pt. 5a.

REPORT ON BOILERS.

No. 81720.

5 AUG 1927

Received at London Office 26 AUG 1927

e of writing Report ____ 192 ____ When handed in at Local Office ____ 192 ____ Port of NEWCASTLE-ON-TYNE

o. in Book Survey held at Wallsend-on-Tyne Date, First Survey 29 July 1926 Last Survey 3 Aug 1927.

on the New Steel S.S. "Yeakwood" (Number of Visits ____) Tons { Gross 6014 / Net 3708

ter Built at Newcastle By whom built Armstrong Whitworth & Co Ld Yard No. 1014 When built 1926

ines made at Wallsend. By whom made Wallsend Slipway & Eng Coy Ld Engine No. 866 When made 1926

ers made at Wallsend By whom made Wallsend Slipway & Eng Cy Ld Boiler No. 866 When made 1926

inal Horse Power 515. Owners The Yeakwood Steamship Cny (1926) Ld. Port belonging to London

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ULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, ~~OR~~ ~~DONKEY~~

ufacturers of Steel Steel Cmpany of Scotland. (Letter for Record S)

l Heating Surface of Boilers 4353 ~~ft~~ Is forced draught fitted yes Coal or Oil fired oil

and Description of Boilers Three Single Ended, 3 SB. **Working Pressure** 180 lbs

ed by hydraulic pressure to 320 lbs Date of test 21-4-26 No. of Certificate 136 Can each boiler be worked separately yes

a of Firegrate in each Boiler 61.8 ~~ft~~ No. and Description of safety valves to each boiler 2 spring loaded high lift.

of each set of valves per boiler { per Rule ~~19.11 / 2 = 9.5~~ " / as fitted 11-1 " Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

se of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

llest distance between ~~boilers or~~ uptakes and bunkers ~~or woodwork~~ 2'-6" Is oil fuel carried in the double bottom under boilers no

llest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated no.

est internal dia. of boilers 15'-3 5/8" Length 11'-6" **Shell plates:** Material Steel Tensile strength 30 to 34 tons

ckness 13/16" Are the shell plates welded or flanged no Description of riveting: circ. seams { end D.R. / inter. ✓

seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1¼" / long. seams 1¼" Pitch of rivets { 3-7/21" / 8 3/8"

entage of strength of circ. end seams { plate 66.3 / rivets 45.0 Percentage of strength of circ. intermediate seam { plate / rivets ✓

entage of strength of longitudinal joint { plate 85.0 / rivets 84.8 / combined 88.0 Working pressure of shell by Rules 182 lbs.

ckness of butt straps { outer / inner 1 1/16" **No. and Description of Furnaces in each Boiler** 3 Three corrugated (Deightons)

rial Steel Tensile strength 26 to 30 tons Smallest outside diameter 3'-9¼"

th of plain part { top / bottom ✓ Thickness of plates { crown 9/16" / bottom Description of longitudinal joint weld

nsions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 180 lbs

plates in steam space: Material Steel Tensile strength 26 to 30. Thickness 1 9/32 Pitch of stays 21 x 20

are stays secured Double Nuts Working pressure by Rules 183 lbs

plates: Material { front / back } Steel Tensile strength { } 26 to 30 tons Thickness { 15/16" / 3/4" }

pitch of stay tubes in nests 4½" x 11¼ Pitch across wide water spaces 13½" x 4½" Working pressure { front 183 lbs / back 228 lbs }

ers to combustion chamber tops: Material Steel Tensile strength 28 to 32 tons Depth and thickness of girder

atre 2 @ 9¼" x ¾" Length as per Rule 34.6" Distance apart 9" No. and pitch of stays

ch 3 @ 8¼" Working pressure by Rules 185 lbs **Combustion chamber plates:** Material Steel

le strength 26 to 30 tons Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom ¾"

of stays to ditto: Sides 9" x 8¼" Back 9⅛" x 8" Top 9" x 8¼" Are stays fitted with nuts or riveted over nuts

ing pressure by Rules 181 lbs. **Front plate at bottom:** Material Steel Tensile strength 26 to 30 tons

