

Rpt. 5a.

REPORT ON BOILERS.

No. 29815

Date of writing Report

192

When handed in at Local Office

10 AUG. 1928

Received at London Office

1 AUG 1928

Port of Sunderland

No. in
Reg. Book

Survey held at Sunderland

Date, First Survey

Last Survey

Aug 9 1928

on the Steel Screw Steamer "WISLA"

(Number of Visits

Gross
Tons
Net

Master

Built at Stockton

By whom built Craig Taylor & Co. Ltd.

Yard No. 224

When built 1928

Engines made at Sunderland

By whom made

North Eastern Marine Engg. Co. Ltd.

Engine No. 2641

When made 1928

Boilers made at Sunderland

By whom made

North Eastern Marine Engg. Co. Ltd.

Boiler No. 2641

When made 1928

Nominal Horse Power 293

Owners

Polish State S.S. Co.

(P. P. Żegluga Polska)

Port belonging to

Gdynia

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

Manufacturers of Steel The Steel Company of Scotland, Ltd.

(Letter for Record (S) ✓)

Total Heating Surface of Boilers 4606

Is forced draught fitted No.

Coal or Oil fired Coal.

No. and Description of Boilers Two single ended Marine Type - corrugated

Working Pressure 180 lbs.

Tested by hydraulic pressure to 320 lbs.

Date of test 16-7-28

No. of Certificate 3999

Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 55

No. and Description of safety valves to each boiler

Two Direct Spring headed.

Area of each set of valves per boiler

per Rule 14.46

as fitted 16.58

Pressure to which they are adjusted 185 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 and bunkers 5'-1"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

2'-5"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers 15'-6 7/32"

Length 10'-6" (full)

Shell plates: Material Steel.

Tensile strength 29-33 tons

Thickness 1 5/16"

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 FROM: 1 1/4" - BACK: 1 9/32"

Pitch of rivets

FROM: 3 3/4" - BACK: 3 7/8"

Percentage of strength of circ. end seams

plate 66.64 64.5

rivets 42.24 42.5

Percentage of strength of circ. intermediate seam

plate ✓

Percentage of strength of longitudinal joint

plate 85.66

rivets 84.28

Working pressure of shell by Rules 181.5 lbs.

Thickness of butt straps

outer 1 5/16"

inner 1 1/16"

No. and Description of Furnaces in each Boiler

Three corrugated - Deighton Type.

Material Steel

Tensile strength 26-30 tons

Smallest outside diameter

3'-8 3/8"

Length of plain part

top ✓

bottom ✓

Thickness of plates

crown 9/16"

bottom 9/16"

Description of longitudinal joint Welded.

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

Working pressure of furnace by Rules 183.4 lbs.

End plates in steam space: Material Steel

Tensile strength 26-30 tons

Thickness 1 9/32"

Pitch of stays 23" x 20 5/8"

How are stays secured d.n. & w. outside.

Working pressure by Rules 181 lbs.

Tube plates: Material

front Steel.

back Steel.

Tensile strength 26-30 tons

Thickness

3/4"

Mean pitch of stay tubes in nests 9.125"

Pitch across wide water spaces 15 1/4"

Working pressure

front 183 lbs (W.W. Space)

back 189 lbs

Girders to combustion chamber tops: Material Steel

Tensile strength 28-32 tons

Depth and thickness of girder

at centre 8" x 2"

Length as per Rule 31"

Distance apart 11 1/2"

No. and pitch of stays

in each 2 at 9 1/2"

Working pressure by Rules 198.2 lbs.

Combustion chamber plates: Material Steel

Tensile strength 26-30 tons

Thickness: Sides 25/32"

Back 25/32"

Top 25/32"

Bottom 15/16"

Pitch of stays to ditto: Sides 12" x 9 1/2"

Back 11 1/2" x 10 5/16"

Top 11 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over Fitted with nuts

Working pressure by Rules

Sides 184 lbs

Back 180 lbs

Top 194 lbs

Front plate at bottom: Material Steel

Tensile strength 26-30 tons

Thickness 4/8"

Lower back plate: Material Steel

Tensile strength 26-30 tons

Thickness 4/8"

Pitch of stays at wide water space 15 1/4" x 10 5/16"

Are stays fitted with nuts or riveted over Fitted with nuts.

Working Pressure 181 lbs.

Main stays: Material Steel

Tensile strength 28-32 tons

Diameter

At body of stay, 3 1/8"

or

Over threads

No. of threads per inch 6

Area supported by each stay 444 sq. in.

Working pressure by Rules 180 lbs.

Screw stays: Material Steel

Tensile strength 26-30 tons

Diameter

At turned off part, 1 7/8"

or

Over threads

No. of threads per inch 9

Area supported by each stay

Sides 114 sq. in.

Backs 118 sq. in.

Tops 108.5 sq. in.

015172-015182-0108

Working pressure by Rules ^{Sides 184.5 lbs} ~~Backs 180 lbs~~ Are the stays drilled at the outer ends ⁷⁰ Margin stays: Diameter { At turned off part, 2" or Over threads. }
 No. of threads per inch 9 Area supported by each stay 113.50 Working pressure by Rules 218.5 lbs
 Tubes: Material Hot Iron External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 5/16" & 1/4" No. of threads per inch 9
 Pitch of tubes 4 7/16" x 4 11/16" Working pressure by Rules Plain 230 lbs Stay 192 lbs Manhole compensation: Size of opening in
 end plate 16" x 12" Section of compensating ring No. of rivets and diameter of rivet holes
 Outer row rivet pitch at ends Depth of flange if manhole flanged 3 5/16" 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
 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 Yes

The foregoing is a correct description.

Archd. P. Berry

Dates of Survey { During progress of work in shops - - - Please see Machy Rpt.
 while building { During erection on board vessel - - -

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.)

The materials and workmanship are good.
 The Boilers have been constructed under Special Survey, a satisfactory
 fitted in the vessel.
 For notation see Machinery Report.

Survey Fee £

Travelling Expenses (if any) £

When applied for,

192

When received,

192

A. T. Griffith

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUES. 28 AUG 1928

Assigned *see Minute on*
Mach. Rpt 13401 attached



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 Foundation