

REPORT ON BOILERS.

No. 52090.

Date of writing Report

7-5-43.

19

When handed in at Local Office

5 AUG 1943

Received at London Office

5 AUG 1943

Port of HULL.

No. in Survey held at

HULL.

Reg. Book.

Date, First Survey

14. 10. 42.

Last Survey

8. 4. 43.

1943.

on the H.M. Trawler

GRILSE.

(Number of Visits 26)

Gross 391

Tons Net 128

Built at SELBY

By whom built

Cochrane & Co. Ltd

Yard No. 1264. When built 1943

Engines made at HULL.

By whom made

Auns & Smith Ltd

Engine No. 721 When made

Boilers made at HULL.

By whom made

Auns & Smith Ltd

Boiler No. 721. When made

Nominal Horse Power 125.

Owners

THE ADMIRALTY.

Port belonging to

✓

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley Frodingham Steel Co. Ltd. and Colville.

(Letter for Record S.

Total Heating Surface of Boilers

1873.

Is forced draught fitted Yes

Coal or Oil fired Coal

No. and Description of Boilers

One S.B.

Working Pressure 210 lb./sq. in.

Tested by hydraulic pressure to

365 lb./sq. in.

Date of test

26-3-43.

No. of Certificate

4184.

Can each boiler be worked separately

Area of Firegrate in each Boiler

50 sq. ft.

No. and Description of safety valves to each boiler

2 Spring loaded.

Area of each set of valves per boiler

per rule

12.57 sq. in.

as fitted

14.12 sq. in.

Pressure to which they are adjusted

210 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

9".

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

14'-3 1/2"

Length

10'-6"

Shell plates: Material Steel

Tensile strength 31-35 ton/in.

Thickness

1 1/2".

Are the shell plates welded or flanged No.

Description of riveting: circ. seams

D.R. lap.

long. seams T.R., D.B.S.

Diameter of rivet holes in

circ. seams

1 7/16"

long. seams

1 1/32"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

64.9%

rivets

42.8%

Percentage of strength of circ. intermediate seam

plate

85.1%

rivets

85.8%

Percentage of strength of longitudinal joint

plate

85.1%

rivets

85.8%

combined

87.66%

Thickness of butt straps

outer

3 1/2"

inner

1 3/2"

No. and Description of Furnaces in each Boiler

3 @ 1 ft. diameter

Material Steel

Tensile strength

26-30 ton/in.

Smallest outside diameter

3'-6 3/4"

Length of plain part

top

bottom

Thickness of plates

crown

7/8"

bottom

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 ton/in.

Thickness

1 3/2"

Pitch of stays

17" x 17 1/2"

How are stays secured

Nuts & washers inside and out.

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 ton/in.

Thickness

1 5/16"

Pitch of stays

17" x 17 1/2"

Lean pitch of stay tubes in nests

9 1/2" x 9 1/2"

Pitch across wide water spaces

14" x 9"

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 ton/in.

Depth and thickness of girder

9" x 7/8" Double

at centre

9" x 7/8" Double

Length as per Rule

2'-10 3/32"

Distance apart

8"

No. and pitch of stays

each

3 @ 8 1/4"

Combustion chamber plates: Material Steel

Tensile strength

26-30 ton/in.

Thickness: Sides

2 3/32"

Back

2 3/32"

Top

2 1/32"

Bottom

2 5/32"

Pitch of stays to ditto: Sides

8 1/2" x 9 3/4"

Back

9 1/2" x 9"

Top

8 1/2" x 8"

Are stays fitted with nuts or riveted over

Nuts.

Front plate at bottom: Material

Steel

Tensile strength

26-30 ton/in.

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

26-30 ton/in.

Thickness

7/8"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

Nuts.

Main stays: Material

Steel

Tensile strength

28-32 ton/in.

Diameter

At body of stay,

3"

or

Over threads

No. of threads per inch

6

New stays: Material

Steel

Tensile strength

26-30 ton/in.

Diameter

At turned off part,

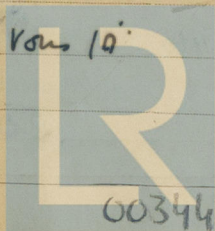
1 3/4"

or

Over threads

No. of threads per inch

9.



© 2020

Lloyd's Register

003444-003444

Are the stays drilled at the outer ends No.

Margin stays: Diameter { At turned off part, 1 3/4" or 1 7/8" Over threads 2"

No. of threads per inch 9.

Tubes: Material L.W. Iron. External diameter { Plain 3 1/4" Stay 3 1/2"

Thickness { 8 W.G. 5/16" 3/8" 7/16" No. of threads per inch 9.

Pitch of tubes 4 1/2" x 4 5/8"

Manhole compensation: Size of opening in

shell plate 12" (x16")

Section of compensating ring 35 5/8" x 1 1/4"

No. of rivets and diameter of rivet holes 122 @ 1 1/32"

Outer row rivet pitch at ends 10-45

Depth of flange if Bottom manhole flanged 3 3/8"

Steam Dome: Material NONE.

Tensile strength

Thickness of shell

Description of longitudinal joint

Diameter of rivet holes 2031

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

For AMOS & SMITH LTD.

The foregoing is a correct description,

A.H. Keenley Manufacturer.

Director

Dates of Survey { During progress of work in shops - - - while building { During erection on board vessel - - -

1902
Oct 14. Dec 29. 31.

1903
Jan. 14. Mar 19. 26.

Are the approved plans of boiler and superheater forwarded herewith 13-8-41.

(If not state date of approval.)

June 25. 9 as on mch. report.

Total No. of visits

26.

Is this Boiler a duplicate of a previous case Yes.

If so, state Vessel's name and Report No. H.M.T. BREAM.

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

This Boiler has been constructed under Special Survey in accordance with the approved Admiralty Plan and the Rules.

The Workmanship and Materials are good and, when subjected to a hydraulic pressure of 365 lbs 10' it was found satisfactory in every respect.

Boiler installed onboard under Special Survey, examined under working conditions, safety valves adjusted as overleaf, accumulation test held, and afterwards examined on completion of all tests when all was found satisfactory in every respect. W.S. Shields.

Survey Fee ... £ ... Travelling Expenses (if any) £ ...

When applied for, 19 ... When received, 19 ...

J. Philpott
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 20 AUG 1943

Assigned see minute on J.B. Rph.

© 2020 Lloyd's Register Foundation