

## REPORT ON BOILERS.

No 44054

Date of writing Report

19

When handed in at Local Office

19 SEP 1933

Port of

Received at London Office

20 SEP 1933

No. in Reg. Book

Survey held at

Hull

Date, First Survey

20.3.33

Last Survey

12.9.1933

(Number of Visits)

Gross

396

Net

153

on the

Steam Trawler "LORD LLOYD"

Master

Built at

Hull

By whom built

Cochrane &amp; Sons Ltd

Yard No.

1115

When built

1933

Engines made at

Hull

By whom made

Amos &amp; Smith Ltd

Engine No.

632

When made

1933

Boilers made at

Hull

By whom made

do

Boiler No.

632

When made

1933

Nominal Horse Power

101

Owners

Pickering &amp; Holman's Steam Trawling Co Ltd

Port belonging to

Hull

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley &amp; Co Ltd

(Letter for Record S.)

Total Heating Surface of Boilers

1804 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended.

Working Pressure

210 lbs.

Tested by hydraulic pressure to

365

Date of test

30/6/33

No. of Certificate

3862

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

50 sq. ft.

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule

10.03

as fitted

11.88 sq. ft.

Pressure to which they are adjusted

200 lbs.

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

9' 8"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

Yes

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

14'

Length

10' 8"

Shell plates: Material

Steel

Tensile strength

29/33 Tons

Thickness

1 1/2"

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

end

inter.

long. seams

T.R. 58.8

Diameter of rivet holes in

circ. seams

long. seams

1 1/2" / 3/8"

Pitch of rivets

4 1/2"

Percentage of strength of circ. end seams

plate

66.1

rivets

43.1

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

88.2

rivets

88.0

Working pressure of shell by Rules

212 lbs.

Thickness of butt straps

inter.

1 1/2"

No. and Description of Furnaces in each Boiler

Three plain

Material

Steel

Tensile strength

26/30 Tons

Smallest outside diameter

41.6

Length of plain part

top

79.5

Thickness of plates

crown

53/64"

Description of longitudinal joint

welded

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

Yes

Working pressure of furnace by Rules

218 lbs.

End plates in steam space

Material

Steel

Tensile strength

26/30 Tons

Thickness

1 3/16"

Pitch of stays

20 x 18 1/4"

How are stays secured

Double nuts &amp; washers.

Working pressure by Rules

212 lbs.

Tube plates: Material

front

Steel

Tensile strength

26/30 Tons

Thickness

1"

Mean pitch of stay tubes in nests

11.28

Pitch across wide water spaces

15"

Working pressure

front

214 lbs.

back

218

Girders to combustion chamber tops: Material

Steel

Tensile strength

29/33 Tons

Depth and thickness of girder

at centre

10 1/2" x 13 1/4"

Length as per Rule

36.9"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 @ 8"

Working pressure by Rules

210 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons

Thickness: Sides

3/4"

Back

23/32"

Top

23/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 1/2" x 8"

Back

9 1/2" x 8 1/2"

Top

9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

224 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30 Tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26/30 Tons

Thickness

29/32"

Pitch of stays at wide water space

15" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

226 lbs.

Main stays: Material

Steel

Tensile strength

26/32 Tons

Diameter

At body of stay,

or

Over threads

3 1/2"

No. of threads per inch

6

Area supported by each stay

365 sq. in.

Working pressure by Rules

220 lbs.

Screw stays: Material

Steel

Tensile strength

26/30 Tons

Diameter

At turned off part,

or

Over threads

1 3/4"

No. of threads per inch

9

Area supported by each stay

80.45



4204425

Working pressure by Rules 226 lbs. Are the stays drilled at the outer ends ho Margin stays: Diameter <sup>At turned off part,</sup> 1 7/8" + 2"  
<sub>Over threads</sub>

No. of threads per inch 9 Area supported by each stay 98.3 sq. Working pressure by Rules 216 lbs.

**Tubes:** Material low External diameter <sup>Plain</sup> 3 1/2" Thickness <sup>Stay</sup> 3/8" + 9/16" No. of threads per inch 9

Pitch of tubes 4 7/8" Working pressure by Rules 215 lbs. **Manhole compensation:** Size of opening in shell plate 16" x 12" Section of compensating ring 24" x 24" x 1 1/2" No. of rivets and diameter of rivet holes 28 @ 1 1/8"

Outer row rivet pitch at ends 9 5/16" Depth of flange if manhole flanged ✓ **Steam Dome:** Material low

Tensile strength 2111 Thickness of shell 2111 Description of longitudinal joint 2111

Diameter of rivet holes 2111 Pitch of rivets 2111 Percentage of strength of joint <sup>Plate</sup> 2111  
<sub>Rivets</sub>

Internal diameter 2111 Working pressure by Rules 2111 Thickness of crown 2111 No. and diameter of stays 2111

Inner radius of crown 2111 Working pressure by Rules 2111

How connected to shell 2111 Size of doubling plate under dome 2111 Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 2111

**Type of Superheater** Manufacturers of <sup>Tubes</sup> 2111  
<sub>Steel castings</sub>

Number of elements 2111 Material of tubes 2111 Internal diameter and thickness of tubes 2111

Material of headers 2111 Tensile strength 2111 Thickness 2111 Can the superheater be shut off and the boiler be worked separately 2111

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler 2111

Area of each safety valve 2111 Are the safety valves fitted with easing gear 2111 Working pressure as per Rules 2111

Pressure to which the safety valves are adjusted 2111 Hydraulic test pressure: tubes 2111, castings 2111 and after assembly in place 2111 Are drain cocks or valves fitted to free the superheater from water where necessary 2111

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with 2111

FOR AMOS & SMITH LTD.

The foregoing is a correct description,  
A. E. Kewley Manufacturer.

Dates of Survey <sup>During progress of work in shops - -</sup> See machinery up Are the approved plans of boiler and superheater forwarded herewith Yr  
<sub>while building</sub> <sup>During erection on board vessel - - -</sup> (If not state date of approval.)

Total No. of visits 2111

Is this Boiler a duplicate of a previous case Yr If so, state Vessel's name and Report No. "Bayflower" 43901.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey & in accordance with the approved plan. The materials & workmanship are sound & good. The boiler has been satisfactorily fitted on board, tried under steam & its safety valves adjusted under steam.

The approved plan & steel cuttings sent with above first entry report on a sister vessel.

Charged in engine report

Survey Fee <u>£ 10</u>	When applied for, <u>19</u>
Travelling Expenses (if any) <u>£ 10</u>	When received, <u>19</u>

John Mackindley  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 22 SEP 1938

Assigned See J. E. Rpt.