

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 trawler Jacinta (No 1097)* (Number of Visits 49 Tons Gross 289 Net 115
 Master Built at *Lilly* By whom built *Cochran & Sons Ltd* When built 1915-12
 Engines made at *Hull* By whom made *C. J. Holmes & Co Ltd* when made 1915-12
 Boilers made at *Hull* By whom made *C. J. Holmes & Co Ltd* when made 1915-12
 Registered Horse Power Owners *J. Macdonald & Sons Ltd* Port belonging to *Hestwood*
 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 *7.64* Dia. of Screw shaft *7.76* 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 *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 *6.85* Dia. of Crank shaft journals *7.19* Dia. of Crank pin *7 1/2* Size of Crank webs *4 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 moceable *no* Total surface *33*
 No. of Feed pumps *one* Diameter of ditto *2 3/4* Stroke *14 1/4* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *one* Diameter of ditto *2 3/4* Stroke *14 1/4* Can one be overhauled while the other is at work *yes*
 No. of Donkey Engines *one 4 1/2* Sizes of Pumps *6 1/4 x 4 1/4 x 6* No. and size of Suctions connected to both Bilge and Donkey pumps *one 2" dia*
 In Engine Room *two 2" dia* In Holds, &c. *one 2" dia in each compartment*
 all suction also connected to jetty
 No. of Bilge Injections *one* sizes *3 1/2* Connected to condenser, or to circulating pump *no* Is a separate Donkey Suction fitted in Engine room & size *2 1/2*
 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 *13-7-15* of Stern Tube *13-7-15* Screw shaft and Propeller *13-7-15*
 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 *J. Colville & Sons*

Total Heating Surface of Boilers *1370* 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 *yes* Area of fire grate in each boiler *45.6* 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 *on uptakes* and bunkers *on woodwork* *8"* Mean dia. of boilers *162"* Length *11-0"* 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 *J.P.D.B.T* Diameter of rivet holes in long. seams *1 1/32* 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"*
 plate *85.4* Size of compensating ring *7" x 1 1/32* No. and Description of Furnaces in each boiler *3 plain* Material *steel* Outside diameter *40"*
 Length of plain part top *79 1/4"* Thickness of plates crown *7 13/16"* Description of longitudinal joint *welded* No. of strengthening rings *no*
 bottom *68"* 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 *2.4* 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 *by nuts* Working pressure by rules *200* Material of stays *steel*
 Diameter at smallest part *7.5* Area supported by each stay *333* Working pressure by rules *234* Material of Front plates at bottom *steel*
 Thickness *15/16* Material of Lower back plate *steel* Thickness *29/32* 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 *15/16* 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 *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 *2021* 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*

If not, state whether, and when, one side be used? Is a Report also sent on the Hull of the ship?

IS A DONKEY BOILER FITTED? *to* ✓

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 feed helge 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 Stone 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 duplicate)*
" " " 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 16-9-15 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 fixed 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 of 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 212 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

J.W.D. 20/1/16 *G.R.*

The amount of Entry Fee ... £ 1 : 0 : When applied for, Special ... £ 12 : 12 : 19-1-1916
Donkey Boiler Fee ... £ ... Who received, *Frank L. Stanger*
Travelling Expenses (if any) £ 8/2: 1/2/16

Committee's Minute FRI. 21 JAN. 1916
Assigned + L.M.C. 12.15



Small

Vertical text on the left margin: The Surveyors are required to write on or below the space for Committee's Minute.

MACHINERY CERTIFICATE