

# REPORT ON BOILERS.

No. 7843

Received at London Office

MON. AUG 27 1917

of writing Report 16<sup>th</sup> Aug 17 When handed in at Local Office

Port of Belfast

No. in Survey held at

g. Book.

210 on the

S.S. Lancashire

Date, First Survey 18<sup>th</sup> Sep 1914 Last Survey 2<sup>nd</sup> July 1917

(Number of Visits 85) Gross 9445 Net 5886

Built at Belfast By whom built Harland & Wolff Ltd built 1917

Engines made at Belfast By whom made

Boilers made at By whom made

Registered Horse Power ✓

Owners Bishop S. S. Cox Ltd

Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—Manufacturers of Steel J. Colville Sons Ltd

for record 8 Total Heating Surface of Boilers 5892 sq ft Is forced draft fitted No No. and Description of

Boilers 2 Single End Gland Working Pressure 213 lbs tested by hydraulic pressure to 430 lbs Date of test 3-4-17

of Certificate 500 Can each boiler be worked separately Yes Area of fire grate in each boiler 70 sq ft No. and Description of

valves to each boiler 2 Direct Spring Area of each valve 9.62 sq Pressure to which they are adjusted 215 lbs

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

least distance between boilers or uptakes and bunkers or woodwork About 7'-6" Mean dia. of boilers 16'-3" Length 11'-3"

Material of shell plates Steel Thickness 1 1/4" Range of tensile strength 29-33 tons the shell plates welded or flanged No

crip. of riveting: cir. seams L. D. long. seams Butt Seams diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 10 1/2"

width of butt straps 24 3/8" Per centages of strength of longitudinal joint rivets 97.5 plate 83.3 Working pressure of shell by

Size of manhole in shell 16"x12" Size of compensating rivet No. and Description of Furnaces in each

4 Main Material Steel Outside diameter 46 5/8" Length of plain part top 15" Thickness of plates crown 3 1/16" bottom 3 1/16"

Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 243 lbs combustion chamber

Material Steel Thickness: Sides 5" Back 5" Top 5" Bottom 1" Pitch of stays to ditto: Sides 8x7 1/4" Back 8x7 1/4"

7 1/4"x7 1/4" stays are fitted with nuts or riveted heads No Working pressure by rules 217 lbs Material of stays Steel Diameter at

least part 1 1/2" supported by each stay 62 sq Working pressure by rules 254 lbs plates in steam space: Material Steel Thickness 1 1/16"

of stays 16"x15 1/2" are stays secured by single nut Working pressure by rules 216 lbs Material of stays Steel Diameter at smallest part 2 3/4"

supported by each stay 248 sq Working pressure by rules 241 lbs Material of Front plates at bottom Steel Thickness 5/8" Material of

er back plate Steel Thickness 7/8" Greatest pitch of stays 12 1/4"x7 1/4" Working pressure of plate by rules 258 lbs diameter of tubes 2 3/4"

h of tubes 4"x4" Material of tube plates Steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 8"x8" Pitch across wide

spaces 13 1/4" Working pressures by rule 285 lbs with 5 doublers Girders to Chamber tops: Material Iron Depth and thickness of

er at centre 9"x(7 1/2"x2) Length as per rule 31 1/2" Distance apart 7 1/4"x7" Number and pitch of Stays in each 3-7 1/4"

Working pressure by rules 246 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

ately ✓ 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,  
In Harland & Wolff Ltd, Manufacturer.

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits

During progress of survey work in shops - - -  
During erection on board vessel - - -

See other sheet

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

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

Committee's Minute TUE. SEP. - 4 1917.

igned



Belfast Continuation of Report No. 2843 dated 16<sup>th</sup> Aug 1919 on the  
V.S.S. Lancashire

### List of Pumps

|                          |                       |
|--------------------------|-----------------------|
| 2 Main fire, Weir & dual | 12" x 20" x 15" ✓     |
| 2 " Weir Feed            | 15" x 10 1/2" x 26" ✓ |
| 2 " Cent. Circulating    | 9" x 9", 13" pipe ✓   |
| 1 Aux. fire, Weir        | 12" x 18" x 12" ✓     |
| 1 " Feed                 | 8" x 6" x 15" ✓       |
| 1 " Circ. H.W.           | 6" x 5", 6" pipe ✓    |
| 2 Bilge Weir             | 8" x 9" x 18" ✓       |
| 1 Sanitary               | 8" x 9" x 18" ✓       |
| 1 F. Water               | 4" x 4 1/2" x 10" ✓   |
| 1 Ballast, H.W.          | 9" x 10" x 12" ✓      |
| 1 General Service        | 9" x 6" x 10" ✓       |

### Spare Gear

- 2 Propeller blades & 9 studs & nuts
- 1 Pair Crank Pin bushes
- 2 Eccentric sheaves & straps complete
- 1 Main bearing bush
- 1 Valve spindle
- 8 White metal strips for guides
- 2 sets H. P. piston rings
- 1 " I. P. " "
- 1 " I. P. " "
- 1 " L. P. " "
- 1 set Blocks & pins each piston rod packing
- 30 Condenser tubes
- 25 " " " "
- 12 boiler plain tubes & 4 stay tubes
- 4 cyl escape valve springs
- 1 Spindle for each slip stop valve on boiler
- 1 Main Circ. pump impeller spindle
- Sets of spare gear for all pumps, etc.
- and all gear to Lloyd's Rules extra. ✓
- 2-35 Ton Evaporators.

R. F. Bennett



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