

REPORT ON BOILERS.

No. 96680

15 SEP 1938

Received at London Office

SEP 16 1938

2.16. Date of writing Report

19

When handed in at Local Office

19

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Wallsend

Date, First Survey

21/3/38

Last Survey

8/9/

1938

on the

J.S. "ITTERSUM"

(Number of Visits)

Tons { Gross
Net

Master

Built at Sunderland

By whom built

Wm. Doreford & Sons Ltd.

Yard No.

647

When built

1938

Engines made at

Wallsend

By whom made

H. E. Marine Eng Co.

Engine No.

2919

When made

1938

Boilers made at

Wallsend

By whom made

H. E. Marine Eng Co.

Boiler No.

2919

When made

1938

Nominal Horse Power

455

Owners

Vinke & Co.

Port belonging to

Amsterdam

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Cobilles Ltd. Appleby-Roddingham Steel Co. Steel Co of Scotland

(Letter for Record

S

8-38 Total Heating Surface of Boilers

1577 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

oil

No. and Description of Boilers

One single ended multitubular

Working Pressure

220 lbs

Tested by hydraulic pressure to

380 lbs

Date of test

25-7-38

No. of Certificate

788

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

31 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

{ per Rule 812 sq in

{ as fitted 9.8 sq in

Pressure to which they are adjusted

225 lbs

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

7'-9"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

25"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

12'-3 5/8"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 3/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

{ end L.D.R

Long. seams

T.R. Double Straps

Diameter of rivet holes in

{ circ. seams 1 1/4"

{ long. seams 1 1/4"

Pitch of rivets

{ 3 5/8"

{ 8 21/32"

Percentage of strength of circ. end seams

{ plate 65.5

{ rivets 45.2

Percentage of strength of circ. intermediate seam

{ plate 85.5

{ rivets 88.8

Percentage of strength of longitudinal joint

{ plate 85.5

{ rivets 88.8

{ combined 88.8

Working pressure of shell by Rules

220 lbs

Thickness of butt straps

{ outer 29/32"

{ inner 1 1/32"

No. and Description of Furnaces in each Boiler

Two Corrugated (Seigton)

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

41 7/8"

Length of plain part

{ top -

{ bottom -

Thickness of plates

{ crown 2 1/32"

{ bottom 2 1/32"

Description of longitudinal joint

Weld

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

None

Working pressure of furnace by Rules

230 lbs

Rid plates in steam space: Material

Steam

Tensile strength

26-30 tons

Thickness

1 2 1/4"

Pitch of stays

22 x 16"

How are stays secured

Double nuts

Working pressure by Rules

223 lbs

Rid plates: Material

{ front Steel

{ back Steel

Tensile strength

{ 26-30 tons

Thickness

{ 3 1/32"

{ 25/32"

Can pitch of stay tubes in nests

8'6"

Pitch across wide water spaces

14 3/4"

Working pressure

{ front 230 lbs

{ back 294 lbs

Rid plates to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

Centre

10" x 2 @ 25/32"

Length as per Rule

34"

Distance apart

9 1/2"

No. and pitch of stays

Each

2 @ 10 3/16"

Working pressure by Rules

252 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

10 3/16" x 9 1/2"

Back

10 3/16" x 9 1/2"

Top

10 3/16" x 9 1/2"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

222 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

3 1/32"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

15/16"

Pitch of stays at wide water space

15" x 9 1/2"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

229 lbs

Main stays: Material

Steel

Tensile strength

28-32 tons

Pitch of stays

3"

No. of threads per inch

6

Area supported by each stay

352 sq in

Working pressure by Rules

223 lbs

Screw stays: Material

Steel

Tensile strength

26-30 tons

Pitch of stays

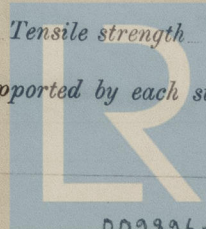
1 7/8"

No. of threads per inch

9

Area supported by each stay

96.78 sq in

Lloyd's Register
Foundation

009996-009903-0140

Working pressure by Rules 220 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 2 1/8" or Over threads 2 3/8" Working pressure by Rules 238 lbs

No. of threads per inch 9 Area supported by each stay 119.6 sq in Working pressure by Rules 238 lbs

Tubes: Material S.D. Steel External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 3/8" & 1/4" No. of threads per inch 9

Pitch of tubes 4" x 4" Working pressure by Rules 226 lbs Manhole compensation: Size of opening in

END shell 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 4" 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 Engin

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 Steel forgings 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 forgings and castings and after assembly in place Are drain cocks o

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

The foregoing is a correct description,
THE NORTH EASTERN MARINE ENGINEERING CO. (LONDON) LTD.
John Neill 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 - - - } See Machinery Report (If not state date of approval.)

Total No. of visits

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.) This boiler has been built under Special Survey in accordance with the approved plan and the Rules, the materials and workmanship are good: on completion it was tested by hydraulic pressure to 380 lbs per square inch and found tight and satisfactory. It has been fitted on board in an efficient manner, tried under steam and found in order.

Survey Fee ... Charged on

Travelling Expenses (if any) £ Machinery Rpt

When applied for, 19

When received, 19

J. S. Sells
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 23 SEP 1938

Assigned Lee F. B. Rph