ness 15/16" **Lower back plate:** Material Steel Tensile strength 26 to 30 tons Thickness ⅞"

of stays at wide water space 14" x 9" Are stays fitted with nuts or riveted over nuts

ing Pressure 226 lbs □". **Main stays:** Material Steel Tensile strength 28 to 32 tons

ter { At body of stay, 3¼" / Over threads 3¼" } No. of threads per inch 6 Area supported by each stay 21" x 20" = 420 □"

ng pressure by Rules 189 lbs **Screw stays:** Material Steel Tensile strength 26 to 30 tons

ter { At turned off part, ✓ / Over threads 1 5/8" } No. of threads per inch 9 Area supported by each stay 44.25 + 43 □"

Working pressure by Rules 205 lbs *Are the stays drilled at the outer ends* No *Margin stays: Diameter* {*At turned off part, or Over threads*} 1 7/8"

No. of threads per inch 9 *Area supported by each stay* 98 □" *Working pressure by Rules* 215 lbs

Tubes: *Material* Iron *External diameter* {*Plain* / *Stay*} 2½" *Thickness* {8 WG. / 5/16 to 3/8} *No. of threads per inch* 9

Pitch of tubes 3 3/4" *Working pressure by Rules* 188 lbs **Manhole compensation:** *Size of opening in*

shell plate 20" × 16" *Section of compensating ring* 9¼" × 15/16" *No. of rivets and diameter of rivet holes* 44 @ 1¼"

Outer row rivet pitch at ends 8 3/8" *Depth of flange if manhole flanged* 3 5/16" **Steam Dome:** *Material* None.

Tensile strength *Thickness of shell* *Description of longitudinal joint*

Diameter of rivet holes *Pitch of rivets* *Percentage of strength of joint* {*Plate* / *Rivets*}

Internal diameter *Working pressure by Rules* *Thickness of crown* *No. and diameter of*

stays *Inner radius of crown* *Working pressure by Rules*

How connected to shell *Size of doubling plate under dome* *Diameter of rivet holes and pitch*

of rivets in outer row in dome connection to shell.

Type of Superheater *Manufacturers of* {*Tubes* / *Steel castings*}

Number of elements *Material of tubes* *Internal diameter and thickness of tubes*

Material of headers *Tensile strength* *Thickness* *Can the superheater be shut off and*

the boiler be worked separately *Is a safety valve fitted to every part of the superheater which can be shut off from the boiler*

Area of each safety valve *Are the safety valves fitted with easing gear* *Working pressure as per*

Rules *Pressure to which the safety valves are adjusted* *Hydraulic test pressure:*

tubes , *castings* *and after assembly in place* *Are drain cocks or valves fitted*

to free the superheater from water where necessary.

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes.

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

The foregoing is a correct description,

A. Laing. DIRECTOR.

Manufacturer.

Dates of Survey while building — *During progress of work in shops* - - 1926 JULY. 29. AUG. 3. 5. 7. 9. SEP. 15. 22. 24. 27. 30. OCT. 4. 8. 14. 18. 19. 28. NOV. 2. 4. 5. 17. 23. 25. 30. *During erection on board vessel* - - - DEC. 1. 3. 6. 15. 1927 JAN. 5. 26. 27. 31. FEB. 9. 17. 21. 25. MAR. 2. 7. 8. 16. 21. 31. APRIL 1. 4. 6. 13. 21. 30. MAY. 3. 10. JUNE. 8. 9. 17. 28. 30. JULY 6. 7. 8. 21. 22. 26. AUGUST 3.

Are the approved plans of boiler ~~and superheater~~ forwarded herewith yes (If not state date of approval.)

Total No. of visits 61.

GENERAL REMARKS (*State quality of workmanship, opinions as to class, &c.*) The Boilers of this Vessel have been built under Special Survey. Materials & Workmanship good, Hydraulic tests satisfactory. They are securely fixed in the Vessel examined under steam and safety Valves adjusted. under steam.

Survey Fee ... ... £ See: first } When applied for, 192

Travelling Expenses (if any) £ entry reprint. } When received, 192

William Butler.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 30 AUG 1927

Assigned See Minute on hull Rpt 81720 attached