

REPORT ON BOILERS.

No. 82125

Received at London Office

8 DEC 1927

Date of writing Report 2 Dec 1927 When handed in at Local Office 7/12/27 Port of Newcastle-on-Tyne

No. in Surrey held at Walker on Tyne

Date, First Survey 17 May

Last Survey 1 Dec

1927

(Number of Visits —)

Gross

5180

Tons

Net 3261

on the Steel Screw Steamer OIL TRADER

Master Built at Walker

By whom built S. H. W. R. L.

Yard No. 1244 When built 1927. 12

Engines made at Walker

By whom made Swan Hunter, Wiggin, Richardson & Co.

Engine No. 1244 When made 1927. 12

Boilers made at Walker

By whom made Swan Hunter, Wiggin, Richardson & Co.

Boiler No. 1244 When made 1927. 12

Nominal Horse Power 482

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland, Dighten & Co. Ltd

(Letter for Record S)

Total Heating Surface of Boilers 6900 sq ft

Is forced draught fitted Yes

Coal or Oil fired oil

No. and Description of Boilers 3 S. ended Cylindrical multitubular

Working Pressure 200 lb

Tested by hydraulic pressure to 350 lb

Date of test 2-9-27

No. of Certificate 197

Can each boiler be worked separately Yes

Area of Firegrate in each Boiler Oil fuel

No. and Description of safety valves to each boiler two direct spring high lift

Area of each set of valves per boiler

per Rule 10.82

Pressure to which they are adjusted 205 lb

Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler none

Smallest distance between boilers or uptakes and bunkers or woodwork 2'-0"

Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 2'-2"

Is the bottom of the boiler insulated no

Largest internal dia. of boilers 14'-3 9/16" Length 11'-6"

Shell plates: Material Steel

Tensile strength 30/34 tons

Thickness 17/32" Are the shell plates welded or flanged no

Description of riveting: circ. seams

end D.R. LAP

long. seams T.R.D.B.S.

Diameter of rivet holes in

circ. seams 13/8"

Pitch of rivets 4.377"

Percentage of strength of circ. end seams

plate 68.58%

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate 85.31%

Working pressure of shell by Rules 200 lb

Thickness of butt straps

outer 15/16"

No. and Description of Furnaces in each Boiler 3 Dighten Corrugated, Gouley

Material Steel

Tensile strength 26/30 tons

Smallest outside diameter 41 13/16"

Length of plain part

Thickness of plates

crown 19/32"

Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom none

Working pressure of furnace by Rules 206 lb

End plates in steam space: Material Steel

Tensile strength 26/30 tons

Thickness 1 1/4"

Pitch of stays 19 1/2 x 18 5/8

How are stays secured double nuts and washers

Working pressure by Rules 201 lb

Tube plates: Material

front Steel

Tensile strength 26/30 tons

Thickness

13/16"

Mean pitch of stay tubes in nests 9 3/8"

Pitch across wide water spaces 13 1/2"

Working pressure

front 209 lb

back 270 lb

Girders to combustion chamber tops: Material Steel

Tensile strength 28/32 tons

Depth and thickness of girder

at centre 9 1/8" x 1 1/4"

Length as per Rule 31 17/32"

Distance apart 9"

No. and pitch of stays

in each 2 of 9 3/4"

Working pressure by Rules 200 lb

Combustion chamber plates: Material Steel

Tensile strength 26/30 tons

Thickness: Sides 23/32"

Back 21/32"

Top 23/32"

Bottom 23/32"

Pitch of stays to ditto: Sides 9 1/2" x 8"

Back 9" x 8"

Top 9 3/4" x 9"

Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 206 lb

Front plate at bottom: Material Steel

Tensile strength 26/30 tons

Thickness 1"

Lower back plate: Material Steel

Tensile strength 26/30 tons

Thickness 15/16"

Pitch of stays at wide water space 14 7/8" x 8"

Are stays fitted with nuts or riveted over nuts

Working Pressure 260 lb

Main stays: Material Steel

Tensile strength 28/32 tons

Diameter

At body of stay, 2 top stays 3 1/4" dia.

No. of threads per inch 6

Area supported by each stay 19 3/4" x 18 1/2"

Working pressure by Rules 201 lb

Screw stays: Material Steel

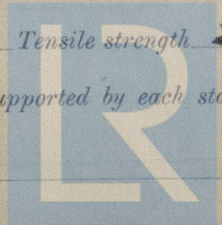
Tensile strength 26/30 tons

Diameter

At turned off part, 1 5/8"

No. of threads per inch 9

Area supported by each stay 76"



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Working pressure by Rules 200 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 3/4"
No. of threads per inch 9 Area supported by each stay 89" Working pressure by Rules 203 lb
Tubes: Material low External diameter { Plain 2 1/2" Thickness { 9 W G No. of threads per inch 9
Stay 2 1/2" 3/8" - 5/16"
Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 217 Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 10 1/2" x 1 1/3" No. of rivets and diameter of rivet holes 32 x 1 1/2 dia
Outer row rivet pitch at ends 10 1/4" Depth of flange if manhole flanged 2 3/4" 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

Manufacturers of { Tubes 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, 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

FOR THE MANAGER & WILKINSON, LTD.
The foregoing is a correct description,

Manufacturer,

DIRECTOR.

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

See Mealy Report

Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)

Total No. of visits

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

These Boilers built under Special Survey the material and workmanship found good and efficient -
The Boilers have been satisfactorily fitted up on board the vessel.
Fitted for burning oil fuel. 12-27. Flash point above 150°F. forced draught.
"Arrangements are also made for burning (coal)"

extended on Mealy report

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

L. G. Shallcross

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Mealy report attached



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