

REPORT ON BOILERS.

No. 54510

Received at London Office

16 MAY 1934

Date of writing Report

19

When handed in at Local Office

8. 5. 10. 34

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

11. 5. 33

Last Survey

5-5- 1934

(Number of Visits 71)

Gross 4118
Net 2479

on the new steel S/S "ARGOW."

Master

Built at Port Glasgow

By whom built Lithgows Ltd

Yard No. 866 When built 1934

ter engines made at

Glasgow

By whom made Davis Rowan & Co Ltd

Engine No. 963 When made 1934

ilers made at

Glasgow

By whom made Davis Rowan & Co Ltd

Boiler No. 963 When made 1934

pitch

ominal Horse Power 352

Owners Argow Shipping Co Ltd

Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Bohills Ltd

(Letter for Record (S))

total Heating Surface of Boilers

1390 sq ft

Is forced draught fitted no

Coal or Oil fired coal

ure o. and Description of Boilers

One single ended

Working Pressure 220

tested by hydraulic pressure to

380

Date of test 24-8-33

No. of Certificate 19274

Can each boiler be worked separately -

rea of Firegrate in each Boiler

40 1/4 sq ft

No. and Description of safety valves to each boiler

Two Improved high lift

rea of each set of valves per boiler

per Rule 3.69 sq ft

as fitted 4.8 sq ft

Pressure to which they are adjusted 225

Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

ur

Smallest distance between boilers or uptakes and bunkers or woodwork away between MBs Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating

2'-1"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

12'-6"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength 29.33 tons

Thickness

1 1/16"

Are the shell plates welded or flanged no

Description of riveting: circ. seams

end

inter.

Long. seams

DBS, TR

Diameter of rivet holes in

circ. seams

F 1 1/16" B 1/4"

Pitch of rivets

F 3.2" B 3.46"

Percentage of strength of circ. end seams

plate

F 62.9 B 63.8

rivets

F 46.1 B 47.3

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.7

rivets

87.7

combined

87.8

Working pressure of shell by Rules

220

ed

Thickness of butt straps

outer

29'

inner

1 1/2"

No. and Description of Furnaces in each Boiler

Two Deighton

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

45.3875"

Length of plain part

top

bottom

Thickness of plates

crown

1 1/16"

Description of longitudinal joint

welded

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

-

Working pressure of furnace by Rules

222

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 3/8"

Pitch of stays 15" x 15 1/2"

How are stays secured

10N

Working pressure by Rules

220

Tube plates: Material

front

steel

back

"

Tensile strength

26-30 tons

Thickness

15/16"

13/16"

Mean pitch of stay tubes in nests

10 1/4"

Pitch across wide water spaces

14"

Working pressure

front

222

back

225

Girders to combustion chamber tops: Material

Steel

Tensile strength 28-32 tons

Depth and thickness of girder

at centre 2 @ 7 3/8" x 7 1/8"

Length as per Rule 28.5"

Distance apart 8 1/2"

No. and pitch of stays

in each 2 @ 9 3/8"

Working pressure by Rules

243

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

25"

Back

1 1/16"

Top

25"

Bottom

25"

32"

Pitch of stays to ditto: Sides

9 3/8" x 7 1/2"

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

Top 8 1/2" x 9 3/8"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

236

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

15"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

13"

16"

Pitch of stays at wide water space 13 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

220

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

2 3/4" & 2 1/2"

No. of threads per inch

6

Area supported by each stay 240 & 235 sq in

Working pressure by Rules 272 & 2270"

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 5/8" & 1 3/4"

No. of threads per inch

9

Area supported by each stay 70 & 79.5 sq in

Working pressure by Rules 220 & 228 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 7/8" ✓
 No. of threads per inch 9 Area supported by each stay 90 Working pressure by Rules 236
 Tubes: Material iron External diameter { Plain 3 1/4" ✓ Thickness { 8 w g ✓ No. of threads per inch 9 ✓
 Pitch of tubes 4 3/8" x 4 1/2" Working pressure by Rules 230 Manhole compensation: Size of opening in shell plate 15 1/2" x 19 1/2" ✓ Section of compensating ring 9 1/2" x 1 3/16" ✓ No. of rivets and diameter of rivet holes 34 @ 1 1/4" ✓
 Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 3" ✓ 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 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 22 inclusive for boilers been complied with yes ✓

The foregoing is a correct description,
 For David Rowan & Co. Ltd. Manufacturer.
 Arch. H. Grierson

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

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good.
The boiler has been constructed under special survey, satisfactorily fitted in the vessel and its safety valves adjusted under steam.
7/3/34

Survey Fee ... £ See index Rep. When applied for, 10
 Travelling Expenses (if any) £ See index Rep. When received, 10

S. C. Davis
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 MAY 1934
 Assigned SEE ACCOMPANYING MACHINERY REPORT.