

REPORT ON BOILERS.

No. 4719.

Port of

Grimsey.

Received at London Office

19

No. in Survey held at

Grimsey.

Date, first Survey 6th November 06, last Survey 27 March 1907.

Reg. Book.

(Number of Visits 35)

Boiler for Steam Tug "Spurn" (W.H. Warren's & Sons)

Master Steward.

Built at

New Holland

By whom built

W.H. Warren

When built

1907.

Engines made at

Glasgow.

By whom made

Muir & Houston

When made

1889.

Boilers made at

Grimsey.

By whom made

Central Co. op. Eng. & Ship Rep.

When made

1907.

Registered Horse Power

Owners

Turner & Precious.

Port belonging to

Shell.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

Stewarts & Lloyd

Letter for record

S.

Total Heating Surface of Boilers

1057. #

Is forced draft fitted

No.

No. and Description of

Boilers

One cyl. multitubular

Working Pressure

160 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

18/2/07.

No. of Certificate

51.

Can each boiler be worked separately

✓

Area of fire grate in each boiler

30 sq. ft.

No. and Description of

Safety valves to each boiler

2 Spring loaded

Area of each valve

3.98 sq. in.

Pressure to which they are adjusted

166 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

12"

Inside

dia. of boilers

11'-0"

Length

9'-6" inside

Material of shell plates

Steel

Thickness

1 5/16"

Range of tensile strength

27/32 tons

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

Lap or

long. seams

Butt or

Diameter of rivet holes in long. seams

1"

Pitch of rivets

7"

Lap of plates or width of butt straps

15"

Per centages of strength of longitudinal joint

89%

Working pressure of shell by

rules

Boiler

2 plain.

Material

Steel

Outside diameter

3'-3"

Length of plain part

top

5'-11"

Thickness of plates

crown

2 3/8"

bottom

Description of longitudinal joint

Weld.

No. of strengthening rings

✓

Working pressure of furnace by the rules

185 lbs.

Combustion chamber

Plates: Material

Steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

1/4"

Pitch of stays to ditto: Sides

8 1/2" x 8 1/4"

Back

8 1/2" x 8 1/4"

Top

If stays are fitted with nuts or riveted heads

Nuts.

Working pressure by rules

187 lbs.

Material of stays

Steel

Diameter at

Smallest part

1 5/16"

Area supported by each stay

76.50 sq. in.

Working pressure by rules

186 lbs.

End plates in steam space: Material

Steel

Thickness

1 5/16"

Pitch of stays

16" x 16"

How are stays secured

By Nuts.

Working pressure by rule

187 lbs.

Material of stays

Steel

Diameter at smallest part

2.53"

Area supported by each stay

256 sq. in.

Working pressure by rules

197 lbs.

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of

Lower back plate

Steel

Thickness

1 5/16"

Greatest pitch of stays

13"

Working pressure of plate by rules

190 lbs.

Diameter of tubes

3 1/4" ext.

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

7/8"

Back

2 1/32"

Mean pitch of stays

9"

Pitch across wide

Water spaces

14 1/4"

Working pressures by rules

159 lbs.

Girders to Chamber tops: Material

Steel

Depth and thickness of

Girder at centre

8" x 14"

Length as per rule

2'-4 3/4"

Distance apart

8"

Number and pitch of Stays in each

2-8 1/2"

Working pressure by rules

170 lbs.

Superheater or Steam chest: how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diám. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

VERTICAL DONKEY BOILER—

No.

Description

Manufacturers of steel

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

If fitted with easing gear

If steam from main boilers can

enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile

strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets

Plates

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of Stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown

plates

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description.

For the GREAT CENTRAL CO-OPERATIVE
ENGINEERING & SHIP REPAIRING COMPANY, LTD.

Manufacturer.

W. Lister

Dates of Survey while building

During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits

1906 Nov. 6, 23, 26, 27, Dec. 4, 6, 7, 10, 11, 12, 13, 14, 20, 29.
1907 Jan. 5, 8, 14, 18, 27, Mar. 1, 4, 6, 16, 27.

35.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

W1589 0125

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special Survey. The materials & workmanship are good. The boiler has been tested by hydraulic pressure to 320 lbs per square inch, showed no signs of weakness, and was tight & satisfactory at that pressure.

this office.

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Donkey Boiler Fee	£	:	:	19
Travelling Expenses (if any)	£	:	:	19

B. Ritchie.

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUES. APR 16 1907

Assigned

see minute on attached rpt.



© 2021

Lloyd's Register Foundation