

REPORT ON BOILERS.

No. 14029

Received at London Office.

Date of writing Report 19... When handed in at Local Office 7/9/1945 Port of Belfast
Visits included in 7.2. Machinery
No. in Reg. Book. Survey held at Belfast Date, First Survey Last Survey 19...
on the M.V. "BRITISH SUPREMACY" (Number of Visits.....) Tons Gross 8242 Net 4816
Master Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1284 When built 1945
Engines made at Glasgow By whom made Harland & Wolff Ltd Engine No. 9508 When made 1945
Boilers made at Belfast By whom made Messrs Harland & Wolff Ltd Boiler No. 1284 When made 1945
Nominal Horse Power 490 Owners British Tankers Ltd Port belonging to LONDON

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S...)
Total Heating Surface of Boilers 3836 sq. ft. Is forced draught fitted yes Cooler Oil fired & Exhaust gas
No. and Description of Boilers Two cylindrical multitubular Working Pressure 150 lb./sq. in.
Tested by hydraulic pressure to 275 lb./sq. in. Date of test 20.4.45 No. of Certificate 1283 Can each boiler be worked separately yes
Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 1/4" dia. Double Spring I.H.L. (each boiler)
Area of each set of valves per boiler per Rule 3.63 sq. ft. X 2 = 7.26 sq. ft. Pressure to which they are adjusted 150 lb. Are they fitted with easing gear yes
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler
Smallest distance between boilers or uptakes and bunkers or woodwork well clear Is oil fuel carried in the double bottom under boilers
Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated yes
Largest internal dia. of boilers 12'-6" Length 11'-0" Shell plates: Material Steel Tensile strength 29/33 tons
Thickness 7/8" Are the shell plates welded or flanged no Description of riveting: circ. seams { end D.R. Lap inter 3.038" 6.116"
long. seams D.R. D.B.S. Diameter of rivet holes in { circ. seams 1 3/32" long. seams 1 1/32" Pitch of rivets { plate 64.1 rivets 56.0
Percentage of strength of circ. end seams { plate 84.6 rivets 106.1 combined 90.4 Working pressure of shell by Rules 154.6 lb./sq. in.
Percentage of strength of longitudinal joint
Thickness of butt straps { outer 1 1/16" inner 1 3/16" No. and Description of Furnaces in each Boiler Two Corrugated "Deighton" Section
Material Steel Tensile strength 26/30 tons Smallest outside diameter 42"
Length of plain part { top bottom Thickness of plates { crown 1/2" bottom Description of longitudinal joint Fire weld
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules as approved
End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 1 5/16" Pitch of stays various
How are stays secured Nuts & washers inside & outside Working pressure by Rules as approved
Tube plates: Material { front Steel back Steel Tensile strength 26/30 tons Thickness { 7/8" 1 3/16" & 3/4" see letter
Mean pitch of stay tubes in nests 9 1/4" Pitch across wide water spaces 13 1/2" Working pressure { front as approved back
Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder
at centre 8 1/4" x 1" Length as per Rule 29 15/16" Distance apart 7 1/2" No. and pitch of stays welded
Attachments 2 @ 10" centres Working pressure by Rules as approved Combustion chamber plates: Material Steel
Tensile strength 26/30 tons Thickness: Sides 3/4" Back 3/4" & 1 3/16" Top 3/4" Bottom 3/4" marginal stays fitted with
Pitch of stays to ditto: Sides 9 1/4" x 8 1/4" Back 9 1/4" x 8" Top 10" x 7 1/2" Are stays fitted with nuts or riveted over nuts inside chambers
Working pressure by Rules as approved Front plate at bottom: Material Steel Tensile strength 26/30 tons
Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 1 5/16"
Pitch of stays at wide water space 13' x 9 1/4" Are stays fitted with nuts or riveted over Nuts in chamber Riveted at boiler back
Working pressure as approved Main stays: Material Steel Tensile strength 28/32 tons
Diameter { At body of stay 2 1/2" No. of threads per inch 6 Area supported by each stay
Working pressure by Rules as approved Screw stays: Material Steel Tensile strength 26/30 tons
Diameter { At end off part 1 1/2" No. of threads per inch 9 Area supported by each stay

Working pressure by Rules as approved Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, ✓
or
Over threads. 15/8" ✓
No. of threads per inch 9 ✓ Area supported by each stay ✓ Working pressure by Rules as approved ✓
Tubes: Material Steel ✓ External diameter { Plain 2 1/2" ✓ Thickness { 0.456" ✓
Stay 2 1/2" ✓ 1/4" 5/16" 3/32" ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 3/4" x 3 5/8" ✓ Working pressure by Rules as approved ✓ Manhole compensation: Size of opening
shell plate 16 1/2" x 12 1/2" ✓ Section of compensating ring 17 3/16" x 3/4" ✓ No. of rivets and diameter of rivet holes 28 x 1 3/32" ✓
Outer row rivet pitch at ends 9" ✓ Depth of flange if manhole flanged 3 3/8" (Bolt front) ✓ Steam Dome: Material
Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint { Plate _____
Rivets _____
Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter
stays _____ Inner radius of crown _____ Working pressure by Rules _____
How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell _____

Type of Superheater _____ Manufacturers of { Tubes _____
Steel forgings _____
Steel castings _____
Number of elements _____ Material of tubes _____ Internal diameter and thickness of tubes _____
Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and
the boiler be worked separately _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____
Area of each safety valve _____ Are the safety valves fitted with easing gear _____ Working pressure as per
Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure
tubes _____ forgings and castings _____ and after assembly in place _____ Are drain cocks
valves fitted to free the superheater from water where necessary _____
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes ✓

HARLAND AND WOLFF, LIMITED.
The foregoing is a correct description,
[Signature] Manufacturer
Secretary

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith yes ✓
while building { During erection on board vessel - - - } (If not state date of approval.)
Total No. of visits _____

Is this Boiler a duplicate of a previous case yes ✓ If so, state Vessel's name and Report No. Harland & Wolff 11969 B.R.P.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey in accordance with the Society's Rules & approved plans. The materials & workmanship are good. The boilers have been efficiently installed on board the vessel.

The safety valves of these boilers have been adjusted under steam to 150 lbs per sq inch and found satisfactory.

Sizes of Compression washers. Port Boiler P. 1 3/32" 7/16" Starboard Boiler 3/8" 7/16"
G. C. Murdoch, Glasgow

Survey Fee ... £ 25 : 11 : 0 } When applied for, 8/9/45
Travelling Expenses (if any) £ : ✓ : } When received _____

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 JAN 1946
Assigned SEE ACCOMPANYING MACHINERY REPORT.