

REPORT ON BOILERS.

No. 52009.

24 MAY 1943

Received at London Office

21 MAY 1943

ing Report 43.5.

When handed in at Local Office

Port of HULL.

Survey held at HULL.

Date, First Survey

30. 10. 42.

Last Survey

9. 5.

1943.

on the H.M. TRAWLER.

FUSILIER.

(Number of Visits 59.)

Gross 580
Net 182

By whom built

Cork Walker and Gemmell

Yard No. 707.

When built 1943

By whom made

Chas. D. Holmes & Co

Engine No. 1640.

When made

By whom made

Chas. D. Holmes & Co

Boiler No. 1640.

When made

Horse Power 165.

Owners

Admiralty

Port belonging to

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

urers of Steel

Appleby, Frodingham Steel Co. Ltd and Crivillers

(Letter for Record 5.

ating Surface of Boilers

2551 #.

Is forced draught fitted Yes.

Coal or Oil fired Coal

Description of Boilers

One S. B.

Working Pressure 225 lb/sq in

hydraulic pressure to

388 lb/sq in

Date of test 9-3-43.

No. of Certificate 4182.

Can each boiler be worked separately

Yes

Firegrate in each Boiler

64 #.

No. and Description of safety valves to each boiler

Two Spring loaded

each set of valves per boiler

per Rule 17.5 D (Superheat Rule).

Pressure to which they are adjusted

225 lb/sq in

they fitted with easing gear Yes.

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

distance between boilers or uptakes and bunkers or woodwork

12".

Is oil fuel carried in the double bottom under boilers

No

distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

No.

internal dia. of boilers

15'-9 1/16".

Length 11'-0".

Shell plates: Material Steel

Tensile strength 31-35 ton/sq in

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end D.R. Lap.

T.R. D.B.S.

Diameter of rivet holes in

circ. seams

1 15/32"

Pitch of rivets

3 7/8"

age of strength of circ. end seams

plate 62.1%.

rivets 44.0%.

Percentage of strength of circ. intermediate seam

plate

age of strength of longitudinal joint

plate 84.3%.

rivets 86.9%.

combined 85.98%.

s of butt straps

outer 1 5/32"
inner 1 9/32"

No. and Description of Furnaces in each Boiler

3. C.f. Deighman Section.

Steel

Tensile strength 26-30 ton/sq in.

Smallest outside diameter 3'-10".

of plain part

top

Thickness of plates

crown 2 3/32"

Description of longitudinal joint

Welded

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

tes in steam space: Material

Steel.

Tensile strength

26-30 ton/sq in.

Thickness

1 1/4".

Pitch of stays

19 1/4" x 19 1/8".

e stays secured

Nuts & large washers outside, nuts & washers inside.

ates: Material

front Steel
back Steel

Tensile strength

26-30 ton/sq in.

Thickness

3 1/32"

29/32.

itch of stay tubes in nests

10-675.

Pitch across wide water spaces

14 1/4" x 9 1/2".

to combustion chamber tops: Material

Steel

Tensile strength

29-33 ton/sq in.

Depth and thickness of girder

9" x 7/8" I-beam

Length as per Rule

32 1/4".

Distance apart

9 1/4"

No. and pitch of stays

3 @ 7 1/2".

Combustion chamber plates: Material

Steel

strength

26-30 ton/sq in.

Thickness: Sides

2 3/32".

Back

2 3/32"

Top

1 1/16".

Bottom

1 5/16".

stays to ditto: Sides

9 7/8" x 8".

Back 9 1/2" x 8 1/4".

Top 9 1/4" x 7 1/2".

Are stays fitted with nuts or riveted over

Nuts.

plate at bottom: Material

Steel

Tensile strength

26-30 ton/sq in.

Lower back plate: Material

Steel

Tensile strength

26-30 ton/sq in.

Thickness

29/32"

stays at wide water space

14 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

Nuts.

stays: Material

Steel

Tensile strength

28-32 ton/sq in.

At body of stay,

3 3/8"

No. of threads per inch

8 thread.

stays: Material

Steel

Tensile strength

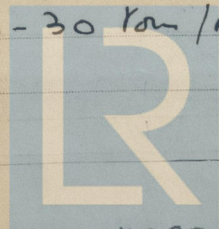
26-30 ton/sq in.

At turned off part,

1 3/4"

No. of threads per inch

10.



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Are the stays drilled at the outer ends No.

Margin stays: Diameter { At turned off part, or Over threads 1 7/8", 2"

No. of threads per inch 10

Tubes: Material L.W. Iron.

External diameter { Plain 3 1/2 Stay 3 1/2

Thickness { 7/16", 3/8", 7/16" No. of threads per inch 9

Pitch of tubes 4 3/4" x 4 3/4"

Manhole compensation: Size of

shell plate (16" x) 12"

Section of compensating ring 3' - 8 1/4" x 1 1/32"

No. of rivets and diameter of rivet holes 62 @ 1"

Outer row rivet pitch at ends 10.74"

Depth of flange if manhole flanged 3 1/2"

Steam Dome: Material None.

Tensile strength

Thickness of shell

Description of longitudinal joint

Diameter of rivet holes

Pitch of rivets

Percentage of strength of joint { Plate Rivets

Internal diameter

Thickness of crown

No. and

stays

Inner radius of crown

How connected to shell

Size of doubling plate under dome

Diameter of rivet hole

of rivets in outer row in dome connection to shell

Type of Superheater None

(Safety Valves fitted to allow change over to Superheat.)

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

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

tubes

forgings and castings

and after assembly in place

Are dra

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.

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

See machinery report attached

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. SAPPER Hull Lpt. No. 100

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

This Boiler has been constructed under Special Survey in accordance with the approved Admiralty plans and the Rule.

The Workmanship and materials are good, and when subjected to a hydraulic test of 388 lb/sq. in. it was found satisfactory in every respect.

[Boiler examined under steam, safety valves adjusted to 225 lb, accumulation tank and boiler subsequently examined after all trials and found satisfactory.]

Survey Fee £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

Committee's Minute

FRI. 28 MAY 1943

Assigned

See machinery report

Engineer Surveyor to Lloyd's Register of Shipping



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