

REPORT ON ^{AUX.} BOILERS.

No. 104651

Received at London Office

Date of writing Report 15-7-47.

When handed in at Local Office 7. 8. 1947

Port of NEWCASTLE ON TYNE

No. in Survey held at Wallsend

Date, First Survey (1946) Aug 6thLast Survey July 15th 1947

on the s/s "ASHANTIAN"

(Number of Visits 62)

Gross 5123

Tons Net 2855

Built at Walker (New) By whom built Ship. Corpⁿ (Tyne Branch).

Yard No. 114 When built 1947-7mo.

Engines made at Wallsend

By whom made N.E. Mar. Eng. Co (1938) LTD.

Engine No. 3121 When made 1947

AUX. Boilers made at do.

By whom made ditto.

Boiler No. 3121 When made 1946

Nominal Horse Power

Owners UNITED AFRICA Co.

Port belonging to

ORDERED BY MIN. OF WAR TRANSPORT.

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

Manufacturers of Steel Colvilles Ltd. Gls.

(Letter for Record S.)

Total Heating Surface of Boilers 1735 sq. ft.

Is forced draught fitted Yes

Coal or Oil fired oil fired

No. and Description of Boilers One Single Ended.

Working Pressure 220 ^{LBS}/_{SQ. IN.}Tested by hydraulic pressure to 380^{lb} Date of test 26-11-46 No. of Certificate N° 1231.

Can each boiler be worked separately Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 2 of 2" dia Cockburn's Imp High Lift.

Area of each set of valves per boiler { per Rule 4.62 sq. in.

as fitted 6.28 sq. in.

Pressure to which they are adjusted 225^{lb}

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 or woodwork 18"

Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 24"

Is the bottom of the boiler insulated Yes

Largest internal dia. of boiler 12'-9 ¹⁷/₃₂" Length 11'-6"

Shell plates: Material Stl

Tensile strength 29 to 33 tons

Thickness 1 ¹⁵/₆₄"

Are the shell plates welded or flanged No

Description of riveting: circ. seams { end D.R.

long. seams T.R. Dble butt straps

Diameter of rivet holes in { circ. seams 15/16"

{ long. seams 15/16"

Pitch of rivets { 4.051"

Percentage of strength of circ. end seams { plate 67.7

{ rivets 42.75

Percentage of strength of circ. intermediate seam { plate -

Percentage of strength of longitudinal joint { plate 85.42

{ rivets 90.07

Thickness of butt straps { outer 15/16"

{ inner 1 1/16"

No. and Description of Furnaces in each Boiler 3 c.f. (Deighton type)

Material Stl.

Tensile strength 26 to 30 tons

Smallest outside diameter 35 ¹¹/₃₂"

Length of plain part { top -

Thickness of plates { crown 35/64"

{ bottom -

Description of longitudinal joint fire weld

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

End plates in steam space: Material Stl

Tensile strength 26 to 30 tons

Thickness 1 3/16"

Pitch of stays 15 1/2" x 17 1/4"

How are stays secured Notted inside + outside

Tube plates: Material { front Stl

{ back -

Tensile strength 26 to 30 tons

Thickness { front 15/16"

{ back 13/16"

Mean pitch of stay tubes in nests 10 7/16"

Pitch across wide water spaces 14"

Girders to combustion chamber tops: Material Stl

Tensile strength 29 to 33 tons

Depth and thickness of girder

at centre 9 1/4" x 5/8" dble

Length as per Rule 31 1/2"

Distance apart 8 1/2"

No. and pitch of stays

in each 2 at 9 3/4"

Combustion chamber plates: Material Stl

Tensile strength 26 to 30 tons

Thickness: Sides 3/4"

CENTRE 25/32"

Back 3/4"

Top 3/4"

Bottom 3/4"

Pitch of stays to ditto: Sides 9 3/4" x 9"

CENTRE 9 1/4" x 10 1/2"

Back 9 1/4" x 9"

WINGS 9 1/4" x 9"

Top 9 3/4" x 8 1/2"

Are stays fitted with nuts or riveted over with nuts

Front plate at bottom: Material Stl

Tensile strength 26 to 30 tons

Thickness 15/16"

Lower back plate: Material Stl

Tensile strength 26 to 30 tons

Thickness 1"

Pitch of stays at wide water space 14"

Are stays fitted with nuts or riveted over with nuts

Main stays: Material Stl

Tensile strength 28 to 32 tons

Diameter { At body of stay 2 3/4"

{ Over threads 3"

No. of threads per inch 6

Screw stays: Material Stl

Tensile strength 26 to 30 tons

Diameter { At turned off part 1 7/8"

{ Over threads -

No. of threads per inch 9

CONTD OVER.

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Contn g Rpt on AUXILIARY BOILER.

NWZ Rpt. N°

Are the stays drilled at the outer ends ☒ No ☐ Yes

Margin stays: Diameter { ☒ At least 2" & 2 1/4" ☐ Over threads

No. of threads per inch 9

Tubes: Material S.D.Stl. (Hot finished) ☒ External diameter { Plain 3" ☒ Stay 3" ☐ Thickness { 8 W.G. ☒ 5/16" 3/8" ☐ No. of threads per inch 9

Pitch of tubes Vert. 4 1/8" x 4 1/4" Horiz.

Manhole compensation: Size of opening in shell plate Nil. ☒ 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: Nil. ☒

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

How connected to shell Inner radius of crown

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 Nil. ☒ 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 MARINE ENGINEERING CO. LTD.

Manufacturer.

Dates of Survey { During progress of work in shops - - } See Machinery report. ☒ Are the approved plans of boiler and superheater forwarded herewith No. 15-5-46

{ During erection on board vessel - - - } (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 Auxiliary Boiler has been constructed under special survey in accordance with the approved plan and the Society's Rules. & the materials & workmanship are good. The boiler has been efficiently fitted on board & tested under working conditions.

See also Machy Rpt 4.

Survey Fee ... £ See Machy Rpt 4. When applied for, 19

Travelling Expenses (if any) £ : Rpt 4. When received, 19

Aubett.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 SEP 1947

Assigned See F.E. machy. rph



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