

## REPORT ON BOILERS.

No. 53243.

26 DEC 1945

Received at London Office

21 DEC 1945

Date of writing Report

19

When handed in at Local Office

19

Port of

Hull

No. in Reg. Book.

Survey held at

Hull

Date, First Survey

5.4.45

Last Survey

1.12.45

1945

on the

Steam trawler "ABY"

(Number of Visits 20)

Gross 361.

Net 139.

Built at

Beverley

By whom built

Cook, Welton &amp; Gemmell, Ltd.

Yard No. 755

When built 1945

Engines made at

Hull

By whom made

Chas. D. Holmes

Engine No. 1713

When made "

Boilers made at

Hull

By whom made

Chas. D. Holmes

Boiler No. 1713

When made "

Nominal Horse Power

Owners

Boston Deep Sea Fishing &amp; Ice Co. Ltd

Port belonging to

Fleetwood

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley Frodingham Steel Co. Ltd.

(Letter for Record S

Total Heating Surface of Boilers

1710 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single end multitubular cylindrical boiler

Working Pressure

210 lb.

Tested by hydraulic pressure to

365 lb.

Date of test

28/9/45

No. of Certificate

4252

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

52 sq ft

No. and Description of safety valves to each boiler

One 2 1/2" D.S. ordinary

Area of each set of valves per boiler

per Rule 9.5

as fitted 9.8

Pressure to which they are adjusted

216 lb.

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Is oil fuel carried in the double bottom under boiler

None

Smallest distance between shell of boiler and tank top plating

None

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

14'-3 1/2"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

31/35

Thickness

1 1/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end DR Lap

long. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams 15/16"

long. seams 1 1/32"

Pitch of rivets

3 3/4"

9/8"

Percentage of strength of circ. end seams

plate 65.3

rivets 45.2

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.1

rivets 85.8

combined 87.66

Thickness of butt straps

outer 3 1/32"

inner 1 3/32"

No. and Description of Furnaces in each Boiler

Three Deighan

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-5 3/4"

Length of plain part

top

bottom

Thickness of plates

crown 5/8"

bottom 5/8"

Description of longitudinal joint

Welded

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

None

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 3/16"

Pitch of stays 1'-4" x 1-6 1/2"

How are stays secured

Double nuts and washers

Tube plates: Material

front Steel

back

Tensile strength

26/30

Thickness

15/16"

7/8"

Mean pitch of stay tubes in nests

9 3/4" x 9 3/4"

Pitch across wide water spaces

14"

Girders to combustion chamber tops: Material

Steel

Tensile strength

29/33

Depth and thickness of girder

at centre

10"

Two 7/8"

Length as per Rule

2-8 29/32"

Distance apart

10 1/2"

No. and pitch of stays

in each

Three 8"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

23/32"

Back

23/32"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

9 3/4" x 8 1/2"

Back

9 1/8" x 8 3/4"

Top

10 1/2" x 8"

Are stays fitted with nuts or riveted over

Hubs

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays at wide water space

14" x 9 5/8"

Are stays fitted with nuts or riveted over

Hubs

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

or

Over threads

3 1/8"

No. of threads per inch

8

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part,

or

Over threads

1 3/4"

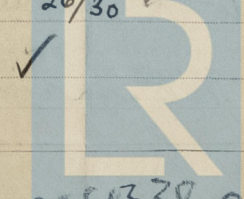
No. of threads per inch

10

26/30

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ABV

Are the stays drilled at the outer ends No. ✓ Margin stays: Diameter { At turned off part, 2 1/2 ✓  
Over threads 2 1/8 ✓

No. of threads per inch 10 ✓

Tubes: Material Seamless ✓ External diameter { Plain 3 1/2 ✓  
Stay 3 1/2 ✓ Thickness { 7/16 ✓ 3/8 ✓ 5/16 ✓ No. of threads per inch 9 ✓

Pitch of tubes 4 7/8' x 4 7/8' ✓

Manhole compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 3 5/8" x 1 1/4" plate ✓ No. of rivets and diameter of rivet holes 61 - 1 1/32" ✓

Outer row rivet pitch at ends 16 15/16' ✓ Depth of flange if manhole flanged 3 3/8" ✓

Tensile strength 26/30 ✓ Thickness of shell 3/4" ✓ Description of longitudinal joint S.R. ✓ Lap. ✓

Diameter of rivet holes 1 1/32" ✓ Pitch of rivets 2 1/4" ✓ Percentage of strength of joint { Plate 54 ✓  
Rivets 43.8 ✓

Internal diameter 2'-9" ✓ Thickness of crown 7/8" ✓ No. and diameter of stays 2 - 2 1/4" ✓

How connected to shell 2 R. double row rivets ✓ Inner radius of crown ✓

Size of doubling plate under dome 4'-9 1/2" DIA x 1 1/4" ✓ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 1/32" 3 3/4" pitch ✓

Type of Superheater

NONE

Manufacturers of

Tubes

Steel forgings

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

Pressure to which the safety valves are adjusted

Hydraulic test pressure:

tubes

forgings and 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

Yes. ✓

The foregoing is a correct description,

FOR CHARLES D. HOLMES & CO., LTD.

W.R. Evans

Manufacturer.

Dates

During progress of

1945

of Survey

work in shops - -

JULY 5

DEC 1

while

building

During erection on

board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith

24.4.45

(If not state date of approval.)

Total No. of visits

20

Is this Boiler a duplicate of a previous case

No

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 and installed under Special Survey in accordance with the Society's Rules & Regulations and in accordance with the Secretary's letters. The workmanship and materials are good. Boiler tested by 365 lb hydraulic pressure, safety valves adjusted as overleaf, accumulation test held and tested under working conditions and found satisfactory.

Survey Fee

...

£

:

:

When applied for,

19

Travelling Expenses (if any) £

:

:

When received,

19

W.S. Shields

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 15 FEB 1946

Assigned

See F.R. machy - sph



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