

REPORT ON MACHINERY

No. 29075

THU. 20. JAN. 1916

Received at London Office

Date of writing Report 18-12-15 When handed in at Local Office 20/12 15 Port of Hull
 No. in Survey held at Hull Date, First Survey 7. 7. 15 Last Survey 17-12-15 19
 Reg. Book. Supr 18 on the steel screw tugboat Jacinta (101097) (Number of Visits 49) Tons { Gross 289
 Master Built at Selby By whom built Cochran & Sons Ltd When built 1915-12
 Engines made at Hull By whom made C. D. Holmes & Co Ltd when made 1915-12
 Boilers made at Hull By whom made C. D. Holmes & Co Ltd when made 1915-12
 Registered Horse Power Owners J. Thar & Sons Ltd Port belonging to Heston
 Nom. Horse Power as per Section 28 84 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 13"-23"-37" Length of Stroke 24" Revs. per minute Dia. of Screw shaft as per rule 7.64" 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 35 1/2"
 Dia. of Tunnel shaft as per rule 6.85" Dia. of Crank shaft journals as per rule 7.19" Dia. of Crank pin 7 1/2" Size of Crank webs 14 1/2" x 4 1/2" Dia. of thrust shaft under
 collars 7 1/2" Dia. of screw 9-3" Pitch of Screw 11-0" No. of Blades 4 State whether moveable no Total surface 33 1/2"
 No. of Feed pumps One Diameter of ditto 2 3/4" Stroke 14 1/2" Can one be overhauled while the other is at work
 No. of Bilge pumps one Diameter of ditto 2 3/4" Stroke 14 1/2" Can one be overhauled while the other is at work
 No. of Donkey Engines one 4 1/2" Sizes of Pumps 6 1/2" x 4 1/4" x 6" dyps. 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 jeton
 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" jeton
 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 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 13-7-15 of Stern Tube 13-7-15 Screw shaft and Propeller 13-2-15
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Colville & Sons
 Total Heating Surface of Boilers 1370 1/2 Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 2-11-15 No. of Certificate 3110
 Can each boiler be worked separately Area of fire grate in each boiler 45.6 1/2 No. and Description of Safety Valves to
 each boiler Two spring loaded Area of each valve 4.9 1/2 Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers on woodwork 8" Mean dia. of boilers 162" Length 11-0" Material of shell plates steel
 Thickness 1 7/32 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 7/32 Pitch of rivets 8 3/8 Lap of plates or width of butt straps 16 5/8"
 Per centages of strength of longitudinal joint rivets 85.4 Working pressure of shell by rules 203 Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 7/32 No. and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 40"
 Length of plain part top 79 1/4" bottom 68" Thickness of plates crown 7 13/16" Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 205 Combustion chamber plates: Material steel Thickness: Sides 2 3/32 Back 2 3/32 Top 3/4 Bottom 2 3/32
 Pitch of stays to ditto: Sides 10" x 8 1/2" Back 10 1/2" x 8" Top 11" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202
 Material of stays steel Diameter at smallest part 2 1/4" Area supported by each stay 100" Working pressure by rules 216 End plates in steam space:
 Material steel Thickness 1 3/16" Pitch of stays 18 1/2" x 18" How are stays secured 8 7/8" x 6" Working pressure by rules 200 Material of stays steel
 Diameter at smallest part 7 5/8" Area supported by each stay 333" Working pressure by rules 234 Material of Front plates at bottom steel
 Thickness 1 5/16" Material of Lower back plate steel Thickness 2 9/32 Greatest pitch of stays 14 1/2" x 8" Working pressure of plate by rules 207
 Diameter of tubes 3 1/2" Pitch of tubes 5 1/2" x 5" Material of tube plates steel Thickness: Front 1 5/16" double Back 7/8" Mean pitch of stays 10 1/2"
 Pitch across wide water spaces 14" Working pressures by rules 249 lbs. Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 12" x 1 3/4" Length as per rule 38 7/8" Distance apart 11" Number and pitch of stays in each Three 8 1/2"
 Working pressure by rules 207 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
 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

IS A DONKEY BOILER FITTED? *Yes*

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

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, feed & bilge pump valves & a quantity of bolts & nuts & iron of various sizes, one impeller shaft, one safety valve spring on main & one donkey check 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: July 7, 10, 12, 13, 22, Aug 10, 13, 16, 20, 19, 25, 26, 29, 31, Sep. 4, 7, 9, 10, 14, 15, 16, 20, 21
During erection on board vessel -- 24, 28, 29, 30, Oct. 1, 5, 8, 12, 16, 20, 23, 25, 27, 29, Nov. 2, 4, 11, 19, 23, 26, 30, Dec 2, 7, 14, 16, 17
Total No. of visits 49

Is the approved plan of main boiler forwarded herewith *yes (please return in full)*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 16-8-15 Slides 16-9-15 Covers 31-8-15 Pistons 15-9-15 Rods 15-9-15

Connecting rods 15-9-15 Crank shaft 9-9-15 Thrust shaft 21-9-15 Tunnel shafts ✓ Screw shaft 12-7-15 Propeller 12-7-15

Stern tube 10-7-15 Steam pipes tested 30-11-15 Engine and boiler seatings 13-7-15 Engines holding down bolts 19-11-15

Completion of pumping arrangements 14-12-15 Boilers fired 19-11-15 Engines tried under steam 14-12-15

Main boiler safety valves adjusted 2-12-15 Thickness of adjusting washers *A 3/8 & 3/16*

Material of Crank shaft *Iron* Identification Mark on Do. *525FL8* Material of Thrust shaft *Iron* Identification Mark on Do. *711682W*

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *1502FL8*

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 *yes* If so, state name of vessel *Collona*

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 satisfactory. The machinery has been properly fitted & secured on board the vessel & on completion was tested under full working conditions & 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 record & L.M.C. 12-15

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 12, 15

The amount of Entry Fee ... £ 1 : 0 :

Special ... £ 12 : 12 :

Donkey Boiler ... £

Travelling Expenses (if any) £ 8/2

When applied for,

19-1-16

When received,

19-1-16

Frank L. Stanger

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

Committee's Minute FRI 21 JAN 1916

Assigned

+ L.M.C. 12, 15



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Foundation