

REPORT ON BOILERS.

No. 10413

Received at London Office 6 DEC 1927

Date of writing Report 25/II/27 192 When handed in at Local Office 25/II/27 192 Port of GENOA

No. in Reg. Book. Survey held at GENOA Date, First Survey 12/5/26 Last Survey 15/II/27 192

on the Quad. Sc. M.V. "AUGUSTUS" (Number of Visits 17) Gross 32649.83 Tons Net 19512.56

Master Built at Genoa-Sestri By whom built Soc. Anon. ANSALDO Yard No. 282 When built 1927

Engines made at Genoa-Cornigliano By whom made Cant. Officine Savoia Engine No. When made 1927

Boilers made at Sampierdarena By whom made S.A. Ansaldo Stab. Meccanico Boiler Nos. 2887 2888 When made 1927

Nominal Horse Power 6368 Owners Nav. Gen. Italiana Port belonging to Genoa

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Henschel & Son, Schultz Krandt (Letter for Record S ✓)

Total Heating Surface of Boilers 220 sqm. (one boiler 110 sqm.) forced draught fitted Yes ✓ Coal or Oil fired Oil

No. and Description of Boilers Two Single Ended Scotch Multitubular Working Pressure 12 kgs/cm sq.

Tested by hydraulic pressure to 21.5 kgs Date of test 25-10-26 No. of Certificate 185 Can each boiler be worked separately Yes ✓

Area of Firegrate in each Boiler Oil fired No. and Description of safety valves to each boiler Two Spring Loaded.

Area of each set of valves per boiler { per Rule 6202 sq.m/m. as fitted 7263 " " Pressure to which they are adjusted 12 kg. Are they fitted with easing gear Yes ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No Main Boilers.

Smallest distance between boilers or uptakes and bunkers or woodwork 3 metres. Is oil fuel carried in the double bottom under boilers No. ✓

Smallest distance between shell of boiler and tank top plating 1 metre. Is the bottom of the boiler insulated Yes ✓

Largest internal dia. of boilers 3450 m/m. Length 3106 m/m. Shell plates: Material Steel Tensile strength 44/50 kgs.

Thickness 24 m/m. Are the shell plates welded or flanged - Description of riveting: circ. seams { end D.R. zig zag inter. -

long. seams T.R.D.B. straps Diameter of rivet holes in { circ. seams 33 m/m. long. seams 28 m/m. Pitch of rivets { 91.57 m/m. 185 m/m.

Percentage of strength of circ. end seams { plate 63.9% rivets 60.8% Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 84.8% rivets 101 combined 94.3 Working pressure of shell by Rules 12.7 kgs./sq.cm.

Thickness of butt straps { outer 24 m/m. inner 24 m/m. No. and Description of Furnaces in each Boiler Two Morison Type.

Material Steel Tensile strength 41/47 kgs./sqm. Smallest outside diameter 1026 m/m.

Length of plain part { top - bottom - Thickness of plates { crown 13 m/m. bottom 13 m/m. Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 12.8 kgs./sq.cm.

End plates in steam space: Material Steel Tensile strength 41/47 kgs. Thickness 22 m/m. Pitch of stays 410 x 400

How are stays secured Nuts inside & outside riveted washer outside Working pressure by Rules 13

Tube plates: Material { front Steel back " Tensile strength { 41/47 kgs. " " Thickness { 22 m/m. 18 m/m.

Mean pitch of stay tubes in nests 216 x 216 m/m. Pitch across wide water spaces 376 x 216 m/m. Working pressure { front 13.8 kgs./sq.cm. back 19 " "

Girders to combustion chamber tops: Material Steel Tensile strength 44/50 kgs. Depth and thickness of girder

at centre 180, 16.5 x 2 m/m. Length as per Rule 671.5 m/m. Distance apart 200 m/m. No. and pitch of stays

in each 2. 200 m/m. Working pressure by Rules 14 kgs. Combustion chamber plates: Material Steel

Tensile strength 41/47 kgs. Thickness: Sides 16.5 m/m. Back 16.5 m/m. Top 16.5 m/m. Bottom 24 m/m.

Pitch of stays to ditto: Sides 200 x 200 Back 200 x 200 Top 200 x 200 Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 16 kgs. Front plate at bottom: Material Steel Tensile strength 41/47 kgs.

Thickness 22 m/m. Lower back plate: Material Steel Tensile strength 41/47 kgs. Thickness 22 m/m.

Pitch of stays at wide water space 376 x 200 m/m. Are stays fitted with nuts or riveted over Nuts

Working Pressure 14.2 kg. Main stays: Material Steel Tensile strength 44/50 kgs.

Diameter { At body of stay, 58 m/m. No. of threads per inch Six Area supported by each stay 164000 m/m sq.

Over threads 65 " Screw stays: Material Steel Tensile strength 41/47 kgs.

Working pressure by Rules 31 m/m. No. of threads per inch 9 Area supported by each stay 40,000 sq.m/m.

Diameter { At turned off part, 31 m/m. Over threads 35 " Foundation

Working pressure by Rules 12.7 Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, 42 & 47 m/m. or Over threads 51 & 46 m/m. No. of threads per inch 9 Area supported by each stay 75200 sq.m/m. Working pressure by Rules 13 Tubes: Material Steel External diameter { Plain 76 m/m. Stay 76 m/m. Thickness { 4 m/m. 7 & 9 m/m. No. of threads per inch 9 Pitch of tubes 108 x 108 m/m. Working pressure by Rules 13.5 Manhole compensation: Size of opening in shell plate 500 x 400 m/m. Section of compensating ring 860 x 760 x 24 No. of rivets and diameter of rivet holes 42 28 m/m. Outer row rivet pitch at ends 185 m/m. Depth of flange if manhole flanged 90 m/m. Steam Dome: Material None 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 of 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 None Manufacturers of { Tubes 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, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

"ANSALDO, Società Anonima
STABILIMENTO MECCANICO
SAMPIERDARENA

The foregoing is a correct description,
Manufacturer.

Dates of Survey { During progress of work in shops - - 1926. May 12.31. June 19 July 5.12. Aug 19 Sep 3.13 Oct. 9.25 Dec. 9. 1927. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) while building { During erection on board vessel - - - Apr 29. June 7.11. July 7.15 Oct 15 Total No. of visits 17.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This vessel's boilers have been constructed under special survey in accordance with the Society's Rules, Approved Plans, Tested Materials, and Secretary's letters.

The materials and workmanship are good.
A satisfactory accumulation test has been carried out on the boilers.
Safety valves, thickness of adjusting screws port and starboard boilers { P. & S. P. & S. 26 m/m. 26 m/m. }

Survey Fee ... £ 1580.- When applied for, 1/12/27 1928 Travelling Expenses (if any) £ 150.- When received, 21/2/28 1928

Y. R. Morrison.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned See Rpt. attached