

REPORT ON BOILERS.

No. 105154

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22 MAR 1948

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at WALLSEND 8 SLD.

Date, First Survey 6th JUNE 1946Last Survey 19th MARCH 1948

on the MATADIAN.

(Number of Visits 108.)

Tons
Gross
Net

Master Built at Sunderland By whom built Sir J. Laing & Co. Yard No. 776 When built 1948-3 mo
Engines made at Wallsend By whom made N.E. Man. E. Co. (1938) Ltd Engine No. 3140 When made 1948
Boilers made at Wallsend By whom made ditto Boiler No. 3140 When made 1948
Nominal Horse Power 19 Owners UNITED AFRICA Co. Port belonging to LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd, Glasgow (Letter for Record S.)
Total Heating Surface of Boilers 8763 sq ft + SPT. 1725 sq ft. Is forced draught fitted. Yes Coal or Oil fired oil fired
No. and Description of Boilers 3 SINGLE ENDED Working Pressure 220 lbf/sq in
Tested by hydraulic pressure to 380 lb Date of test 9-6-47 No. of Certificate N° 1259. Can each boiler be worked separately. Yes
Area of Firegrate in each Boiler 380 sq ft No. and Description of safety valves to each boiler 2 of 2 1/2" Cockburn's Sps H. Lift.
Area of each set of valves per boiler per Rule 7.86 sq in as fitted 9.80 sq in Pressure to which they are adjusted 225 lb Are they fitted with easing gear. Yes
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler. Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 2'-0" 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'-8 15/16" Length 12'-6" Shell plates: Material M.S.L. Tensile strength 29 to 33 tons
Thickness 1 1/32" Are the shell plates welded or flanged. No Description of riveting: circ. seams end D.R. inter NIL.
long. seams T.R. 5th butt straps Diameter of rivet holes in circ. seams 1 1/16" Pitch of rivets 4 1/8" 10 1/4"
Percentage of strength of circ. end seams plate 62.1 rivets 48.2 Percentage of strength of circ. intermediate seam plate 84.8 rivets 90.8 combined 87.6 Working pressure of shell by Rules 222.5 lb
Percentage of strength of longitudinal joint plate 84.8 rivets 90.8 combined 87.6 Working pressure of shell by Rules 222.5 lb
Thickness of butt straps outer 1 3/16" inner 1 5/16" No. and Description of Furnaces in each Boiler 3 C.f. (Seighton)
Material M.S.L. Tensile strength 26 to 30 tons Smallest outside diameter 3'-11 1/16"
Length of plain part top 1 1/2" bottom 1 1/2" Thickness of plates crown 23/32" Description of longitudinal joint Fine weld.
Dimensions of stiffening rings on furnace or c.c. bottom NIL Working pressure of furnace by Rules 221 lb.
End plates in steam space: Material M.S.L. Tensile strength 26 to 30 tons Thickness 1 1/2" Pitch of stays 1'-11" x 1'-7 3/4"
How are stays secured NUTTED INSIDE & OUTSIDE Working pressure by Rules 230 lb
Tube plates: Material front M.S.L. back M.S.L. Tensile strength 26 to 30 tons Thickness front 15/16" back 7/8"
Mean pitch of stay tubes in nests 8 1/8" Pitch across wide water spaces 14 1/2" x 7" Working pressure front 233 lb. back 222 lb.
Girders to combustion chamber tops: Material M.S.L. Tensile strength 29 to 33 tons Depth and thickness of girder
at centre 12 1/4" x 1" db. Length as per Rule 4'-0 1/2" Distance apart 9 1/8" No. and pitch of stays
in each 3 at 11 7/8" Working pressure by Rules 227 lb. Combustion chamber plates: Material M.S.L. Tensile strength 26 to 30 tons Thickness Sides 53/64" Back 23/32" Top 53/64" Bottom 29/32"
Pitch of stays to ditto: Sides 11 7/8" x 8 7/8" Back 9" x 8" Top 11 7/8" x 9 1/8" Are stays fitted with nuts or riveted over. The remainder are 8 lbs. welded in both plates.
Working pressure by Rules 222 lb. Front plate at bottom: Material M.S.L. Tensile strength 26 to 30 tons Thickness 15/16"
Lower back plate: Material M.S.L. Tensile strength 26 to 30 tons Thickness 15/16"
Pitch of stays at wide water space 15" x 8" Are stays fitted with nuts or riveted over. No. STAYS ARE E-WELDED IN BE PLATE & C.C. PLATES.
Working pressure 250 lb. Main stays: Material M.S.L. Tensile strength 28 to 32 tons
Diameter At body of stay 3 1/2" No. of threads per inch 6 Area supported by each stay 454 sq in
Over threads 3 3/4" Working pressure by Rules 238 lb. Screw stays: Material M.S.L. Tensile strength 26 to 30 tons
Diameter 1 5/8" DIA. PLAIN, WHERE E-WELDED. 9 THRS. FOR STAYS THRU SHELL
Over threads 1 5/8" x 2" IN C.C. TOPS. + C.C. TOPS. Area supported by each stay 72 sq in
WHERE THREADED. & Remainder are E-WELDED IN BOTH PLATES.

CONT'D OVER.

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Working pressure by Rules 238 lb Are the stays drilled at the outer ends No Margin stays: Diameter PLAIN BAR. 1 7/8", 2"
 No. of threads per inch NOT THREADED Area supported by each stay 96 SQ. IN. Working pressure by Rules 258 lb
 Tubes: Material Seamless STL. External diameter 2 1/4" Thickness 13/32 5/16" No. of threads per inch 9.
 Pitch of tubes 3 1/2" x 3 1/2" Working pressure by Rules 221 lb MIN. Manhole compensation: Size of opening in
 shell plate NIL. Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓
 Outer row rivet pitch at ends ✓ 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 ✓
 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 NEMENCO. Construction Chamber Type Manufacturers of Tubes LTD
Nº SH. 1004. HEADERS TUBES LTD
 Number of elements 36 Material of tubes S.D. STL Internal diameter and thickness of tubes 1.273" x 7 W.G.
 Material of headers S.D. STL. Tensile strength 26 to 28 tons Thickness 1" Can the superheater be shut off and
 the boiler be worked separately No. BUT ELEMENTS CAN BE BLANKED-OFF. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler YES.
 Area of each safety valve 3.1416 sq Are the safety valves fitted with easing gear YES. Working pressure as per
 Rules 220 lb. Pressure to which the safety valves are adjusted 225 lb. Hydraulic test pressure
 tubes 1500 lb. forgings and castings 660 lb. and after assembly in place 440 lb. Are drain cocks
 valves fitted to free the superheater from water where necessary Yes
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

THE NORTH-EASTERN MARINE ENGINEERING COY (1888) LTD.

Dates of Survey while building { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 { During erection on board vessel - - - } PLEASE SEE MACHINERY REPORT total No. of visits ✓

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. SUSSEX TRADER.
Lamington 777
NEMENCO. Eng No 3141.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These 3 Main Boilers have been constructed and fitted on board under special survey in accordance with the approved plans and the Society's Rules, and the materials and workmen are good.
See also Machy Rpt H.

Survey Fee ... £ See Rpt H. When applied for, 19...
 Travelling Expenses (if any) £ : : When received, 19...

A. Watt

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 30 APR 1948

Assigned

See R.F.E. machy. rpt H.



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