

# REPORT ON MACHINERY.

Port of *Glasgow*

Received at London Office *TUES. 3 JUL 1900*

No. in Survey held at *Paisley* Date, first Survey *1 March* Last Survey *20th June 1900*

on the *Main Boilers, partly constructed for Messrs Stallinanta, Tecnico, Trieste* (Number of Visits *13*)

Built at *Paisley* By whom built *Byrie (Yard No 333)* When built

By whom made *Byrie* when made

By whom made *Byrie* when made *1900*

Registered Horse Power *100* Owners *Byrie* Port belonging to

Horse Power as per Section 28 *100* Is Refrigerating Machinery fitted *Yes* Is Electric Light fitted *Yes*

## BOILERS, &c.—Description of Engines

No. of Cylinders *2* Length of Stroke *24"* Revs. per minute *100* Dia. of Screw shaft *12"* Lgth. of stern bush *12"*

No. of Tunnel shaft *1* Dia. of Crank shaft journals *12"* Dia. of Crank pin *12"* Size of Crank webs *12"* Dia. of thrust shaft under *12"*

No. of Bars *1* Dia. of screw *12"* Pitch of screw *12"* No. of blades *1* State whether moveable *Yes* Total surface *12"*

No. of Feed pumps *2* Diameter of ditto *12"* Stroke *12"* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *2* Diameter of ditto *12"* Stroke *12"* Can one be overhauled while the other is at work *Yes*

No. of Donkey Engines *2* Sizes of Pumps *12"* No. and size of Suctions connected to both Bilge and Donkey pumps *12"*

Engine Room *12"* In Holds, &c. *12"*

No. of bilge injections *2* sizes *12"* Connected to condenser, or to circulating pump *Yes* Is a separate donkey suction fitted in Engine room & size *12"*

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 *Yes*

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 *Yes*

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*

How are they protected *Yes*

Are all pipes carried through the bunkers *Yes*

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 *Yes* Is the screw shaft tunnel watertight *Yes*

Is it fitted with a watertight door *Yes* worked from *Yes*

## BOILERS, &c.—

(Letter for record *S*) Total Heating Surface of Boilers *8854* Is forced draft fitted *Yes*

No. and Description of Boilers *1 Single End Multitubular* Working Pressure *150 lb* Tested by hydraulic pressure to *Yes*

Can each boiler be worked separately *Yes* Area of fire grate in each boiler *54* No. and Description of safety valves to *Yes*

Area of each valve *Yes* Pressure to which they are adjusted *Yes* Are they fitted with easing gear *Yes*

Mean dia. of boilers *14-6"* Length *12-0"* Material of shell plates *Steel*

Are they welded or flanged *Feather* Descrip. of riveting: cir. seams *Double R Lap* long. seams *Double Butt Straps*

Pitch of rivets *8/16"* Lap of plates or width of butt straps *17/2"*

Working pressure of shell by rules *196 lb* Size of manhole in shell *16" x 12"*

No. and Description of Furnaces in each boiler *3 Deighton* Material *Steel* Outside diameter *14 1/2"*

Description of longitudinal joint *Welded* No. of strengthening rings *2*

Thickness of plates *9/16"* Working pressure of furnace by the rules *200 lb* Combustion chamber plates: Material *Steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *1/16"*

Working pressure by rules *229* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *241* End plates in steam space: *Yes*

Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *235* Working pressure by rules *201* Material of stays *Steel*

How are stays secured *Double Nuts* Working pressure by rules *201* Material of stays *Steel*

Area supported by each stay *235* Working pressure by rules *213* Material of Front plates at bottom *Steel*

Greatest pitch of stays *14 9/16"* Working pressure of plate by rules *197*

Material of Lower back plate *Steel* Thickness *7/8"* Mean pitch of stays *7 1/8"*

Material of tube plates *Steel* Thickness: Front *3/32"* Back *3/16"*

Girders to Chamber tops: Material *Steel* Depth and *7 1/2"*

Working pressure by rules *191 lb* Distance apart *7 1/2"* Number and pitch of Stays in each *3 7 1/2"*

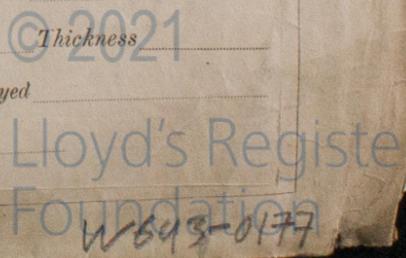
Can the superheater be shut off and the boiler worked *Yes*

Material of longitudinal joint *Welded* Diam. of rivet *12"*

Material of flue plates *Steel* Thickness *1/8"*

Working pressure of shell by rules *203 lb* End plates: Thickness *1/8"* How stayed *Yes*

Working pressure by rules *203 lb* Area of safety valves to superheater *Yes* Are they fitted with easing gear *Yes*



**DONKEY BOILER**— No. Description *None*

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 \_\_\_\_\_

enter the donkey boiler \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of ten-  
strength \_\_\_\_\_ Descrip. of riveting long. seams \_\_\_\_\_ Dia. 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  
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:—

The foregoing is a correct description,

Manufacturer.

*Boo. McLaughlin*

Dates of Survey while building

During progress of work in shops - - During erection on board vessel - - Total No. of visits	1900: - Mar. 1. 13. 23. 29. Apr. 2. 19. 26. 30. May. 8. 14. 22
	June. 12. 20.
	13.

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

“ “ “ donkey “ “ “

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

The following work has been carried out here, Shell plates bent, drilled and compensating ring on man hole fitted, End plates flanged and drilled, furnaces drilled and fitted in end plates, Combustion chamber plates flanged drilled & riveted, Girders and stays fitted on chamber tops. Main & combustion chamber stays screwed & nuts & washers supplied, All stay and plain tube holes drilled.

This work has been carried out under special survey. The material and workmanship being of good quality. The several parts having been forwarded to Trieste for completion.

The approved plan is returned herewith.

The amount of Entry Fee: . . . £ : : When applied for,

Special . . . . . £ 5: 5 : : . . . . . 18.

Donkey Boiler Fee . . . . . £ : : : When received, 8/3/01

Travelling Expenses (if any) £ : : : . . . . . 18.

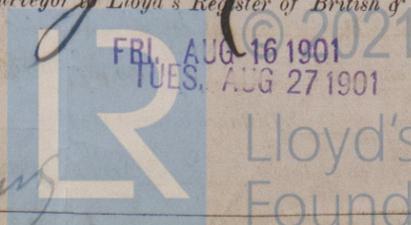
Committee's Minute

Assigned

To be collected at Trieste credited to Glasgow. 2 JUL 1900

Deferred for completion.

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



Lloyd's Register Foundation