

REPORT ON WATER TUBE BOILERS.

No. 99305

Received at London Office

MAR 28 1941

Date of writing Report

19

When handed in at Local Office

26/3/41

Port of

NEWCASTLE-ON-TYNE

No. in
eg. Bk.

Survey held at

Newcastle on Tyne

Date, First Survey

18 Aug 1939

Last Survey

17 March 1941

on the

Steel Tanker S/S "ARONDA"

(Number of Visits)

Gross 9031

Tons

Net 4463

ster

Built at

Newcastle on Tyne

By whom built

Swan, Hunter & Wigham Richardson Ltd

When built

1941-3

gines made at

Wallsend on Tyne

By whom made

Parsons Marine Steam Turbine Co Ltd

When made

1941

ilers made at

Renfrew and
Newcastle on Tyne

By whom made

Babcock & Wilcox, and S.H.W.R. Co

When made

1941

Registered Horse Power

Owners

B. I. S. N. Co. Ltd

Port belonging to

WATER TUBE BOILERS—MAIN,

SEE ALSO GLASGOW RPT. NO 62070. Colvilles Ltd

AUXILIARY, OR DONKEY. Manufacturers of Steel

atter for Record

(5)

Date of Approval of plan

19/6/39, 6/7/39 & various dates

Number and Description or Type

Boilers

THREE—Babcock & Wilcox type

Working Pressure

450 lb

Tested by Hydraulic Pressure to

725 lb

Date of Test

4-4-40

of Certificate

8428843

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers

17895 sq ft

forced draught fitted

Yes

Area of fire grate (coal) in each Boiler

154 sq ft

Total grate area of boilers in vessel including

in and Auxiliary

462 sq ft

No. and type of burners (oil) in each boiler

Yes

No and description of safety valves on

h boiler

main—one 2 1/2" dbb Imp. H.L.

Area of each valve

4.9 sq in

Pressure to which they are adjusted

main to 450 lb

they fitted with easing gear

Yes

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

Yes

allest distance between boilers or uptakes and bunkers or woodwork

alt 21"

Height of Boiler

23'6" approx

Width and Length

21'7" x 18'6" approx

am Drums:

Number in each boiler

One

Inside diameter

3'6"

Material of plates

Mild Steel

Thickness

1 5/8"

age of Tensile Strength

28 to 32 tons/sq in

Are drum shell plates welded or flanged

fusion welded

Description of riveting:

seams

long. seams

Diameter of rivet holes in long. seams

Pitch of Rivets

of plate or width of butt straps

Thickness of straps

Percentage strength of long. joint:—Plate

Rivet

meter of tube holes in drum

4 3/4" max

Pitch of tube holes

7 1/4"

Percentage strength of shell in way of tubes

43.58% min

Drum has a flat side state method of staying

Depth and thickness of girders at centre

fitted)

Yes

Distance apart

Number and pitch of stays in each

Working pressure

ules

450 lb

Steam Drum Heads or Ends:—Material

Mild Steel

Thickness

1 7/8"

Radius or how stayed

3'0" rad

of Manhole or Handhole

11" x 15"

Water Drums:—Number in each boiler

Yes

Inside Diameter

erial of plates

Yes

Thickness

Yes

Range of tensile strength

Are drum shell plates welded

anged

Yes

Description of riveting:—Cir. seams

long. seams

Diameter of Rivet Holes in

seams

Yes

Pitch of rivets

Lap of plates or width of butt straps

Thickness of straps

centage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

centage strength of drum shell in way of tubes

Water Drum Heads or Ends:—Material

Thickness

us or how stayed

Yes

Size of manhole or handhole

Headers or Sections:—Number

27

erial S.D. Steel

Thickness

3/4" & 5/8"

Tested by Hydraulic Pressure to

725 lb

Material of Stays

Yes

at smallest part

Yes

Area supported by each stay

Working Pressure by Rules

450 lb

Tubes:—Diameter

4" 8 1/16"

ness

2 1/2" dbb Imp. H.L.

Number

3 x 27 @ 4"

4006 @ 1 1/8"

Mild Steel

Steam Dome or Collector:—Description of Joint to Shell

One

Material

Steel

centage strength of Joint

Yes

100%

Diameter

6" x 6" (inside)

Thickness of shell plates

3/4"

Pitch of Rivets

Yes

Working Pressure of shell

450 lb

ription of longitudinal joint

Solid drawn

Diameter of Rivet Holes

Yes

Pitch of Rivets

Yes

Working Pressure of shell

450 lb

ules

450 lb

Crown or End Plates:—Material

Yes

Thickness

Yes

How stayed

Yes

ERHEATER.

Type

Babcock & Wilcox

Date of Approval of Plan

8/7/39

Tested by Hydraulic Pressure to

725 lb

of Test

Yes

Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler

Yes

eter of Safety Valve

2 1/2" dbb Imp. H.L.

Pressure to which each is adjusted

440 lb

Is easing gear fitted

Yes

rain cock or valve fitted at lowest point of superheater

Yes

Number, diameter, and thickness of tubes

90-1 1/2" x 8' 1 1/2"

Handhole plates

12 @ 4 1/2" x 4"

2 @ 3 1/2" x 4"

10 @ 3 1/2" x 4"

re Gear.

Tubes

25-1 1/2"

Gaskets or joints:—Manhole

8 Gaskets

Handhole

6 @ 3 1/2" x 4"

Handhole plates

12 @ 4 1/2" x 4"

2 @ 3 1/2" x 4"

10 @ 3 1/2" x 4"

24-1 1/2" Superh.

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