

REPORT ON BOILERS.

No. 52415.

4 MAY 1944

Received at London Office

FEB 1944

Date of writing Report

19

When handed in at Local Office

19

Port of HULL

No. in Survey held at

HULL.

Date, First Survey

24. 1. 44

Last Survey

21. 4. 1944

Reg. Book.

on the STEAM TUG

EMPIRE JILAS

A/MS 711

(Number of Visits

19)

Tons

Gross 274.35

Net

NIL

Built at SELBY

By whom built

Cochrane & Sons Ltd

Yard No. 1279

When built 1944

Engines made at HULL

By whom made

Ainsworth & Smith Ltd

Engine No. 737

When made

Boilers made at HULL

By whom made

Ainsworth & Smith Ltd

Boiler No. 737

When made

Nominal Horse Power 132

Owners

Ministry of War Transport

Port belonging to

managed by Overseas Transport & Salvage Co. Ltd. London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Chiller's and Appleby Farnham Steel Co Ltd

(Letter for Record

S

Total Heating Surface of Boilers

2390 sq ft

Is forced draught fitted

No

Coal or Oil fired

OIL FUEL

No. and Description of Boilers

One S.B.

Working Pressure 200 lbs/sq in

Tested by hydraulic pressure to 350 lb/sq in

Date of test 8.2.44

No. of Certificate 4219

Can each boiler be worked separately

Area of Firegrate in each Boiler

— (or) No. and Description of safety valves to each boiler

2 Spring Loaded Ordinary

Area of each set of valves per boiler

per Rule 13.90

Pressure to which they are adjusted 200 lbs/sq in

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'-6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

None

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-6 1/4"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength 29-33 tons/sq in

Thickness

1 3/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R. Lap

long. seams

T.R.

D.B.S.

Diameter of rivet holes in

circ. seams

1 13/32"

Pitch of rivets

4 3/16"

Percentage of strength of circ. end seams

plate 66.4%

rivets 42.7%

Percentage of strength of circ. intermediate seam

plate 85.4%

rivets 85%

Percentage of strength of longitudinal joint

plate 85.4%

rivets 85%

combined 90.15%

Thickness of butt straps

outer 1 1/16"

inner 1 3/16"

No. and Description of Furnaces in each Boiler

3 C.F. Deighton Section

Material

Steel

Tensile strength

26-30 tons/sq in

Smallest outside diameter

3'-11 3/8"

Length of plain part

top —

bottom —

Thickness of plates

crown 1 1/16"

bottom 1 1/16"

Description of longitudinal joint

Weld

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

None

End plates in steam space: Material

Steel

Tensile strength 26-30 tons/sq in

Thickness

1 3/16"

Pitch of stays 18 3/4" x 18 1/2" mean

How are stays secured

Nuts inside and out

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 tons/sq in

Thickness

1 5/16"

Mean pitch of stay tubes in nests

9 1/2" x 9 1/2"

Pitch across wide water spaces

14 1/4" x 9 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength 29-33 tons/sq in

Depth and thickness of girder

at centre

9 1/2" x 7 1/8" double

Length as per Rule

2'-11"

Distance apart

9"

No. and pitch of stays

in each

3 at 8 3/4"

Combustion chamber plates: Material

Steel

Tensile strength 26-30 tons/sq in

Thickness: Sides

3/4"

Back

23/32"

Top

23/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 1/2" x 8 3/4"

Back

9 1/2" x 8 1/2"

Top

9" x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts

Front plate at bottom: Material

Steel

Tensile strength 26-30 tons/sq in

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength 26-30 tons/sq in

Thickness

7/8"

Pitch of stays at wide water space

14 1/4" x 8 1/2"

Are stays fitted with nuts or riveted over

Nuts

Main stays: Material

Steel

Tensile strength 28-32 tons/sq in

Diameter

At body of stay, or over threads

3 1/4"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength 26-30 tons/sq in

Diameter

At turned off part, or over threads

1 3/4"

No. of threads per inch

9

Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 7/8" & 2"
No. of threads per inch 9 ✓
Tubes: Material Iron ✓ External diameter { Plain 3 1/2" Stay 3 1/2" Thickness { 8 w.g 5/16" No. of threads per inch 9
Pitch of tubes 4 3/4" ✓ Manhole compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 1 3/8" x 15" ✓ No. of rivets and diameter of rivet holes 28 at 1 13/32"
Outer row rivet pitch at ends 9 7/8" ✓ Depth of flange if manhole bottom 3 3/8" ✓ 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 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 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

Yes

For **AMOS & SMITH LTD.**
The foregoing is a correct description,

A. R. Dewdney Manufacturer.
DIRECTOR

Dates of Survey { During progress of work in shops - - - 1944 Jan. 24, Feb. 8, 23, 24, 29, Mar. 13. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 3.7.41.
while building { During erection on board vessel - - - See machinery dept. Total No. of visits 19.

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Empire Pat, Hull Rpt No. 51664

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

The Boiler has been constructed under Special Survey in accordance with the Rules and the approved plan.

The workmanship and materials are good and when subjected to an hydraulic test of 350 lb/sq. it was found satisfactory in every respect.

This boiler installed in 'Empire Silas' at Hull, examined under steam, safety valves adjusted as overleaf, accumulation test held and found satisfactory on completion of all tests.
W. S. Shields

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

J. P. McLean
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 12 MAY 1944

Assigned

See machinery dept.



© 2021

Lloyd's Register
Foundation