

REPORT ON BOILERS.

No. 40332.

Received at London Office

-5 NOV 1929

Date of writing Report

5-11-1929

When handed in at Local Office

5 Nov 1929

Port of

HULL.

No. in Survey held at

Hull

Date, First Survey

4 July 1929

Last Survey

31 Oct 1929

On the Steam Trawler "DROMIO"

(Number of Visits

24

Gross

379.92

Tons

Net

143.34

ster

Built at

Beverley

By whom built

Cook, Hull & Co.

Card No.

528

When built

1929

Engines made at

Hull

By whom made

Auro & Smith Ltd

Engine No.

591

When made

1929

Boilers made at

Hull

By whom made

do

Boiler No.

591

When made

1929

Nominal Horse Power

111

Owners

Hull & Co. Fishing Co Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appleby Iron Co Ltd.

(Letter for Record

(5)

Total Heating Surface of Boilers

1986

sq. feet

Is forced draught fitted

No

Coal or Oil fired

Coal

and Description of Boilers

One single ended return tube ISB

Working Pressure

210 lbs.

Tested by hydraulic pressure to

365 lbs.

Date of test

25.9.29

No. of Certificate

3435

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

51.25

No. and Description of safety valves to each boiler

2 Spring loaded

Area of each set of valves per boiler

per Rule

11.0

as fitted

11.88

Pressure to which they are adjusted

210 lbs.

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

✓

Least distance between boilers or uptakes and bunkers or woodwork

8"

Is oil fuel carried in the double bottom under boilers

No

Least distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

✓

Greatest internal dia. of boilers

145"

Length

129"

Shell plates: Material

Steel

Tensile strength

29/33 Tons

Thickness

1 1/32"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

BR

Seams

T.R. S.B.S.

Diameter of rivet holes in

circ. seams

1 3/8"

long. seams

1 3/8"

Pitch of rivets

4 1/2"

inter.

Percentage of strength of circ. end seams

plate

66.4

rivets

42.1

Percentage of strength of circ. intermediate seam

plate

85.1

rivets

Percentage of strength of longitudinal joint

plate

87.0

rivets

87.0

combined

Working pressure of shell by Rules

216 lbs.

Thickness of butt straps

outer

1 1/32"

inner

1 1/32"

No. and Description of Furnaces in each Boiler

Three plain 3 p.f.

Material

Steel

Tensile strength

26/30 Tons.

Smallest outside diameter

42 5/8"

Thickness of plain part

top

76 13/16"

bottom

71 13/16"

Thickness of plates

crown

13/16"

bottom

Description of longitudinal joint

Welded

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

✓

Working pressure of furnace by Rules

212 lbs.

Plates in steam space: Material

Steel

Tensile strength

26/30 Tons

Thickness

1 1/8"

Pitch of stays

18"

Are stays secured

Double nuts & washers

Working pressure by Rules

210 lbs.

Plates: Material

front

Steel

back

"

Tensile strength

26/30 Tons.

Thickness

1"

7/8"

Pitch of stay tubes in nests

11"

Pitch across wide water spaces

13 3/4"

Working pressure

front

238 lbs.

back

268 "

Boilers to combustion chamber tops: Material

Steel

Tensile strength

29/33 Tons.

Depth and thickness of girder

Area

9 3/4" x 13 1/4"

Length as per Rule

34"

Distance apart

9" (max.)

No. and pitch of stays

Pitch

3 @ 8"

Working pressure by Rules

212 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons.

Thickness: Sides

23/32"

Back

23/32"

Top

4 1/6"

Bottom

3/4"

Pitch of stays to ditto: Sides

9" x 8 1/2"

Back

10" x 8"

Top

9" x 8" max

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

214 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

7/8"

Pitch of stays at wide water space

13 3/4" x 8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

264 lbs.

Main stays: Material

Steel

Tensile strength

28/32 Tons.

Pitch

At body of stay,

3"

Over threads

No. of threads per inch

6

Area supported by each stay

288 sq. in.

Working pressure by Rules

232 lbs.

Screw stays: Material

Steel

Tensile strength

26/30 Tons.

Pitch

At turned off part,

17/8"

Over threads

13/4"

No. of threads per inch

9

Area supported by each stay

800 sq. in.

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W434-0025

Working pressure by Rules **228 Lbs** Are the stays drilled at the outer ends **no** Margin stays: Diameter ^{At turned off part,} **1 7/8"** ^{or} **17/8"** ^{Over threads}
 No. of threads per inch **9** Area supported by each stay **95 sq"** Working pressure by Rules **224 Lbs**
 Tubes: Material **low** External diameter ^{Plain} **3 1/4"** Thickness ^{Stay} **5/16"** No. of threads per inch **9**
 Pitch of tubes **4 1/2" x 4 3/4"** Working pressure by Rules **230 Lbs** Manhole compensation: Size of opening
 shell plate **16" x 12"** Section of compensating ring **60 1/2" dia x 1 5/32"** No. of rivets and diameter of rivet holes **16 @ 1 1/32"**
 Outer row rivet pitch at ends **10 1/4"** Depth of flange if manhole flanged **-** Steam Dome: Material **Steel**
 Tensile strength **18/30 Tons** Thickness of shell **3/4"** Description of longitudinal joint **S. R. Lap.**
 Diameter of rivet holes **1 1/32"** Pitch of rivets **2 1/2"** Percentage of strength of joint ^{Plate} **54.0** ^{Rivets} **43.6**
 Internal diameter **36"** Working pressure by Rules **250 Lbs** Thickness of crown **1"** No. and diameter
 stays **2 @ 2 1/2"** Inner radius of crown **-** Working pressure by Rules
 How connected to shell **Riveted** Size of doubling plate under dome **60 1/2" dia x 1 7/32"** Diameter of rivet holes and
 of rivets in outer row in dome connection to shell **1 1/32" @ 10 1/4"**

Type of Superheater

Manufacturers of ^{Tubes} **-** ^{Steel castings} **-** Internal diameter and thickness of tubes
 Number of elements **-** Material of tubes **-** Thickness **-** Can the superheater be shut off
 Material of headers **-** Tensile strength **-** 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 at
 Rules **-** Pressure to which the safety valves are adjusted Hydraulic test pressure
 tubes **-** castings **-** and after assembly in place Are drain cocks or valves
 to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with **-**

The foregoing is a correct description,
For AMOS & SMITH LTD.

Dates of Survey ^{During progress of} **See attached report** Are the approved plans of boiler and superheater forwarded herewith **-** ^{work in shops - -}
 while building ^{During erection on} **on Machy** ^{board vessel - - -} Total No. of visits **1**
 MANAGER

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.**

Charged on engine report
 Survey Fee **£**
 Travelling Expenses (if any) **£**

When applied for, **192**
 When received, **192**

John Shackirdy
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 8 NOV 1929

Assigned

See Rpt attached



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