

REPORT ON MACHINERY.

No. 29799

Received at London Office 22 DEC. 1916

Date of writing Report 13-12-16 1916 When written at Local Office 19-12-16 1916 Port of Hull
 No. in Survey held at Hull Date, First Survey Apr 5/16 Last Survey 13-12-16 1916
 Reg. Book. 550 on the steel screw trawler Windsor Number of Visits 44
 Master Built at Selby By whom built Cockham & Sons Ltd Tons Gross 222 Net 97
 Engines made at Hull By whom made C.D. Holmes & Co Ltd when made 1916-12
 Boilers made at Hull By whom made C.D. Holmes & Co Ltd when made 1916-12
 Registered Horse Power Owners Queen Tom Fishing Co Ltd Port belonging to Grimsby
 Nom. Horse Power as per Section 28 66 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"-21"-34" Length of Stroke 24" Revs. per minute 6.99 Material of screw shafts as per rule 6.99 as fitted 7.8
 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 30 1/2"
 Dia. of Tunnel shaft as per rule 6.26 Dia. of Crank shaft journals as per rule 6.57 Dia. of Crank pin 6 3/4" Size of Crank webs 13" x 4 1/2" Dia. of thrust shaft under
 collars 6 3/4" Dia. of screw 8-6" Pitch of Screw 10'-6" No. of Blades 4 State whether moveable no Total surface 28 sq ft
 No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work
 No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work
 No. of Donkey Engines two 2 1/2" Sizes of Pumps 5 1/4" 3 1/2" x 5" 5 1/4" x 5" No. and size of Suction pipes connected to both Bilge and Donkey pumps
 In Engine Room two 2" diam In Holds, &c. none
 a 2 1/2" ejector suction also fitted to tankwell
 No. of Bilge Injections one size 3" Connected to condenser, or to circulating pump pump Is a separate 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 sluice valves accessible
 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
 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
 What pipes are carried through the bunkers Forward suction How are they protected strong wooden 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 15-4-16 of Stern Tube 15-4-16 Screw shaft and Propeller 15-4-16
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Thwaites & Lloyd's
 Total Heating Surface of Boilers 1070 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 10-11-16 No. of Certificate 3174
 Can each boiler be worked separately Area of fire grate in each boiler 33 sq ft No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 3.98 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 6" Pl. lagged Mean dia. of boilers 14 7/16" Length 10'-0" Material of shell plates steel
 Thickness 1 1/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. seams R.R.B.S. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 15"
 Per centages of strength of longitudinal joint rivets 85.6 Working pressure of shell by rules 184 lbs. Size of manhole in shell 12" x 16"
 Size of compensating ring 7" x 1 1/32" No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 43"
 Length of plain part top 7'-0" bottom 6'-7" Thickness of plates crown 3 25/32" Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 184 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 2 1/32" Top 1 1/16" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 9" x 10" Back 9 3/8" x 8 1/2" Top 10" x 8 1/2" If stays are fitted with nuts or riveted heads none Working pressure by rules 181
 Material of stays steel Diameter at smallest part 2.07" Area supported by each stay 90 sq in Working pressure by rules 207 End plates in steam space
 Material steel Thickness 1 1/16" Pitch of stays 17" x 17" How are stays secured 2 7/8" x 1 1/2" Working pressure by rules 185 Material of stays steel
 Diameter at smallest part 5.79" Area supported by each stay 289 sq in Working pressure by rules 206 Material of Front plates at bottom steel
 Thickness 7/8" Material of Lower back plate steel Thickness 29/32" Greatest pitch of stays 19" double Working pressure of plate by rules 180
 Diameter of tubes 3 1/2" Pitch of tubes 5" Material of tube plates steel Thickness: Front 7/8" double Back 7/8" Mean pitch of stays 10"
 Pitch across wide water spaces 15" Working pressures by rules 249 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 8" x 1 3/4" Length as per rule 32 43" Distance apart 8 1/2" Number and pitch of stays in each two 10"
 Working pressure by rules 193 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately yes Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivets
 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

W1170-0254

IF A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air, circulating, feed & bilge pump valves, one set of donkey pump valves, one main & one donkey check valve, 6 junk ring studs & nuts, 3 Boiler tubes, one escape valve spring each size two safety valve springs & a quantity of iron bolts & nuts of various sizes.*

The foregoing is a correct description,

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

Arthur Holmes

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1916 1-4 5 6 7 11 13 15. Jul 14 Aug 19. 23 Sep 2 5 7 13 15 19. 23 27 29 Oct 5 6.
During erection on board vessel -- 7 10 12 16 17 20 23 25 31 Nov 2 3 7 9 10 14 20 22 25 27 30 Dec 8 11 13.
Total No. of visits 44.

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 13-9-16 Slides 18-10-16 Covers 17-10-16 Pistons 5-9-16 Rods 18-10-16

Connecting rods 18-10-16 Crank shaft 7-10-16 Thrust shaft 14-7-16 Tunnel shafts ✓ Screw shaft 13-4-16 Propeller 13-4-16

Stern tube 11-4-16 Steam pipes tested 30-11-16 Engine and boiler seatings 15-4-16 Engines holding down bolts 26-11-16

Completion of pumping arrangements 13-12-16 Boilers fixed 11-12-16 Engines tried under steam 13-12-16

Main boiler safety valves adjusted 11-12-16 Thickness of adjusting washers *3/8 inch*

Material of Crank shaft *Iron* Identification Mark on Do. 1742 FLS Material of Thrust shaft *Iron* Identification Mark on Do. 1704 FLS

Material of Tunnel shafts ✓ Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do. 1574 FLS

Material of Steam Pipes *solid drawn copper* ✓ Test pressure *400 lbs*

Is an installation fitted for burning oil fuel *no* ✓ 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 *no* ✓ 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 190 lbs.*

In my opinion the vessel is eligible for the record + L.M.C. 12 16

THE RECORD + L.M.C. 12.16.

APR 2

J.W.D.
27/12/16

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 9 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 8/2 :
When applied for, 21/12/16
When received, 30/12/16

Frank J. Stanger

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

Committee's Minute *FRI DEC 29 1916*

Assigned *+ L.M.C. 12.16*

MACHINERY CERTIFICATE
WRITTEN



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Foundation