

REPORT ON BOILERS.

No. 12099

Date of writing Report

192

When handed in at Local Office

3.10.24

Received at London Office

-4 OCT 1924

No. in Survey held at
Reg. Book.

Stockton-on-Tees

Date, First Survey

Port of Trinidad & Tobago

Last Survey

192

on the

Steel Screw Steamer REEDPOOL

(Number of Visits)

Tons
(Gross)
(Net)

Master

Built at

Stockton

By whom built

Thos. Refraser & S. P. Co

Yard No.

345

When built

1924

Engines made at

Stockton

By whom made

Thos. Blair & Co. Ltd

Engine No.

1956

When made

1924

Boilers made at

Stockton

By whom made

Thos. Blair & Co. Ltd

Boiler No.

1956

When made

1924

Nominal Horse Power

437

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

D. Colville & Son Ltd (Plate): Steel Co of Scotland (Plate)

(Letter for Record)

(S)

Total Heating Surface of Boilers

7526 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

3 single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

5.9.24

No. of Certificate

6390

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

63.3 sq ft

No. and Description of safety valves to each boiler

2 direct spring, High Lift

Area of each set of valves per boiler

{ per Rule 10.72

{ as fitted 11.88

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

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

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2' 0"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2' 6"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15' 9 3/8"

Length

11' 0"

Shell plates: Material

Steel

Tensile strength

28-32

Thickness

1 5/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

{ end 2 Riv? Lap

{ inter.

Long. seams

2 Built - 3 Riveted

Diameter of rivet holes in

{ circ. seams 1 3/8"

{ long. seams 1 5/16"

Pitch of rivets

{ 4 3/8"

{ 8 3/4"

Percentage of strength of circ. end seams

{ plate 68.57

{ rivets 42.3

Percentage of strength of circ. intermediate seam

{ plate 85.02

{ rivets 90.5

Percentage of strength of longitudinal joint

{ plate 85.02

{ rivets 90.5

{ combined 88.15

Working pressure of shell by Rules

184 lbs

Thickness of butt straps

{ outer 19 3/8" x 1 5/8"

{ inner 19 3/8" x 1 1/4"

No. and Description of Furnaces in each Boiler

3 Doughton

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

45 1/2"

Length of plain part

{ top 19"

{ bottom 32"

Thickness of plates

{ crown 19"

{ bottom 32"

Description of longitudinal joint

Weld

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

none

Working pressure of furnace by Rules

186 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30

Thickness

1 1/4"

Pitch of stays 20 3/4" x 22"

How are stays secured

nuts and 12 1/2" x 1" long washers

Working pressure by Rules

189 lbs

Tube plates: Material

{ front steel

{ back steel

Tensile strength

{ 26-30 tons

{ 26-30 tons

Thickness

{ 1 1/4"

{ 1 3/8"

Mean pitch of stay tubes in nests

11 3/8"

Pitch across wide water spaces

14 1/2" x 9 1/2"

Working pressure

{ front 188 lbs

{ back 180 "

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

7 3/4" x 1 3/8"

Length as per Rule

30"

Distance apart

9 1/2"

No. and pitch of stays

in each

2 @ 9 1/2"

Working pressure by Rules

197 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

1 1/4"

Back

21"

Top

1 1/4"

Bottom

7/8"

Pitch of stays to ditto: Sides

8 1/4" x 10 1/2"

Back

9 1/8" x 9"

Top

9 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

182 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

279 lbs

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

{ At body of stay, 3 1/2"

{ or 3 1/2"

{ Over threads 3 1/2"

No. of threads per inch

6

Area supported by each stay

470

Working pressure by Rules

202 lbs

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

{ At turned off part, 1 3/4"

{ or 1 3/4"

{ Over threads 1 3/4"

No. of threads per inch

8

Area supported by each stay

82.125

W1155-0091

W1155-0076

Working pressure by Rules 218 Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, 1 7/8" ✓
No. of threads per inch 8 ✓ Area supported by each stay 99 Working pressure by Rules 210
Tubes; Material iron ✓ External diameter { Plain 3 1/2 ✓ Thickness { Nº 8 - S.W.G. ✓ No. of threads per inch 9 ✓
Pitch of tubes 4 7/8" x 4 3/4" ✓ Working pressure by Rules 215 + 207 lbs Manhole compensation: Size of opening in
shell plate 16" x 12" ✓ Section of compensating ring 8" x 1 5/16" No. of rivets and diameter of rivet holes 27 @ 1 3/8" ✓
Outer row rivet pitch at ends 9" ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material iron ✓
Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint { Plate _____
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 yes ✓

The foregoing is a correct description,
BLAIR & CO. LIMITED.
H. P. Sawittou Manufacturer.

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built
under special survey, are of good material and workmanship and on
completion were tested by hydraulic pressure with satisfactory results
The boilers have been satisfactorily secured on board in accordance
with the Rules. Examined under steam and safety valves adjusted

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

W. Morrison
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 7 OCT 1924
Assigned See Indb 12099