

REPORT ON BOILERS.

No. 51370

Received at London Office

28 OCT 1941

Date of writing Report

19

When handed in at Local Office

16 SEP 1941

Port of HULL.

No. in Reg. Book

Survey held at HULL.

Date, First Survey

J. H. H.

Last Survey

1941

(Number of Visits)

Gross 452

Net 142.

on H.M.T. PLADDA.

Built at BEVERLEY.

By whom built Messrs Cook Welter & Gemmell Ltd.

Yard No. 678. When built 1941

Engines made at HULL

By whom made Messrs C. D. Holmes Ltd

Engine No. 1589. When made 1941

Boilers made at HULL

By whom made Messrs C. D. Holmes Ltd

Boiler No. 1584A. When made 1941

Nominal Horse Power 156.

Owners THE ADMIRALTY

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland

(Letter for Record 5.

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 lbs./sq. in.

Tested by hydraulic pressure to 350 lbs./sq. in. Date of test 24-7-41 No. of Certificate 4108. Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 63 sq. ft. No. and Description of safety valves to each boiler 2. Spring loaded

Area of each set of valves per boiler { per Rule 15.4 sq. in. as fitted 16.6 sq. in. 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 Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 2'-0".

Is oil fuel carried in the double bottom under boilers None

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. inter. None

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" 9 1/2"

Percentage of strength of circ. end seams { plate 65.6% rivets 44.7%

Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate 85.5% rivets 88.5% combined 88.8%

Thickness of butt straps { outer 1 1/8" 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 1/16"

Length of plain part { top 19 1/2" bottom 19 1/2" Thickness of plates { crown 19 1/2" bottom 19 1/2" 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" max

How are stays secured Nuts inside & out.

Tube plates: Material { front Steel back Steel Tensile strength { 26/30 tons/sq. in. do. Thickness { 7/8" 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 1/2" Distance apart 10 3/4" No. and pitch of stays

in each 2 @ 9 3/8" 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 3/8" Back 9 1/4" x 9 3/8" Top 10 3/4" x 9 3/8" 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"

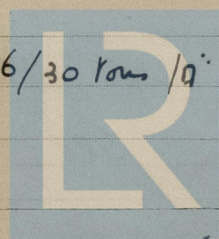
Pitch of stays at wide water space 14 1/2" x 9 3/8" Are stays fitted with nuts or riveted over Nuts.

Main stays: Material Steel Tensile strength 28/32 tons/sq. in.

Diameter { At body of stay, or Over threads 3 1/8" 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 7/8" No. of threads per inch 9.



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

No. of threads per inch 9

Tubes: Material Steel External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 8.W.G. 1/4" 5/16" 3/8" 7/16" No. of threads per inch 9

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

Outer row rivet pitch at ends 10 1/8" Depth of flange if Bottom 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 _____ 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 (2. 0. 01)

The foregoing is a correct description,
FOR CHARLES D. HOLMES & CO., LTD.
Manufacturer.

Dates of Survey { During progress of work in shops - - - See machinery rep. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) ✓

while building { During erection on board vessel - - - _____ Total No. of visits _____

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. H.M.T. BIRCH HUL. R.P. 50672

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 & the Rules.

The Workmanship & materials are good & when subjected to a hydraulic test of 350 lbs / sq it was found satisfactory in every respect.

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

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

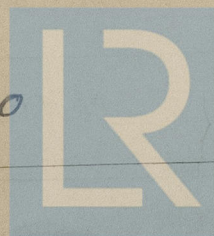
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 28 OCT 1941

See Hul 28. 51370



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