

5a.

REPORT ON BOILERS.

No. 43285

30 NOV 1932

Received at London Office

Writing Report

19

When handed in at Local Office

29.11.1932

1932

Port of

Hull

Survey held at

Hull

Date, First Survey

15-9-32

Last Survey

21-11-1932

Book.

(Number of Visits 16)

Gross 423

Net 163

on the

Steam Trawler "RIFSNES"

Built at

Beverly

By whom built

Pool, Bolton & Furness Ltd

Yard No. 544

When built 1932

Boilers made at

Hull

By whom made

Amos & Smith Ltd

Engine No. 629

When made 1932

Boilers made at

Hull

By whom made

do

Boiler No. 629

When made 1932

Indicated Horse Power

104

Owners

J. Oddsson & Co, Ltd

Port belonging to

Hull

WATER TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland Ltd

(Letter for Record S.)

Heating Surface of Boilers

1890 sq ft

Is forced draught fitted

ho

Coal or Oil fired

Coal

Description of Boilers

One, single ended

Working Pressure 210 lbs

Tested by hydraulic pressure to

365 lbs

Date of test

3.11.32

No. of Certificate

3852

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

51.25 sq ft

No. and Description of safety valves to each boiler

Two, spring loaded

Pressure of each set of valves per boiler

per Rule 11.88 lb

as fitted

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

✓

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Is oil fuel carried in the double bottom under boilers

ho

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

✓

Largest internal dia. of boilers

144"

Length

129"

Shell plates: Material

Steel

Tensile strength

29/33 Tons

Thickness

1 1/2"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end 4R

No. of seams

T.R. 588

Diameter of rivet holes in

circ. seams 1 1/2"

long. seams 1 3/32"

Pitch of rivets

3 1/2"

9 1/4"

Percentage of strength of circ. end seams

plate 65.8

rivets 42.5

Percentage of strength of circ. intermediate seam

plate 85.4

rivets 84.7

Percentage of strength of longitudinal joint

plate 85.4

rivets 84.7

Working pressure of shell by Rules

211 lbs

Thickness of butt straps

outer 1 1/2"

inner 1 1/32"

No. and Description of Furnaces in each Boiler

Three plain

Material

Steel

Tensile strength

28/30 Tons

Smallest outside diameter

42 7/8"

Length of plain part

top 49"

Thickness of plates

crowns 5 3/4"

bottom 1/2"

Description of longitudinal joint

butted

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

Working pressure of furnace by Rules

218 lbs

Diaphragm plates in steam space

Material Steel

Tensile strength

28/30 Tons

Thickness

1 3/16"

Pitch of stays 20" x 18"

How are stays secured

Double nuts & washers

Working pressure by Rules

211 lbs

Diaphragm plates: Material

front Steel

Tensile strength

28/30 Tons

Thickness

1 5/16"

7/8"

Mean pitch of stay tubes in nests

10.4

Pitch across wide water spaces

13 3/4"

Working pressure

front 238 lbs

back 268

Diaphragm plates to combustion chamber tops

Material Steel

Tensile strength

29/33 Tons

Depth and thickness of girder

Centre

9 3/4" x 1 3/4"

Length as per Rule

34"

Distance apart

9 1/2"

No. and pitch of stays

Each

8 @ 8"

Working pressure by Rules

212 lbs

Combustion chamber plates: Material

Steel

Tensile strength

28/30 Tons

Thickness: Sides

4/16"

Back

1 1/2" x 1 1/2"

Top

1 1/16"

Bottom

3/4"

Pitch of stays to ditto

Sides 9" x 8"

Back 9 1/2" x 8"

Top 9 1/2" x 8"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

214 lbs

Front plate at bottom: Material

Steel

Tensile strength

28/32 Tons

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

28/30 Tons

Thickness

7/8"

Pitch of stays at wide water space

11 1/2" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

254 lbs

Main stays: Material

Steel

Tensile strength

28/32 Tons

Diameter

At body of stay, or Over threads

3 1/2"

No. of threads per inch

6

Area supported by each stay

360 sq in

Working pressure by Rules

210 lbs

Screw stays: Material

Steel

Tensile strength

28/30 Tons

Diameter

At turned off part, or Over threads

1 7/8" x 1 1/4"

No. of threads per inch

9

Area supported by each stay

80 sq in



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W281-0029

Working pressure by Rules **238 lb** Are the stays drilled at the outer ends **Yes** Margin stays: Diameter ^{At turned off part.} **17/8 + 2"**
 No. of threads per inch **9** Area supported by each stay **95 sq** Working pressure by Rules **220 lbs.**
 Tubes: Material **Iron** External diameter ^{Plain} **3 1/2"** Thickness ^{Stay} **5/16 + 3/8"** 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 in shell plate **16" x 12"** Section of compensating ring **56 9/16" dia.** No. of rivets and diameter of rivet holes **60 @ 1 5/16"**
 Outer row rivet pitch at ends **10 1/4"** Depth of flange if manhole flanged **2 5/8" dia.** Steam Dome: Material **Steel**
 Tensile strength **26/30 Tons.** Thickness of shell **3/4"** Description of longitudinal joint **S.R.L.**
 Diameter of rivet holes **1 3/32"** Pitch of rivets **2 1/4"** Percentage of strength of joint ^{Plate} **54.0** ^{Rivets} **43.6**
 Internal diameter **36"** Working pressure by Rules **220 lbs.** Thickness of crown **1 1/2"** No. and diameter of stays **2 @ 2 1/2"** Inner radius of crown **18"** Working pressure by Rules **220 lbs.**
 How connected to shell **Riveted** Size of doubling plate under dome **56 9/16" x 14"** Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell **1 9/16" + 10 1/4"**

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 _____

For AMOS & SMITH LTD.

The foregoing is a correct description,
 _____ MANAGER, Manufacturer.

Dates of Survey ^{During progress of work in shops - -} _____ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **Yes**
^{while building} ^{During erection on board vessel - -} **See machinery rep.** Total No. of visits _____

Is this Boiler a duplicate of a previous case _____ 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 & the materials & workmanship are sound & good. It has been satisfactorily fitted on board, examined under steam & its safety valves adjusted as above.**

Charged on Engine report, sent
 Survey Fee £ _____ When applied for, _____ 19 _____
 Travelling Expenses (if any) £ _____ When received, _____ 19 _____

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

Committee's Minute **TUE. 6 DEC 1932**
 Assigned **See F.E. rpt. attached**

