

# REPORT ON BOILERS.

No. 9862

Received at London Office

5a.

Writing Report

When handed in at Local Office 21.8.17

Port of Middlesbrough

Survey held at Stockton-on-Tees

Date, First Survey 11th May 17

Last Survey 10th Aug 1917

(Number of Visits 12)

Gross

Tons

Net

Built at Appledore

By whom built P. Cook & Son

When built 1918

Where made at Newbury

By whom made Messrs Plenty & Son Ltd.

When made

Where made at Stockton

By whom made Messrs Riley Bros Ltd. (No 5022)

When made 1917

Indicated Horse Power

Owners

Port belonging to

WATER TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer & Sons

For record (S) Total Heating Surface of Boilers 1271 Is forced draft fitted No No. and Description of

One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 10.8.17

Certificate 5791 Can each boiler be worked separately Area of fire grate in each boiler 38 No. and Description of

Two Spring loaded Area of each valve 4.91 Pressure to which they are adjusted 185

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 uptakes and bunkers 18" Mean dia. of boilers 12'-0" Length 11'-0"

Material of shell plates Steel Thickness 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Direction of riveting: cir. seams 2-R. lap long. seams 2-R-3 Riv Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 3/8"

Width of butt straps 15 3/4 x 1 1/2 Per centages of strength of longitudinal joint rivets 86.5 Working pressure of shell by

180 Size of manhole in shell 19" x 15" Size of compensating ring 7 x 1 1/2" No. and Description of Furnaces in each

2 Morrison Material steel Outside diameter 44 1/2 Length of plain part Thickness of plates crown 1 1/2 bottom 1 1/2

Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 190 Combustion chamber

Material Steel Thickness: Sides 5/8 Back 2 1/2 Top 5/8 Bottom 1 3/8 Pitch of stays to ditto: Sides 9" x 8" Back 8 1/2 x 9 1/2

3 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 189 Material of stays steel Diameter at

at part 1 7/8 Area supported by each stay 72 Working pressure by rules 193 End plates in steam space: Material steel Thickness 1"

of stays 16 x 15 1/2 How are stays secured nuts & washers Working pressure by rules 188 Material of stays steel Diameter at smallest part 4.57

supported by each stay 261 Working pressure by rules 182 Material of Front plates at bottom steel Thickness 1" Material of

back plate steel Thickness 1" Greatest pitch of stays 14 x 9 1/4 Working pressure of plate by rules 239 Diameter of tubes 3 1/2"

of tubes 5" x 4 3/4 Material of tube plates steel Thickness: Front 1" Back 1 1/2 Mean pitch of stays 11 1/4 Pitch across wide

spaces 15" Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and thickness of

at centre 10 x 1 3/8 Length as per rule 36 Distance apart 8 Number and pitch of Stays in each 3 @ 8"

Working pressure by rules 181 Superheater or Steam chest: how connected to boiler none 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

Reinforced 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

FOR THE FOREGOING IS A CORRECT DESCRIPTION,

Geo W Riley DIRECTOR

During progress of 1917. May 11. 15. June 5. 12. 21. 25. 27 July Is the approved plan of boiler forwarded herewith Yes

work in shops 10. 18. Aug 3. 9. 10 Dec. 1918. 2. 11. 22. 27 Total No. of visits 12 + 4

During erection on board vessel 1917. 6. 12. Dec. 1918. 2. 11. 22. 27

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

This boiler has been built under Special Survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. This boiler has now been fitted in the above vessel & its Safety Valves adjusted under steam to above pressure.

Survey Fee £ 4-5-0 When applied for Monthly at C

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

Committee's Minute FRI. 15 FEB. 1918

Signed not for classing committee

W Morrison Engineer Surveyor to Lloyd's Register of Shipping. G. A. Dryden Tynes TUE. 18 MAR. 1919 Lloyd's Register Foundation WS57-0071