

REPORT ON BOILERS.

SUNDERLAND RPT. No. 35024

No. 105324

14 OCT 1948

Received at London Office. 9 JUN 1948

5a.

Writing Report. 19. When handed in at Local Office. 3-JUN-1948 Port of NEWCASTLE-ON-TYNE

Survey held at Wallsend Date, First Survey 19TH AUGUST 1947 Last Survey 7TH MAY 1948

on the S.S. "BRITISH VENTURE" (Number of Visits. 10.....) Tons { Gross 6096 Net 3328

Built at Sunderland By whom built J.L. Thompson Ltd Yard No. 656 When built 1948

Engines made at Hartlepool By whom made Richardson Westgarth & Co Engine No. 2775 When made 1948

Boilers made at Wallsend By whom made N.E. Mar. Eng. Co. (1938) Ltd Boiler No. R.W. 2775 When made 1948

Indicated Horse Power 334. Owners British Tankers Ltd Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S.)

Heating Surface of Boilers 400A sq ft Is forced draught fitted Yes Coal or Oil fired Oil fired

Description of Boilers 2 Single ended Working Pressure 150 LBS

Tested by hydraulic pressure to 275 lb Date of test 23-4-48 No. of Certificate 1292, 1293, Can each boiler be worked separately Yes

Firegrate in each Boiler oil fired No. and Description of safety valves to each boiler 2 of 22" Lockburn's Improved High Lift

Valves of each set of valves per boiler per Rule 7.66 sq in Pressure to which they are adjusted 150 lb Are they fitted with easing gear Yes

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler No MAIN BLR.

Clearance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

Clearance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes

Internal dia. of boilers 12'-10 3/16" Length 11'-6" Shell plates: Material Stl Tensile strength 29 to 33 tons

Thickness 29/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end Dble riv inter Nil

Seams Treb Riv. Dble Butt Straps Diameter of rivet holes in circ. seams 1 1/8" Pitch of rivets 3 1/4" 7"

Percentage of strength of circ. end seams plate 65.5 rivets 53.4 Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 84.8 rivets 103.8 Working pressure of shell by Rules 157 lb

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 to 30 tons Smallest outside diameter 3'-8 3/16"

Thickness of plates crown 15/32" Description of longitudinal joint fire weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 150.3 lb

Plates in steam space: Material Stl Tensile strength 26 to 30 tons Thickness 1 3/8" Pitch of stays 2'-6" x 1'-4"

Are stays secured Nutted inside & outside Working pressure by Rules 153.6 lb

Plates: Material front Stl back Stl Tensile strength 26 to 30 tons Thickness front 27/32" back 3/4"

Pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 14 1/2" Working pressure front 182 lb back 227 lb

Boilers to combustion chamber tops: Material Stl Tensile strength 29 to 33 tons Depth and thickness of girder

Centre 9" x 3/4" dble Length as per Rule 2'-10" Distance apart 10 3/4" No. and pitch of stays

Ch 2 at 10 3/4" Working pressure by Rules 175.8 lbs Combustion chamber plates: Material Stl

Plate strength 26 to 30 tons Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 3/4"

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 ALL NUTTED. Remainder - RIVETED OVER.

Working pressure by Rules 154 lb MIN. Front plate at bottom: Material Stl Tensile strength 26 to 30 tons Thickness 13/16"

Thickness 27/32" Lower back plate: Material Stl Tensile strength 26 to 30 tons Thickness 13/16"

Of stays at wide water space 14 1/2" Are stays fitted with nuts or riveted over marginal are NUTTED. Remainder - RIVETED OVER.

Working pressure 201 lb Main stays: Material Stl Tensile strength 28 to 32 tons

At body of stay 3" No. of threads per inch 6 Area supported by each stay 480 sq in

Over threads 3 3/4" Screw stays: Material Stl Tensile strength 26 to 30 tons

Working pressure by Rules 163.5 lb No. of threads per inch 9 Area supported by each stay 80.6 sq in

At turned off part 1 1/2"

CONT'D OVER

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Lloyd's Register

Working pressure by Rules. 155 lb Are the stays drilled at the outer ends. No ✓ Margin stays: Diameter { At turned off part. 1 5/8" + 1 3/4"
 No. of threads per inch. 9 ✓ Area supported by each stay. 94.7 sq in Working pressure by Rules. 160 lb
 Tubes: Material. S.D. Steel ✓ External diameter { Plain. 2 1/2" Thickness { 10 WG. No. of threads per inch. 9 ✓
 Pitch of tubes. 3 3/4" x 3 3/4" Working pressure by Rules. 217 lb. Manhole compensation: Size of opening
 shell plate. 16 1/2" x 20 1/2" Section of compensating ring. 19" x 1" No. of rivets and diameter of rivet holes. 34 of 1 1/4" dia ✓
 Outer row rivet pitch at ends. 9" ✓ Depth of flange if manhole flanged. 3 1/2" ✓ 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. Working pressure by Rules. Thickness of crown. No. and diameter
 stays. Inner radius of crown. Working pressure by Rules.
 How connected to shell. Size of doubling plate under dome. Diameter of rivet holes and pit
 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. 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
 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. THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

The foregoing is a correct description,
J. H. Smith Director
 app'd 23rd May 1948

Dates of Survey { During progress of work in shops - - - (1947) AUG. 19, SEPT. 22, (1948) MAR. 17, 23, 30, APR. 8, 16
 while building { During erection on board vessel - - - 10, 28, MAY 7
 Are the approved plans of boiler and superheater forwarded herewith. Yes
 (If not state date of approval.)
 Total No. of visits. 10

Is this Boiler a duplicate of a previous case. Yes except for Manhole in Shell. M.V. BRITISH ROSE NNE. RPT. NO. 103944
 If so, state Vessel's name and Report No. J. H. Thompson's Yard No 646
NEMar. Boiler No 3133

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 and the Society's Rules, and the materials and workmanship are good.
The Boilers have been sent to W. Hartlepool to be fitted on board.
These boilers have been fitted & secured on board the vessel, examined under steam & safety valves adjusted as stated. at W. Hartlepool.

Survey Fee ... £ 58-8/- When applied for, ... 19...
 Travelling Expenses (if any) £ : : When received, ... 19...

A. W. Webb S. H. Wood
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute. FBI. 21 JAN 1849
 Assigned. For minute see H.E. R.M.