

Rpt. 5a.

REPORT ON BOILERS.

Sld. No. 30472
Hpl. No. 16940

Received at London Office

6 AUG 1930

Date of writing Report

19

When handed in at Local Office

2 OCT. 1930

Port of

West Hartlepool

No. in
Reg. Book.

Survey held at

Hartlepool

Date, First Survey

23 May

Last Survey

21 July

1930

on the

M.V.

NO 709.

M.V. "THORSHOLM"

(Number of Visits)

Gross

6748

Tons

4046

Master

Built at Dunderland

By whom built

Ding Lamig & Sons Ltd

Yard No. 709.

When built

1930

Engines made at

Dunderland

By whom made

W Dorsford & Sons Ltd

Engine No.

177

When made

1930

Boilers made at

Hartlepool

By whom made

Richardsons Westgarth & Co Ltd

Boiler No.

D208

When made

1930

Nominal Horse Power

96

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland Ltd.

(Letter for Record

S

Total Heating Surface of Boilers

1445 sq. ft.

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

One single ended

Working Pressure

150 lbs

Tested by hydraulic pressure to

275 lbs

Date of test

21.7.30

No. of Certificate

3787

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2 Marine type.

Area of each set of valves per boiler

per Rule

13.15

Pressure to which they are adjusted

150

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

3'-0"

Is oil fuel carried in the double bottom under boilers

yes

Smallest distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

Largest internal dia. of boilers

11'-4 5/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

24/32

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR Lap

long. seams

DR. DR. S.

Diameter of rivet holes in

circ. seams

1 1/2"

Pitch of rivets

3 1/2"

5 1/16" row 2 3/4" row

Percentage of strength of circ. end seams

plate 68.2
rivets 49.9

Percentage of strength of circ. intermediate seam

plate 81.8
rivets 80.6

Percentage of strength of longitudinal joint

plate 81.8
rivets 80.6
combined 80.6

Working pressure of shell by Rules

150 lbs

Thickness of butt straps

outer 13/16"
inner 13/16"

No. and Description of Furnaces in each Boiler

3 Furnaces

Material

Steel

Tensile strength

26/30

Smallest outside diameter

31 1/2"

Length of plain part

top 3"
bottom 3"

Thickness of plates

crown 3"
bottom 3"

Description of longitudinal joint

riveted

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

Working pressure of furnace by Rules

166 lbs

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1"

Pitch of stays

20" x 14"

How are stays secured

Double nuts

Working pressure by Rules

154 lbs

Tube plates: Material

front Steel
back Steel

Tensile strength

26/30

Thickness

11/16"

Mean pitch of stay tubes in nests

9 1/16" x 10 1/16"

Pitch across wide water spaces

13 1/2" x 8 3/8"

Working pressure

front 172 lbs
back 171 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

7 1/2" x 1 3/8"

Length as per Rule

27 3/8"

Distance apart

9 3/4"

No. and pitch of stays

in each

31 6 3/4"

Working pressure by Rules

158 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

1 1/32"

Back

23/32"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

9" x 8 1/4"

Back

9" x 8 1/2"

Top

6 3/4" x 9 3/4"

Are stays fitted with nuts or riveted over

riveted nuts.

Working pressure by Rules

157 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

13/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

3/4"

Pitch of stays at wide water space

8 1/2" x 13 5/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

176 lbs

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay, or Over threads

2 5/8" & 2 3/8"

No. of threads per inch

6

Area supported by each stay

13 1/2" x 22" & 14" x 16 1/2"

Working pressure by Rules

163 lbs & 170 lbs

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part, or Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

8 1/2" x 9"

Lloyd's Register
Foundation

Working pressure by Rules	164 lbs	Are the stays drilled at the outer ends	no	Margin stays: Diameter	{ At turned off part, or Over threads	1 5/8"
No. of threads per inch	9	Area supported by each stay	11 5/16" x 8 1/2"	Working pressure by Rules	157 lbs.	
Tubes: Material	Iron	External diameter	{ Plain 2 1/2" Stay 2 1/2"	Thickness	{ 8 in. C 5/16 3/8 7/16 1/2"	
Pitch of tubes	3 5/8" x 3 7/16"	Working pressure by Rules	210 lbs	Manhole compensation: Size of opening in	shell plate	
Section of compensating ring	11 15/16" x 7/8"	No. of rivets and diameter of rivet holes	28 1 1/32"			
Outer row rivet pitch at ends	5 11/16"	Depth of flange if manhole flanged	✓	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		Working pressure by Rules		Thickness of crown	No. and diameter of	
stays		Inner radius of crown		Working pressure by Rules		
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 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				
Rules	Pressure to which the safety valves are adjusted	Working pressure as per	Hydraulic test pressure:		
tubes	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

The foregoing is a correct description,

Dates of Survey while building	During progress of work in shops - -	1936 May 21 Jun 25 12.16.18.20.23.25 27.30	Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval)
	During erection on board vessel - -	1936 May 27.16.21	
Total No. of visits			15

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No.

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

This boiler has been built under Special Survey and is in accordance with the approved plan. On completion it satisfactorily withstood the hydraulic test. The mountings have been examined and tested. It is being despatched to Sunderland for fitting on board.

This boiler has been satisfactorily fitted in the vessel. The safety valves adjusted and the steam for notation see machinery report.

Survey Fee	£ 9 : 12 : 0	When applied for, 5-8-1930
Travelling Expenses (if any)	£ 0 : 0 : 0	When received, 1 Sep 1930

R.D. Shulston *W. H. Smith*
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 14 OCT 1930

Assigned

See F. E. Rpt