

REPORT ON BOILERS.

No. 91945

Received at London Office 18 NOV 1934

Date of writing Report 19 When handed in at Local Office 12 NOV 1934 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Reg. Book. South Shields Date, First Survey Apr 5 (1933) Last Survey Nov 8 1934

91453 on the S.S. TYNEBANK (Number of Visits 25) Gross 4650.19 Tons Net 2731.62

Master Built at S. Shields By whom built J. Readhead & Sons Ltd No. 506 When built 1934

Engines made at South Shields By whom made J. Readhead & Sons Ltd Engine No. 506 When made 1934

Boilers made at " " By whom made " " Boiler No. 506 When made 1934

Nominal Horse Power Owners Bank Line Ltd Port belonging to Glasgow

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record S ✓)

Total Heating Surface of Boilers 1958 sq Is forced draught fitted Yes Coal or Oil fired Coal

No. and Description of Boilers One single ended multitubular Working Pressure 220 lbs

Tested by hydraulic pressure to 380 lbs Date of test 5-9-33 No. of Certificate N/603 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 47 sq No. and Description of safety valves to each boiler 2 double spring loaded (flange) H.L.

Area of each set of valves per boiler {per Rule 8.34 sq as fitted 8.86 sq} Pressure to which they are adjusted 220 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 boilers or uptakes and bunkers or woodwork 1'-10" Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 2'-5" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 13'-6 3/8" Length 11'-9" Shell plates: Material Steel Tensile strength 29-33 lbs

Thickness 1 5/16" Are the shell plates welded or flanged ✓ Description of riveting: circ. seams {end D.R.L.D. inter. ✓}

long. seams T.R.D.B.S. ✓ Diameter of rivet holes in {circ. seams 1 3/8" long. seams 1 3/8" ✓} Pitch of rivets {4 1/4" 9 1/4" ✓}

Percentage of strength of circ. end seams {plate 67.7 rivets 42.2 ✓} Percentage of strength of circ. intermediate seam {plate rivets ✓}

Percentage of strength of longitudinal joint {plate 85.13 rivets 90.9 ✓} Working pressure of shell by Rules 221 lbs

Thickness of butt straps {outer 1" inner 1 1/8" ✓} No. and Description of Furnaces in each Boiler 3 Brighton Type C.F.

Material Steel Tensile strength 26-30 lbs Smallest outside diameter 3'-2 1/16"

Length of plain part {top bottom ✓} Thickness of plates {crown 19" bottom 32" ✓} Description of longitudinal joint ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 221 lbs

End plates in steam space: Material Steel Tensile strength 26-30 lbs Thickness 1 3/16" Pitch of stays 17 x 19" ✓

How are stays secured Double nuts washer outside (11 dia x 1 1/2) Working pressure by Rules 233 lbs 15/16" ✓

Tube plates: Material {front back Steel ✓} Tensile strength {26-30 lbs ✓} Thickness {25/32" ✓}

Mean pitch of stay tubes in nests 9 5/8" Pitch across wide water spaces 14" Working pressure {front 224 lbs back 235 lbs ✓}

Girders to combustion chamber tops: Material Steel Tensile strength 29-33 lbs Depth and thickness of girder

at centre 8 1/2" x 1 3/4" Length as per Rule 2'-7 1/2" Distance apart 9 7/8" No. and pitch of stays

in each 20 9" Working pressure by Rules 222 lbs Combustion chamber plates: Material Steel

Tensile strength 26-30 lbs Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 7/8" ✓

Pitch of stays to ditto: Sides 9 3/4" x 9" Back 10" x 8 3/4" Top 9" x 9 7/8" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 222 lbs Front plate at bottom: Material Steel Tensile strength 26-30 lbs

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26-30 lbs Thickness 7/8" ✓

Pitch of stays at wide water space 14" x 8 3/4" Are stays fitted with nuts or riveted over Nuts

Working Pressure 228 lbs Main stays: Material Steel Tensile strength 28-32 lbs

Diameter {At body of stay, or Over threads} 3 1/8" dia No. of threads per inch 6 Area supported by each stay 332 sq

Working pressure by Rules 221 lbs Screw stays: Material Steel Tensile strength 26-30 lbs

Diameter {At turned off part, or Over threads} 1 7/8" dia No. of threads per inch 9 Area supported by each stay 88.95 sq



Working pressure by Rules 240 lb Are the stays drilled at the outer ends No Margin stays: Diameter 2 dia
 No. of threads per inch 9 Area supported by each stay 1050 Working pressure by Rules 237 lb
 Tubes: Material Steel External diameter 8 dia Thickness 5/16 - 3/8 No. of threads per inch 9
 Pitch of tubes 11 1/2 x 8 1/4 Working pressure by Rules 246 lb Manhole compensation: Size of opening in
 shell plate 16 x 12 Section of compensating ring 8 x 1 5/16 No. of rivets and diameter of rivet holes 28 - 1 3/8
 Outer row rivet pitch at ends 9 1/4 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

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 ✓

FOR JOHN READHEAD & SONS, LTD.

J. H. Readhead

The foregoing is a correct description,

CHAIRMAN & MANAGING DIRECTOR

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with ✓
 Dates of Survey ✓ Are the approved plans of boiler and superheater forwarded herewith Yes
 while building ✓ Total No. of visits 25

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No. ✓

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

This boiler has been built under special survey in accordance with rule requirements & approved plan. Materials & workmanship are good. Hydraulic test satisfactory. It has been efficiently installed & fired in vessel, examined under steam & the safety valves adjusted to the approved pressure.

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

J. H. Matthews
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 20 NOV 1934

Assigned

See Inv. J.E. Mchly Rpt



© 2020

Lloyd's Register Foundation