

REPORT ON BOILERS.

No. 39418.

Received at London Office

22 NOV 1928

of writing Report

1928

When handed in at Local Office

21 NOV 1928

Port of

HULL.

Survey held at

Hull

Date, First Survey

7 June

Last Survey

15 Nov 1928.

on the Steam Trawler "LORD GREY"

(Number of Visits 21.)

Gross Tons
Net

Built at

Lecky

By whom built

Cochrane & Sons Ltd

Yard No. 1028

When built 1928

Lines made at

Hull

By whom made

Amos & Smith Ltd

Engine No. 568

When made 1928

Boilers made at

Hull

By whom made

Amos & Smith Ltd

Boiler No. 568

When made 1928

Indicated Horse Power

Owners

Pickering & Huddames
S. Trampling Co Ltd.

Port belonging to

Hull.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Apperby & Son Co. Ltd.

Total Heating Surface of Boilers

1169.8 sq. ft.

Is forced draught fitted

Yes

(Letter for Record (5))

Coal or Oil fired

Coal

and Description of Boilers

One single ended return tube 15B

Working Pressure

200 lbs.

Tested by hydraulic pressure to

350 lbs.

Date of test 12.10.28

No. of Certificate

3640

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

49.2 sq. ft.

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule 9.8 sq. in.

as fitted 9.8 sq. in.

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

4"

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

Yes

Largest internal dia. of boilers

14'-0"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

29/33 Tons.

Thickness

19/32

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

end

inter.

circ. seams

T.R. 5185.

Diameter of rivet holes in

circ. seams

19/32

Pitch of rivets

3 3/4

Percentage of strength of circ. end seams

plate

65.8

rivets

51.2

Percentage of strength of circ. intermediate seam

plate

85.03

rivets

Percentage of strength of longitudinal joint

plate

90.8

rivets

88.8

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer

1 1/2"

inner

1 1/2"

No. and Description of Furnaces in each Boiler

One plain. 3 ft.

Material

Steel

Tensile strength

29/30 Tons

Smallest outside diameter

41"

Length of plain part

top

76"

bottom

69"

Thickness of plates

coron

13/16"

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

219 lbs.

Stays in steam space: Material

Steel

Tensile strength

29/30 Tons.

Thickness

13/16"

Pitch of stays

18"

Are stays secured

Yes. + Washers

Working pressure by Rules

220 lbs.

End plates: Material

front

Steel

back

Tensile strength

29/30 Tons.

Thickness

5/16"

7/8"

Angle pitch of stay tubes in nests

10.97°

Pitch across wide water spaces

13 3/4"

Working pressure

front

211 lbs.

back

230

Stays to combustion chamber tops: Material

Steel

Tensile strength

29/32 Tons

Depth and thickness of girder

Centre

10 1/2" x 13 1/4"

Length as per Rule

36 3/16"

Distance apart

9"

No. and pitch of stays

Each

3 @ 8 3/4"

Working pressure by Rules

210 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

29/30 Tons.

Thickness: Sides

3/4"

Back

2 1/2" x 2 1/2"

Top

3/4" x 2 1/2"

Bottom

3/4"

Angle of stays to ditto: Sides

9° x 8 3/4"

Back

9° x 8 1/2"

Top

9° x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts.

Working pressure by Rules

230 lbs.

Front plate at bottom: Material

Steel

Tensile strength

29/30 Tons.

Thickness

5/16"

Lower back plate: Material

Steel

Tensile strength

29/30 Tons

Thickness

19/32

Angle of stays at wide water space

14° x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

228 lbs.

Main stays: Material

Steel

Tensile strength

29/32 Tons.

At body of stay, or Over threads

3 1/4"

No. of threads per inch

6

Area supported by each stay

324 sq. in.

Working pressure by Rules

240 lbs.

Screw stays: Material

Steel

Tensile strength

29/30 Tons.

At turned off part, or Over threads

17/8" x 1 3/4"

No. of threads per inch

9

Area supported by each stay

78.9 sq. in.

81408

Working pressure by Rules 250 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8 or Over threads 1 7/8
No. of threads per inch 9 Area supported by each stay 97.5 sq in Working pressure by Rules 218 lb
Tubes: Material lin External diameter { Plain 3 1/2 Stay 3 1/2 Thickness 5/16 + 3/8 No. of threads per inch 9
Pitch of tubes 4 1/2 Working pressure by Rules 218 lb Manhole compensation: Size of opening in shell plate 8 1/2 Section of compensating ring 3 1/2 x 7 1/2 x 1 1/2 No. of rivets and diameter of rivet holes 62 @ 1 1/2
Outer row rivet pitch at ends 3 1/2 Depth of flange if manhole flanged ✓ Steam Dome: Material ✓
Tensile strength 200 Thickness of shell 3/16 Description of longitudinal joint ✓
Diameter of rivet holes 7/16 Pitch of rivets 2 1/2 Percentage of strength of joint { Plate 100 Rivets 100
Internal diameter 20 1/2 Working pressure by Rules 218 lb Thickness of crown 3/16 No. and diameter of stays 20 @ 1 1/2
How connected to shell ✓ Inner radius of crown ✓ Working pressure by Rules 218 lb
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 ✓ 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 ✓
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓
Area of each safety valve ✓ Are the safety valves fitted with easing gear ✓ Working pressure as per Rules ✓
Pressure to which the safety valves are adjusted ✓ 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 For AMOS & SMITH LTD.

The foregoing is a correct description,

[Signature]

Manufacturer.

Dates { During progress of work in shops - - - while building { During erection on board vessel - - -

See attached report on backy.

MANAGER. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Total No. of visits ✓

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. It has been satisfactorily fitted on board, tried under steam, & its safety valves adjusted as above.

Charge on Engine report
Survey Fee £
Travelling Expenses (if any) £

When applied for, 192
When received, 192

[Signature]

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 27 NOV 1928

Assigned See Minute on Hull Rpt 39418 attached

