

REPORT ON BOILERS.

NOV 13 1937

Sld. No. 32235

Mch. No. 16111

SEP 30 1937

Received at London Office

Date of writing Report

10

When handed in at Local Office

29-9-1037

Port of

Middlesbrough

No. in Survey held at

Stockton

Date, First Survey

 31st Mar

Last Survey

 2nd Sept 1937

g. Book.

M/V "ETTRICKBANK."

(Number of Visits 13)

Gross 5138

Net 3040

Master

Built at Sunderland.

By whom built W. Donford Smith

Yard No. 637

When built 1937

Engines made at

Sunderland

By whom made

Wm. Donford & Sons Ltd.

Engine No. 634

When made 1937

Boiler made at

Stockton

By whom made

Stockton C.E. & Riley Boilers Ltd.

Boiler No. 6252

When made 1937

Nominal Horse Power

684

Owners

Inver Transport & Trading Co. Ltd.

Port belonging to

Glasgow.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

1626

Is forced draught fitted

no.

Coal or Oil fired

oil

No. and Description of Boilers

1 Sp.

Working Pressure 120 lbs

Tested by hydraulic pressure to

230 lbs

Date of test 2.9.37

No. of Certificate 6916

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 Series Spring

Area of each set of valves per boiler

per Rule 15.08 sq. in.

as fitted 19.2 sq. in.

Pressure to which they are adjusted

120

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

Is oil fuel carried in the double bottom under boilers

Yes (u.f.b.)

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

11'-10 3/8"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

26/30

Thickness

1 1/16

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

DR.

Long. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams 1 1/16

long. seams 1 3/16

Pitch of rivets

3 3/8

5 3/8

Percentage of strength of circ. end seams

plate 68.5

rivets 45.5

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 84.9

rivets 83.8

Working pressure of shell by Rules

123 lbs

Thickness of butt straps

outer 9/16

inner 1/16

No. and Description of Furnaces in each Boiler

2 cf.

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-11 1/2"

Length of plain part

top

bottom

Thickness of plates

crown 1 3/32

bottom 1 3/32

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

121 lbs

Stays and plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

27/32

Pitch of stays 17 x 16"

How are stays secured

D.N.T.W.

Working pressure by Rules

142 lbs

Tube plates: Material

front

back

Steel

Tensile strength

26/30

Thickness

27/32

13/16

Mean pitch of stay tubes in nests

9 3/8

Pitch across wide water spaces

14

Working pressure

front 157

back 249

Orders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

Centre

7" x 9 3/8" double

Length as per Rule

30 1/2

Distance apart

9"

No. and pitch of stays

Each

2 @ 9 1/2"

Working pressure by Rules

126 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

9 1/32

Back

9 1/16

Top

9 1/32

Bottom

7/8

Pitch of stays to ditto: Sides

9 x 9 3/8"

Back

9 1/4 x 8 3/4"

Top

9 x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

129 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

27/32

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

27/32

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

201

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

2 1/4

No. of threads per inch

6

Area supported by each stay

288.4 sq. in.

Working pressure by Rules

120 lbs

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part,

1 3/8

No. of threads per inch

9

Area supported by each stay

84 sq. in.

Working pressure by Rules 120 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8"
No. of threads per inch 9 Area supported by each stay 100 sq Working pressure by Rules 152 lbs
Tubes: Material Lap Weld Iron External diameter { Plain 2 3/4 Thickness { 8 W.G. No. of threads per inch 9
Stay 2 3/4
Pitch of tubes 3 1/4 3 1/4 Working pressure by Rules 275 lbs Manhole compensation: Size of opening
shell plate 20 x 15 Section of compensating ring 7" x 1" No. of rivets and diameter of rivet holes 44 7/16
Outer row rivet pitch at ends 6 1/4 Depth of flange if manhole flanged
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
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 from
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
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 or and on behalf of
Stockton Chemical Engineers & Riley Boilers Ltd.
The foregoing is a correct description,
M. H. Riley Manufacture
DIRECTOR

Dates of Survey { During progress of work in shops - 1937: Mar 31, Apr 6, 14, 23, 26, May 7, 21 Are the approved plans of boiler and superheater forwarded herewith
while building { During erection on board vessel - in 8, 10, 23, Aug 3, 13, Sep 2 (If not state date of approval.) held for duplicate
Total No. of visits 13

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. M.Y. TROMA Mdb 16040

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been made under special survey in accordance with the approved plan & requirements of the Rules. The material & workmanship are good & the boiler was found to be sound & tight under hydraulic pressure & has been forwarded to Sunderland.

This boiler has been securely fixed on board the vessel, examined under steam, safety valves adjusted to working pressure & accumulation test carried out satisfactorily.

For recommendation please see Mech. Rpt.

M. H. Riley

Survey Fee ... £ 10 : 16 : 0 When applied for, 28. 9. 1937
Travelling Expenses (if any) £ : : When received, 12. 11. 1937

Bellifut
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

See Sld. J.E. 32285



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Foundation