

REPORT ON BOILERS.

No. 100766

Received at London Office

7 - OCT 1942

Date of writing Report

19

When handed in at Local Office

17-9-

1942.

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Date, First Survey

18-3-42.

Last Survey

10-9-1942.

on the

S/S. "TUZLA"

(Number of Visits

Gross 716

Tons Net 268

Master Built at Newcastle on Tyne By whom built Swan, Hunter & Wigham Richardson Ltd Yard No. 1752. When built 1942-
Engines made at Newcastle on Tyne By whom made ditto Engine No. 1752. When made 1942-
Boilers made at ditto By whom made ditto Boiler No. 1752. When made 1942-
Nominal Horse Power Owners Port belonging to

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

Manufacturers of Steel Plates: Appleby-Frodingham Steel Coy. Ltd
Stay Bars: The Steel Company of Scotland.
(Letter for Record S.)
Total Heating Surface of Boilers 2554 sq. ft. Is forced draught fitted Yes Coal or Oil fired Coal
No. and Description of Boilers Two Single ended. Working Pressure 180 lb/sq. in.
Tested by hydraulic pressure to 320 lb Date of test 29/7/42 No. of Certificate 992. Can each boiler be worked separately Yes
Area of Firegrate in each Boiler 34.5 sq. ft. No. and Description of safety valves to each boiler Two 2" Cockburn's dip' H.L.
Area of each set of valves per boiler {per Rule 4.09 sq. in. Pressure to which they are adjusted 180 lb Are they fitted with easing gear Yes
as fitted 6.28
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler none
Smallest distance between boilers or uptakes and bunkers 3'-0" Is oil fuel carried in the double bottom under boilers open floors
Smallest distance between shell of boiler and tank top plating Open floors under Bln. Is the bottom of the boiler insulated No.
Largest internal dia. of boilers 11'-1 1/4" Length 11'-0" Shell plates: Material Stl. Tensile strength 30 to 34 tons
Thickness 7/8" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R. overlap.
inter. none.
long. seams T.R. 80 lb butt straps Diameter of rivet holes in {circ. seams 1" Pitch of rivets {3.24"
long. seams 15/16" 6 5/8"
Percentage of strength of circ. end seams {plate 69.13 Percentage of strength of circ. intermediate seam {plate none
rivets 42.47
Percentage of strength of longitudinal joint {plate 85.84 Working pressure of shell by Rules 182 lb.
rivets 85.55
combined 88.8
Thickness of butt straps {outer 21/32" No. and Description of Furnaces in each Boiler Two "Seighton" Corrugated.
inner 25/32" Material Steel Tensile strength 26 to 30 tons Smallest outside diameter 3'-0 15/16"
Length of plain part {top 2'-4" c.c. bottom Thickness of plates {crown 15/32" Description of longitudinal joint Fire welded.
bottom 1 1/16" c.c. bottom Working pressure of furnace by Rules 181 lb.
Dimensions of stiffening rings on furnace or c.c. bottom none
End plates in steam space: Material S. Tensile strength 26 to 30 tons Thickness 29/32" Pitch of stays 13 1/4" x 14 1/8" max.
How are stays secured Nuts inside & outside. Working pressure by Rules 183 lb.
Tube plates: Material {front S. Tensile strength 26 to 30 tons Thickness {29/32"
back 3/4"
Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13 1/2" Working pressure {front 236 lb
back 228 lb.
Girders to combustion chamber tops: Material S. Tensile strength 28 to 32 tons Depth and thickness of girder
at centre 8 3/8" x 5/8" x two Length as per Rule 30 9/16" Distance apart 9" No. and pitch of stays
in each Two @ 9 3/4" Working pressure by Rules 181 lb. Combustion chamber plates: Material S.
Tensile strength 26 to 30 tons Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"
Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 9" x 9 3/4" Top 9" x 9 3/4" Are stays fitted with nuts or riveted over with nuts.
Working pressure by Rules 182 lb. min. Front plate at bottom: Material S. Tensile strength 26 to 30 tons
Thickness 29/32" Lower back plate: Material S. Tensile strength 26 to 30 tons Thickness 29/32"
Pitch of stays at wide water space 13 1/2" x 9 3/4" (14 1/4" x 9 3/4") Are stays fitted with nuts or riveted over with nuts
Working Pressure 225 lb Main stays: Material S. Tensile strength 28 to 32 tons
Diameter {At body of stay, 2 3/8" No. of threads per inch 6. Area supported by each stay 206.5 sq. in.
Over threads Working pressure by Rules 190 lb. Screw stays: Material S. Tensile strength 26 to 30 tons
Diameter {At turned off part, 1 3/4" No. of threads per inch 9. Area supported by each stay 88.3 sq. in.
Over threads

Working pressure by Rules 204^{lb} Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 3/4" + 1 7/8"
Over threads
No. of threads per inch 9 Area supported by each stay 107.3 sq in Working pressure by Rules 198 lb min.
Tubes: Material Steel External diameter { Plain 2 1/2" Thickness { 9.44 No. of threads per inch 9
Stay
Pitch of tubes 3 3/4 x 3 3/4 Working pressure by Rules 187 lb min. Manhole compensation: Size of opening in
shell plate 16" x 20" Section of compensating ring 19 1/2" x 2 1/8" No. of rivets and diameter of rivet holes 32 @ 1 5/16 dia
Outer row rivet pitch at ends 9 1/8" Depth of flange if manhole flanged 2 1/2" Steam Dome: None
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
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 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 foregoing is a correct description,

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Manufacturer.

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

See Machinery Rpt. H.

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

No. 11/2/42

Total No. of visits

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. 3/2 ECEABAT. SHIPYARD No. 1662. Rpt 98746
8 sister vessels.

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

These Boilers have been constructed under special survey in accordance with the Approved plans and the Society's Rules, and the materials & workmanship are good

The Boilers have been satisfactorily fitted on board and tested under steam under working conditions

See also machy Rpt H.

Survey Fee ... £ See Rpt 4: When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

Quibatt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 20 OCT 1942

Assigned See fe machy rpt.



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