

## REPORT ON BOILERS.

No. 52462

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

14. 1. 44

Last Survey

2. 6. 44

19 44

on the Single Screw DAN-LAYER

"HASCOSAY"

J2741

(Number of Visits 20.)

Gross 154.4

Net 143.9

Built at Beverley

By whom built

Book, Wren &amp; Gemmell Ltd.

Yard No. 731

When built 1944

Engines made at Hull

By whom made Chas. D. Holmes Ltd.

Engine No. 1678 When made

Boilers made at HULL

By whom made Amos &amp; Co. Ltd.

Boiler No. 735 When made

Nominal Horse Power 156

Owners

The Admiralty

Port belonging to

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co. Ltd and Colvilles.

(Letter for Record S.)

Total Heating Surface of Boilers 2650 sq. ft.

Is forced draught fitted Yes.

Coal or Oil fired Coal

No. and Description of Boilers One S.B.

Working Pressure 200 lb./sq. in.

Tested by hydraulic pressure to 350 lb./sq. in.

Date of test 4-4-44

No. of Certificate 4223.

Can each boiler be worked separately

Area of Firegrate in each Boiler 63 sq. ft.

No. and Description of safety valves to each boiler 2 Spring loaded High Lift.

Area of each set of valves per boiler

per Rule 7.7.

as fitted 9.8.

Pressure to which they are adjusted 200 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 2'-0".

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'-9 3/8".

Length 11'-6".

Shell plates: Material Steel.

Tensile strength 29-33 tons/sq. in.

Thickness 1 5/16".

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 3/8".

long. seams 1 3/8".

Pitch of rivets 4".

Percentage of strength of circ. end seams

plate 65.6% rivets 44.7%

Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint

plate 85.5% rivets 88.5%

combined 88.8%.

Thickness of butt straps

outer 1".

inner 1 1/8".

No. and Description of Furnaces in each Boiler 3 - cf. Deighton section

Material Steel

Tensile strength 26-30 tons/sq. in.

Smallest outside diameter 3'-6 7/16".

Length of plain part

top

bottom

Thickness of plates

crown 1 9/32".

bottom 1 3/32".

Description of longitudinal joint Weld

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

End plates in steam space: Material Steel

Tensile strength 26-30 tons/sq. in.

Thickness 1 1/32".

Pitch of stays 21" x 20".

How are stays secured Nuts inside out.

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 tons/sq. in.

Thickness

25/32".

Mean pitch of stay tubes in nests 9 1/16".

Pitch across wide water spaces 13 5/8".

Girders to combustion chamber tops: Material Steel.

Tensile strength 28-32 tons/sq. in.

Depth and thickness of girder

at centre 8 1/4" x 1 7/8".

Length as per Rule 2'-7 1/32".

Distance apart 10 3/4".

No. and pitch of stays

in each 2 @ 9 7/8".

Combustion chamber plates: Material Steel

Tensile strength 26-30 tons/sq. in.

Thickness: Sides 25/32".

Back 3/4".

Top 25/32".

Bottom 25/32".

Pitch of stays to ditto: Sides 10 3/4" x 9 7/8".

Back 9 1/4" x 9 7/8".

Top 10 3/4" x 9 7/8".

Are stays fitted with nuts or riveted over Nuts.

Front plate at bottom: Material Steel

Tensile strength 26-30 tons/sq. in.

Thickness 7/8".

Lower back plate: Material Steel

Tensile strength 26-30 tons/sq. in.

Thickness 7/8".

Pitch of stays at wide water space 14 1/2" x 9 7/8".

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, 3 1/8".

Over threads

No. of threads per inch 6

Screw stays: Material Steel

Tensile strength 26-30 tons/sq. in.

Diameter

At turned off part, 1 7/8".

Over threads

No. of threads per inch 9

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Foundation

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Are the stays drilled at the outer ends No. ✓ Margin stays: Diameter { At turned off part, 2" or Over threads 2" ✓

No. of threads per inch 9. ✓

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

Pitch of tubes 3 7/8" x 3 7/8" ✓ Manhole compensation: Size of opening in shell plate 12" (x 16") ✓ Section of compensating ring 1 5/16" x 20" ✓ No. of rivets and diameter of rivet holes 15 @ 1 1/32" ✓

Outer row rivet pitch at ends 10 1/8" ✓ Depth of flange if manhole flanged 3 1/4" ✓ 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 \_\_\_\_\_

Area of each safety valve \_\_\_\_\_ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler \_\_\_\_\_

Pressure to which the safety valves are adjusted \_\_\_\_\_ Are the safety valves fitted with easing gear \_\_\_\_\_

tubes \_\_\_\_\_ forgings and castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Hydraulic test pressure: \_\_\_\_\_

valves fitted to free the superheater from water where necessary \_\_\_\_\_ Are drain cocks or \_\_\_\_\_

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. G. Atkinson Manufacturer.  
DIRECTOR

Dates of Survey { During progress of work in shops - - - 1944. Jan. 17. 19. 24. 28. Mar. 1. Apr. 4. ✓ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) ✓

while building { During erection on board vessel - - - See machinery rpt- Total No. of visits 20. ✓

Is this Boiler a duplicate of a previous case Yes. ✓ 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 in accordance with the approved Admiralty plans, and the Rules.

The Workmanship & Materials are good, and when subjected to a hydraulic test of 350 lb. sq. in. it was found satisfactory in every respect.

This boiler has been installed at Hull, examined under steam, safety valves adjusted as ordered, accumulation test held, and found satisfactory on completion of all tests.

Survey Fee ... £ : : When applied for, 19

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

W. S. Shindler & J. P. ...  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute MON. 19 JUN 1944

Assigned see minute on M.S. Rpt.