

REPORT ON BOILERS.

No. 13112.

Received at London Office 21 NOV 1927

MIDDLESBROUGH.

Date of writing Report 18. 11. 27 When handed in at Local Office 18. 11. 27 Port of STOCKTON.
No. in Reg. Book M.Y. COPTIC
Survey held at on the Meredith boiler for Messrs. Wallsend Slipway Co.
(Number of Visits 16) Gross 8281 Tons Net 5111
Built at Wallsend-on-Tyne By whom built Swan Hunter W.R. & Co. Ltd. Yard No. 1319 When built 1928
Engines made at Wallsend-on-Tyne By whom made Wallsend Slipway & Co. Ltd. Engine No. 867 When made 1928
Boilers made at By whom made Boiler No. When made
Owners Shaw Saville & Albion Eng. Co. Port belonging to London

VERTICAL DONKEY BOILER.

Made at Stockton By whom made Riley Bros. Boiler No. 5411 When made 1928 Where fixed Motor Room
Manufacturers of Steel Steel Company of Scotland
Total Heating Surface of Boiler 315 sq. ft. Is forced draught fitted Yes Coal or Oil fired Oil
No. and Description of Boilers One vertical Meredith type Working pressure 100 lbs.
Tested by hydraulic pressure to 200 lbs. Date of test 18. 11. 27 No. of Certificate 6592.
Area of Firegrate in each Boiler 0.5 sq. ft. No. and Description of safety valves to each boiler Two spring loaded
Area of each set of valves per boiler per rule 4.12 as fitted 4.8 Pressure to which they are adjusted 102 lbs. Are they fitted with easing gear Yes
State whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler or uptake and bunkers
or woodwork in E.R. Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating
3'-6" Is the base of the boiler insulated Largest internal dia. of boiler 5'-6" Height 12'-0"
Shell plates: Material Steel Tensile strength 28/32 Thickness 13/32 3/4"
Are the shell plates welded or flanged No Description of riveting: circ. seams S.R. long. seams S.R. end D.R. lap. rivets T.R. lap.
Dia. of rivet holes in circ. seams 15/16 Pitch of rivets 2 1/8" Percentage of strength of circ. seams plate 55.9 rivets 65.4 of Longitudinal joint plate 69.7 rivets 74.6
Working pressure of shell by rules 112 lbs. Thickness of butt straps outer inner
Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material steel
Tensile strength 26/30 Thickness 2 1/32 Radius 5'-0" Working pressure by rules 130 lbs.
Description of Furnace: Plain, spherical, or dished crown spherical Material steel Tensile strength 26/30
Thickness 5/8" External diameter top bottom Length as per rule Working pressure by rules
Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over
Diameter of stays over thread Radius of spherical or dished furnace crown 2'-5 1/2" Working pressure by rule 14 1/4 lbs.
Thickness of Ogee Ring 5/8" Diameter as per rule D 5'-6" A 4'-11" Working pressure by rule 109 lbs.
Combustion Chamber: Material steel Tensile strength 26/30 Thickness of top plate 5/8"
Radius if dished flat Working pressure by rule 107 lbs. Thickness of back plate 19/32 Diameter if circular
Length as per rule Pitch of stays 11" x 11" Are stays fitted with nuts or riveted over nuts
Diameter of stays over thread 1 1/2" Working pressure of back plate by rules 100 lbs.
Tube Plates: Material steel Tensile strength 26/30 Thickness 3/4" Mean pitch of stay tubes in nests 9 1/8"
If comprising shell, Dia. as per rule front back Pitch in outer vertical rows 5'-4 1/2" Dia. of tube holes FRONT stay 2 3/4" plain 2 3/4" BACK stay 2 3/4" plain 2 3/4"
Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules front 108 lbs. back 133 lbs.
Girders to combustion chamber tops: Material steel Tensile strength 26/30
Depth and thickness of girder at centre 1/2" gusset secured by 3 1/2" x 3 1/2" x 3/8" bar Length as per rule
Distance apart No. and pitch of stays in each Working pressure by rule

Crown stays: Material ✓ Tensile strength ✓ Diameter { at body of stay, or over threads ✓
 No. of threads per inch ✓ Area supported by each stay ✓ Working pressure by rules ✓
Screw stays: Material Steel Tensile strength 26/30 Diameter { at turned off part, or over threads 1 1/2" No. of threads per inch 9
 Area supported by each stay 121 Working pressure by rules 103 lbs Are the stays drilled at the outer ends no
Tubes: Material iron External diameter { plain 2 1/2 to 2 7/16 Thickness { 11 w/g
2 1/2 to 2 3/4 No. of threads per inch 9 Pitch of tubes 3 3/4" x 3 3/4" c 3 3/4" x 5 1/4" Working pressure by rules p. 125 8. 240
Manhole Compensation: Size of opening in shell iron 16 x 12 Section of compensating ring ✓ No. of rivets and diameter
 of rivet holes ✓ Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3"
Uptake: External diameter ✓ Thickness of uptake plate ✓
Cross Tubes: No. ✓ External diameters { ✓ Thickness of plates ✓
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
RILEY BROS. (BOILERMAKERS) LIMITED.
J. H. Childs SECRETARY, Manufacturer.

1927
 Dates of Survey { During progress of work in shops - - { May 10. 14. Jun 28. Jul 13. 20. Aug 11. 26. Is the approved plan of boiler forwarded herewith
 while building { During erection on board vessel - - { Sep 8. 24. Oct 3. 6. 12. 18. Nov 5. 16. 18. (If not state date of approval.)
 Total No. of visits 16

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler is a duplicate of Messrs Riley's No. 5710 (Tab. Rpt No. 13004).

The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and approved Plan.

Boiler securely fixed in the Kessel, examined under steam & safety valves adjusted.

Survey Fee £ 4-4-0 When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

MONTHLY A/C.

M. Man. William Bates.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 10 JUL 1928
 Assigned See Rpt attached