

REPORT ON MACHINERY.

Port of

Belfast

SAT. 14 MAR 1903

No. in Survey held at
Reg. Book.

on the

Belfast
S.S. ColonialDate, first Survey 23rd Sept 1902 Last Survey 6th March 1903

(Number of Visits 54)

Master

Built at

Belfast

By whom built

Workman Clark & Co

Tons

Gross 4955

Net 3144

When built

1903

Engines made at

Belfast

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Charente S. Co. L^d

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

470

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion Direct Acting

No. of Cranks 3

Dia. of Cylinders 25"-41"-68" Length of Stroke 54 Revs. per minute 70 Dia. of Screw shaft as per rule 14.8 Lgh. of stern bush 72

Dia. of Tunnel shaft as fitted 14.0 Dia. of Crank shaft journals as per rule 14.5 Dia. of Crank pin 14.5 Size of Crank webs 26x10 Dia. of thrust shaft under collars 14.5 Dia. of screw 17.6 Pitch of screw 19.0 No. of blades 4 State whether moveable Yes Total surface 90 sq ft.

No. of Feed pumps 2 Diameter of ditto 4 Stroke 26 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4.5 Stroke 26 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 5 Sizes of Pumps Ballast 9x10x10 Duplex No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Four - 3 1/2 In Holds, &c. Eleven - 3 1/2 one - 3"

No. of bilge injections 8 Connected to condenser, or to circulating pump Pumps a separate donkey suction fitted in Engine room & size Yes - 3 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 Yes

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 Both

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 Fore Hold Suctions How are they protected Wood 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launching the screw shaft tunnel watertight Stated due

Is it fitted with a watertight door Yes worked from Upper platform Engine Room

BOILERS, &c.—

(Letter for record)

(Total Heating Surface of Boilers)

8448 sq ft

Is forced draft fitted No

No. and Description of Boilers Two - Double End Cylindrical Working Pressure 190 lbs Tested by hydraulic pressure to 380 lbs

Date of test 2-2-03 Can each boiler be worked separately Yes Area of fire grate in each boiler 115 sq ft No. and Description of safety valves to each boiler Two - Direct Spring Area of each valve 11.04 sq Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers on woodwork About 14 Mean dia. of boilers 15'-0" Length 7'-0" Material of shell plates Steel

Thickness 1 1/2 Range of tensile strength 28-32 Are they welded or flanged No Descrip. of riveting: cir. seams Lap & Butt Long. seams Butt & Lap

Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 9 3/4 Lap of plates or width of butt straps 2 1/4

Per centages of strength of longitudinal joint rivets 88.7 plate 84.9 Working pressure of shell by rules 220 lbs Size of manhole in shell 16 x 12

Size of compensating ring No. and Description of Furnaces in each boiler 6 - Morrison Material Steel Outside diameter 44 1/4

Length of plain part top 5 bottom 5 Thickness of plates crown 1 1/2 bottom 1 1/2 Description of longitudinal joint Weld No. of strengthening rings 1

Working pressure of furnace by the rules 213 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/2 Back 1 1/2 Top 1 1/2 Bottom 1

Pitch of stays to ditto: Sides 8 1/4 x 7 1/4 Back 8 1/2 x 7 1/4 stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 201 lbs

Material of stays Steel Diameter at smallest part 1 3/8 Area supported by each stay 6 1/2 sq Working pressure by rules 192 lbs and plates in steam space:

Material Steel Thickness 1 1/4 Pitch of stays 19 x 15 How are stays secured Nuts & Washers Working pressure by rules 252 lbs Material of stays Steel

Diameter at smallest part 3 1/2 Area supported by each stay 28 1/2 sq Working pressure by rules 214 lbs Material of Front plates at bottom Steel

Thickness 1 Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes 3 1/4 Pitch of tubes 4 5/8 Material of tube plate Steel Thickness: Front 7/8 Back 7/8 Mean pitch of stays 9 1/4 x 9 1/4

Pitch across wide water spaces 14 1/4 Working pressures by rules 322 lbs with 6" girders to Chamber tops: Material Steel Depth and

thickness of girder at centre (22 x 4 1/2 x 2) Length as per rule 40 1/4 Distance apart 8 1/2 x 8 1/4 Number and pitch of Stays in each 4 - 7 1/4

Working pressure by rules 220 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

SPARE GEAR. State the articles supplied:—3 Crank Shafts: 1 Propeller Shaft: 1 Propeller
 boss: 1 Manf. Bronze propeller blade: 3 cast iron Propeller blades: 1 Patent
 Shaft Coupling and 2 Connecting rod brackets: 1 air Pump bucket and
 circulating Pump impeller & shaft: 1 eccentric Cheque & trap: 1 Siphon
 penstock & all from D. Lloyd & Co. Ltd. Exrs

The foregoing is a correct description,
 FOR WORKMAN, CLARK & CO., LIMITED.
 W. H. Bell Manufacturer.

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

The machinery of this vessel has been constructed under Special Survey, and in accordance with the Rules; the workmanship and the materials is of good description throughout, and on trial in Belfast Lough it worked satisfactorily.

In my opinion, it is eligible to have record + L.M.C. 3-03
"Electric Light" in the Register Book.

15 C.F.

16.3.93

16.3.03

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

TUES. 17 MAR 1903

+ 2 me 3.03

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