

REPORT ON BOILERS.

No. 21190

13 SEP 1930

Received at London Office

Date of writing Report

192

When handed in at Local Office

192

Port of

HULL

No. in Survey held at
Reg. Book.

HULL

Date, First Survey

May 10th

Last Survey

Sep 5th

1930

on the

STEAM TRAWLER "ARKWRIGHT"

(Number of Visits

19)

Tons

Gross

369.48

Net

148.90.

Master

Built at

Beverley

By whom built

Book, Welton & Gemmell Ltd

Yard No.

549

When built

1930

Engines made at

Hull

By whom made

Charles D. Holmes & Co Ltd

Engine No.

1404

When made

1930

Boilers made at

Hull

By whom made

Charles D. Holmes & Co Ltd

Boiler No.

1404

When made

1930

Nominal Horse Power

96

Owners

F & J. Ross Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY, OR DONKEY.~~

Manufacturers of Steel

Witkowitz Bergau und Eisenhiitten G/S.

(Letter for Record

S)

Total Heating Surface of Boilers

1698 square feet

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

One single ended return tube

Working Pressure

200 #/sq"

Tested by hydraulic pressure to

350 #/sq"

Date of test

18-8-30

No. of Certificate

3795

Can each boiler be worked separately

Area of Firegrate in each Boiler

49.2 sq

No. and Description of safety valves to each boiler

2 Spring loaded.

Area of each set of valves per boiler

per Rule 9.8 sq inches

as fitted 9.8

Pressure to which they are adjusted

200 #/sq"

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

4"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia of boilers

14 feet

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

28/32 tons

Thickness

1 9/32"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

8R

long. seams

SR. DRS.

Diameter of rivet holes in

circ. seams

1 9/32"

Pitch of rivets

3 3/4"

inter.

8 9/16"

Percentage of strength of circ. end seams

plate

65.8

rivets

51.2

Percentage of strength of circ. intermediate seam

plate

✓

rivets

✓

Percentage of strength of longitudinal joint

plate

85.03

rivets

90.8

Working pressure of shell by Rules

201 #/sq"

Thickness of butt straps

outer

1"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

Three plain

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

41"

Length of plain part

top

46"

bottom

69"

Thickness of plates

crown

13/16"

bottom

13/16"

Description of longitudinal joint

Welded

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

✓

Working pressure of furnace by Rules

219 #/sq"

End plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

1 3/16"

Pitch of stays

18"

How are stays secured

Double nuts & washers.

Working pressure by Rules

220 #/sq"

Tube plates: Material

front

Steel

back

"

Tensile strength

26/30 tons

Thickness

15/16"

4/8"

Mean pitch of stay tubes in nests

10.97"

Pitch across wide water spaces

13 3/4"

Working pressure

front

211 #/sq"

back

230 #/sq"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

10 1/2"

9 1/2" x 1 3/4"

Length as per Rule

36 3/16"

Distance apart

9" x 11"

No. and pitch of stays

in each

3 @ 8 3/4"

Working pressure by Rules

210 #/sq"

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

3/4"

Back

23/32"

Top

3/4"

23/32"

Bottom

3/4"

Pitch 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 #/sq"

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

29/32"

Pitch of stays at wide water space

14" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

228 #/sq"

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

At body of stay,

or

Over threads

3 1/4"

No. of threads per inch

8

Area supported by each stay

324 sq inches

Working pressure by Rules

245 #/sq"

Screw stays: Material

Steel

Tensile strength

26/30 tons

Diameter

At turned off part,

or

Over threads

1 1/8"

+

1 3/4"

No. of threads per inch

10

Area supported by each stay

48.9 sq inches

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with _____.

☒ The foregoing is a correct description,
For CHARLES D. HOLMES & CO., LTD.
Ja. Cooper Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	1930 May 10, 14, 16, Jun. 2, 8, 12, 19, 23, July 1, 5, 14, 29.	Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
	{	During erection on board vessel - -	Aug. 6, 4, 13, 18, Sept. 2, 3, 5.	
				Total No. of visits 10

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 and the materials and workmanship are sound & good. It has been fitted on board, tried under steam and the safety valves adjusted as above.

Survey Fee	£	:	:	When applied for,	192
Travelling Expenses (if any)	£	✓	:	:	:	When received,	192

B. Croffatt.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 19 SEP 1930

Assigned

See F.E. Rpt