

REPORT ON BOILERS.

No. 13856

14 NOV 1944

Received at London Office

Date of writing Report 1944 When handed in at Local Office 10/11/44 Port of Belfast
 Visits included in 7.2. mch
 No. in Reg. Book 98 on the STEEL TWIN SC M/V "WAIWERA" (Number of Visits) Gross 12028 Tons Net 7032
 Built at Belfast By whom built Messrs Harland, Wolff Ltd. Yard No. 1161 When built 1944
 Engines made at Belfast By whom made Messrs Harland, Wolff Ltd. Engine No. 3161 When made 1944
 Boilers made at By whom made Boiler No. When made
 Owners Messrs Shaw Savill, Albion & Co Ltd Port belonging to London

VERTICAL BOILER.

Made at Belfast By whom made Messrs Harland, Wolff Ltd. Boiler No. 1161 When made 1944 Where fixed E.R. Top.
 Manufacturers of Steel Messrs Colvilles Ltd
 Total Heating Surface of Boiler 22 300 sq ft Is forced draught fitted Yes Coal or Oil fired Alternative
 No. and Description of Boilers 2 "Clarkson" Thimble Tube Type BEGATO/300 Working Pressure 100 lbs/sq in
 Tested by hydraulic pressure to 200 lbs/sq in Date of test 29.1.43 4.2.43 No. of Certificate 1225/6
 Area of fire grate in each Boiler No. and description of safety valves to each boiler Two 1 3/4" Spring loaded
 Area of each set of valves per boiler { per Rule 3.265 sq ft as fitted 4.8 sq ft Pressure to which they are adjusted 100 lbs/sq in 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 5'-0" 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 5'-11 1/2" Height 17'-1 1/2" OA
 Shell plates: Material Steel Tensile strength 28/32 tons Thickness 13/32"
 Are the shell plates welded or flanged No If fusion welded, state name of welding firm
 Have all the requirements of the Rules for Class I vessels been complied with Description of riveting: circ. seams { end SRL inter SRL
 long. seams DR DBS Dia. of rivet holes in { circ. seams 25/32 long. seams 25/32 Pitch of rivets { 1 1/8" 2 7/8" Percentage of strength of circ. seams { plate 57 rivets 52.5
 of longitudinal joint { plate 72.8 rivets 126.5 Thickness of butt straps { outer 3/8" inner 3/8" Shell Crown: Whether complete hemisphere, dished partial
 spherical, or flat Dished Partial Spherical Material Steel Tensile strength 26/30 tons Thickness 1/16"
 Radius 5'-6" Description of Furnace: Plain, spherical, or dished crown Plain with dished crown Material Steel
 Tensile strength 26/30 tons Thickness 5/8" External diameter { top 4'-7 1/2" bottom 4'-7 1/4" Length as per Rule 2'-4 1/4"
 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 4'-0" Dished partial Spherical
 Thickness of Ogee Ring Diameter as per Rule { D d
 Combustion Chamber: Material Tensile strength Thickness of top plate
 Radius if dished 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
 Tube Plates: Material { front back Tensile strength Thickness Mean pitch of stay tubes in nests
 If comprising shell, dia. as per Rule { front back Pitch in outer vertical rows { front back Dia. of tube holes FRONT { stay plain BACK { stay plain
 Is each alternate tube in outer vertical rows a stay tube

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

Crown Stays: Material ☒ Tensile strength ☒ Diameter { at body of stay. ☒ or over threads. ☒

No. of threads per inch ☒ Screw Stays: Material ☒ Tensile strength ☒

Diameter { at turned off part. ☒ or over threads. ☒ No. of threads per inch ☒ Are the stays drilled at the outer ends. ☒

THIMBLE Tubes: Material *Steel* ☒ External diameter { *2 3/4"* ☒ Thickness { *9 B.W.G.* ☒

No. of threads per inch ☒ THIMBLE Pitch of tubes *6" VERT.* ☒ *6.42" CIRC.* ☒

Manhole Compensation: Size of opening in shell plate *16" x 12"* ☒ Section of compensating ring *4 7/8" x 1 3/16"* ☒ No. of rivets and diameter ☒

of rivet holes *40 @ 1 3/16"* ☒ Outer row rivet pitch at ends. ☒ Depth of flange if manhole flanged. ☒

Uptake: External diameter *4' - 9 1/16"* ☒ Thickness of uptake plate *1 7/32"* ☒

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,

Manhall Manufacturer.

Dates of Survey { During progress of work in shops - - ☒ Is the approved plan of boiler forwarded herewith. ☒ (If not state date of approval.)

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

Is this Boiler a duplicate of a previous case. *Yes* ☒ If so, state Vessel's name and Report No. *M/V "EMPIRE HOPE" BEL. REP. No 13091*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been constructed under Special Survey in accordance with the Rules & approved plans. The materials and workmanship are good.*

The boilers have been efficiently installed onboard the vessel, examined under steam safety valves adjusted. A satisfactory accumulation test was held and the gravity feed oil fuel burning installation was found in order.

See Main Eng. Rpt.

Survey Fee ... £ : : When applied for *19*

Travelling Expenses (if any) £ : : When received *19*

John W. Giff
Engineer Surveyor to Lloyd's Register of Shipping.

Date *FRI. 1 DEC 1944*

Committee's Minute *see minute on SEA*