

REPORT ON BOILERS.

No. 97170

Received at London Office

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Date of writing Report 19 When handed in at Local Office 16/2/39 Port of **NEWCASTLE-ON-TYNE**

No. in Reg. Book. Survey held at **Newcastle on Tyne** Date, First Survey 27/7/37 Last Survey 15/2/39.19

on the **Steel motor vessel "BRITISH TENACITY"** (Number of Visits) Gross 8439 Tons Net 4855

Master Built at **Newcastle** By whom built **Swan Hunter & Wigham Richardson Ltd** Yard No. 1592 When built 1939-2

Engines made at **Sunderland** By whom made **Wm Donford & Sons Ltd** Engine No. 207 When made 1939

Boilers made at **Newcastle** By whom made **Swan, Hunter & Wigham Richardson Ltd** Boiler No. 1592 When made 1939

Nominal Horse Power 101. Owners **British Tanker Co** Port belonging to **LONDON.**

TWO FURNACE OIL FIRED.

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

Manufacturers of Steel **The Steel Coy. of Scotland.** (Letter for Record **S**)

Total Heating Surface of Boilers 1520 sq. ft. Is forced draught fitted **Yes** Coal or Oil fired **Oil fired only**

No. and Description of Boilers **One Single ended.** Working Pressure 150 lbs.

Tested by hydraulic pressure to 275 lbs. Date of test 9/12/38 No. of Certificate 803 Can each boiler be worked separately **Yes**

Area of Firegrate in each Boiler **Oil fired** No. and Description of safety valves to each boiler **Two - 2 1/4" Cockburn's Improved High lift Spring loaded**

Area of each set of valves per boiler { per Rule 6.95 sq. ins. as fitted 7.94 " Pressure to which they are adjusted 150 lbs. 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 boilers**

Smallest distance between boilers or uptakes and bunkers **2'-10"** Is oil fuel carried in the **bunker** **Yes**

Smallest distance between shell of boiler and **of Bunker** top plating **2'-10"** Is the bottom of the boiler insulated **Yes**

Largest internal dia. of boilers 11'-4 1/2" Length 11'-6" Shell plates: Material **Steel** Tensile strength **30 & 34 tons**

Thickness 3/4" Are the shell plates welded or flanged **No** Description of riveting: circ. seams { end **DR lap** inter. **none**

long. seams **T.R. Dble butt straps** Diameter of rivet holes in { circ. seams 7/8" long. seams 13/16" Pitch of rivets { 2.89" 5.75"

Percentage of strength of circ. end seams { plate 69.79 rivets 42.43 Percentage of strength of circ. intermediate seam { plate none rivets none

Percentage of strength of longitudinal joint { plate 85.86 rivets 86.41 combined 89.02. Working pressure of shell by Rules 150 lbs.

Thickness of butt straps { outer 9/16" inner 11/16" No. and Description of Furnaces in each Boiler **Two. Deighton Corrugated**

Material **Steel** Tensile strength 26 & 30 tons Smallest outside diameter 37 3/16"

Length of plain part { top 2'-5" c.c. butt bottom 2'-5" c.c. butt Thickness of plates { crown 13/32" bottom 7/8" c.c. bottom. Description of longitudinal joint **Furnaces fire welded.**

Dimensions of stiffening rings on furnace or c.c. bottom **None** Working pressure of furnace by Rules 155 lbs.

End plates in steam space: Material **Steel** Tensile strength 26 & 30 tons Thickness 7/8" Pitch of stays 16 3/8" x 14"

How are stays secured **Dble nuts + washers** Working pressure by Rules 151 lbs.

Tube plates: Material { front } **Steel** Tensile strength { 26 & 30 tons Thickness { 7/8" 5/8"

Mean pitch of stay tubes in nests 9.375" Pitch across wide water spaces 13 1/2" x 7 1/2" Working pressure { front 158 lbs. back 156 lbs.

Girders to combustion chamber tops: Material **Steel** Tensile strength 28-32 tons Depth and thickness of girder

at centre 7 3/4" x 1 1/4" Length as per Rule 29 21/32" Distance apart 9 1/2" No. and pitch of stays

in each **two @ 9"** Working pressure by Rules 152 lbs. Combustion chamber plates: Material **Steel**

Tensile strength 26 & 30 tons Thickness: Sides 5/8" Back 2 3/32" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 9" x 8" Top 9 1/2" x 9" Are stays fitted with nuts or riveted over **NUTTED both ends. Other stays are riveted INSIDE C.C. CHAMBER + NUTS ON OUTSIDE.**

Working pressure by Rules 150 lbs. Front plate at bottom: Material **Steel** Tensile strength 26 to 30 tons

Thickness 7/8" Lower back plate: Material **Steel** Tensile strength 26 to 30 tons Thickness 7/8"

Pitch of stays at wide water space 14 3/4" x 9" Are stays fitted with nuts or riveted over **Nuts.**

Working Pressure 210 lbs. Main stays: Material **Steel** Tensile strength 28 & 32 tons

Diameter { At body of stay, **Two top stays 2 1/2"** No. of threads per inch 6 Area supported by each stay (15 3/4" x 14 3/4") - 3.26 sq. ins. Over threads **others 2 1/4"**

Working pressure by Rules 151 lbs. Screw stays: Material **Steel** Tensile strength 26 & 30 lbs.

Diameter { At turned off part, **1 5/8" & 1 1/2"** No. of threads per inch 9. Area supported by each stay (9 1/2" x 9 1/2") - 1.73 sq. ins. Over threads



