

REPORT ON BOILERS.

No. 102881

Received at London Office

26 JUN 1945

Writing Report

19

When handed in at Local Office

17. 5. 1945

Port of NEWCASTLE-ON-TYNE

in Survey held at

NEWCASTLE-ON-TYNE.

Date, First Survey

(1944) Mar. 2nd

Last Survey

May 9th 1945

Book.

(Number of Visits 144)

Gross

1266

Tons

Net 773

on the

TANKER S/S "OLMA".

at WALLSEND.

By whom built

SWAN HUNTER & WIGHAM RICHARDSON.

Yard No. 1689. When built 1945.

Machinery made at NEPTUNE WORKS WALKER.

By whom made

SWAN HUNTER & WIGHAM RICHARDSON.

Engine No. 1766. When made 1945.

Boilers made at NEPTUNE WORKS WALKER.

By whom made

SWAN HUNTER & WIGHAM RICHARDSON.

Boiler No. 1766. When made 1945.

Indicated Horse Power

137.

Owners

THE ADMIRALTY.

Port belonging to

DONKEY

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR

Manufacturers of Steel APPLEBY FRODINGHAM, LINES & STEEL CO OF SCOTLAND.

(Letter for Record S.

Total Heating Surface of Boilers

2056 sq. ft.

Is forced draught fitted

YES.

Coal or Oil fired

OIL.

Type and Description of Boilers

ONE - SINGLE ENDED CYLINDRICAL MULTITUBULAR.

Working Pressure 180 lbs/sq. in.

Tested by hydraulic pressure to 320 lbs/sq. in. Date of test 30.5.44. No. of Certificate 1108. Can each boiler be worked separately

Area of Firegrate in each Boiler OIL BURNING.

No. and Description of safety valves to each boiler

ONE - 2 1/2" COCKBURN IMPROVED HIGH LIFT (DOUBLE VALVE)

Area of each set of valves per boiler

per Rule

7.5 sq. in.

as fitted

8.29 sq. in.

Pressure to which they are adjusted

180 lbs/sq. in.

Are they fitted with easing gear

YES.

In case of donkey boiler, state whether steam from main boilers can enter the donkey boiler

NO.

Smallest distance between boilers or uptakes and bunkers or woodwork

1'-3".

Is oil fuel carried in the double bottom under boiler

YES.

Smallest distance between shell of boiler and tank top plating

2'-0".

Is the bottom of the boiler insulated

YES.

Largest internal dia. of boilers

12'-9".

Length

11'-7 27/32".

Shell plates: Material

STEEL.

Tensile strength 30/34 T/D.

Thickness

63/64"

Are the shell plates welded or flanged

NO.

Description of riveting: circ. seams

end

DOUBLE RIVETED LAP.

Long. seams TREBLE RIVETED DOUBLE BUTT STRAP.

Diameter of rivet holes in

circ. seams

1 3/32".

long. seams

1 1/16".

Pitch of rivets

3'45".

Percentage of strength of circ. end seams

plate

68.34%.

rivets

42.35%.

Percentage of strength of circ. intermediate seam

plate

.

rivets

.

Percentage of strength of longitudinal joint

plate

85.83%.

rivets

86.31%.

combined

88.92%.

Thickness of butt straps

outer

3/4".

inner

7/8".

No. and Description of Furnaces in each Boiler

3 MORISON TYPE.

Material

STEEL.

Tensile strength

26/30 T/D.

Smallest outside diameter

2'-11 1/32".

Length of plain part

top

10 5/16".

bottom

10 5/16".

Thickness of plates

crown

29/64".

bottom

29/64".

Description of longitudinal joint

FIREWELDED.

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

End plates in steam space: Material

STEEL.

Tensile strength

26/30 T/D.

Thickness

1 3/32".

Pitch of stays 17 1/2" x 15".

How are stays secured SCREWED INTO BOTH PLATES. NUTS ON OUTSIDE ONLY.

Tube plates: Material

front

STEEL.

back

STEEL.

Tensile strength

26/30 T/D.

Thickness

15/16".

13/16" WING.

3/4" CENTRE.

Mean pitch of stay tubes in nests

9 3/8".

Pitch across wide water spaces

13 1/2" x 7 1/2".

Girders to combustion chamber tops: Material

STEEL.

Tensile strength

28/32 T/D.

Depth and thickness of girder

at centre

9 1/4" x 1 1/4".

Length as per Rule

32 15/32".

Distance apart

9 1/2".

No. and pitch of stays

in each

2 @ 10".

Combustion chamber plates: Material

STEEL.

Tensile strength

26/30 T/D.

Thickness: Sides

3/4".

Back

25/32".

Top

3/4".

Bottom

3/4".

Pitch of stays to ditto: Sides

9 1/4" x 7 1/2".

Back

9 1/4" x 8 1/4".

Top

10 x 9 1/2".

Are stays fitted with nuts or riveted over

CC BACK MARGINAL STAYS NUTTED. REMAINDER RIVETED OVER.

Front plate at bottom: Material

STEEL.

Tensile strength

26/30 T/D.

Thickness

15/16".

Lower back plate: Material

STEEL.

Tensile strength

26/30 T/D.

Thickness

29/32".

Pitch of stays at wide water space

14 3/4" x 8 1/4".

Are stays fitted with nuts or riveted over

NUTTED.

Main stays: Material

STEEL.

Tensile strength

28/32 T/D.

Diameter

At body of stay,

2 3/4".

or

Over threads

2 1/2".

No. of threads per inch

6.

Screw stays: Material

STEEL.

Tensile strength

26/30 T/D.

Diameter

At turned off part,

2".

or

Over threads

1 7/8".

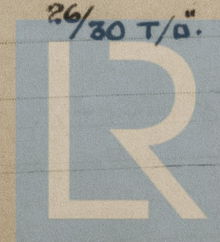
1 3/4".

1 5/8".

1 1/2".

No. of threads per inch

9.



© 2021

Lloyd's Register Foundation

014784 014793 0042

Are the stays drilled at the outer ends ☒ NO. ✓ Margin stays: Diameter { At turned off part, or Over threads 2" 1 7/8" 1 3/4" ✓

No. of threads per inch 9. ✓

Tubes: Material WROUGHT IRON. External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 9. W.G. 3/8" 5/16" 1/4" ✓ No. of threads per inch 9. ✓

Pitch of tubes 3 3/4" x 3 3/4" ✓ Manhole compensation: Size of opening

shell plate NONE. ✓ 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 NONE. ✓

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

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 NONE. ✓ 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,
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. Manufacturer

Dates of Survey { During progress of work in shops - - } while building { During erection on board vessel - - - } See Machy report.

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

Total No. of visits ✓

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 constructed under Special Survey and in accordance with the Approved plans, and the materials and workmanship are good.

The boiler has been efficiently installed on board the vessel and tested under working conditions.

Survey Fee ... £ 15 : 14 : 0. When applied for, 19

Travelling Expenses (if any) £ : : : When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 6 JUL 1945

Assigned See F.E. machy. rpt.