

REPORT ON BOILERS.

Sld. No. 32584

Tab No. 16499

MAR -4 1939

Received at London Office

Date of writing Report 13th December 38 When handed in at Local Office 30th December 38 Port of MiddlesbroughNo. in Reg. Book. Survey held at Stockton Date, First Survey October 3rd Last Survey December 21 1938

on the

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(Number of Visits 17)

Gross
Tons
Net

Master Built at Harston Hill By whom built Furness S.B. Co. Ld. Yard No. 284 When built 1939.

Engines made at Sunderland By whom made W. Donford Sons Ltd Engine No. 209 When made 1939.

Boilers made at Stockton By whom made Stockton C.E. & Nelly Brothers Ltd Boiler No. 6296 When made 1938.

Nominal Horse Power 684 Owners British Tanker Co. Ld. Port belonging to London

Composite

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland Ltd. (Letter for Record)

Total Heating Surface of Boilers 1355 1330. 41. Is forced draught fitted Yes. Coal or Oil fired oil

No. and Description of Boilers 1. D.B. S.B. Working Pressure 150

Tested by hydraulic pressure to 275 Date of test 21.12.38 No. of Certificate 6962 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Lever Spring.

Area of each set of valves per boiler per Rule 16.3 as fitted 19.2 Pressure to which they are adjusted 150 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 Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating (Rhs in upper room) Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 13'-4 1/2" Length 11'-6" Shell plates: Material S Tensile strength 30-34.

Thickness 7/8" Are the shell plates welded or flanged No. Description of riveting: circ. seams end D.R. inter.

long. seams T.R. D.B.S. Diameter of rivet holes in circ. seams 1" 5/16. Pitch of rivets 3 1/4" 6 3/8"

Percentage of strength of circ. end seams plate 69.2. rivets 42.4. Percentage of strength of circ. intermediate seam plate 85.8. rivets 85.5.

Percentage of strength of longitudinal joint plate 85.8. rivets 85.5. Working pressure of shell by Rules 151.8

Thickness of butt straps outer 2 1/32" inner 25/32" No. and Description of Furnaces in each Boiler 2 Cf. (Centre C.C. exhaust heated).

Material S. Tensile strength 26-30. Smallest outside diameter 38 1/4"

Length of plain part top bottom Thickness of plates crown 13/32" bottom 13/32" Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 150.6

End plates in steam space: Material S. Tensile strength 26-30 Thickness 1 1/32" Pitch of stays 18" x 18"

How are stays secured D.N. & washers 6" x 1/2" Working pressure by Rules 152.

Tube plates: Material front S. back S. Tensile strength 26-30 Thickness 7/8" 5/8"

Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13 1/4" Working pressure front 163 back 156

Girders to combustion chamber tops: Material S. Tensile strength 28-32. Depth and thickness of girder

at centre 7 7/8" x 1 1/4" Length as per Rule 2'-3 1/16" Distance apart 8 3/4" No. and pitch of stays

in each 2 @ 7 1/2" Working pressure by Rules 176 Combustion chamber plates: Material S.

Tensile strength 26-30 Thickness: Sides 7/8" Back 3/4" Top 7/8" Bottom 5/8"

Pitch of stays to ditto: Sides 9" x 9 3/8" Back 11 1/8" x 9 3/8" Top 8 3/4" x 7 1/2" Are stays fitted with nuts or riveted over in nests.

Working pressure by Rules 160 Front plate at bottom: Material S. Tensile strength 26-30

Thickness 7/8" Lower back plate: Material S. Tensile strength 26-30 Thickness 3/4"

Pitch of stays at wide water space F 13 1/4" B. 13 7/8" x 9" Are stays fitted with nuts or riveted over nuts

Working Pressure 160 Main stays: Material S. Tensile strength 28-32.

Diameter At body of stay, 2 7/8" No. of threads per inch 6 Area supported by each stay 324 0"

Working pressure by Rules 153. Screw stays: Material S. Tensile strength 26-30

Diameter At turned off part, 1 1/2" B 1 1/2" Sides 1 7/8" No. of threads per inch 9 Area supported by each stay 78.8"

Working pressure by Rules 160 Are the stays drilled at the outer ends 110 Margin stays: Diameter { At turned off part, or Over threads 1 7/8" ✓
No. of threads per inch 9 Area supported by each stay 110 Working pressure by Rules 151
Tubes: Material lap welded iron External diameter { Plain W 2 1/2" C 2" Thickness { W 9/16" C 7/8" No. of threads per inch 10 W 4 ✓
Pitch of tubes W 5 3/4" x 3 3/4" C 3" x 3" Working pressure by Rules 175 Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 9 1/2" No. of rivets and diameter of rivet holes 32 @ 1 1/4" ✓
Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 2 3/8" 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 22 inclusive for boilers been complied with yes.

For and on behalf of
The foregoing is a correct description,
STOKTON CUM GRANGE ENGINEERS & RILEY BOILER CO. LTD.

Manufacturer.

Dates of Survey { During progress of work in shops - - } Oct. 2, 19, 25 Nov. 2, 10, 21, 24, 25, 28, 30 Dec. 14, 24
while building { During erection on board vessel - - } _____
Total No. of visits _____

Are the approved plans of boiler and superheater forwarded herewith 17/6/37
(If not state date of approval.)

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Boiler 6396 Childs Rpt. No 16467

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been made under special survey in accordance with the approved plan & requirements of the Rules.
The materials & workmanship are good & a satisfactory hydraulic test has been carried out.
The boiler is to be forwarded to Sunderland for fitting on board.

This boiler has been securely fitted on board the vessel
examined under steam & safety valves adjusted in accordance with rule requirements.

In recommendation please see memo, Rpt.

W. H. R. R. R.

Survey Fee ... £ 14 : 8 : 0

When applied for, 21/12/1936

Travelling Expenses (if any) £ : :

When received, 23/2/1937

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 7 MAR 1937

Assigned

See R.E. machy rpt.



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