

## REPORT ON BOILERS.

No. 8668

Received at London Office 20 JUL 1936

Date of writing Report 18.7.36 When handed in at Local Office 18-7-36 Port of MANCHESTER.

No. in Reg. Book Survey held at HALIFAX. Date, First Survey 24<sup>th</sup> June Last Survey 17<sup>th</sup> July 1936.

✓ on the ✓ (Number of Visits 4) Gross Tons Net ✓

Built at ✓ By whom built ✓ Yard No. ✓ When built ✓

Engines made at ✓ By whom made ✓ Engine No. ✓ When made ✓

Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

ORDER of MESSRS A/B ORESUNDSVARNET, LANDSKRONA Port belonging to ✓

## VERTICAL DONKEY BOILER.

Made at Halifax By whom made Messrs Humphys Ltd. Boiler No. 5589 When made 1936 Where fixed ✓

Manufacturers of Steel Messrs The Parkgate Iron &amp; Steel Co. Ltd. Rotherham.

Total Heating Surface of Boiler 110 SQ. FT. Is forced draught fitted ✓ Coal or Oil fired OIL. ✓

No. and Description of Boilers ONE VERTICAL CROSS TUBE DONKEY BOILER. Working pressure 40 lbs/sq.in. ✓

Tested by hydraulic pressure to 80 lbs/sq.in. ✓ Date of test July 17<sup>th</sup> 1936 ✓ No. of Certificate 87. ✓

Area of Firegrate in Boiler 11 SQ. FT. No. and Description of safety valves to each boiler DOUBLE 2in. SPRING LOADED. ✓

Area of each set of valves per boiler { per rule 3.8 SQ. INS. as fitted 6.28 SQ. INS. Pressure to which they are adjusted ✓ Are they fitted with easing gear YES. ✓

State whether steam from main boilers can enter the donkey boiler ✓ Smallest distance between boiler or uptake and bunkers

or woodwork ✓ Is oil fuel carried in the double bottom under boiler ✓ Smallest distance between base of boiler and tank top plating

✓ Is the base of the boiler insulated ✓ Largest internal dia. of boiler 4 FT. 3 INS. ✓ Height 11 FT 0 INS. ✓

Shell plates: Material Mild Steel Openheart, Acid, Tensile strength 28-32 TONS/SQ. IN. Thickness 3/8 IN. ✓

Are the shell plates welded or flanged No. Description of riveting: circ. seams { end SINGLE LAP inter. SINGLE LAP long. seams DOUBLE LAP ✓

Dia. of rivet holes in { circ. seams 13/16 IN. Pitch of rivets 2 1/8 INS. Percentage of strength of circ. seams { plate 61.78 rivets 45.53 of Longitudinal joint { plate 70.44 rivets 70.36 combined. ✓

Working pressure of shell by rules 135.6 lbs/sq.in. Thickness of butt straps { outer ✓ inner ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat DISHED PARTIAL SPHERICAL. Material Mild Steel O.H. Acid. ✓

Tensile strength 26-30 TONS/SQ. IN. Thickness 1/2 IN. Radius 4 FT. 3 INS. Working pressure by rules 108.3 lbs/sq.in. ✓

Description of Furnace: Plain, spherical, or dished crown DISHED. Material Mild Steel O.H. Acid Tensile strength 26-30 TONS/SQ. IN. ✓

Thickness 7/16 IN. External diameter { top 3 FT 6 7/8 INS. Length as per rule 5 FT 6 INS. Working pressure by rules 61.4 lbs/sq.in. ✓

Pitch of support stays circumferentially ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Radius of spherical or dished furnace crown 3 FT 6 INS. Working pressure by rule 85.1 lbs/sq.in. ✓

Thickness of Ogee Ring 7/16 Diameter as per rule { D 4 FT 2 1/4 INS. Working pressure by rule 107.6 lbs/sq.in. ✓

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished Working pressure by rule Thickness of back plate Diameter if circular

Length as per rule Pitch of stays Are stays fitted with nuts or riveted over

Diameter of stays over thread Working pressure of back plate by rules

Tube Plates: Material { front Tensile strength Thickness Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule { front Pitch in outer vertical rows { Dia. of tube holes FRONT { stay BACK { stay

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { front back

Girders to combustion chamber tops: Material Tensile strength

Depth and thickness of girder at centre Length as per rule

Distance apart No. and pitch of stays in each Working pressure by rule

Crown stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at body of stay, \_\_\_\_\_ or over threads \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Screw stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at turned off part, \_\_\_\_\_ or over threads \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_

Tubes: Material \_\_\_\_\_ External diameter { plain \_\_\_\_\_ stay \_\_\_\_\_ Thickness { \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Manhole Compensation: Size of opening in shell plate 16 INS X 12 INS. Section of compensating ring 5 1/2 INS. X 1/2 IN. No. of rivets and diameter \_\_\_\_\_

of rivet holes 40 - 13/16 INS. Outer row rivet pitch at ends 3 1/2 INS. Depth of flange if manhole flanged \_\_\_\_\_

Uptake: External diameter 15 INS. Thickness of uptake plate 1/2 IN.

Cross Tubes: No. 3 External diameters 10 INS. Thickness of plates 3/8 IN.

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

The foregoing is a correct description,  
LUMBY'S LIMITED.  
J. Gomersall, Manufacturer,  
Works Manager & Secretary.

Dates of Survey { During progress of work in shops - June 24<sup>th</sup>, July 2<sup>nd</sup>, 9<sup>th</sup> & 17<sup>th</sup> 1936. Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes.

while building { During erection on board vessel - ✓ Total No. of visits 4.

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey & to the approved plan, the materials have been tested in accordance with the rules of the Society & the workmanship is good throughout.

The boiler is eligible, in our opinion, to be classed with the Society & is stamped for identification as follows:

N<sup>o</sup> 5589.  
N<sup>o</sup> 87.  
LLOYD'S TEST  
80 LBS A"  
W. P. 40 LBS A"  
M.A.B. 17. 7. 36.

Survey Fee ... £ 4 : 4 : When applied for, 18th July 1936 & 28/7/36

Travelling Expenses (if any) £ 1 : 13 : When received, 23/7/19 36

George R. Chappell & M. A. Black  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Assigned  
FRI. 11 DEC 1936  
See Memo. Rpt. 1510