

REPORT ON BOILERS.

No. 82814

31 MAY 1928

Received at London Office

Writing Report

192

When handed in at Local Office

30/5/1928

Port of

NEWCASTLE-ON-TYNE

Survey held at

Walker on Tyne

Date, First Survey

11th July 1927

Last Survey

23rd May 1928

Book.

(Number of Visits)

on the *Steel Screw M.V. "JENNY"*

Tons

Gross 4706

Net 2682

er

Built at *Wallsend*

By whom built

S. Hunter & W. Richardson

Yard No. 1325

When built 1928-5

nes made at

Walker on Tyne

By whom made

Swan Hunter & W. Richardson Ltd

Engine No. 1252

When made 1928-5

rs made at

Walker on Tyne

By whom made

S. Hunter & W. Richardson Ltd

Boiler No. 1252

When made 1928-5

inal Horse Power

Owners

A/S Ajebart

Port belonging to

Oslo

An additional Scotch boiler fitted 1928 for h.p. 136th

MULTITUBULAR BOILERS—~~MAIN~~, ~~AUXILIARY~~, OR DONKEY.

Manufacturers of Steel

David Colville & Sons Ltd Dugtons Furnace

(Letter for Record *S*)

Total Heating Surface of Boilers

1136 sq ft

Is forced draught fitted *yes*

Coal or Oil fired *oil*

and Description of Boilers

one S.E. cyl multitubular

Working Pressure *150 lb sq in*

Tested by hydraulic pressure to

275 lb sq in

Date of test *20-3-28*

No. of Certificate *249*

Can each boiler be worked separately *yes*

Kind of Firegrate in each Boiler

oil fuel

No. and Description of safety valves to each boiler *two, spring loaded, high lift*

Pressure of each set of valves per boiler

per Rule 5.16 sq in as fitted 6.28

Pressure to which they are adjusted *155 lb*

Are they fitted with easing gear *yes*

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *NO. Main Boilers*

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 *12"*

Is the bottom of the boiler insulated *no*

Largest internal dia. of boilers

10'-4 7/16"

Length *11'-0"*

Shell plates: Material *Steel*

Tensile strength *30/34 tons*

Thickness

25/32"

Are the shell plates welded or flanged *no*

Description of riveting: circ. seams {end *Double Riveted* inter. *2-73"*

Kind of seams

D.R., B.B.S.

Diameter of rivet holes in {circ. seams *7/8"* long. seams *1 1/16"*

Pitch of rivets {*4 1/4"*

Percentage of strength of circ. end seams {plate *67.94%* rivets *43.20%*

Percentage of strength of circ. intermediate seam {plate *75%* rivets *76.76%*

Working pressure of shell by Rules *157 lb sq in*

Thickness of butt straps {outer *5/8"* inner *5/8"*

No. and Description of Furnaces in each Boiler *two, Dugtons corrugated*

Material

Steel

Tensile strength *26/30 tons*

Smallest outside diameter *2'-10 5/8"*

Length of plain part {top *3/8"* bottom *3/8"*

Thickness of plates {crown *3/8"* bottom *3/8"*

Description of longitudinal joint *weld*

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

Working pressure of furnace by Rules *152 lb sq in*

Material plates in steam space: Material

Steel

Tensile strength *26-30 tons*

Thickness *29/32"*

Pitch of stays *19" x 11 7/8"*

How are stays secured

Double nuts

Working pressure by Rules *151 lb sq in*

Material plates: Material

{front *Steel* back *Steel*

Tensile strength {*26/30 tons*

Thickness {*29/32"*

1 1/16"

Pitch of stay tubes in nests *8 1/4"*

Pitch across wide water spaces *13 1/2"*

Working pressure {front *176 lb* back *218 lb*

Orders to combustion chamber tops: Material

Steel

Tensile strength *28/32 tons*

Depth and thickness of girder

centre *7 1/4" x 1 1/4"*

Length as per Rule *30.59"*

Distance apart *8"*

No. and pitch of stays

each *2 x 9 1/2"*

Working pressure by Rules *151 lb sq in*

Combustion chamber plates: Material *Steel*

Tensile strength *26/30 tons*

Thickness: Sides *5/8"* Back *23/32"* Top *5/8"* Bottom *5/8"*

Are stays fitted with nuts or riveted over *other stays riveted over etc. checked*

