

REPORT ON BOILERS.

No. 13085

Received at London Office

MIDDLESBROUGH.

of writing Report 26. 10. 1927 When handed in at Local Office 26. 10. 1927 Port of

MIDDLESBROUGH.

Survey held at

Date, First Survey 18. 3. 1927 Last Survey 25. 10. 1927.

Sup. on the Tw. se. "PERIJA"

(Number of Visits 48.) Tons { Gross 2660 Net 1520.

ter Built at Newcastle By whom built Palmers S&B Co Yard No. 976 When built 1927.
ines made at MIDDLESBROUGH By whom made Richardsons, Westgate & Co. Engine No. 2573 When made 1927.
ers made at MIDDLESBROUGH. By whom made do. Boiler No. 2573 When made 1927.
inal Horse Power Owners Gulf Refining Co. Port belonging to Newcastle.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record S.)
al Heating Surface of Boilers 4055 # Is forced draught fitted No. Coal or Oil fired oil
and Description of Boilers 2. S.E. Marine Working Pressure 180 lbs.
ed by hydraulic pressure to 320 lbs. Date of test 15. 9. 27 No. of Certificate S. 6574 Can each boiler be worked separately Yes.
a of Firegrate in each Boiler No. and Description of safety valves to each boiler Pair Spring loaded.
a of each set of valves per boiler { per Rule 15. 6 # as fitted 16. 58 # Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes.
ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler
llest distance between uptakes and bunkers or woodwork 8' 4" Is oil fuel carried in the double bottom under boilers No.
llest distance between shell of boiler and tank top plating 1'-11" Is the bottom of the boiler insulated Yes.
est internal dia. of boilers 14'-0" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32
kness 1 3/32 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 13/16 long. seams 13/16 Pitch of rivets { 3 1/2 8 1/8
entage of strength of circ. end seams { plate 66.0 rivets 45.0 Percentage of strength of circ. intermediate seam { plate rivets
entage of strength of longitudinal joint { plate 85.3 rivets 90.6 combined 88.8 Working pressure of shell by Rules 181 lbs.
kness of butt straps { outer 1/8 inner 1/4 No. and Description of Furnaces in each Boiler 3 Corrugated
erial Steel Tensile strength 26/30 Smallest outside diameter 3'-4 9/16
th of plain part { top bottom Thickness of plates { crown 14/32 bottom 13/32 Description of longitudinal joint Weld.
ensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 189 lbs.
plates in steam space: Material S Tensile strength 26/30 Thickness 1 1/8 Pitch of stays 19 3/4 x 16
are stays secured D. N. s Working pressure by Rules 182 lbs.
e plates: Material { front Steel back Tensile strength { 26/30 Thickness { 3/16 3/4
a pitch of stay tubes in nests 9 3/4 Pitch across wide water spaces 13 1/2 Working pressure { front 188 lbs. back 211 lbs.
ers to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder
ntre 9 1/4 x 13/16 (double) Length as per Rule 2'-10 Distance apart 9 1/4 No. and pitch of stays
ch 3 - 9 1/4 x 8 Working pressure by Rules 202 lbs. Combustion chamber plates: Material Steel
ile strength 26/30 Thickness: Sides 13/16 Back 7/8 Top 5/8 (nutted) Bottom 13/16
h of stays to ditto: Sides 9 x 8 Back 10 1/4 x 9 Top 9 1/4 x 8 Are stays fitted with nuts or riveted over Riveted (Side P)
king pressure by Rules 181 lbs. Front plate at bottom: Material Steel Tensile strength 26/30
kness 13/16 Lower back plate: Material Steel Tensile strength 26/30 Thickness 1/8
of stays at wide water space 13 1/2 x 9 Are stays fitted with nuts or riveted over nuts
king Pressure 238 lbs. Main stays: Material Steel Tensile strength 28/32
eter { At body of stay, or Over threads 2 7/8 No. of threads per inch 6 Area supported by each stay 3/16
king pressure by Rules 193 lbs. Screw stays: Material Steel Tensile strength 26/30
eter { At turned off part, or Over threads 1 3/4 No. of threads per inch 9 Area supported by each stay 92

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Working pressure by Rules 196 lbs Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part } 1 1/8 ✓
No. of threads per inch 9 ✓ Area supported by each stay 106 sq Working pressure by Rules 201 lbs
Tubes: Material iron ✓ External diameter { Plain 2 1/2 ✓ Stay 2 1/2 ✓ Thickness { 9/16 ✓ No. of threads per inch 9 ✓
Pitch of tubes 4 x 3 3/4 ✓ Working pressure by Rules p. 230 S. 198 ✓ Manhole compensation: Size of opening in
shell plate 16 1/2 x 13 ✓ Section of compensating ring 4 3/4 x 1 1/2 ✓ No. of rivets and diameter of rivet holes 32 - 1 3/16 ✓
Outer row rivet pitch at ends 8 1/8 ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material
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 RICHMOND, 12 ST GARTH & Co. LIMITED, Manufacturer.

Dates { During progress of work in shops - - } See Machy Report
while building { During erection on board vessel - - }
Are the approved plans of boiler and appurtenances for use on board with (If not state date of approval.) Yes ✓
Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These boilers are duplicate of those fitted in steamers 'Inagua' and 'Araqua' - Inds Rpts 13024 & 13056.
The materials and workmanship are good. These boilers have been built under special survey in accordance with the Rules and approved plan, securely fitted aboard and their safety valves have been adjusted and tested under steam with satisfactory results.

Survey Fee ... £ See Machy Rpt. When applied for, 192
Travelling Expenses (if any) £ When received, 192
Committee's Minute TUES. 1 NOV 1927
Assigned See Rpt. (Enc. No 8967) attached
P. J. Macnamara
Engineer Surveyor to Lloyd's Register of Shipping.
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