

REPORT ON BOILERS.

No. 9.

Received at London Office



Date of writing Report 19 When handed in at Local Office 19 Port of NOTTINGHAM.

No. in Survey held at NEWARK - ON - TRENT. Date, First Survey 9-12-1940 Last Survey 9-12-1940

Reg. Book "POSTBOY" (Number of Visits) Gross Tons Net Tons

Built at SELBY. By whom built COCHRANE & SONS Yard No. 1211 When built 1941

Engines made at LINCOLN By whom made RUSTON & HORNSBY. LTD. Engine No. ✓ When made 1941.

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

Owners GRIMSBY MOTOR TRAWLERS LTD. Port belonging to ✓

VERTICAL DONKEY BOILER.

Made at Newark By whom made Abbott & Co (Newark) Ltd. Boiler No. 1 (15646) When made 1940 Where fixed Engine casing at Base of funnel.

Manufacturers of Steel Appleby - Frodingham Steel Co. Ltd., Scunthorpe.

Total Heating Surface of Boiler 428 tubes exhaust heated = 132 sq ft Is forced draught fitted No Coal or Oil fired Oil & Exhaust gas. *170 tubes oil fired = 65 sq ft 197 sq ft 62 sq ft oil fired 122 sq ft gas fired 184 calculated from plan & etc.*

No. and Description of Boilers 1 - Clarkson Composite Double Tube Boiler [Type BATOQ-190] Working pressure 75 lb/sq. in.

Tested by hydraulic pressure to 150 lb/sq. in. Date of test 9-12-40 No. of Certificate 1

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler Double 1 1/2" Marine Type

Area of each set of valves per boiler per rule 1.71 sq ft as fitted 3.54 sq ft Pressure to which they are adjusted 75 lbs. 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 2'-9" Height 9'-0"

Shell plates: Material S.M. Steel Tensile strength 28-32 tons/sq. in. Thickness 7/16" & 3/8"

Are the shell plates welded or flanged Flanged no Description of riveting: circ. seams end Single Riveted Lap inter. ✓ long. seams Single Rivet D. butt strap

Dia. of rivet holes in circ. seams 13/16" long. seams 13/16" Pitch of rivets 2" 2" Percentage of strength of circ. seams plate 59.37% rivets 86.77% of Longitudinal joint plate 59.37% rivets 100% combined -

Working pressure of shell by rules 180 lb/sq. in. Thickness of butt straps outer 3/8" inner 1/8"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S.M. Steel

Tensile strength 26-30 tons/sq. in. Thickness 7/16" Radius Flanged 2" Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown Plain Material S.M. steel Tensile strength 26-30 tons/sq. in.

Thickness 7/16" External diameter top 2'-0 1/2" bottom 2'-0 1/2" Length as per rule 2'-2 3/4" Working pressure by rules 192 lb/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 ✓ Working pressure by rule

Thickness of Ogee Ring 3/4" Diameter as per rule D ✓ d ✓ Working pressure by rule

Combustion Chamber: Material S.M. steel Tensile strength 26-30 tons/sq. in. Thickness of top plate 7/16"

Radius if dished Flat 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 Tensile strength Thickness Mean pitch of stay tubes in nests

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

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 M.S. Pressings. External diameter { plain 1 3/4", 1 3/8" OD. Thickness 13 W.G.
1 3/4", 1 1/2" OD. 12 W.G.
 No. of threads per inch Pitch of tubes 3.87", 3.55", 4.51" Working pressure by rules

Manhole Compensation: Size of opening in shell plate 4 1/2" x 3" Section of compensating ring 2 1/4" x 3/8" No. of rivets and diameter of rivet holes 6 x 1/16" Outer row rivet pitch at ends Depth of flange if manhole flanged

Uptake: External diameter 1' - 0 7/8" Thickness of uptake plate 7/16"

Cross Tubes: No. External diameters Thickness of plates

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

The foregoing is a correct description,
FOR ABBOTT & CO. (NEWARK) LIMITED,
Gus. S. Ashbury Manufacturer.
DIRECTOR

Dates of Survey while building { During progress of work in shops - 15/4/40, 2/9/40, 9/9/40, 9/10/40, 23/10/40, 25/11/40 Is the approved plan of boiler forwarded herewith 5-3-40
 (If not state date of approval.)
 { During erection on board vessel - 30/11/40, 4/12/40.
15/9/41 - 1/10/41 - 24/10/41. Total No. of visits 11

Is this Boiler a duplicate of a previous case No 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 in accordance with the Rules, the Secretary's Letters and the approved Plan. The Workmanship and materials are good. The boiler has been despatched to Messrs Beltrane & Sons Selby for installation in the vessel.

This boiler has now been properly fitted on board the vessel, examined under steam, and its safety valves adjusted to 75 lbs. per sq. inch. Oil fuel pipes tested & found in order. Oil fuel installation examined under working conditions with fuel tank, valves and deck control gear, also oil discharge pipes between tank and furnace, and found in good condition. In my opinion the boiler is eligible for the notation of DB 75 lbs.

Survey Fee £ 4 : 4 : } When applied for, Paid by Clarkson Co.
 Travelling Expenses (if any) £ 2 : 8 : } When received, 24/11/19

W. S. Buchanan Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned TUE. 23 DEC 1941
See Int. J.C. 51167

