

Rpt. 4. **REPORT ON MACHINERY.** No. 29617

Date of writing Report 19-10-16 When handed in at Local Office 25-10-16 Port of Hull Received at London Office FRI NOV 3-1916
 No. in Survey held at Hull Date, First Survey Jan. 5-16 Last Survey 18-10-16 1916
 Reg. Book 245 on the steel screw trawler "Lapageria" (Number of Visits 44)
 Master Beverley Built at Beverley By whom built Cook, Welton & Gensomell Tons Gross 261
 Engines made at Hull By whom made C. D. Holmes & Co. Ltd When built 1916-10
 Boilers made at Hull By whom made C. D. Holmes & Co. Ltd when made 1916-10
 Registered Horse Power 79 Owners A. Robinson Port belonging to Germany
 Nom. Horse Power as per Section 28 79 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3
 Dia. of Cylinders 12 3/4 - 22 - 36 Length of Stroke 24 Revs. per minute 7.42 Dia. of Screw shaft 7 5/8 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 35 1/2
 Dia. of Tunnel shaft 6.5 Dia. of Crank shaft journals 6.825 Dia. of Crank pin 7 1/8 Size of Crank webs 13 1/2 x 4 1/2 Dia. of thrust shaft under
 collars 7 1/8 Dia. of screw 9-3 Pitch of Screw 10-8 No. of Blades 4 State whether moveable no Total surface 30 1/2
 No. of Feed pumps one Diameter of ditto 2 1/8 Stroke 24 Can one be overhauled while the other is at work ✓ 63-5 E.H.P.
 No. of Bilge pumps one Diameter of ditto 2 1/8 Stroke 24 Can one be overhauled while the other is at work ✓
 No. of Donkey Engines one Sizes of Pumps 5" 2 3/4" x 5" Flywheel No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room two 2" dia In Holds, &c. one 2" dia in each compartment
all suction also connected to 2 1/2" extra
 No. of Bilge Injections one size 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" extra
 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 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 4-2-16 of Stern Tube 4-2-16 Screw shaft and Propeller 4-2-16
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record S) Manufacturers of Steel Stewarts & Lloyd
 Total Heating Surface of Boilers 1355 1/2 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 12-9-16 No. of Certificate 3161
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 45.7 1/2 No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 4.9 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers or woodwork 7" Steam dia. of boilers 159 13/16 Length 10-6 Material of shell plates steel
 Thickness 1 3/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. seams J.P.D.B. Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 6 7/8 Lap of plates or width of butt straps 15 3/8
 Per centages of strength of longitudinal joint 87.8 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 3/32 No. and Description of Furnaces in each boiler Three plain Material steel Outside diameter 38"
 Length of plain part top 79 1/2 Thickness of plates 2 1/16 Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 185 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 23/32
 Pitch of stays to ditto: Sides 11" x 8 1/2" Back 11" x 8 1/2" Top 11" x 9 1/4" Stays are fitted with nuts or riveted heads nuts Working pressure by rules 185
 Material of stays steel Diameter at smallest part 2 1/4 Area supported by each stay 116 Working pressure by rules 186 End plates in steam space:
 Material steel Thickness 1 1/16 Pitch of stays 18" x 16" How are stays secured 2 x 1/4" Working pressure by rules 185 Material of stays steel
 Diameter at smallest part 5.27 Area supported by each stay 288 Working pressure by rules 190 Material of Front plates at bottom steel
 Thickness 7/8 Material of Lower back plate steel Thickness 27/32 Greatest pitch of stays 14" x 8 1/2" Working pressure of plate by rules 184
 Diameter of tubes 3 1/2 Pitch of tubes 5 Material of tube plates S Thickness: Front 7/8 Back 7/8 Mean pitch of stays 11 1/4"
 Pitch across wide water spaces 14 Working pressures by rules 216 lbs Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 9" x 1 3/4" Length as per rule 34.93 Distance apart 9' ctr Number and pitch of stays in each two 11"
 Working pressure by rules 202 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 2021 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 ✓

009278-009286-0012

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *L*

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, 6 gunting studs & nuts, one main & one donkey check valve, two safety valve springs & a quantity of bolts & nuts & nuts of various sizes*

The foregoing is a correct description,
p. pro CHARLES D. HOLMES & CO. LTD.

Harold Sheardan DIRECTOR Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1916: - Jan 5, 12, 14, 15, 31, Feb 3, 4, 21, 29, Mar 3, 8, 23, May 5, June 6, 22, 27, Jul 4, 7, 10, 14, 21, 24, 28, 31, Aug 3, 8, 9, 15, 19, 23, 28, Sep 2, 5, 7, 11, 12, 20, 25, 27, 29, Oct 6, 10, 18. During erection on board vessel - - - } Total No. of visits *44*

Is the approved plan of main boiler forwarded herewith *Yes please return to master vessel*
" " " donkey " " "

Dates of Examination of principal parts - Cylinders *31-7-16* Slides *23-8-16* Covers *23-8-16* Pistons *9-8-16* Rods *23-8-16*
Connecting rods *19-8-16* Crank shaft *28-7-16* Thrust shaft *14-7-16* Tunnel shafts ✓ Screw shaft *31-1-16* Propeller *31-1-16*
Stern tube *31-1-16* Steam pipes tested *29-9-16* Engine and boiler seatings *4-2-16* Engines holding down bolts *25-9-16*
Completion of pumping arrangements *18-10-16* Boilers fixed *25-9-16* Engines tried under steam *18-10-16*
Main boiler safety valves adjusted *10-10-16* Thickness of adjusting washers *7 3/8" A 3/8"*

Material of Crank shaft *Iron* Identification Mark on Do. *1714 FLS* Material of Thrust shaft *Iron* Identification Mark on Do. *1707 FLS*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shaft *Iron* Identification Marks on Do. *1556 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 machinery has been properly fitted & secured on board the vessel & on completion tried under steam & found satisfactory. The safety valves have been tested for accumulation which did not exceed 195 lbs. In my opinion the vessel is eligible for the record + L.M.C. 10, 16*

Hull
Certificates (if required) to be sent to
The Registrar and returned not to write on or below the space for Committee's Minute.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 10.16.

JWD
3/11/16

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 11 : 17 :
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ *2/-*

When applied for, *30/10/1916*
When received, *31/10/1916*

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

Committee's Minute TUE 7-NOV. 1916

Assigned *+ L.M.C. 10.16*

MACHINERY CERTIFICATE WRITTEN



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