Pitch of stays to ditto: Sides *10" x 8 7/8"* Back *9 1/4" x 8 1/4"* Top *9 1/2" x 8"*

Working pressure by Rules *151 lb sq in*

Front plate at bottom: Material *Steel*

Tensile strength *26/30 tons*

Thickness *29/32"*

Lower back plate: Material *Steel*

Tensile strength *26/30 tons*

Thickness *29/32"*

Pitch of stays at wide water space *13 1/2" x 9 1/4"*

Are stays fitted with nuts or riveted over *Nuts*

Working Pressure *250 lb sq in*

Main stays: Material *Steel*

Tensile strength *28/32 tons*

Diameter {At body of stay, *2 1/4"* or Over threads *2 1/4"*

No. of threads per inch *6*

Area supported by each stay *222 sq in*

Working pressure by Rules *155 lb sq in*

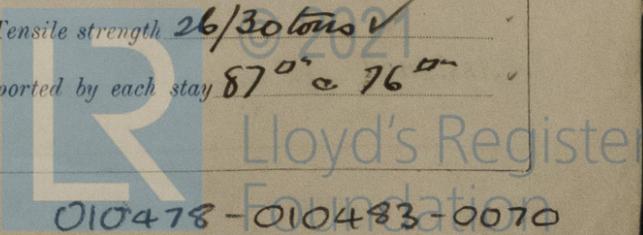
Screw stays: Material *Steel*

Tensile strength *26/30 tons*

Diameter {At turned off part, *1 5/8" - 1 1/2"* or Over threads *1 5/8" - 1 1/2"*

No. of threads per inch *9*

Area supported by each stay *87 sq in or 76 sq in*



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Working pressure by Rules $167\frac{1}{2}$ Are the stays drilled at the outer ends *no* ✓ Margin stays: Diameter $1\frac{5}{8}$ ✓
 No. of threads per inch 9 ✓ Area supported by each stay $99\frac{1}{2}$ Working pressure by Rules $153\frac{1}{2}$ ✓
 Tubes: Material *Iron* ✓ External diameter { Plain $2\frac{1}{2}$ ✓ Stay $2\frac{1}{2}$ ✓ Thickness { $10\frac{1}{2}$ ✓ $5\frac{1}{16}$ ✓ No. of threads per inch 9 ✓
 Pitch of tubes $3\frac{1}{2} \times 3\frac{1}{2}$ ✓ Working pressure by Rules $210\frac{1}{2}$ ✓ Manhole compensation: Size of opening $13\frac{3}{8}$ ✓
 shell plate 20×16 ✓ Section of compensating ring $13\frac{3}{8}$ flanged $\times \frac{25}{32}$ ✓ No. of rivets and diameter of rivet holes $32 - 1\frac{3}{16}$ ✓
 Outer row rivet pitch at ends 6 ✓ Depth of flange if manhole flanged $2\frac{1}{2}$ ✓ 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 Working pressure by Rules Thickness of crown No. and diam stays
 Inner radius of crown Working pressure by Rules
 How connected to shell Size of doubling plate under dome Diameter of rivet holes and of rivets in outer row in dome connection to shell

Type of Superheater *none* 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 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
 Rules Pressure to which the safety valves are adjusted Hydraulic test pres tubes castings and after assembly in place Are drain cocks or valves to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *yes*

FOR THE FOREGOING IS A CORRECT DESCRIPTION,
 SWAN, HUNTER & WIGHAM, CHARLTON, LTD.

G. J. Tweedy Manufact

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
*The Boiler built under Special Survey the material and workmanship found good and efficient.
 The Boiler satisfactorily fitted up on flat at aft end of the Engine Room
 Tested under steam under working conditions and found satisfactory
 The Boiler fitted up for burning oil fuel under forced draught - Wash point of oil used to above 160° F.*

Fee entered on *Survey Report*
 Survey Fee ... £ : : } When applied for, 192
 Travelling Expenses (if any) £ : : } When received, 192

L. G. Shalleross
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **FRI. 8 JUN 1928**

Assigned *see Minute on above Rpt*
82814 attached

