

REPORT ON BOILERS.

No. 98399

Received at London Office

APR 10 1940

Feb

Writing Report

19

When handed in at Local Office

9/4/1940 Port of

NEWCASTLE-on-TYNE,

Surrey held at

Wallsend on Tyne

Date, First Survey 31 Aug/1939

Last Survey Apr 2nd 1940

(Number of Visits)

Gross

Tons

on the

SS "GLENWOOD"

at Sunderland

By whom built

Sir J. Laing & Sons Ltd

Yard No. 728

When built 1940-4

es made at

Wallsend on Tyne

By whom made

N.E. Marine Eng Co (1938) Ltd

Engine No. 2959

When made 1940

s made at

By whom made

Boiler No. 2959

When made 1940

nal Horse Power

Owners

J. I. Jacobs & Co Ltd

Port belonging to

London

LTTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ltd

(Letter for Record S)

Heating Surface of Boilers

3840 sq ft

Is forced draught fitted

yes

Coal or Oil fired

coal

and Description of Boilers

2 S.B.

Working Pressure

220

ed by hydraulic pressure to

380

Date of test

19.1.40

No. of Certificate

835

Can each boiler be worked separately

yes

a of Firegrate in each Boiler

41 sq ft

No. and Description of safety valves to each boiler

10-2

1 Double

a of each set of valves per boiler

per Rule

10-2

as fitted

11-88

Pressure to which they are adjusted

225

Are they fitted with easing gear

yes

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

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-6"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-3"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

13'-6 3/8"

Length

12'-4 1/2"

Shell plates: Material

S

Tensile strength

29-33

Thickness

1 7/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

DR.

g. seams

I.R. D.B.S. (5 rivets)

Diameter of rivet holes in

circ. seams

1 3/8"

long. seams

1 3/8"

Pitch of rivets

4"

Percentage of strength of circ. end seams

plate

65

rivets

44-8

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.5

rivets

88.5

combined

88.7

Thickness of butt straps

outer

1 1/2"

inner

1 1/2"

No. and Description of Furnaces in each Boiler

3 cf.

Material

S

Tensile strength

26-30

Smallest outside diameter

3'-2 1/16"

Length of plain part

top

1 1/2"

bottom

1 1/2"

Thickness of plates

crown

19/32"

bottom

19/32"

Description of longitudinal joint

weld

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

End plates in steam space: Material

S

Tensile strength

26-30

Thickness

1 1/4"

Pitch of stays

19 3/8"-16 3/4"

How are stays secured

Double nuts

Tube plates: Material

front

S

back

S

Tensile strength

26-30

Thickness

15/16"

13/16"

Mean pitch of stay tubes in nests

9"

Pitch across wide water spaces

14 1/2" x 7 1/4"

Girders to combustion chamber tops: Material

S

Tensile strength

29-33

Depth and thickness of girder

at centre

11 3/4" x 1" double

Length as per Rule

3'-10 1/2"

Distance apart

8 15/16"

No. and pitch of stays

in each

3 @ 10 3/4"

Combustion chamber plates: Material

S

Tensile strength

26-30

Thickness: Sides

25/32"

Back

13/16"

Top

25/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

10 3/4" x 8 1/2"

Back

11 1/2" x 8 7/16"

Top

10 3/4" x 8 1/16"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom: Material

S

Tensile strength

26-30

Thickness

1 5/16"

Lower back plate: Material

S

Tensile strength

26-30

Thickness

3 1/32"

Pitch of stays at wide water space

14 1/2" x 11 1/2"

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

S

Tensile strength

28-32

Diameter

At body of stay,

3"

No. of threads per inch

6

Screw stays: Material

S

Tensile strength

26-30

Diameter

At turned off part,

1 7/8"

No. of threads per inch

9

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Lloyd's Register
Foundation

Are the stays drilled at the outer ends no Margin stays Diameter At turned off part, 2" x 2 1/4"
 No. of threads per inch 9
 Tubes: Material S External diameter 2 1/2" Thickness 8 SWG No. of threads per inch 9
 Pitch of tubes 4" x 3 7/8" Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓
 shell plate ✓ Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3 7/8" Steam Dome: Material ✓
 Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓
 Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint ✓
 Internal diameter ✓ Thickness of crown ✓ No. and dia. ✓
 stays ✓ Inner radius of crown ✓
 How connected to shell ✓ Size of doubling plate under dome ✓
 of rivets in outer row in dome connection to shell ✓ Diameter of rivet holes ✓

Type of Superheater Combustion Chamber Manufacturers of Talbot Stead
 Number of elements 26 Material of tubes S Internal diameter and thickness of tubes 1.023 x 7 W4
 Material of headers S D Steel Tensile strength 26-28 Thickness 1" Can the superheater be shut off ✓
 the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
 Area of each safety valve 3.14 sq Are the safety valves fitted with easing gear yes
 Pressure to which the safety valves are adjusted 225 lbs Hydraulic test pressure 440 lbs
 tubes 1500 lbs HEADERS 660 lbs and after assembly in place 440 lbs
 valves fitted to free the superheater from water where necessary yes
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a correct description,
 THE NORTH EASTERN MARINE ENGINEERING CO. (1933) LTD.
John Neill GENERAL MANAGER

Dates of Survey During progress of work in shops - -
while building During erection on board vessel - -
See Machinery Report

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) Yes
 Total No. of visits ✓

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. "BEECHWOOD" 9818

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The main boilers & superheaters have been made and installed under Special Survey in accordance with the approved plans & the requirements of the Rules.
The materials & workmanship are good & the installation proved satisfactory under working conditions & under hydraulic tests

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

R. Moffatt
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI 12 APR 1940

Assigned See Std. No. 32839