

REPORT ON BOILERS.

No. 63981

15 SEP 1941

Received at London Office 25 JUN 1941

Date of writing Report

19

When handed in at Local Office

21. 6.

19

Port of

Glasgow

No. in Reg. Book. Survey held at

Glasgow

Date, First Survey 7. 10. 40

Last Survey 4. 6. 1941

on the

R.T.

Tug

"Empire Maple"

(Number of Visits 13)

Gross Tons

Net

Built at Thorne

By whom built

R Dunston Ltd.

Yard No. 358. When built

Engines made at

By whom made

Engine No. When made

Boilers made at

Glasgow

By whom made

John Thompson (Marine Bldg) Ltd

Boiler No. 5152 When made 1941

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Bolton & Co. Ltd.

(Letter for Record 5. ✓)

Total Heating Surface of Boilers

1356 ft².

Is forced draught fitted

Yes

Coal or Oil fired

Coal.

No. and Description of Boilers

1- Single ended.

Working Pressure 200 ✓

Tested by hydraulic pressure to

350.

Date of test

4-6-41

No. of Certificate

20770.

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

36.5.

No. and Description of safety valves to each boiler

2½ Double Spring.

Area of each set of valves per boiler

{per Rule 7.88." as fitted 4.8."}

Pressure to which they are adjusted

200 lbs/sq

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

2 feet

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

Open bottom.

Is the bottom of the boiler insulated

No.

Largest internal dia. of boilers

11'6"

Length

11'

Shell plates: Material

Steel.

Tensile strength

29-33.

Thickness

1½".

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

{end DR lat. inter. 3½" 7¾"}

long. seams

TRDSS.

Diameter of rivet holes in

{circ. seams 1½" long. seams}

Pitch of rivets

3½"

7¾"

Percentage of strength of circ. end seams

{plate 67.85. rivets 43.68.}

Percentage of strength of circ. intermediate seam

{plate 85.48. rivets 92.47.}

Percentage of strength of longitudinal joint

{plate 85.48. rivets 92.47. combined 89.45.}

Thickness of butt straps

{outer 2½" inner 2¾"}

No. and Description of Furnaces in each Boiler

2 Morrison

Material

Steel

Tensile strength

26-30.

Smallest outside diameter

3' 5½"

Length of plain part

{top bottom}

Thickness of plates

{crown 19/32. bottom 3/32.}

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

✓

End plates in steam space: Material

Steel

Tensile strength

26-30.

Thickness

1½".

Pitch of stays

14 x 13½"

How are stays secured

Double nut.

Tube plates: Material

{front back} Steel.

Tensile strength

26-30.

Thickness

28. ¾"

Mean pitch of stay tubes in nests

8.8"

Pitch across wide water spaces

13½"

Girders to combustion chamber tops: Material

Steel.

Tensile strength

28-32.

Depth and thickness of girder

at centre

2@ 8½" x 7/8".

Length as per Rule

2'6"

Distance apart

8"

No. and pitch of stays

in each

3 - 7½"

Combustion chamber plates: Material

Steel.

Tensile strength

26-30.

Thickness: Sides

1/16"

Back

1/16"

Top

19/32"

Bottom

1/16"

Pitch of stays to ditto: Sides

7½" x 8"

Back

8½" x 8½"

Top

7½" x 8"

Are stays fitted with nuts or riveted over.

Yes.

Front plate at bottom: Material

Steel.

Tensile strength

26-30.

Thickness

28"

Lower back plate: Material

Steel.

Tensile strength

26-30.

Thickness

13/16"

Pitch of stays at wide water space

13½"

13¾"

in plan

Are stays fitted with nuts or riveted over

Yes.

Main stays: Material

Steel.

Tensile strength

28-32.

Diameter

{At body of stay, or Over threads} 2½"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

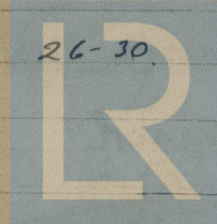
26-30.

Diameter

{At turned off part, or Over threads} 1½" x 1 1/8"

No. of threads per inch

9



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Are the stays drilled at the outer ends No. ✓ Margin stays: Diameter { At turned off part, 1 1/2 or Over threads 1 1/2 ✓
No. of threads per inch 9 ✓
Tubes: Material SD steel ✓ External diameter { Plain 2 3/4 ✓ Stay 2 3/4 ✓ Thickness { 8/16 = 1/2 ✓ No. of threads per inch 9 ✓
Pitch of tubes 4 x 3 3/4 ✓ Manhole compensation: Size of opening in shell plate 16 x 20 ✓ Section of compensating ring 1'5" x 1 1/2" ✓ No. of rivets and diameter of rivet holes 44 @ 1 1/2" ✓
Outer row rivet pitch at ends 8 1/2" ✓ Depth of flange if manhole flanged 3 1/2" ✓ 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 _____ Thickness of crown _____ No. and diameter of stays _____
Inner radius of crown _____
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 forgings 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 _____
Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: tubes _____ forgings and 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 _____

The foregoing is a correct description,
R. McArthur FOR MESSRS JOHN THOMPSON (MARINE BOILERS) LTD. Manufacturer.

Dates of Survey { During progress of work in shops - - - 1940 Oct.: 7, 25 Dec.: 2 (1941 Jan 27) Are the approved plans of boiler and superheater forwarded herewith App. 5-7-40 ✓
while building { During erection on board vessel - - - Feb.: 13, 26 Mar.: 11 May: 8, 15, 22, 26 Total No. of visits 13 ✓
June: 2, 4

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey in accordance with the Society's Rules and the approved plan.
The material and workmanship are good.
The boiler is intended for Messrs R Dunston Ltd. No 358.

Survey Fee £ 9 : : When applied for, 24 JUN 1941
Travelling Expenses (if any) £ : : When received, 19

J.R. Dale
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 24 JUN 1941

Assigned Referred

TUE. 30 SEP 1941
See Hull &c
Lloyd's Register
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