

REPORT ON BOILERS.

No. 6974.

Received at London Office

TUE. AUG. 15. 1911

Date of writing Report *3rd Aug. 1911* When handed in at Local Office *14/8/11* Port of *Belfast*
No. in Survey held at *Belfast* Date, First Survey *11th Aug. 1910* Last Survey *31st May 1911*
Reg. Book. *S.S. Egera* (Number of Visits *67*) Gross *5108* Tons Net *2345*
on the *Belfast* By whom built *Workman Clark & Co. Ltd.* When built *1911*
Master *Belfast* Built at *Belfast* By whom made *Workman Clark & Co. Ltd.* when made *-*
Engines made at *Belfast* By whom made *-* when made *-*
Boilers made at *-* By whom made *-* when made *-*
Registered Horse Power *British India Steam Nav. Co. Ltd.* belonging to *Glasgow*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel *Workman Clark & Co. Ltd.*
(Letter for record *S*) Total Heating Surface of Boilers *5576 sq. ft.* Is forced draft fitted *Yes* No. and Description of Boilers *2 Single End Cylindrical* Working Pressure *200 lbs.* Tested by hydraulic pressure *400 lbs.* Date of test *28-2-11*
No. of Certificate *441* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *65 sq. ft.* No. and Description of safety valves to each boiler *Two - Direct Spring* Area of each valve *9.62 sq. in.* Pressure to which they are adjusted *200 lbs.*
Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *Yes*
Smallest distance between boilers or uptakes and bunkers or woodwork *about 15"* Mean dia. of boilers *15"-9"* Length *12'-6"*
Material of shell plates *Steel* Thickness *1 3/4"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No*
Descrip. of riveting: cir. section *Lap & S. long. section* Diameter of rivet holes in long. seams *1 5/8"* Pitch of rivets *10 1/2"*
Top of plates or width of butt straps *23 1/2"* Per centages of strength of longitudinal joint *91.6* Working pressure of shell by rules *233 lbs.* Size of manhole in shell *18" x 12"* Size of compensating ring *No* No. and Description of Furnaces in each boiler *4 - Mowlem* Material *Steel* Outside diameter *42 1/2"* Length of plain part *top 11' 6" bottom 11' 6"* Thickness of plates *top 3/4" bottom 3/4"*
Description of longitudinal joint *Weld* No. of strengthening rings *4* Working pressure of furnace by the rules *225 lbs.* Combustion chamber plates: Material *Steel* Thickness: Sides *3/4"* Back *5/8"* Top *3/4"* Bottom *1 1/8"* Pitch of stays to ditto: Sides *8 1/2" x 8 1/2"* Back *8 1/2" x 7 1/2"*
Top *7 1/2" x 8 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *206 lbs.* Material of stay *Steel* Diameter at smallest part *2.06 sq. in.* supported by *each stay* Working pressure by rules *258 lbs.* plates in steam space: Material *Steel* Thickness *1 1/2"*
Pitch of stay *19 1/2" x 15 1/2"* How are stays secured *Welded to Manhole* Working pressure by rules *201 lbs.* Material of stays *Steel* Diameter at smallest part *6.66 sq. in.*
Area supported by *each stay* Working pressure by rules *225 lbs.* Material of Front plates at bottom *Steel* Thickness *1"* Material of Lower back plate *Steel* Thickness *5/4" x 1 1/2"* Greatest pitch of stays *7 1/2" x 7 1/2"* Working pressure of plate by rule *224 lbs.* Diameter of tubes *2 1/2"*
Pitch of tube *3 5/8" x 3 1/2"* Material of tube plate *Steel* Thickness: Front *6 3/4"* Back *1 3/8"* Mean pitch of stays *9 1/2"* Pitch across wide water spaces *13 1/2"* Working pressures by rules *204 lbs.* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9 1/2" (2 x 2 1/2")* Length as per rule *33 9/16"* Distance apart *8 1/2"* Number and pitch of Stays in each *3-7 1/2"*
Working pressure by rules *202 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 *-*

The foregoing is a correct description,
FOR WORKMAN, CLARK & CO., LIMITED

Is the approved plan of boiler forwarded herewith *Yes*

Total No. of visits *67*

Dates of Survey *During progress of work in shops - - -*
while building - - -
board vessel - - -

See other sheet

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

See other sheet

Survey Fee ... £ : : When applied for, ... 19.
Travelling Expenses (if any) £ : : When received, ... 19.

A. J. Thomas & R. F. Pennington
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. AUG. 18. 1911

Assigned *See Minute on Bel. Rpt*
6974 attached



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List of Pumps

- 1 Pelge 6 x 6 double Acting ✓
- 1 Ballast 9 x 11 x 12 duplex ✓
- 1 General 10 x 4 x 12 - ✓
- 2 Marshall Air 11 x 20 x 12 ✓
- 2 - Feed 14 x 10 1/2 x 24 ✓
- 1 Ash Ejector 12 x 8 x 10 ✓
- 1 Monkey Boiler 4 x 2 3/4 x 5 ✓
- 1 Hot Water 6 x 6 x 6 ✓
- 1 Fresh - 6 x 6 x 6 ✓
- 2 Sanitary 6 x 6 x 6 ✓

Spare Gear

- 1 Propeller Shaft
- 2 - Blades
- 1 set packing rings for each size of Piston
- 1 H.P. piston valves
- 1 pair crank pin bushes
- 1 - Cross head
- 1 circulating pump impeller & spindle
- 20 Condenser tubes 50 peruses
- sets of escape valve & safety valve & springs
- 20 boiler tubes etc. etc.
- and all gear to Lloyd's Rules extra. ✓

Rpt. 5a.

Date of writing Report

No. in Survey
Reg. Book.

on the

Master

Engines made at

Boilers made at

Registered Horse

MULTITUB

(Letter for record)

Boilers /

No. of Certificate

safety valves to

Are they fitted with

Smallest distance

Material of shell

Descrip. of rivets

Lap of plates or

rules 100 lb

boiler 2 -

Description of long

plates: Material

Top 8 1/2 x 8 1/2 If

smallest part 1/2

Pitch of stay 17

Area supported by

Lower back plate

Pitch of tubes 4 1/2

water spaces 14

girder at centre

Working pressure

separately

holes Pitch

If stiffened with

Working pressure

Dates of Survey while building
During work
During board

GENERAL

Survey Fee
Travelling

Committee

Assigned



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