

REPORT ON BOILERS.

No. 41579.

Received at London Office

29 JAN 1931

Date of Report

28.1.31

When handed in at Local Office

28 Jan 31

Port of

HULL

No. in Reg. Book

Survey held at

HULL

Date, First Survey

16 Aug/30

Last Survey

23 Dec. 31

62313 on the

STEAM TRAWLER "SOLON"

(Number of Visits

31)

Gross 347.81
Tons Net 147.91

Master

Built at

Beverley

By whom built

Cook, Welton & Gemmell Ltd. 562 When built 1931

Engines made at

Hull

By whom made

Amos & Smith Ltd.

Engine No.

625

When made

1931

Boilers made at

Hull

By whom made

Amos & Smith Ltd.

Boiler No.

625

When made

1931

Nominal Horse Power

98

Owners

The Standard Steam Fishing Co. Ltd.

Port belonging to

Grimsby

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appleby Iron Co. Ltd.

(Letter for Record

S)

Total Heating Surface of Boilers

1753 sq ft.

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended return tube

Working Pressure

200 #0

Tested by hydraulic pressure to

350 #0

Date of test

24.12.30

No. of Certificate

3820

Can each boiler be worked separately

Area of Firegrate in each Boiler

50 sq ft.

No. and Description of safety valves to each boiler

2 Spring loaded

Area of each set of valves per boiler

per Rule

10.9 sq in

as fitted

11.8 "

Pressure to which they are adjusted

200 #0

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

7"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

14' 3"

Length

10' 7 1/16"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 1/4"

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

end

SR

long. seams

L.R. S.R.S.

Diameter of rivet holes in

circ. seams

1 9/16"

Pitch of rivets

3 1/16"

Percentage of strength of circ. end seams

plate

67.4

rivets

43.0

Percentage of strength of circ. intermediate seam

plate

-

rivets

Percentage of strength of longitudinal joint

plate

85.55

rivets

87.8

Working pressure of shell by Rules

200 #0

Thickness of butt straps

outer

15/16"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

Three Plain

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

42 1/8"

Length of plain part

top

79"

bottom

76"

Thickness of plates

crown

13/16"

bottom

1/16"

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

204 #0

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 3/16"

Pitch of stays

20 x 18"

How are stays secured

Double nuts & washers

Working pressure by Rules

218 #0

Tube plates: Material

front

Steel

back

"

Tensile strength

26-30 tons

Thickness

15/16"

Mean pitch of stay tubes in nests

11.5"

Pitch across wide water spaces

14"

Working pressure

front

218 #0

back

269 #0

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

at centre

9" x 1 1/4"

Length as per Rule

35"

Distance apart

9"

No. and pitch of stays

in each

3 @ 8 1/4"

Working pressure by Rules

218 #0

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

3/4"

Back

11/16"

Top

11/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/2"

Back

9" x 9"

Top

9" x 8 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

207 #0

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/8"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

218 #0

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

or

3 1/4"

No. of threads per inch

6

Area supported by each stay

360 sq inches

Working pressure by Rules

222 #0

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

or

1 3/4"

4 1/8"

No. of threads per inch

9

Area supported by each stay

81 sq inches

Working pressure by Rules 222 # Are the stays drilled at the outer ends no Margin stays: Diameter 2" x 1 7/8"
 No. of threads per inch 9 Area supported by each stay 100.5 sq inches Working pressure by Rules 203 #
 Tubes: Material Iron External diameter 3 1/2" Thickness 8 L.S.C. No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 5/8" Working pressure by Rules 215 # Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 56 5/8" x 1" No. of rivets and diameter of rivet holes 16 @ 1 1/4"
 Outer row rivet pitch at ends 10 1/4" Depth of flange if manhole flanged no Steam Dome: Material Steel
 Tensile strength 26-30 tons Thickness of shell 3/4" Description of longitudinal joint S.R. lap.
 Diameter of rivet holes 1 1/2" Pitch of rivets 2 1/4" Percentage of strength of joint 54.0
 Internal diameter 36" Working pressure by Rules 210 # Thickness of crown 1" No. and diameter of
 stays 2 @ 2 1/2" Inner radius of crown - Working pressure by Rules -
 How connected to shell Riveted Size of doubling plate under dome 56 5/8" x 1" Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 9/16" @ 3-13"

Type of Superheater
 Number of elements - Material of tubes - Manufacturers of -
 Material of headers - Tensile strength - Internal diameter and thickness of tubes -
 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,

Manufacturer.

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

See attached report on Machy.

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits ✓

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

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

The approved plan was forwarded previously, with the Report on the sister-vessel "Edwardian".

Charged on engine report sent herewith.

Survey Fee £ When applied for, ✓ 19
 Travelling Expenses (if any) £ When received, ✓ 19

C. Moffatt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI, 30 JAN 1931

Assigned

See other Rpt



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