

REPORT ON BOILERS.

No. 4830.

JAN 16 1939

Received at London Office

Date of writing Report 10th Dec, 1938 When handed in at Local Office 10th Dec 1938 Port of Montreal

No. in Reg. Book 89751 on the Survey held at M. V. "Petroline" Date, First Survey 9th Aug. Last Survey 26th Nov. 1938 (Number of Visits 6) Gross 1560.56 Tons Net 856.46

Built at Lorient P.Q. By whom built Marine Industries Lt. Yard No. 65 When built 1938 Engines made at Deloit Mts. By whom made Fairbanks, Morse & Co. Lt. Engine No. 809119 When made 1938 Boilers made at Annan, Scotland By whom made Cochran Boiler Co. Boiler No. 13708 When made 1938 Owners Imperial Oil Shipping Co. Lt. Port belonging to Montreal

VERTICAL DONKEY BOILER.

Made at Annan By whom made Cochran Boiler Co. Boiler No. 13708 When made 1938 Where fixed Engine Room Manufacturers of Steel

Total Heating Surface of Boiler 450 sq. Is forced draught fitted no. Coal or Oil fired Oil fired

No. and Description of Boilers One Cochran Boiler 6'6" dia. x 15'9" high Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test No. of Certificate 20170

Area of Firegrate in each Boiler 22.5 sq. No. and Description of safety valves to each boiler One 2 1/2" double valve

Area of each set of valves per boiler { per rule 4.89 as fitted 9.89 Pressure to which they are adjusted 100 lbs. Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler Is oil fuel carried in the double bottom under boiler no. Smallest distance between boiler or uptake and bunkers

or woodwork 6 feet Is the base of the boiler insulated yes Smallest distance between base of boiler and tank top plating

6 feet Largest internal dia. of boiler 6'6" Height 15'9"

Shell plates: Material Siemens-Martin Mild Steel Tensile strength 28 to 32 tons Thickness 19/32" & 1/2"

Are the shell plates welded or flanged Riveted Description of riveting: circ. seams { end double riveted lap inter. single riveted lap long. seams

Dia. of rivet holes in { circ. seams 27/32" Pitch of rivets 2 1/16" Percentage of strength of circ. seams { plate 68.2% rivets 69.5% combined

Working pressure of shell by rules 110 lbs. Thickness of butt straps { outer none inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Complete Hemisphere Material Siemens-Martin Steel

Tensile strength 28 to 32 tons Thickness 13/32" & 27/32" Radius 3'3" Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown Spherical Material Siemens-Martin Tensile strength 26 to 30 tons

Thickness 1/2" External diameter { top 6'7" bottom 6'7" Length as per rule Working pressure by rules 125 lbs

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 2'9" Working pressure by rule

Thickness of Ogee Ring 27/32" Diameter as per rule { D a Working pressure by rule 101.1 lbs

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 Steel back " Tensile strength { 26 to 30 tons Thickness { 19/32" Mean pitch of stay tubes in nests 13"

If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { 4 3/16" Dia. of tube holes FRONT { stay 2 1/16" plain 2 1/2" BACK { stay 2 1/2" plain 2 1/2"

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 120.8 lbs back 126 lbs

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

Screw stays: Material ☒ Tensile strength ☒ Diameter ☒ { at turned off part...
 Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒

Tubes: Material *Lapwelded Mild Iron* External diameter { plain *2 1/2"* Thickness { *11 L.S.G.*
 No. of threads per inch *9* Pitch of tubes *4 7/16 Vert x 3 9/16 Hor.* Working pressure by rules ☒

Manhole Compensation: Size of opening in shell plate *16" x 12"* Section of compensating ring *2' 4" dia x 1/16"* No. of rivets and diameter
 of rivet holes *86 - 27/32* Outer row rivet pitch at ends *3.969"* Depth of flange if manhole flanged ☒

Uptake: External diameter *23 3/4"* Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters { Thickness of plates ☒

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

The foregoing is a correct description,

G. Edgar

Manufacture

Is the approved plan of boiler forwarded herewith (If not state date of approval.)
 Dates of Survey { During progress of work in shops - - }
 while building { During erection on board vessel - - } *Aug 9, Sept 18, Oct 5, 20 Nov 15, 26* Total No. of visits *6*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *M. V. "Imperial"*

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

This boiler has been satisfactorily fitted on board the vessel and examined under steam. The safety valves have been adjusted as stated and tested for accumulation.

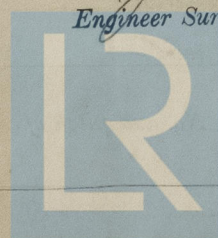
Survey Fee ... £ ☒ : : When applied for, ... 19...
 Travelling Expenses (if any) £ : : When received, ... 19...

Committee's Minute

Assigned

FRI 8 FEB 1939

See Inst Jc Rpt 4830



Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation