

## REPORT ON BOILERS.

No. 9806

20 DEC 1932

Received at London Office

Date of writing Report 3/12/32 When handed in at Local Office 15/12/32 Port of TRIESTE  
 Date, First Survey 23/9/1930 Last Survey 30/11/1932  
 in Survey held at TRIESTE  
 on the Quaro. S. T/S. CONTE DI SAVOIA (Number of Visits 111) Gross Tons 48502 Net Tons 25948  
 Built at TRIESTE By whom built CANT. RIVINATI DELL'ADRIATICO Yard No. 783 When built 1932  
 Engines made at TRIESTE By whom made CANT. RIVINATI DELL'ADRIATICO Engine No. 119/120 When made 1932  
 Boilers made at TRIESTE By whom made CANT. RIVINATI DELL'ADRIATICO Boiler No. 7515 When made 1932  
 Final Horse Power 26612 Owners ITALIA (FLOTE. RIVINATI. COSULICH LLOYD'S. SARAGNO NAVIGAZ. GENERALE.) Port belonging to GENOVA

SEE ALSO NEWCASTLE REPORT No. 4303 HEREWITH ATTACHED.

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

STEEL COMPANY OF SCOT LTD. - GLASGOW (FOR BOILER No. 304)

Manufacturers of Steel JOHN SPENCER & SON (FOR BOILERS Nos. 300 - 304) (Letter for Record S.)Total Heating Surface of Boilers 23477 Is forced draught fitted YES. Coal or Oil fired OIL FIREDName and Description of Boilers THREE CYLINDRICAL BOILERS Working Pressure 180 LBSTested by hydraulic pressure to 320 LBS Date of test 14/11/1932 No. of Certificate 301-304 Can each boiler be worked separately YESArea of Firegrate in each Boiler BURNING No. and Description of safety valves to each boiler TWO SPRINGS LOADED.Area of each set of valves per boiler 12 Pressure to which they are adjusted 185 LBS Are they fitted with easing gear YESIn case of donkey boilers, state whether steam from main boilers can enter the donkey boiler NOSmallest distance between boilers or uptakes and bunkers or woodwork — Is oil fuel carried in the double bottom under boilers YESSmallest distance between shell of boiler and tank top plating 23.62" Is the bottom of the boiler insulated YES.Smallest internal dia. of boilers 15'-0" Length 11'-9" Shell plates: Material S. M. S. Tensile strength 28-32 T<sup>2</sup>Thickness 1 1/4" Are the shell plates welded or flanged — Description of riveting: circ. seams DOUBLE AT BOTTOM TRIPLE.Seams TRIPLE. R. D. B. ST. Diameter of rivet holes in 1 1/32" Pitch of rivets 4 1/8"Percentage of strength of circ. end seams 68% Percentage of strength of circ. intermediate seam —Percentage of strength of longitudinal joint 85.5% Working pressure of shell by Rules 188 LBS.Thickness of butt straps 1 1/4" No. and Description of Furnaces in each Boiler 3 MORISON FURNACES.Material S. M. S. Tensile strength 26-30 TONS T<sup>2</sup> Smallest outside diameter 3' 11 1/2"Length of plain part — Thickness of plates 9/16" Description of longitudinal joint WELDED.Dimensions of stiffening rings on furnace or c.c. bottom NONE Working pressure of furnace by Rules 186 LBS.Plates in steam space: Material S. M. S. Tensile strength 26-30 T<sup>2</sup> Thickness 1 3/8" Pitch of stays 23' x 21"Are stays secured DOUBLE NUTS. Working pressure by Rules 180 LBS.End plates: Material S. M. S. Tensile strength 26-30 T<sup>2</sup> Thickness 3/4"Pitch of stay tubes in nests 10 1/8" Pitch across wide water spaces 14" Working pressure 180 LBSBoilers to combustion chamber tops: Material S. M. S. Tensile strength 28-32 T<sup>2</sup> Depth and thickness of girderCentre 9 1/4" x 1 1/2" Length as per Rule 36 3/32" Distance apart 8 1/2" No. and pitch of staysEach 3 - 8 7/8" Working pressure by Rules 180 LBS. Combustion chamber plates: Material S. M. S.Tensile strength 26-30 T<sup>2</sup> Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 24/32"Pitch of stays to ditto: Sides 9 1/4" x 8 7/8" Back 9 1/2" x 8 1/2" Top 8 7/8" x 8 1/2" Are stays fitted with nuts or riveted over NUTSWorking pressure by Rules 180 LBS. Front plate at bottom: Material S. M. S. Tensile strength 26-30 T<sup>2</sup>Thickness 31/32" Lower back plate: Material STEEL Tensile strength 26-30 T<sup>2</sup> Thickness 7/8"Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over NUTSWorking Pressure 185 LBS. Main stays: Material S. M. S. Tensile strength 28-32 T<sup>2</sup>Pitch 3 1/2" No. of threads per inch 6. Area supported by each stay 483 T<sup>2</sup>Working pressure by Rules 182 1/2 LBS Screw stays: Material S. M. S. Tensile strength 20-30 T<sup>2</sup>Pitch 1 7/8" No. of threads per inch 9 Area supported by each stay 79.8 T<sup>2</sup>



Working pressure by Rules 180 LBS Are the stays drilled at the outer ends No Margin stays: Diameter 1 7/8" (At turned off part, or Over threads) 1 7/8"

No. of threads per inch 9 Area supported by each stay 61" Working pressure by Rules 240 LBS

Tubes: Material IRON External diameter 3" Thickness 8.49 No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 250 LBS Manhole compensation: Size of 12" x 16"

Section of compensating ring 4 1/16" No. of rivets and diameter of rivet holes —

Outer row rivet pitch at ends — Depth of flange if manhole flanged — Steam Dome: Material —

Tensile strength — Thickness of shell — Description of longitudinal joint —

Diameter of rivet holes — Pitch of rivets — Percentage of strength of joint —

Internal diameter — Working pressure by Rules — Thickness of crown — No. and —

stays — Inner radius of crown — Working pressure by Rules —

How connected to shell — Size of doubling plate under dome — Diameter of rivet holes —

of rivets in outer row in dome connection to shell —

Type of Superheater — Manufacturers of —

Number of elements — Material of tubes — Internal diameter and thickness of tubes —

Material of headers — Tensile strength — Thickness — Can the superheater be —

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 —

Rules — Pressure to which the safety valves are adjusted — Hydraulic test 188

tubes — castings — and after assembly in place — Are drain cocks or —

to free the superheater from water where necessary —

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with YES.

The foregoing is a correct description in Mr. ...

Dates of Survey — During progress of work in shops — Are the approved plans of boiler and superheater forwarded herewith — (If not state date of approval.)

while building — During erection on board vessel — Total No. of visits one hundred and eleven

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, and Secretary letters. They have been tested to 320 LBS water pressure and found satisfactory. They have been fitted on board the S. S. Corte di Savoia, for Donkey service and securely fastened. The shell plates, furnaces, and combustion chambers and the two end plates, were prepared by Walter Slipways Engineering Co at New Castle in year 1921 for Boilers Nos. 300 & 301. All these parts were carefully examined and signs of deterioration were found. See also New Castle Report No. 74303. —

The Boilers are fitted in the forward boiler space as follows: Port Boiler No 304 Centre Boiler No 300. Starboard Boiler No 301.

Survey Fee £ 3325 When applied for, 26/11/1932

Travelling Expenses (if any) £ When received, 15/12/1932

Cor. J. Penivento  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 23 DEC 1932

Assigned See F. G. Rpt.

FRI. 27 JAN 1933