

Rpt. 5a.

REPORT ON BOILERS.

MOB. 18205

No. 103881

Date of writing Report

19

When handed in at Local Office

19/8/46

19

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Wallsend

Date, First Survey

4th May, 1946

Last Survey

18th July, 1946.

1946.

Reg. Book.

(Number of Visits 10)

Gross 8738

Tons Net 4983.

on the

M/V "BRITISH ADMIRAL"

Built at

Haverton Hill.

By whom built

Furness S. B. Co.

Yard No. 390.

When built

Engines made at

By whom made

Engine No.

When made

Donkey.

Boilers made at

Wallsend

By whom made

N. E. Mar. Engrs Co (1938) Ltd

Boiler No.

R.W.

2764.

When made 1946.

Nominal Horse Power 267.

Owners

Port belonging to

MULTITUBULAR BOILERS — ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel

Steel Coy. of Scotland

(Letter for Record S.

Total Heating Surface of Boilers

4004 sq ft.

Is forced draught fitted

Yes

Coal or Oil fired

oil fired

No. and Description of Boilers

2. Single ended.

Working Pressure

150 LBS/sq

Tested by hydraulic pressure to

275 lb

Date of test

Part. 12-7-46

Std. 13-7-46

No. of Certificate

1214.

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

2 of 2 1/2" Cockburn's Imp'd H.L.

Area of each set of valves per boiler

per Rule 7.66 sq in

Pressure to which they are adjusted

155 lb.

Are they fitted with easing gear

Yes

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

✓ No Main Blns.

Smallest distance between boilers or uptakes and bunkers or woodwork

6'-0"

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

fitted on flat above tunnel recess

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

12'-10 3/16"

Length

11'-6"

Shell plates: Material

Stl

Tensile strength

29-33 tons

Thickness

29/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.

long. seams

T.R. Ddb butt straps

Diameter of rivet holes in

circ. seams 1 1/8"

long. seams 1 1/16"

Pitch of rivets

3 1/4"

Percentage of strength of circ. end seams

plate 65.5
rivets 53.4

Percentage of strength of circ. intermediate seam

plate NIL.
rivets

Percentage of strength of longitudinal joint

plate 84.8
rivets 103.8
combined 90.5

Thickness of butt straps

outer 3/4"
inner 7/8"

No. and Description of Furnaces in each Boiler

2 C.f. (Deighton type).

Material

Stl.

Tensile strength

26-30 tons

Smallest outside diameter

3'-8 1/8"

Length of plain part

top ✓
bottom ✓

Thickness of plates

crown 15/32"
bottom

Description of longitudinal joint

fire weld

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

✓

End plates in steam space: Material

Stl

Tensile strength

26-30 tons

Thickness

1 1/8"

Pitch of stays

2'-6" x 1'-4"

How are stays secured

Nuttet inside + outside.

Tube plates: Material

front Stl
back

Tensile strength

26-30 tons

Thickness

front 27/32"
back 3/4"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

14 1/2"

Girders to combustion chamber tops: Material

Stl

Tensile strength

29 1/2 33 tons

Depth and thickness of girder

at centre

9" x 3/4" ddb

Length as per Rule

2'-10"

Distance apart

10 3/4"

No. and pitch of stays

in each

2 at 10 3/4"

Combustion chamber plates: Material

Stl.

Tensile strength

26-30 tons

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

10 3/4" x 7 1/2"

Back

10 3/4" x 7 1/2"

Top

10 3/4" x 10 3/4"

Are stays fitted with nuts or riveted over

marginal & top plate nutted.
Remainder - riveted over.

Front plate at bottom: Material

Stl.

Tensile strength

26-30 tons

Thickness

27/32"

Lower back plate: Material

Stl.

Tensile strength

26-30 tons

Thickness

13/16"

Pitch of stays at wide water space

14 1/2"

Are stays fitted with nuts or riveted over

marginal are NUTTED
Remainder are Riveted over.

Main stays: Material

Stl.

Tensile strength

28-32 tons

Diameter

At body of stay, 3"
or Over threads 3 1/4"

No. of threads per inch

6.

Screw stays: Material

Stl.

Tensile strength

26-30 tons

Diameter

At turned off part, 1 1/2"
or Over threads

No. of threads per inch

9.

Cont'd over.

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Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 5/8" + 1 3/4"
or
Over threads
No. of threads per inch 9.
Tubes: Material S.D.S.H External diameter { Plain 2 1/2"
Stay
Thickness { 10.46.
5/16, 3/8" No. of threads per inch 9.
Pitch of tubes 3 3/4" x 3 3/4" Manhole compensation: Size of opening in
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 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 Thickness of crown No. and diameter of
stays Inner radius of crown
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

H12.

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

Pressure to which the safety valves are adjusted

Hydraulic test pressure:

tubes

forgings and 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.

THE NORTH EASTERN ENGINEERING CO. LTD. Description,

John Neill

Manufacturer.

DIRECTOR

Dates of Survey { During progress of
work in shops - - -
while building { During erection on
board vessel - - -

1946.

MAY 7, 14, 28, JUNE 5, 11, 18, 21, 27, JULY 12, 13

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

No 28/12/45

Total No. of visits

10

Plan returned for duplicate

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.)

These Donkey Boilers have been constructed under special survey in accordance with the approved plan & the Society's Rules, and the material & workmanship are good.

The Boilers have been sent to Furness S.B. Coy's yard to be fitted on board. These boilers have now been securely fitted on board & examined under working conditions & found satisfactory.

On completion the SV's were adjusted under steam to 155 lb/sq.

Thickness of adjusting washers Port side. P = 2 5/64 S = 27/64 Star side. P = 3/8 S = 7/32

4004 = 267 1/2

267

Survey Fee ... £ 38: 15/6

When applied for,

19

Travelling Expenses (if any) £ :

When received,

19

20 AUG 1946

A. Watt

G. H. Hart

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 28 FEB 1947

Assigned

See F.E. Mch. rpt.



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