

REPORT ON BOILERS.

No. 62180

Received at London Office

Date of writing Report

19

When handed in at Local Office

1. 4. 1940 Port of GLASGOW

No. in Survey held at
Reg. Book.

Date, First Survey

1939 May 30th Last Survey 27th March 1940

(Number of Visits

17

Gross

5188.91

Net

on the

M/V

"SUTLET"

Master

Built at

Glasgow

By whom built

Chas. Connell & Co.

Yard No. 428

When built 1940

Engines made at

Glasgow

By whom made

Barley Curle & Co. Ltd.

Engine No. 123

When made 1940

Boilers made at

-do-

By whom made

-do-

Boiler No. 123

When made 1940

Nominal Horse Power

Owners

James Arncliffe Ltd.

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Girdler Ltd.

(Letter for Record

5

Total Heating Surface of Boilers

1183 sq ft

Is forced draught fitted

No

Coal or Oil fired

Oil fired & gas

No. and Description of Boilers

One SE Oil fired & Exhaust Heat

Working Pressure 120 lbs.

Tested by hydraulic pressure to

230 lbs.

Date of test

6/10/39

No. of Certificate

20459

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

1-2 1/4" Imp. High Lift Safety

Area of each set of valves per boiler

{per Rule 10.95 sq ft
as fitted 7.95 sq ft

Pressure to which they are adjusted

120 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

-

Is oil fuel carried in the double bottom under boilers

-

Smallest distance between shell of boiler and tank top plating

-

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

9'-9"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

29/32 tons

Thickness

9/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

{end D.R.
inter.

long. seams

D.B.S. T.R.

Diameter of rivet holes in

{circ. seams 13/16"
long. seams 3/4"

Pitch of rivets

{2.978"
5"

Percentage of strength of circ. end seams

{plate 72.71
rivets 49.05

Percentage of strength of circ. intermediate seam

{plate 85.0
rivets 98.05

Percentage of strength of longitudinal joint

{plate 85.0
rivets 98.05
combined 84.61

Working pressure of shell by Rules

123 lbs.

Thickness of butt straps

{outer 9/16"
inner 9/16"

No. and Description of Furnaces in each Boiler

One Single

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

37 1/4"

Length of plain part

{top
bottom

Thickness of plates

{crown 3/8"
bottom 3/8"

Description of longitudinal joint

Welded

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

-

Working pressure of furnace by Rules

141 lbs.

End plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

25/32"

Pitch of stays 16" x 14" max

How are stays secured

Double nuts

Working pressure by Rules

122 lbs.

Tube plates: Material

{front Steel
back

Tensile strength

26/30 tons

Thickness

25/32"

11/16"

Mean pitch of stay tubes in nests

10.4395"

Pitch across wide water spaces

13 7/8"

Working pressure

{front 165 lbs.
back 153

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

7 7/8" x 20 1/2"

Length as per Rule

30 2/32"

Distance apart

9 1/2"

No. and pitch of stays

in each

2 @ 10 1/2"

Working pressure by Rules

124 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

19/32"

Back

19/32"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 1/2"

Back

9 1/2" x 10 1/2"

Top

9 1/2" x 10 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

120 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Thickness

25/32"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

26/32"

Pitch of stays at wide water space

13 7/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

171 lbs.

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

{At body of stay, or Over threads 2 7/8"

No. of threads per inch

6

Area supported by each stay

200 sq in

Working pressure by Rules

151 lbs.

Screw stays: Material

Steel

Tensile strength

28/30 tons

Diameter

{At turned off part, or Over threads 1 1/2"

No. of threads per inch

9

Area supported by each stay

99.95 sq in

Lloyd's Register
Foundation

W263-0162

Working pressure by Rules 125 lb. Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8"
No. of threads per inch 9" Area supported by each stay 120 sq" Working pressure by Rules 120 lb.
Tubes: Material 1 stel External diameter { Plain 3" + 1 3/4" Stay 3" Thickness { 10+11 W.C. No. of threads per inch 9
Pitch of tubes 4 1/8" x 4 1/4" + 2 7/8" x 2 3/4" Working pressure by Rules 140 lb. Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 19" x 9 1/8" No. of rivets and diameter of rivet holes 44 @ 7/8"
Outer row rivet pitch at ends 5 1/2" Depth of flange if manhole flanged 4" 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 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 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 Working pressure as per
Rules 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



The foregoing is a correct description,
Alexander Macneill Manufacturer.

Dates of Survey { During progress of work in shops -- 1939 May 30, June 8, 13, July 12, 31, Aug. 11, 16, 25, Sept. 6, 8, 15, 27, Oct. 2, 6, Nov. 3, Dec. 5, 1940 Mar. 27
while building { During erection on board vessel -- --
Are the approved plans of boiler and superheater forwarded herewith Yes
(If not state date of approval.)
Total No. of visits 19

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "INDUS" GLS. R.P. No 61982

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the Rules and approved plans and the materials and workmanship are good. The boiler has been satisfactorily installed in the vessel and the safety valves have been adjusted under steam to 120 lb/sq"

26
1/4/40

Survey Fee ... £ 6 : 4 : - When applied for, 19
Travelling Expenses (if any) £ : : When received, 31/5/1940 R.S.J.
5/6

A. J. Brown
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2 APR 1940

Assigned SEE ACCOMPANYING MACHINERY REPORT



© 2019

Lloyd's Register
Foundation