

REPORT ON BOILERS.

No. 52672.

Received at London Office

83 DEC 1944

of writing Report

When handed in at Local Office

12 DEC 1944

Port of HULL.

in Survey held at HULL.

Date, First Survey 12. 1. 44

Last Survey 3. 12. 1944

on the STEAM TUG.

ENFORCER. A/MS. 792

(Number of Visits 49.)

Gross 762.24
Tons Net 77.82

at SELBY.

By whom built Cochrane & Sons Ltd

Yard No. 1288 When built 1944

es made at HULL.

By whom made Chas. J. Holmes Ltd

Engine No. 1680 When made 4

s made at HULL.

By whom made Chas. J. Holmes Ltd

Boiler No. 1680 When made 4

Horse Power 269

Owners The Admiralty

Port belonging to

L TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co. Ltd.

(Letter for Record 5. ✓)

Heating Surface of Boilers 4300 sq. ft. (2150 each BL) Is forced draught fitted Yes. ✓

Coal or Oil fired Oil ✓

Description of Boilers Two S.B. ✓

Working Pressure 220 lb/sq. in. ✓

Tested by hydraulic pressure to 380 lb/sq. in. Date of test 15. 9. 44. No. of Certificate 4234. Can each boiler be worked separately Yes. ✓

of Firegrate in each Boiler — (0 ft.) No. and Description of safety valves to each boiler Two Spring loaded High Lift. ✓

of each set of valves per boiler {per Rule 9.5 lb. 7.6 lb. in ordinary HL. Pressure to which they are adjusted 220 lb/sq. in. ✓

se of donkey boilers, state whether steam from main boilers can enter the donkey boiler. None

Least distance between boilers or uptakes and bunkers or woodwork 1'-6" ✓

Is oil fuel carried in the double bottom under boilers No ✓

Least distance between shell of boiler and tank top plating —

Is the bottom of the boiler insulated No ✓

Least 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 B.R. lap. ✓

seams T.R., D.B.S. ✓

Diameter of rivet holes in {circ. seams 1 5/16" ✓

{long. seams 1 1/2" ✓

Pitch of rivets {3 3/4" ✓

{9 1/4" ✓

Percentage of strength of circ. end seams {plate 64.8% ✓

{rivets 42.7% ✓

Percentage of strength of circ. intermediate seam {plate —

{rivets —

Percentage of strength of longitudinal joint {plate 85.4% ✓

{rivets 85.2% ✓

{combined 87.8% ✓

Thickness of butt straps {outer 1" ✓

{inner 1 1/8" ✓

No. and Description of Furnaces in each Boiler 3. Deighton C.F. ✓

Material Steel ✓

Tensile strength 26-30 tons/sq. in. ✓

Smallest outside diameter 3'-3" ✓

Thickness of plates {crown 5/8" ✓

{bottom 5/8" ✓

Description of longitudinal joint Welded ✓

Positions of stiffening rings on furnace or c.c. bottom —

Plates in steam space: Material Steel ✓

Tensile strength 26-30 tons/sq. in. ✓

Thickness 1 5/32" ✓

Pitch of stays 18 1/2" x 17" ✓

Are stays secured Nuts inside and out. Large Washers outside ✓

plates: Material {front Steel ✓

{back Steel ✓

Tensile strength {26-30 tons/sq. in. ✓

Thickness {1 5/16" ✓

{7/8" ✓

Pitch of stay tubes in nests 8 1/2" x 8 1/2" ✓

Pitch across wide water spaces 13" x 8 1/2" ✓

Plates to combustion chamber tops: Material Steel ✓

Tensile strength 29-33 tons/sq. in. ✓

Depth and thickness of girder

Size 9" x 7/8" Double ✓

Length as per Rule 2'-6 7/32" ✓

Distance apart 10 1/2" ✓

No. and pitch of stays

3 @ 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. ✓

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. ✓

Stays: Material Steel ✓

Tensile strength 28 tons/sq. in. ✓

At body of stay, or Over threads 3 1/8" ✓

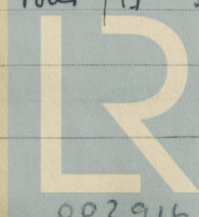
No. of threads per inch 8. ✓

Stays: Material Steel ✓

Tensile strength 26 tons/sq. in. ✓

At turned off part, or Over threads 1 3/4" ✓

No. of threads per inch 10. ✓



© 2020

Lloyd's Register
Foundation

ENFORCED.

Are the stays drilled at the outer ends NO.Margin stays: Diameter { At turned off part, 1 7/8" or 2"-2 1/4"
Over threadsNo. of threads per inch 10.Tubes: Material L/W. Iron External diameter { Plain 3"
Stay 3"Thickness { 8.W.G.
5/16" 3/8" No. of threads per inch 9.Pitch of tubes 4 1/4" x 4 1/4"

Manhole compensation: Size of opening

shell plate 12" (x 16") Section of compensating ring 12 5/16" x 1 9/64" No. of rivets 16 @ 1 1/32"Outer row rivet pitch at ends 9 1/4" Depth of flange if Bottom 3 3/8" Steam Dome: Material NoneTensile strength — Thickness of shell — Description of longitudinal jointDiameter of rivet holes — Pitch of rivets — Percentage of strength of joint { Plate —
Rivets —Internal diameter — Thickness of crown —stays — Inner radius of crown —How connected to shell — Size of doubling plate under dome — Diameter of rivet holes and

of rivets in outer row in dome connection to shell

Type of Superheater NoneManufacturers 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 offthe boiler be worked separately — Is a safety valve fitted to every part of the superheater which can be shut off from the boilerArea 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 cocksvalves 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,

W.R. Evans ManufactDates { During progress of 1944 Jan. 12-14, 25-29. Apr. 22-25, 27-28. May 13-18, 22. June 2, 6-15.
work in shops -- July 7-10, 14. Aug 14. 19-25, 29.
while building { During erection on Sept. 1-8-15.
board vessel -- See Rpt H. Are the approved plans of boiler and superheater forwarded herewith 15-3-
(If not state date of approval.) Total No. of visits 49.Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. ENVOY HULL RP: 5246

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

The 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 lbs 10" they were found satisfactory in every respect. Boilers examined under pressure, Safety Valves adjusted as overleaf.

Accumulation tests 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. H. ...
Engineer Surveyor to Lloyd's Register of ShippingCommittee's Minute FRI. 12 JAN 1945Assigned Su F.E. machy. r.p.

© 2020

Lloyd's Register
Foundation