

REPORT ON BOILERS.

No. 29576

Received at London Office

7 DEC 1927

Date of writing Report

192

When handed in at Local Office

6 DEC 1927

Port of

Sunderland.

No. in Survey held at
Reg. Book.

Sunderland.

Date, First Survey

Last Survey

Decr. 5 1927

(Number of Visits

Gross 5586

Tons Net 3201

on the

S.S. "MASIMPUR"

Master

Built at

Sunderland

By whom built

L. J. James & Co. Ltd

When built

1927

Engines made at

Sunderland.

By whom made

George Hark Ltd

Engine No. 1147

When made

1927

Boilers made at

do

By whom made

do

Boiler No. 1147

When made

1927

Nominal Horse Power

658.

Owners

Burmah Oil Co Ltd

Port belonging to

Sunderland.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Limited

(Letter for Record

S.

Total Heating Surface of Boilers

7822 1/4

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

Three cyl mult S.F. 3SB

Working Pressure

200

Tested by hydraulic pressure to

350

Date of test

4/8/27

No. of Certificate

3948

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

as per app. plan

No. and Description of safety valves to each boiler

2 1/2" high lift

Area of each set of valves per boiler

as fitted 9.88

Pressure to which they are adjusted

205

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'-0"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-0 1/4"

Length

11'-6"

Shell plates: Material

STEEL

Tensile strength

28 to 32 TONS

Thickness

1 3/8"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DRL

long. seams

TROBS

Diameter of rivet holes in

circ. seams 1 5/8"

Pitch of rivets

3 1/8" FRONT & 4 1/8" BACK

Percentage of strength of circ. end seams

plate 65.6 F 66.8 F
rivets 42.6 B 43.2 B

Percentage of strength of circ. intermediate seam

plate —
rivets —

Percentage of strength of longitudinal joint

plate 85.13
rivets 90.15
combined 88.2

Working pressure of shell by Rules

201 lbs

Thickness of butt straps

outer 1 7/8"
inner 1 3/8"

No. and Description of Furnaces in each Boiler

4 DEIGHTON'S

Material

STEEL

Tensile strength

26 to 30 TONS

Smallest outside diameter

36 1/4"

Length of plain part

top —
bottom —

Thickness of plates

crown 3 1/2"
bottom 3 1/2"

Description of longitudinal joint

WELDED

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

209

Working pressure of furnace by Rules

209

End plates in steam space: Material

STEEL

Tensile strength

26 to 30 TONS

Thickness

1 1/2"

Pitch of stays

25" x 20"

How are stays secured

DN & W.

Working pressure by Rules

204 LBS.

Tube plates: Material

front STEEL
back —

Tensile strength

26 to 30 TONS

Thickness

1" F
3/2" B

Mean pitch of stay tubes in nests

8.25"

Pitch across wide water spaces

13 1/2" x 7 1/4"

Working pressure

front 500
back 288

Girders to combustion chamber tops: Material

STEEL

Tensile strength

28 to 32 TONS

Depth and thickness of girder

at centre

8 3/8" x 1 3/4"

Length as per Rule

3 1/2"

Distance apart

9" wings & 10" centre

No. and pitch of stays

in each

2 @ 9 1/2"

Working pressure by Rules

208 LBS

Combustion chamber plates: Material

STEEL

Tensile strength

26 to 30 TONS

Thickness: Sides

3/2"

Back

28"

Top

28" wings & 3" C

Bottom

3/2"

Pitch of stays to ditto: Sides

9 1/2" x 9 1/2"

Back

9 1/2" x 9 1/2"

Top

9" x 9 1/2" & 10"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

205" B CENTRE

Front plate at bottom: Material

STEEL

Tensile strength

26 to 30 TONS

Thickness

1"

Lower back plate: Material

STEEL

Tensile strength

26 to 30 TONS

Thickness

1"

Pitch of stays at wide water space

15" x 9 1/4"

Are stays fitted with nuts or riveted over

NUTS

Working Pressure

256 LBS

Main stays: Material

STEEL

Tensile strength

28 to 32 TONS

Diameter

At body of stay, 3 3/8" & 3 1/4"
or Over threads 3 3/4" & 3 5/8"

No. of threads per inch

6

Area supported by each stay

483 sq"

Working pressure by Rules

206 LBS

Screw stays: Material

STEEL

Tensile strength

26 to 30 TONS

Diameter

At turned off part, 1 3/4"
or Over threads 1 3/4"

No. of threads per inch

9

Area supported by each stay

90.2 sq"

004662-004667-0082

Working pressure by Rules 202 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 2" ✓
No. of threads per inch 9 ✓ Area supported by each stay 112" ✓ Working pressure by Rules 219 lbs ✓
Tubes: Material Iron ✓ External diameter { Plain 2 1/2" ✓ Thickness { 9/16" ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 5/8" x 3 3/4" ✓ Working pressure by Rules 230 lbs ✓ Manhole compensation: Size of opening in
shell plate 16" x 12" ✓ Section of compensating ring 8 1/2" x 1 3/8" ✓ No. of rivets and diameter of rivet holes 30 @ 1 3/8" ✓
Outer row rivet pitch at ends 9 1/4" ✓ Depth of flange if manhole flanged - ✓ Steam Dome: Material - ✓
Tensile strength - ✓ Thickness of shell - ✓ Description of longitudinal joint - ✓
Diameter of rivet holes - ✓ Pitch of rivets - ✓ Percentage of strength of joint { Plate - ✓
Internal diameter - ✓ Working pressure by Rules - ✓ Thickness of crown - ✓ No. and diameter of
stays - ✓ Inner radius of crown - ✓ Working pressure by Rules - ✓
How connected to shell - ✓ Size of doubling plate under dome - ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell - ✓

Type of Superheater - ✓ Manufacturers of { Tubes - ✓
Number of elements - ✓ Material of tubes - ✓ Steel castings - ✓
Material of headers - ✓ Tensile strength - ✓ Thickness - ✓ Internal diameter and thickness of tubes - ✓
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 - ✓

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes ✓

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED W. B. Quinn Manufacturer.

Dates of Survey { During progress of work in shops - - } Please see Mch. Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - } Total No. of visits -

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

These boilers have been built under Special Survey & the materials & workmanship are good. On completion they were tested by hydraulic pressure, found sound & tight, & afterwards satisfactorily fitted in the vessel. The boilers are fitted for burning oil fuel F.P. above 150°F & Section 35 of the Rules fully complied with. For notation see machinery report.

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

Garbott
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES, 13 DEC 1927

Assigned

See S. G. rpt. attached



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Foundation