

REPORT ON BOILERS.

No. 8606

SAT. SEP. 23 1921

Date of writing Report *24th Aug 1921* When handed in at Local Office *1921* Port of *Belfast*

No. in Survey held at *Belfast* Date, First Survey *29-8-19* Last Survey *18-8-* 1921

Reg. Book. *T.S.S. Taradine* (Number of Visits *108*) Tons { Gross *13144*
Net *8003*

Master Built at *Belfast* By whom built *Harland & Wolff L^d* When built *1921*

Engines made at *Belfast* By whom made *-* When made *-*

Boilers made at *-* By whom made *-* When made *-*

Registered Horse Power *✓* Owners *Peninsular & Oriental S. N. Co. L^d* Belonging to *Belfast*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel *B. Colville & Sons L^d*

(Letter for record *S*) Total Heating Surface of Boilers *9171 sq ft* Is forced draft fitted *Yes* No. and Description of Boilers *3 Single End Cylind^r* Working Pressure *215 lbs* Tested by hydraulic pressure to *430 lbs* Date of test *20-1-21*

No. of Certificate *781* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *71½ sq ft* No. and Description of safety valves to each boiler *2 Good Spring* Area of each valve *10.32 sq in* Pressure to which they are adjusted *215 lbs*

Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*

Smallest distance between boilers or uptakes and bunkers or woodwork *flant 22"* Mean dia. of boilers *16'-4 7/8"* Length *11'-8"*

Material of shell plates *Steel* Thickness *1 7/8"* Range of tensile strength *30-33 tons* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *Long White* long. seams *O.B. Lubbe* Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *10 1/2"*

Top of plates or width of butt straps *23 1/4"* Per centages of strength of longitudinal joint rivets *91.7* plate *84.4* Working pressure of shell by rules *224 lbs*

Size of manhole in shell *16" x 12"* Size of compensating ring *11" Keils* No. and Description of Furnaces in each boiler *4-Morrison* Material *Steel* Outside diameter *43 1/2"* Length of plain part *top 2"* Thickness of plates *crown 3 5/8"* bottom *3 5/8"*

Description of longitudinal joint *Weld* No. of strengthening rings *✓* Working pressure of furnace by the rules *231 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/2"* Back *2 1/2"* Top *2 1/2"* Bottom *7"* Pitch of stays to ditto: Sides *8 7/8"* Back *8 7/8"*

Top *8 7/8"* stays are fitted with nuts or riveted heads *into inside (outside)* Working pressure by rules *233 lbs* Material of stays *Steel* Diameter at smallest part *1 7/8"* Area supported by each stay *14 sq ft* Working pressure by rules *220 lbs* plates in steam space: Material *Steel* Thickness *1 5/8"*

Pitch of stays *16" x 15 1/2"* How are stays secured *laced into plates & double nuts* Working pressure by rules *222 lbs* Material of stays *Steel* Diameter at smallest part *1 1/8"*

Area supported by each stay *296 7/8 sq ft* Working pressure by rules *282 lbs* Material of Front plates at bottom *Steel* Thickness *7"* Material of lower back plate *Steel* Thickness *7"* Greatest pitch of stays *12 1/2"* Working pressure of plate by rules *247 lbs* Diameter of tubes *2 1/2"*

Pitch of tubes *3 3/4" x 3 3/4"* Material of tube plates *Steel* Thickness: Front *7"* Back *1 1/8"* Mean pitch of stays *7 1/2"* Pitch across wide water spaces *13 1/2"* Working pressures by rules *346 lbs* with *13 Double* Rinders to Chamber tops: Material *Steel* Depth and thickness of rinder at centre *9 3/4" x (7 1/2" + 2)* Length as per rule *34"* Distance apart *8 7/8" x 8"* Number and pitch of Stays in each *3-7 1/2"*

Working pressure by rules *219 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

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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 HARLAND & WOLFF L^d.
A. S. Marshall Manufacturer.
Assistant Secretary.

Is the approved plan of boiler forwarded herewith *Yes*

Total No. of visits

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

See other sheet

Survey Fee ... £ : : When applied for, 191

Travelling Expenses (if any) £ : : When received, 191

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

Committee's Minute

FRI. 16 SEP. 1921

Assigned



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Lloyd's Register

Foundation

WT207-0138 1/2

Belfast

T.S.S. "Paradise"

List of Pumps

2 Main Circulating	39" Impeller
2 Sets - Sea Pumps	11" x 20" x 15"
1 Bilge	10 1/2" x 13" x 24"
1 Ballast	10 1/2" x 13" x 24"
1 Sanitary	10 1/2" x 13" x 24"
3 Main Feed	15 1/2" x 11 1/2" x 24"
1 Aux ^l	9 1/2" x 7" x 21"
1 F Water	5" x 5" x 9"
1 Ash Ejector	12" x 8" x 10"
1 Emergency Bilge, Electric driven	10 1/2" x 9"

Principal Items Spare Gear

H.P. piston and Piston Rod
 - - packing rings set
 M.P. & L.P. - - - -
 Set top end & set bottom end brasses
 H.P. & M.P. piston valves & packing
 4 Slide valve spindles
 1 Eccentric Pulley & strap with bolts for H.P.
 1 - - - - M.P. or L.P.
 1 Propeller shaft & 2 M.P. propeller blades
 Set - - - - studs & nuts
 50 Condenser tubes & 100 ferrules
 25 Boiler tubes & 4 Safety valve springs
 Sets main & aux^l feed check valves
 Gland for cylinder stuffing box.
 Sets spare gear for all Pumps, and all gear
 to Lloyd's Rules extra. ✓

R. F. Bennett