

REPORT ON BOILERS.

No. 16610

Received at London Office 17 APR 1928

Date of writing Report 14th Sep 1928 When handed in at Local Office 16.4.1928 Port of WEST HARTLEPOOL

No. in Survey held at Hartlepool. Date, First Survey 16th January Last Survey 11th April 1928

on the Boilers D175 for se. STONEPOOL (Number of Visits 14) Gross 4802 Tons Net 29 7/8

Master Built at Middlesbrough By whom built Smiths Dock Co Yard No. 310 When built 1928

Engines made at Middlesbrough By whom made Smiths Dock Co Ltd. Engine No. 310 When made 1928

Boilers made at Hartlepool By whom made Richardsons Westgarth & Co Boiler No. D175 When made 1928

Original Horse Power Owners Pool Shipping Co. Port belonging to West Hartlepool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Wm Beardmore & Co Ltd. (Letter for Record S)

Total Heating Surface of Boilers 7688 sq. ft. Is forced draught fitted yes Coal or Oil fired coal

No. and Description of Boilers Three single ended Working Pressure 180

Tested by hydraulic pressure to 320 Date of test 20.3.28 No. of Certificate 3731. Can each boiler be worked separately yes

Area of Firegrate in each Boiler 56.5 sq. ft. No. and Description of safety valves to each boiler Pair Spring loaded

Area of each set of valves per boiler 16.3 per Rule 1658 as fitted Pressure to which they are adjusted 185 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 boiler uptakes and bunkers on woodwork 6'-3" Is oil fuel carried in the double bottom under boilers no.

Smallest distance between shell of boiler and tank top plating 3'-6" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 15'-9 7/16" Length 11'-0" Shell plates: Material Steel Tensile strength 28/32.5

Thickness 1 9/16" Are the shell plates welded or flanged no Description of riveting: circ. seams end D.R. Lap inter. ✓

Long. seams Trib. N. D. B. S. Diameter of rivet holes in circ. seams 1 7/32" long. seams 1 3/32" Pitch of rivets 3 7/16" 8 7/8"

Percentage of strength of circ. end seams plate 65.8 rivets 41.3 Percentage of strength of circ. intermediate seam plate 85.5 rivets 85.5

Percentage of strength of longitudinal joint plate 85.5 rivets 88.3 combined Working pressure of shell by Rules 182 lb

Thickness of butt straps outer 3/4" inner 1 3/32" No. and Description of Furnaces in each Boiler 3 Deightons

Material Steel Tensile strength 26/30 Smallest outside diameter 46 7/16"

Length of plain part top bottom ✓ Thickness of plates crown 1 9/32" bottom 3/32" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 185 lb

Diaphragm plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 5/16" Pitch of stays 20" x 22"

How are stays secured Double nuts Working pressure by Rules 182 lb

Diaphragm plates: Material front back Steel Tensile strength 26/30 Thickness 5/8" 3/4" Working pressure front 185 lb back 195 lb

Span pitch of stay tubes in nests 10 5/8" Pitch across wide water spaces 14 1/4" Working pressure front 185 lb back 195 lb

Diaphragm plates to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder

centre 8 3/8" x 1 3/4" Length as per Rule 33 3/4" Distance apart 9 5/8" No. and pitch of stays

each Three 8" Working pressure by Rules 180 Combustion chamber plates: Material Steel

Tensile strength 26/30 Thickness: Sides 2 3/32" Back 1 9/32" Top 5/8" Bottom 2 3/32"

Pitch of stays to ditto: Sides 7 7/8" x 8 7/8" Back 8 7/4" x 8 7/8" Top 8" x 9 5/8" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 184 lb Front plate at bottom: Material Steel Tensile strength 26/30 Thickness 3/4"

Thickness 3/8" Lower back plate: Material Steel Tensile strength 26/30 Thickness 3/4"

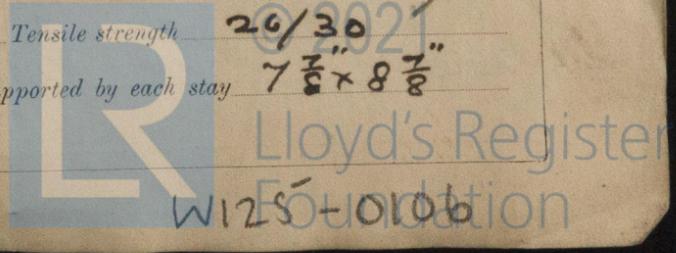
Pitch of stays at wide water space 13 1/2" x 8 7/8" Are stays fitted with nuts or riveted over nuts

Working Pressure 183 Main stays: Material Steel Tensile strength 28/32

Diameter At body of stay 3 1/4" No. of threads per inch 6 Area supported by each stay 20" x 22"

Over threads Working pressure by Rules 182 Screw stays: Material Steel Tensile strength 26/30

Diameter At turned off part 1 1/2" No. of threads per inch 9 Area supported by each stay 7 7/8" x 8 7/8"



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No. in Reg. Book

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Working pressure by Rules 180 lb Are the stays drilled at the outer ends no Margin stays: Diameter At turned off part. 1 3/4" Over threads 1 3/4" Working pressure by Rules 208 lb

No. of threads per inch 9 Area supported by each stay 10 3/4" x 8 3/8" Working pressure by Rules 230 + 272 No. of threads per inch 9

Tubes: Material Iron External diameter 3 1/4" Thickness 8 W.G. 5/16" 3/8" Manhole compensation: Size of opening

Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 230 + 272 No. of rivets and diameter of rivet holes 30 1 3/2"

shell plate 13" x 16 1/2" Section of compensating ring 12 7/16" x 1 9/32" No. of rivets and diameter of rivet holes 30 1 3/2"

Outer row rivet pitch at ends 8 5/8" Depth of flange if manhole flanged ✓ 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 ✓

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

stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓ Diameter of rivet holes and p ✓

How connected to shell ✓ Size of doubling plate under dome ✓

of rivets in outer row in dome connection to shell ✓

Type of Superheater none Manufacturers of ✓

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

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

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 ✓

Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressu ✓

tubes ✓ and after assembly in place ✓ Are drain cocks or valves fi ✓

to free the superheater from water where necessary ✓

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

The foregoing is a correct description,
 W. J. Guthrie
 GENERAL MANAGER
 (Incorporated in England)

Dates of Survey: During progress of work in shops - Jan. 16. 30. Feb. 3. 7. 17. 21. 24. 27. Mar. 2. 12. Are the approved plans of boiler and superheater forwarded herewith (if not state date of approval) ✓

while building: During erection on board vessel - 16. 20. Apr. 11. Total No. of visits 14

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

These boilers have been built under Special Survey. The materials and workmanship are good and efficient. On completion they satisfactorily withstood the hydraulic test. They have been despatched to Middlesbrough for fitting on board.

These boilers have been securely fitted aboard and their safety valves adjusted and tested under steam with satisfactory results.

Survey Fee ... £ 192 When applied for, 192

Travelling Expenses (if any) £ 192 When received, 192

R. D. Shilston
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRL 27 JUL 1928

Assigned See Mob Reg. No. 13362



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