stay 365 Working pressure by rules 214 Material of Front plates at bottom steel  
 Thickness 1 5/16" Material of Lower back plate steel Thickness 1 7/16" Greatest pitch of stays 14" x 10 1/2" Working pressure of plate by rules 201  
 Diameter of tubes 3 1/2" Pitch of tubes 5 1/2" x 5" Material of tube plates steel Thickness: Front 1 5/8" + 2 Back 7/8" Mean pitch of stays 10 1/2"  
 Pitch across wide water spaces 14" double Working pressures by rules 249 lbs Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 11" x 1 3/4" Length as per rule 37.7 Distance apart 10 1/2" C Number and pitch of stays in each Three 9"  
 Working pressure by rules 204 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked  
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet  
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes  
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes  
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

W1347-0004



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

2 Connecting Rod Top End bolts & nuts.  
2 Connecting Rod Bottom end bolts & nuts. 2 Main bearing bolts  
1 set coupling bolts. 1 set Feed & Bilge Pump Valves.  
Assorted bolts & nuts. Iron various sizes. 1 shaft for Centrif  
Pump. 1 Feed pump plunger. 1 dog Piston studs & nuts.  
Values for Donkey. 1 Safety valve spring. 1 set Air Pump Valve

The foregoing is a correct description,

P. PRO CHARLES D. HOLMES & CO. LTD.

*Arthur Holmes*

DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1915: Sep 22, 1916: JAN 13, 25, Feb. 2, 3, 4, 29. MAR. 16. APR. 13, 17, 19, 27, MAY 5, 25  
During erection on board vessel - - - JAN. 4, 6, 7, 9, 12, 15, 22, 27, JULY 4, 7, 10, 14, 17, 19, 21, 26, 31, AUG. 3, 8, 15, 21, 25, 28, 29, SEP. 5, 6, 9  
Total No. of visits 49

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

" " " donkey " " " *yes*

Dates of Examination of principal parts - Cylinders 4-7-16 Slides 19-7-16 Covers 14-7-16 Pistons 14-7-16 Rods 14-7-16

Connecting rods 7-7-16 Crank shaft 4-7-16 Thrust shaft 7-7-16 Tunnel shafts ☒ Screw shaft 7-6-16 Propeller 7-6-16

Stern tube 6-6-16 Steam pipes tested 5-9-16 Engine and boiler seatings 9-6-16 Engines holding down bolts 28-8-16

Completion of pumping arrangements 14-9-16 Boilers fixed 9-9-16 Engines tried under steam 14-9-16

Main boiler safety valves adjusted 9-9-16 Thickness of adjusting washers  $F\frac{1}{4}$   $A\frac{1}{4}$

Material of Crank shaft *Iron* Identification Mark on Do. 1599 FLS Material of Thrust shaft *Iron* Identification Mark on Do. 7457 2

Material of Tunnel shafts ☒ Identification Marks on Do. ☒ Material of Screw shafts *Iron* Identification Marks on Do. 1593 F

Material of Steam Pipes *solid drawn copper* Test pressure 40 lbs

Is an installation fitted for burning oil fuel ☒ Is the flash point of the oil to be used over 150°F. ☒

Have the requirements of Section 49 of the Rules been complied with ☒

Is this machinery duplicate of a previous case ☒ If so, state name of vessel ☒

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 approved plans & the rules of this society, the materials & workmanship are good. The boiler & steam pipes have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 2 1/2 lbs.*

*In my opinion the vessel is eligible for the award of L.M.C. 9.16*

It is submitted that  
this vessel is eligible for  
THE RECORD + LMC 9.16.

*AWD*  
30/9/16

The amount of Entry Fee ... £ 1 : 0 :  
Special ... £ 12 : 6 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : 2/-

When applied for,

24.9.16

When received,

29/9.16

*Frank S. Langer*

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

Committee's Minute TUE. 3-OCT. 1916

Assigned

*+ LMC 9.16*

MACHINERY CERTIFICATE  
WRITTEN



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Foundation