

REPORT ON BOILERS.

No. 9987

Received at London Office 20 AUG 1927

Date of writing Report 27/7/27 1927 When handed in at Local Office 27/7/27 1927 Port of GENOVA
 Survey held at RIVA TRIGOSO Date, First Survey 21/2/27 Last Survey 23/7/27 1927
 on the S/S "CONTE GRANDE" (Number of Visits 12) Gross Tons - Net Tons -
 Built at Trieste By whom built Stat. del. Trieste Yard No. 764 When built -
 By whom made - Engine No. - When made -
 Riva Trigoso By whom made Cantiere del Tirreno Boiler No. 725 When made 1927
 Owners "Lloyd Sabauda" Port belonging to ✓

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY

Manufacturers of Steel Messrs August Thyssen-Hutte Gewerschaft-Mutheim-Ruhr (Letter for Record s ✓)
 Heating Surface of Boilers 584 sq. m/m. Is forced draught fitted - Coal or Oil fired Oil
 and Description of Boilers 2 Single Ended Multitubular Scotch Type Working Pressure 15.46 kg./cm²
 tested by hydraulic pressure to 26.7 kg./cm² Date of test 19-7-27 No. of Certificate 195
23-7-27 196 Can each boiler be worked separately Yes ✓
 No. and Description of safety valves to each boiler -
 No. of each set of valves per boiler {per Rule - as fitted - Pressure to which they are adjusted - Are they fitted with easing gear -
 Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler -
 Smallest distance between boilers or uptakes and bunkers or woodwork - 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 -
 Smallest internal dia. of boilers 5030 m/m Length 3492 m/m Shell plates: Material Steel Tensile strength 44.50 kg./m²
 Thickness 41.5 m/m Are the shell plates welded or flanged - Description of riveting: circ. seams {end D.R.Z.Z. inter. N11
 seams T.R.D.B.S. Diameter of rivet holes in {circ. seams 40 m/m long. seams 40 m/m Pitch of rivets { 100 m/m 273 m/m
 Percentage of strength of circ. end seams {plate 60% rivets 49.5% 85.3% Percentage of strength of circ. intermediate seam {plate - rivets -
 Percentage of strength of longitudinal joint {plate 84.96% rivets 87.74% combined - Working pressure of shell by Rules 15.46 kg./cm²
 Thickness of butt straps {outer 32 m/m inner 35 m/m No. and Description of Furnaces in each Boiler 4 Morrison ✓
 Material Steel Tensile strength 41-47 Smallest outside diameter 1057 m/m
 Thickness of plates {top 16 m/m bottom 16 m/m Description of longitudinal joint Welded ✓
 Dimensions of stiffening rings on furnace or c.c. bottom N11 Working pressure of furnace by Rules 15.56 kg.
 Plates in steam space: Material Steel Tensile strength 41-47 Thickness 31 m/m Pitch of stays 468 m/m x 432 m/m
 Stays secured Double nuts and washers Working pressure by Rules 15.56 kg./cm²
 Plates: Material {front Steel back Steel Tensile strength { 41.47 41.47 Thickness { 23 m/m 23 m/m
 Pitch of stay tubes in nests 270 m/m x 210 m/m Pitch across wide water spaces 356 m/m Working pressure {front 15.9 kg./cm² back 15.7 kg./cm²
 Stays to combustion chamber tops: Material Steel Tensile strength 44-50 kg./cm² Depth and thickness of girder 232 m/m x 219 m/m
 Length as per Rule 746.5 m/m Distance apart 203 m/m No. and pitch of stays 2 @ 228 m/m
 Working pressure by Rules 21.7 kg./cm² Combustion chamber plates: Material Steel
 Tensile strength 41-47 Thickness: Sides 17.5 m/m Back 18.5 m/m Top 17.5 m/m Bottom 22 m/m
 of stays to ditto: Sides 228 x 203 back 254 x 203 Top 228 x 203 Are stays fitted with nuts or riveted over Nuts ✓
 Working pressure by Rules 16 kg./cm² Front plate at bottom: Material Steel Tensile strength 41-47
 Thickness 23 m/m Lower back plate: Material Steel Tensile strength 41-47 Thickness 24 m/m
 of stays at wide water space 387 m/m x 203 m/m Are stays fitted with nuts or riveted over Nuts ✓
 Working Pressure 19.5 kg./cm² Main stays: Material Steel Tensile strength 44-50
 At body of stay, 85 m/m No. of threads per inch 6 per inch Area supported by each stay 468 m/m x 432 m/m
 Over threads 85 m/m
 Working pressure by Rules 19.7 kg./cm² Screw stays: Material Steel Tensile strength 41-47
 At turned off part, - No. of threads per inch 9 per inch Area supported by each stay 203 m/m x 254 m/m
 Over threads 44 m/m

Working pressure by Rules 15.56 kg/cm² Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 57 m/m & 50.8

No. of threads per inch 9 Area supported by each stay 36743 sq. m/m. Working pressure by Rules 29.4 kg/cm²

Tubes; Material Steel External diameter { Plain 76 m/m Stay 76 m/m Thickness { 4 m/m 9.5 m/m & 8 m/m No. of threads per inch 9 per in

Pitch of tubes 108 m/m x 105 m/m Working pressure by Rules 17.5 kg/cm² Manhole compensation: Size of opening 94 x 990

shell plate 300 m/m x 400 m/m Section of compensating ring Flanged plate No. of rivets and diameter of rivet holes 40 - 40 m/m

Outer row rivet pitch at ends 273 m/m Depth of flange if manhole flanged 102 m/m 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 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 of rivets in outer row in dome connection to shell _____

Type of Superheater

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 from the boiler _____

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 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 _____

The foregoing is a correct description,

F. Formando Chiappini Manufacturer

Dates of Survey { During progress of work in shops - - - 21/2/27, 3/3/27, 11/3/27, 8/4/27
while building { During erection on board vessel - - - 25/4/27, 2/5/27, 9/5/27, 23/5/27, 27/6/27, 9/7/27, 19/7/27, 23/7/27

Are the approved plans of boiler and superheater forwarded herewith. No Sent with Genoa Register No 9958.

(If not state date of approval.)

Total No. of visits 12

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

These Boilers have been constructed tested materials under special survey and in accordance with approved plans, Secretary's letter Rule Requirements. The workmanship and materials are good and when tested hydraulically to 26 kg/cm² were found tight and satisfactory.

These boilers are intended for the S/S "CONTE GRANDE" now building at Trieste and be eligible in my opinion, to be classed in the Register Book when they have been satisfactorily tested on board, all safety valves and mountings fitted, safety valves adjusted under steam and later tests satisfactorily carried out.

Copy of this report has been sent to Trieste.

The Boilers have been stamped for identification as follows:-

No 195
LLOYD'S TEST
T.P. 26.70 kg/cm²
W.P. 15.46 kg/cm²
G.C.V. 19-7-27

No 196
LLOYD'S TEST
T.P. 26.70 kg/cm²
W.P. 15.46 kg/cm²
G.C.V. 23-7-27

Survey Fee ... £ 1060.- :
Travelling Expenses (if any) £ 1030.- :

When applied for, 17/8/27 S.C.V.
When received, 29.11.1927

G. Clark Vaux
Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute

TUES. 3 APR 1928

Assigned

La Tri. I. & P. No 7869



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