

REPORT ON BOILERS.

No. 12939.

APR -7 1941

Received at London Office

5a.

11.15.

26.2

of writing Report

19

When handed in at Local Office

19

Port of *Belfast*

Visits included in *7.8. weekly*

in Survey held at

Book.

Belfast

Date, First Survey

Last Survey

19

on the

STEEL SC.

"ARMERIA"

(Number of Visits)

Tons { Gross
Net

at

Belfast

By whom built

Harrop & Haland, Wolff Ltd

Yard No. *1098* When built *1941*

ines made at

Belfast

By whom made

Haland, Wolff Ltd

Engine No. *1098* When made *1941*

ers made at

Belfast

By whom made

Haland, Wolff Ltd

Boilers No. *1098* When made *1941*

inal Horse Power

399

Owners

The Admiralty.

Port belonging to

3.41

3.12

3.12

3.12.40

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Harrop & Colvilles Ltd

(Letter for Record

S

Heating Surface of Boilers

6852 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil

and Description of Boilers

Two Single Ended "Howden Johnson" Type

Working Pressure *225 lbs/sq. in.*

tested by hydraulic pressure to

388 lbs

Date of test

12.2.41

No. of Certificate

1127

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two Improved High Lift 2 3/4" dia.

Area of each set of valves per boiler

{ per Rule
as fitted

8.92 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

Smallest distance between boilers or uptakes and bunkers

9"

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

16'-6"

Length

7'-6" Between Tube Plates

Shell plates: Material

Steel

Tensile strength

32/36 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

Long. seams

TR DBS

Diameter of rivet holes in

{ circ. seams
long. seams

1 1/2"

1 9/16"

Pitch of rivets

3.917"

9.875"

Percentage of strength of circ. end seams

{ plate
rivets

61.55

43.4

Percentage of strength of circ. intermediate seam

{ plate
rivets

Percentage of strength of longitudinal joint

{ plate
rivets

84.2

87.4

85.9

Working pressure of shells by Rules *228 lbs*

Thickness of butt straps

{ outer
inner

1 3/16"

1 5/16"

No. and Description of Furnaces in each Boiler

Three Corrugated "Leighton" Section.

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

48 1/2"

Length of plain part

{ top
bottom

Thickness of plates

{ crown
bottom

3/4"

Description of longitudinal joint

Fire Weld

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

End plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

1/4"

Pitch of stays

17 1/2" x 18"

How are stays secured

Nuts, washer inside and outside

Tube plates: Material

{ front
back

Steel

Steel

Tensile strength

26/30 tons

26/30 tons

Thickness

1 3/32"

1 3/32"

Mean pitch of stay tubes in nests

8.69"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

at centre

Length as per Rule

Distance apart

No. and pitch of stays

in each

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Thickness

1 3/32"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

1 3/32"

Pitch of stays at wide water spaces

Are stays fitted with nuts or riveted over

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

{ At body of stay,
or
Over threads

3 1/4"

No. of threads per inch

6

Screw stays: Material

Tensile strength

Diameter

{ At turned off part,
or
Over threads

No. of threads per inch



© 2021

Lloyd's Register Foundation

003778-003787-0073

Are the stays drilled at the outer ends

Margin stays: Diameter { At turned off part, or Over threads

No. of threads per inch

SMOKE

Tubes: Material

Steel

External diameter

Plain

2 1/2"

Stay

2 1/2"

Thickness

9 HG

No. of threads per inch

9

Pitch of tubes

3 3/4" x 3 3/4"

Manhole compensation: Size of open

shell plate

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 3/8" in back end plate

3 5/8" in front end plate

Steam Dome: Material

Tensile strength

Thickness of shell

Description of longitudinal joint

WATER TUBES: Material - SD Steel

28 T.S. 60,000 LBS. MAX.

2" O.D. x 8 HG THICK.

Number of Tubes: 53

Diameter of rivet holes

Pitch of rivets

Percentage of strength of joint

Plate

Internal diameter

Thickness of crown

No. and diameter

stays

Inner radius of crown

How connected to shell

Size of doubling plate under dome

Diameter of rivet holes and

of rivets in outer row in dome connection to shell

Type of Superheater

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

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

Pressure to which the safety valves are adjusted

Hydraulic test pressure

tubes

forgings and castings

and after assembly in place

Are drain cocks

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.

For HARBOR OF WOLF, ENTERED

The foregoing is a correct description,

Manufacture

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 (If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case

Yes.

If so, state Vessel's name and Report No.

"ABELIA" etc BEL. REP. No 1288

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been constructed under Special Survey in accordance with the Rules and approved plan.

The materials and workmanship are good.

These boilers have been efficiently installed onboard the vessel. all safety valves adjusted under steam and accumulation tests carried out with satisfactory results.

Note: The furnace-back tube plate landing edges in these boilers have been sealed by electric welding on the fire and water sides.

Survey Fee £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

Rev. S. Thomas

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

APR 8 1941

Assigned

See Bel J.E. 12939



© 2021

Lloyd's Register Foundation