

REPORT ON MACHINERY.

Port of *Belfast*
 No. in Survey held at *Belfast & Looe* Date, first Survey *13 Feb 1900* Last Survey *15 Jan 1901*
 Reg. Book. *S.S. Greenisland* (Number of Visits *34*)
 on the
 Master Built at *Looe* By whom built *W. & A. Ship? Coy Ld* When built *1901*
 Engines made at *Belfast* By whom made *Workman Clark & Coy Ld* when made *1901*
 Boilers made at *Belfast* By whom made *W. & A. Ship? Coy Ld* when made *1901*
 Registered Horse Power *54* Owners *C. M. Legg* Port belonging to *Belfast*
 Nom. Horse Power as per Section 28 *54* Is Electric Light fitted *No*

ENGINES, &c.—Description of Engines *Compound Direct Acting* No. of Cylinders *Two* No. of Cranks *Two*
 Diameter of Cylinders *16" 3/4"* Length of Stroke *24"* Revolutions per minute *110* Diameter of Screw shaft *6" 3/4"*
 Diameter of Tunnel shaft *as per rule* Diameter of Crank shaft journals *6 1/2"* Diameter of Crank pin *7 1/4"* Size of Crank webs *12 1/2" x 4 1/2"*
 Diameter of screw *8' - 3"* Pitch of screw *10' - 9"* No. of blades *4* State whether moveable *No* Total surface *23 sq ft.*
 No. of Feed pumps *one* Diameter of ditto *2 1/2"* Stroke *12"* Can one be overhauled while the other is at work *✓*
 No. of Bilge pumps *one* Diameter of ditto *2 1/2"* Stroke *12"* Can one be overhauled while the other is at work *✓*
 No. of Donkey Engines *Two* Sizes of Pumps *Cylinder 5 1/4" x 6" x 5"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *one - 2"* In Holds, &c. *one - 2"*
 No. of bilge injections *one* sizes *3/2"* Connected to condenser, or to circulating pump *Rumpf* a separate donkey suction fitted in Engine room & size *yes - 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 *None fitted*
 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 *None*
 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 *Hold & tank suction* How are they protected *Wood 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*
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock *Before launching* Is the screw shaft tunnel watertight *No tunnel*
 Is it fitted with a watertight door *✓* worked from *✓*

BOILERS, &c.—(Letter for record *✓*) Total Heating Surface of Boilers *1030 sq ft* Is forced draft fitted *No*
 No. and Description of Boilers *one - Cylindrical Single Ended* Working Pressure *120 lbs* Tested by hydraulic pressure to *240 lbs*
 Date of test *3-8-00* Can each boiler be worked separately *✓* Area of fire grate in each boiler *36 sq ft.* No. and Description of safety valves to
 each boiler *Two - Direct Spring* Area of each valve *5" 9/4 sq* Pressure to which they are adjusted *125 lbs* Are they fitted
 with easing gear *yes* Smallest distance between boilers or uptakes and bunkers *or woodwork* *about 9 ft* Mean diameter of boilers *11" - 6"*
 Length *9' - 6"* Material of shell plates *Steel* Thickness *5/16"* Description of riveting: circum. seams *Lap Double* long. seams *Butt Lapped*
 Diameter of rivet holes in long. seams *3/4"* Pitch of rivets *5 1/2"* Lap of plates or width of butt straps *11 1/2"*
 Per centages of strength of longitudinal joint *rivets 86.0 plate 86.3* Working pressure of shell by rules *122 lbs* Size of manhole in shell *16" x 12"*
 Size of compensating ring *M's Nails* No. and Description of Furnaces in each boiler *Two - Plain* Material *Steel* Outside diameter *42 1/2"*
 Length of plain part *top 3' 6" 9/4" bottom 3' 6" 9/4"* Thickness of plates *top 3/4" bottom 3/4"* Description of longitudinal joint *Weld* No. of strengthening rings *one at bottom*
 Working pressure of furnace by the rules *134 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *7/8"* Back *7/8"* Top *7/8"* Bottom *7/8"*
 Pitch of stays to ditto: Sides *9" x 8"* Back *9 1/2" x 9"* Top *9" x 8"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *132 lbs*
 Material of stays *Steel* Diameter at smallest part *1 1/2" x 1 1/2"* Area supported by *one* stay *83 1/2"* Working pressure by rules *142 lbs* End plates in steam space:
 Material *Steel* Thickness *1"* Pitch of stays *18" x 18"* How are stays secured *By nuts & washers* Working pressure by rules *146 lbs* Material of stays *Steel*
 Diameter at smallest part *2 1/2"* Area supported by *one* stay *324 sq* Working pressure by rules *127 lbs* Material of Front plates at bottom *Steel*
 Thickness *7/8"* Material of Lower back plate *Steel* Thickness *3/2"* Greatest pitch of stays *14 1/2"* Working pressure of plate by rules *131 lbs*
 Diameter of tubes *32"* Pitch of tubes *4 1/2" x 4 1/2"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *7/8"* Mean pitch of stays *13 1/2" x 9 1/2"*
 Pitch across wide water spaces *14 1/2"* Working pressures by rules *110 lbs* Material of Chamber tops: Material *Steel* Depth and
 thickness of girder at centre *6 1/2" x (1/2" x 2)* Length as per rule *25 1/2"* Distance apart *9"* Number and pitch of Stays in each *Two - 8"*
 Working pressure by rules *139 lbs* 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

DONKEY BOILER— Description *Name*

Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
 No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____
 Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *2 Main bearing bolts & nuts; 2 connecting rod top end, & two bottom end bolts & nuts; 1 cast iron propeller; set coupling bolts & nuts; set air, circulating & feed & life pump valves; set H.P. piston rings, condenser tubes, screws, fire bars, bolts, nuts, air pump guards, etc.*

The foregoing is a correct description,
 For WORKMAN, CLARK & Co., LIMITED
 F.b. Manufacturer.

Dates of Survey while building { During progress of work in shops— 1900, Feb 13, 14, 22, March 1, 6, 7, 10, 13, 22, 24, 28, April 10, 23, 30 May 8, 24, 30 June 8, 15, 27, July 24, 27, Aug 3, Sept 6, 26, Oct 6, 6, 11, 15 Nov 2, 34
 During erection on board vessel — 1901, Jan 3, 4, 5, 8, 9, 14, 15
 Total No. of visits 34

General Remarks (State quality of workmanship, opinions as to class, &c.)

ENGINES—Length of stern bush *28"* Diameter of crank shaft journals *as per rule 6 1/4"* Diameter of thrust shaft under collars *7"*

BOILERS—Range of tensile strength *28-32* Are they welded or flanged *No* **DONKEY BOILERS**—No. *✓* Range of tensile strength *✓*

Is the approved plan of main boiler forwarded herewith *Yes* Is the approved plan of donkey boiler forwarded herewith *✓*

The machinery of this vessel has been constructed under Special Survey, and is of good material, and workmanship. It has been securely fitted on board, and on trial it worked satisfactorily under steam. In my opinion it is eligible for record + L.M.C. 1-01 in the Register Books. This vessel has left for Luan, to have the hull work completed.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1-01

22.1.01
22.1.01

The amount of Entry Fee... £ 1 : - :
 Special ... £ 8 : 11 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 14.1.01
 When received, 21.1.01

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

Committee's Minute *Glasgow. 21 JAN. 1901*

Assigned

+ L.M.C. 1.01.
(When fees paid)



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