

REPORT ON BOILERS.

No. 52519.

09 JULY 1944

Received at London Office

24 JUL 1944

Date of writing Report

19

When handed in at Local Office

19

Port of HULL

No. in
Reg. Book.

Survey held at HULL.

Date, First Survey

17. 9. 43.

Last Survey

4. 7.

19 44

on the STEAM TUG

[NTICER

A/MS 790

(Number of Visits

42)

Tons

Gross 762.24

Net 77.82

Built at SELBY

By whom built

Cochrane & Son Ltd

Yard No. 1282

When built 1944

Engines made at

HULL

By whom made

Chas. D. Holmes Ltd

Engine No. 1672

When made

Boilers made at

HULL

By whom made

Chas. D. Holmes Ltd

Boiler No. 1672

When made

Nominal Horse Power

269

Owners

The Admiralty

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley Frodingham Steel Co Ltd

(Letter for Record

S

Total Heating Surface of Boilers

4300 sq ft

(2 Boilers @ 2150)

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Two S.B.

Working Pressure

220 lb/sq in

Tested by hydraulic pressure to

380 lb/sq in

Date of test

2 1/2/44

No. of Certificate

4221

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

—

O.F.

No. and Description of safety valves to each boiler

Double, Spring loaded high lift

Area of each set of valves per boiler

(per Rule

9.5 sq ft

as fitted

9.8 sq ft

Pressure to which they are adjusted

220 lb/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

No.

Largest internal dia. of boilers

13'-9"

Length

11'-2"

Shell plates: Material

Steel

Tensile strength

30-34 tons/sq in

Thickness

1 1/4"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

33/4"

long. seams

T.R., D.B.S.

Diameter of rivet holes in

circ. seams

1 5/16"

long. seams

1 3/32"

Pitch of rivets

9 1/4"

Percentage of strength of circ. end seams

plate

65.0%

rivets

42.65%

Percentage of strength of circ. intermediate seam

plate

85.4%

rivets

Percentage of strength of longitudinal joint

plate

85.4%

rivets

84.95%

combined

87.94%

Thickness of butt straps

{ outer

1"

{ inner

1 1/8"

No. and Description of Furnaces in each Boiler

3 of. Slighton section

Material

Steel

Tensile strength

26-30 tons/sq in

Smallest outside diameter

3'-3"

Length of plain part

{ top

{ bottom

Thickness of plates

{ crown

{ bottom

5/8"

Description of longitudinal joint

Weld

Dimensions of stiffening rings on furnace or on bottom

—

End plates in steam space: Material

Steel

Tensile strength

26-30 tons/sq in

Thickness

1 5/32"

Pitch of stays

18 1/2" x 7"

How are stays secured

Nuts inside and out, large washers outside

Tube plates: Material

{ front

Steel

{ back

Steel

Tensile strength

26-30 tons/sq in

Thickness

1 5/16"

7/8"

Mean pitch of stay tubes in nests

8 1/2" x 8 1/2"

Pitch across wide water spaces

13" x 8 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons/sq in

Depth and thickness of girder

at centre

9" x 7/8" double

Length as per Rule

2'-6 5/32"

Distance apart

10 1/2"

No. and pitch of stays

in each

3 at 7 1/2"

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons/sq in

Thickness: Sides

23/32"

Back

23/32"

Top

23/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/2"

Back

9 1/4" x 8 3/4"

Top

10 1/2" x 7 1/2"

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

13 1/2" x 9 1/4"

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

Steel

Tensile strength

28 tons minimum

Diameter

{ At body of stay,

or

3 1/8"

No. of threads per inch

8

Screw stays: Material

Steel

Tensile strength

26-30 tons/sq in

Diameter

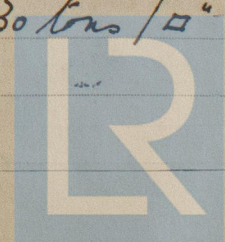
{ At turned off part,

or

1 3/4"

No. of threads per inch

10



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Lloyd's Register
Foundation

W1003-0193

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

No. of threads per inch 10.

Tubes: Material L.W. Ron External diameter { Plain 3" Stay 3" Thickness { 5/16" 8 w.g. 3/8" No. of threads per inch 9.

Pitch of tubes 4 1/4" x 4 1/4" Manhole compensation: Size of opening in shell plate 12" (x 16") Section of compensating ring 12 5/16" x 1 9/16" No. of rivets and diameter of rivet holes 16 at 1 1/32"

Outer row rivet pitch at ends 9 1/4" Depth of flange if ~~manhole~~ Bottom flanged 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

The foregoing is a correct description.
FOR CHARLES D. HOLLIES & CO., LTD.
W.R. Evans Manufacturer.

Dates of Survey { During progress of work in shops - Sept. 17. 28. Oct. 16, 19. 20. 22. 26. Dec. 10. Are the approved plans of boiler and superheater forwarded herewith 15. 3. 43
while building { During erection on board vessel - Jan. 3. 5. 6. 14. 20. Feb. 3. 11. 12. 14. 15. 21. 24. 29. (If not state date of approval.)
Mar. 2 See machinery report. Total No. of visits 42.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "ENVOY" HULL RPT. NO 52467

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

These boilers have been constructed under Special Survey in accordance with the approved Admiralty plans and the Rules.

The workmanship and materials are good and when subjected to an hydraulic test of 380 lb they were found satisfactory in every respect.

Boilers examined under steam, safety valves adjusted as overleaf, accumulation test held and boilers found satisfactory in all respects on completion of tests.

Survey Fee £ : : When applied for, 19

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

W. Shields & J. Stearn
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 1 AUG 1944

Assigned see minute on J.E. Rpt.