

REPORT ON MACHINERY.

Port of

FRI. MAR 21 1902

No. in Survey held at
Reg. Book.

Date, first Survey

Received at London Office

18

Last Survey

(Number of Visits)

on the

Tons

Gross

Net

Master

Built at

By whom built

Then built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Twin Screw Triple Expansion Cylinders *Six*, No. of Cranks *Six*
 Diameter of Cylinders *20" - 30 1/2" - 50"* Length of Stroke *45"* Revolutions per minute *45* Diameter of Screw shaft *as per rule 12 3/4"*
 Diameter of Tunnel shaft *as per rule 11 1/2"* Diameter of Crank shaft journals *12"* Diameter of Crank pin *12"* Size of Crank webs *2 1/8" x 8 1/4"*
 Diameter of screw *14" - 9"* Pitch of screw *18" - 0"* No. of blades *3* State whether moveable *Yes* Total surface *58 sq ft.*
 No. of Feed pumps *Two* Diameter of ditto *3 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *One* Diameter of ditto *6"* Stroke *24"* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *Four* Sizes of Pumps *10" x 10" x 10"* and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *3 - 3 1/2"* *1 - 2 1/2" and 10 - 3 1/2"*

No. of bilge injection *Two* sizes *6 1/2"* Connected to condenser, or to circulating pump *Run* a separate donkey suction fitted in Engine room & size *10" - 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 in 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 *Below*
 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 *For hold suction* How are they protected *Wood*
 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* screw shaft tunnel watertight *Tested & OK*
 Is it fitted with a watertight door *Yes* worked from *Upper deck*

BOILERS, &c.—

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers *4 - Single Ended Cylind.* Working Pressure *200 lb.* Tested by hydraulic pressure to *400 lb.*
 Date of test *8-1-02* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *52 sq ft.* No. and Description of safety valves to each boiler *Two - Direct Spring* Area of each valve *8" x 2 1/2"* Pressure to which they are adjusted *205 lb.* Are they fitted with easing gear *Yes*
 Length *11' - 6"* Material of shell plates *Steel* Thickness *1 1/2"* Description of riveting: circum. seams *Lap. Double* butt seams *Butt Double*
 Diameter of rivet holes in long. seams *1 1/32"* Pitch of rivets *9 1/2"* Width of butt straps *20"*
 Per centages of strength of longitudinal joint *84.9* Working pressure of shell by rules *230 lb.* Size of manhole in shell *16" x 12"*
 Size of compensating ring *McNeil* No. and Description of Furnaces in each boiler *3 - Right angle* Material *Steel* Outside diameter *43 1/2"*
 Length of plain part *top 8' - bottom 8' - 3 1/2"* Thickness of plates *top 3 1/2" - bottom 3 1/4"* Description of longitudinal joint *Weld* No. of strengthening rings *1*
 Working pressure of furnace by the rules *225 lb.* Combustion chamber plates: Material *Steel* Thickness: Sides *3 1/2"* Back *5"* Top *3 1/2"* Bottom *1"*
 Pitch of stays to ditto: Sides *8" x 7"* Back *8" x 8"* Top *8 1/4" x 7"* If stays are fitted with nuts or riveted heads *Nuts inside* Working pressure by rules *211 lb.*
 Material of stays *Steel* Diameter at smallest part *1 1/8"* Area supported by each stay *64 sq in.* Working pressure by rules *220 lb.* and plates in steam space:
 Material *Steel* Thickness *1 1/2"* Pitch of stays *6 1/2" x 15"* How are stays secured *Plates & Nuts* Working pressure by rules *262 lb.* Material of stays *Steel*
 Diameter at smallest part *2 1/8" x 3"* Area supported by each stay *252 sq in.* Working pressure by rules *286 lb.* Material of Front plates at bottom *Steel 3/4" - 1"*
 Thickness *1"* Material of Lower back plate *Steel* Thickness *3/4"* Greatest pitch of stays *16"* Working pressure of plate by rules *232 lb.*
 Diameter of tubes *2 1/2"* Pitch of tubes *3 5/8" x 3 1/2"* Material of tube plates *Steel* Thickness: Front *3/4"* Back *1 1/8"* Mean pitch of stays *1 1/8" x 1 1/4"*
 Pitch across wide water spaces *13 1/2"* Working pressures by rules *338 lb.* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *8 1/2" x (3/4" x 2)* Length as per rule *28 1/2"* Distance apart *8 1/4" x 1 1/2"* Number and pitch of Stays in each *3 - 7"*
 Working pressure by rules *221 lb.* 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

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Lloyd's Register
Foundation

W708-0009

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:—

Working pressure of furnace by rules

SPARE GEAR. State the articles supplied:— Propeller shaft; 2 Cast iron propeller blades; pair crank pin bushes; pair piston rod bushes; air pump rod & bucket; two slide valve spindles for H. P. & L. P. sets packing rings for H. P. M. P. & L. P. cyls.; Glands & boiler escape valves & springs; boiler & condenser tubes and other gear. Also all gear to own rules.

The foregoing is a correct description,

The foregoing is a correct description,

FOR WORKMAN, CLARK & Co., LIMITED.

Manufacturer.

*Dates
of Survey
while
building*

During progress of
work in shops- -
During erection on
board vessel - -
Total No. of visits

1901, Feb'y 5. May 13. June 4. 7. 11. 15. 20. 26. 27. July 2. 5. 10. 24. 26. 31. Aug. 5. 9. 14. 16. 20.
Sept. 13. 19. Oct. 4. 8. 10. 15. 23. 25. 30. Nov. 5. 6. 13. 15. 19. 22. 29. Dec. 3. 5. 6. 13. 14. 20. 23. 29.
1902, Jan. 2. 8. 10. 17. 22. 25. 28. 29. Feb'y 3. 5. 7. 12. 17. March 7. 14.
58

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

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ENGINES—Length of stern bush 4'-6" Diameter of crank shaft journals 11'-46 as per rule Diameter of thrust shaft under collars 12" as fitted 12-0

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

Is the approved plan of donkey boiler forwarded herewith

Lower an propeller shaft continuous, & after end fits tight in propeller
box. Brw shaft hydraulically pressed into stub.

The machinery of this vessel has been constructed under Special Survey, and in accordance with the Rules. The material and workmanship is of good description.

The machinery has been recently fitted on board, and on trial under steam in Belfast Lough, it worked satisfactorily. In my opinion, it is eligible for record + L.M.C. 3.02, Forced draft.

It is submitted that
this vessel is eligible for
THE RECORD. + CMC

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3.02 FD Elec. light. Ref. mch.

CM

25.3.02

187

25.3.02

The amount of Entry Fee.

Special

Donkey Boiler Fee

Travelling Expenses (if any) £

When applied for,

14-3-1902

When received,

29/3/18

TUES. MAR 25 1902

Committee's Minute

Assigned

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

+ 2 Me₃ON