

REPORT ON BOILERS.

No. 86253

27 SEP 1930

Received at London Office

Date of writing Report

19

When handed in at Local Office

25/9/30

Port of NEWCASTLE-ON-TYNE.

No. in Survey held at
eg. Bolk.

Scotswood

Date, First Survey

27 Dec 129

Last Survey

22 Sept 1930

M. V. "PEIK"

(Number of Visits

Gross 6099

Tons Net 3592

Master

Built at

Walker

By whom built

S. W. G. Armstrong Whitworth & Co. Ltd. Yard No. 1057 When built 1930.

Engines made at

Scotswood

By whom made

Thos. S. W. G. Armstrong Whitworth & Co. Ltd. Engine No. 90 When made 1930.

Boilers made at

Scotswood.

By whom made

Thos. S. W. G. Armstrong Whitworth & Co. Ltd. Boiler No. 90 When made 1930.

Nominal Horse Power

583.

Owners

J. W. Salvesen.

Port belonging to

Oslo.

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

Manufacturers of Steel

David Colvile & Sons Glasgow (Plates) J. Thompson Wolverhampton (Furnaces) (Letter for Record S.)

Total Heating Surface of Boilers

2050 sq ft.

Is forced draught fitted

No.

Coal or Oil fired

oil.

test pressure, and Description of Boilers

One S.E. Multitubular

Working Pressure

180 lb/sq in.

or valves fitted by hydraulic pressure to

320 lb/sq in.

Date of test

3.7.30

No. of Certificate

478.

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2 spring loaded.

Area of each set of valves per boiler

per Rule

15.8 sq in.

as fitted

16.5 sq in.

Pressure to which they are adjusted

180 lb/sq in.

Are they fitted with easing gear

Yes.

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

✓

Manufacturers' least distance between boilers or uptakes and bunkers or woodwork

✓

Is oil fuel carried in the double bottom under boilers

✓

Least distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

Yes.

Greatest internal dia. of boilers

15-0 1/2"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

28-32 tons

Thickness

1 1/4"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end D.R. Lap

Pitch of rivets

T.R. Double Butt Straps

Diameter of rivet holes in

circ. seams

1 5/16"

long. seams

1 5/16"

Pitch of rivets

3.85"

8 1/8"

Percentage of strength of circ. end seams

plate

65.7%.

rivets

46.0%.

Percentage of strength of circ. intermediate seam

plate

85.3%.

rivets

✓

Percentage of strength of longitudinal joint

plate

93.0%.

rivets

88.6%.

Working pressure of shell by Rules

183 lb/sq in.

Thickness of butt straps

outer

3 1/2"

inner

1 3/2"

Name and Description of Furnaces in each Boiler

3. Thomson Section.

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

3'-6 1/2"

Length of plain part

top

✓

bottom

✓

Thickness of plates

crown

1 7/8"

bottom

1 3/2"

Description of longitudinal joint

Welded.

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

None

Working pressure of furnace by Rules

180 lb/sq in.

Plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/4"

Pitch of stays 16 3/4" x 20"

Are stays secured

Nuts & washers inside & outside

Working pressure by Rules

214 lb/sq in.

Front plates: Material

front

Steel

back

Steel

Tensile strength

26-30 tons

Thickness

1 1/8"

2 5/8"

Pitch of stay tubes in nests

11"

Pitch across wide water spaces

14 1/2"

Working pressure

front

188 lb/sq in.

back

180 lb/sq in.

Boilers to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

Centre

8" x 1 1/2"

Length as per Rule

2'-7"

Distance apart

8 3/8" x 9 1/4"

No. and pitch of stays

Pitch

2 @ 9 1/2"

Working pressure by Rules

185 lb/sq in.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

1 1/8"

Back

1 1/8"

Top

1 1/8"

Bottom

1 1/8"

Pitch of stays to ditto: Sides

9" x 10"

Back

9 3/4" x 8 3/4"

Top

9 1/4" x 9 1/2"

Are stays fitted with nuts or riveted over

Nuts.

Working pressure by Rules

182 lb/sq in.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

2 3/4"

Pitch of stays at wide water space

14 3/4" x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts.

Working Pressure

229 lb/sq in.

Main stays: Material

Steel

Tensile strength

28-32 tons

At body of stay,

3 1/4"

No. of threads per inch

6.

Area supported by each stay

382 sq ins.

Over threads

210 lb/sq in.

Screw stays: Material

Steel

Tensile strength

26-30 tons

At turned off part,

1 3/4"

No. of threads per inch

9.

Area supported by each stay

90 sq ins.

Over threads

2258
Working pressure by Rules 200 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 1 1/8" & 2 1/8"
No. of threads per inch 9 Area supported by each stay 107 sq in & 150 sq in Working pressure by Rules 199 lbs & 190 lbs
Tubes: Material Steel External diameter 3 1/2" Plain 3 1/2" Thickness 9/16" & 3/8" No. of threads per inch 9
Pitch of tubes 4 3/4" Working pressure by Rules Plain 215 lbs Stay 182 lbs Manhole compensation: Size of opening in
shell plate 21" x 17" Section of compensating ring 21" x 1 1/4" No. of rivets and diameter of rivet holes 36 @ 1 5/16"
Outer row rivet pitch at ends 4" & 9 1/8" Depth of flange if manhole flanged 3 3/8" 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
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
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 (manually) 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

FOR The foregoing is a correct description,
SIR W. G. ARMSTRONG WHITWORTH & COMPANY (ENGINEERS) LIMITED.
A. Dewdney Manufacturer.

Dates of Survey During progress of work in shops - - Are the approved plans of boiler and superheater forwarded herewith Yes
while building During erection on board vessel - - (If not state date of approval.)
Total No. of visits 1

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 Boiler has been built under Special Survey and in accordance with the Society's Rules and approved plan. The materials & workmanship are sound & good. The boiler was hydraulically tested as per Rules & found satisfactory. The safety valves were adjusted under steam to the approved working pressure.

[Faint handwritten notes and stamps in the lower section of the page, including "See other Nave Rpt 86253"]

Survey Fee ... £ See When applied for, 19
Travelling Expenses (if any) £ See When received, 19

L. P. Dewdney
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 30 SEP 1930
Assigned See other Nave Rpt 86253