

REPORT ON BOILERS.

Sld. No. 32139
No. 15976
APR 1937

of writing Report 8.4.37. When handed in at Local Office 8.4.37. Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON. Date, First Survey 21 Dec/36 Last Survey 6.4.1937

Book. S. S. BIDDLESTONE (Number of Visits 7) Gross 4910 Tons Net 2953

on the S. S. BIDDLESTONE

ster Built at Liverpool By whom built Short Bros & Co. Yard No. 450 When built 1934

diameter engines made at Newcastle By whom made White Marine Engineering Co. Engine No. 110 When made

ilers made at Stockton By whom made Stockton Chemical Eng. Co. Riley, Stockton No. 627 When made 1937

es and p Owners The White Shipping Co. Ltd. Port belonging to Newcastle

iminal Horse Power

MULTITUBULAR BOILERS: MAIN, AUXILIARY, OR DONKEY.

shut off

Manufacturers of Steel Appleby, Nottingham Steel Company Ltd. (Letter for Record S.)

ssure as Heating Surface of Boilers 1486 sq. ft. Is forced draught fitted no. Coal or Oil fired coal

st pressure and Description of Boilers 183. Working Pressure 240 lbs.

valves fitted by hydraulic pressure to 410 lbs. Date of test 6.4.37 No. of Certificate 6909 Can each boiler be worked separately ✓

rea of Firegrate in each Boiler 42.75 sq. ft. No. and Description of safety valves to each boiler Two Cockburn Improved High Lift.

rea of each set of valves per boiler { per Rule 3.65 as fitted 4.80 Pressure to which they are adjusted 240 Are they fitted with easing gear yes.

case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no.

Manufacture smallest distance between boilers or uptakes and bunkers or woodwork Between main boilers Is oil fuel carried in the double bottom under boilers no.

allest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes.

argest internal dia. of boilers 12'-6" Length 10'-6" Shell plates: Material steel Tensile strength 26/30

ickness 1 1/32 Are the shell plates welded or flanged no. Description of riveting: circ. seams { end 30/34 inter. D.R.

ng. seams T.R.D.B.S. (5 welds) Diameter of rivet holes in { circ. seams 1 1/32 long. seams 1 1/16 Pitch of rivets { 9"

ercentage of strength of circ. end seams { plate 64.1 rivets 45.4 Percentage of strength of circ. intermediate seam { plate 85.4 rivets 84.2

ercentage of strength of longitudinal joint { plate 87.6 rivets 87.6 Working pressure of shell by Rules 240 lbs.

Thickness of butt straps { outer 31/32 inner 1 1/32 No. and Description of Furnaces in each Boiler 3 c.f.

Material steel Tensile strength 26/30 Smallest outside diameter 2'-11 1/2"

ength of plain part { top 19" bottom 12" Thickness of plates { crown 19" bottom 12" Description of longitudinal joint weld.

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 244 lbs.

nd plates in steam space: Material steel Tensile strength 26/30 Thickness 1 1/16 Pitch of stays 15" x 18"

ow are stays secured D.N.s Working pressure by Rules 240 lbs.

ube plates: Material { front steel back steel Tensile strength { 26/30 Thickness { 1 1/16

lean pitch of stay tubes in nests 8 1/2" Pitch across wide water spaces 14" x 4 1/2" Working pressure { front 283 lbs. back 241 lbs.

irders to combustion chamber tops: Material steel Tensile strength 26/32 Depth and thickness of girder

t centre 9 1/4" x 1 1/4" (double). Length as per Rule 2'-9" Distance apart 8 1/2" No. and pitch of stays

a each 3'-8" Working pressure by Rules 242 lbs. Combustion chamber plates: Material steel

Tensile strength 26/30 Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 7/8

Pitch of stays to ditto: Sides 8 1/2" x 8" Back 7 1/2" x 7 1/2" Top 8" x 8 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 294 lbs. Front plate at bottom: Material steel Tensile strength 26/30

Thickness 1" Lower back plate: Material steel Tensile strength 26/30 Thickness 1"

Pitch of stays at wide water space 14 1/2" x 7 1/2" Are stays fitted with nuts or riveted over nuts.

Shipping Working Pressure 323 lbs. Main stays: Material steel Tensile strength 28/32

Diameter { At body of stay, 3" No. of threads per inch 6. Area supported by each stay 263 sq. in.

Working pressure by Rules 255 lbs. Screw stays: Material steel Tensile strength 26/30

Diameter { At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 65.6 sq. in.

Working pressure by Rules 265 lb. Are the stays drilled at the outer ends no. Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8" }
No. of threads per inch 9. Area supported by each stay 78.3^{sq} Working pressure by Rules 272 lb.
Tubes: Material lapwelded iron External diameter { Plain 3 1/4" to 3 3/4" Stay 3 1/4" to 3 3/4" } Thickness { 7/16" to 5/16" } No. of threads per inch 9.
Pitch of tubes 4 3/8" x 4 1/4" Working pressure by Rules 280 lb. s. 246 lb. Manhole compensation: Size of opening
shell plate 20 x 16" Section of compensating ring 9 1/2" x 1 1/4" No. of rivets and diameter of rivet holes 48-1 1/4"
Outer row rivet pitch at ends 9" Depth of flange if manhole flanged no Steam Dome: Material no
Tensile strength no Thickness of shell no Description of longitudinal joint no
Diameter of rivet holes no Pitch of rivets no Percentage of strength of joint { Plate no Rivets no }
Internal diameter no Working pressure by Rules no Thickness of crown no No. and diameter
stays no Inner radius of crown no Working pressure by Rules no
How connected to shell no Size of doubling plate under dome no Diameter of rivet holes and p
of rivets in outer row in dome connection to shell no

Type of Superheater no Manufacturers of { Tubes no Steel castings no }
Number of elements no Material of tubes no Internal diameter and thickness of tubes no
Material of headers no Tensile strength no Thickness no Can the superheater be shut off
the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler no
Area of each safety valve no Are the safety valves fitted with easing gear no Working pressure as
Rules no Pressure to which the safety valves are adjusted no Hydraulic test pressure
tubes no, castings no and after assembly in place no Are drain cocks or valves fi
to free the superheater from water where necessary no

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with no
For and on behalf of no The Director of the Registrar of Shipping, no Manufactu
Dates of Survey { During progress of work in shops - - - 9.16.1937 Dec 21-28-31 1937 Jan 7-19-22 Are the approved plans of boiler and superheater forwarded herewith no (If not state date of approval.)
while building { During erection on board vessel - - - 28 Feb 3. 9. 17. 25. Mar 2-10. 15-18-31 Apr 6 } Total No. of visits 17

Is this Boiler a duplicate of a previous case no. If so, state Vessel's name and Report No. no

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

The materials and workmanship are good.
This boiler has been built under special survey and in accordance with the Rules and approved Plans. It will be fitted aboard at Newcastle.

This boiler has been securely fixed on board the vessel, examined under steam, safety valves adjusted to working pressure & accumulation test carried out satisfactorily.

In recommendation please see Memo Rpt.

no

Survey Fee ... £ 9-18-0 When applied for, 8-4-1937
Travelling Expenses (if any) £ no When received, 25-6-1937

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE 20 JUL 1937

Assigned

See Sld 22139



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