

REPORT ON BOILERS.

No. 13091

Received at London Office. 2 SEP 1947

Date of writing Report. 19. When handed in at Local Office. 13/9/47 Port of Trieste

No. in Reg. Book. Survey held at Monfalcone Date, First Survey 13/11/45 Last Survey 5/8/47

on the M/T JANUS (Number of Visits. 7) Tons Gross 6273 Net 3701

Master Built at Monfalcone By whom built Cant. Riun. d. Adriat. Yard No. 1384 When built.

Engines made at Trieste By whom made CRDA Fabbrica Macchine Engine No. 5432 When made.

Boilers made at Trieste By whom made " " " Boiler No. 1894 When made.

Nominal Horse Power 842 Owners Western Chartering Co. Port belonging to Panama City

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mannesmannröhrenworks - Duisburg & A.H. Falck - Italy (Letter for Record 5)

Total Heating Surface of Boilers 225 m² 2422 q Is forced draught fitted yes ✓ Coal or Oil fired oil 185 lb. Working Pressure 13 kg/cm² ✓

No. and Description of Boilers Cyl. Marine ✓

Tested by hydraulic pressure to 32 kg/cm² Date of test 17.12.45 No. of Certificate — Can each boiler be worked separately —

Area of Firegrate in each Boiler 0.7 ✓ No. and Description of safety valves to each boiler 2 improved spring loaded ✓

Area of each set of valves per boiler per Rule 98 cm² as fitted 108 cm² Pressure to which they are adjusted 185 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 3 feet ✓ Is oil fuel carried in the double bottom under boilers —

Smallest distance between shell of boiler and tank top plating Deck 2'-6" ✓ Is the bottom of the boiler insulated yes ✓

Largest internal dia. of boilers 4250 mm ✓ Length 3440 mm ✓ Shell plates: Material S.M.S. Tensile strength 44-55 kg/cm² ✓

Thickness 30.5 mm ✓ Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams end 12p inter —

long. seams D.B.S. Trebbi ✓ Diameter of rivet holes in circ. seams 35 mm long. seams 33 mm Pitch of rivets 106.7 mm 213 mm

Percentage of strength of circ. end seams plate 88 rivets 67 ✓ Percentage of strength of circ. intermediate seam plate — rivets —

Percentage of strength of longitudinal joint plate 84 1/2 rivets 95.5 ✓ Working pressure of shell by Rules 13.17 kg/cm² ✓

combined 87

Thickness of butt straps outer 24 mm inner 27 mm No. and Description of Furnaces in each Boiler 3 Morison ✓

Material S.M.S. Tensile strength 41-47 kg/cm² ✓ Smallest outside diameter 1032 mm ✓

Length of plain part top — bottom — Thickness of plates crown 16 mm bottom — Description of longitudinal joint welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom — Working pressure of furnace by Rules 15.9 kg/cm² ✓

End plates in steam space: Material S.M.S. ✓ Tensile strength 41-47 kg/cm² ✓ Thickness 28 mm Pitch of stays 450 mm ✓

How are stays secured double nuts ✓ Working pressure by Rules 13.82 kg/cm² ✓

Tube plates: Material front S.M.S. back S.M.S. ✓ Tensile strength 41-47 kg/cm² ✓ Thickness 23 mm 18 mm ✓

Mean pitch of stay tubes in nests 206 x 206 mm ✓ Pitch across wide water spaces 360 mm ✓ Working pressure front 15.6 kg/cm² back 19.73 kg/cm² ✓

Girders to combustion chamber tops: Material S.M.S. ✓ Tensile strength 44-55 kg/cm² ✓ Depth and thickness of girder at centre 250 x 16 mm ✓ Length as per Rule 810 mm ✓ Distance apart 235 side 180 centre. No. and pitch of stays in each 32 190 mm ✓ Working pressure by Rules 14.3 kg/cm² ✓ Combustion chamber plates: Material S.M.S. ✓

Tensile strength 41-47 kg/cm² ✓ Thickness: Sides 19 mm Back 19 mm Top 19 mm Bottom 22 mm ✓

Pitch of stays to ditto: Sides 190 x 215 mm Back 192 x 207 mm Top 190 x 235 mm ✓ Are stays fitted with nuts or riveted over nuts & riveted

Working pressure by Rules 14.46-15-13 kg/cm² ✓ Front plate at bottom: Material S.M.S. ✓ Tensile strength 41-47 kg/cm² ✓

Thickness 23 mm ✓ Lower back plate: Material S.M.S. ✓ Tensile strength 41-47 kg/cm² ✓ Thickness 25 mm ✓

Pitch of stays at wide water space 375 x 207 mm ✓ Are stays fitted with nuts or riveted over nuts at margin ✓

Working pressure 19.73 kg/cm² ✓ Main stays: Material S.M.S. ✓ Tensile strength 44-55 kg/cm² ✓

Diameter At body of stay 76 mm ✓ No. of threads per inch 6 ✓ Area supported by each stay 450 x 410 mm ✓

Over threads — Working pressure by Rules 16.52 kg/cm² ✓ Screw stays: Material S.M.S. ✓ Tensile strength 41-47 kg/cm² ✓

Diameter At turned off part 38 mm ✓ No. of threads per inch 9 ✓ Area supported by each stay 190 x 215 mm ✓

Over threads —

Working pressure by Rules 13.82 kg/cm² Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part...
No. of threads per inch 9 Area supported by each stay 286 x 207 mm Working pressure by Rules 17.43 kg/cm²
Tubes: Material steel External diameter { Plain 66.2 mm Thickness 4 mm No. of threads per inch 9
Pitch of tubes 206 x 206 mm Working pressure by Rules 14.8 kg/cm² Manhole compensation: Size of opening in
shell plate 520 x 420 mm Section of compensating ring 23 x 150 mm No. of rivets and diameter of rivet holes 38 2 33 mm
Outer row rivet pitch at ends 213 mm Depth of flange if manhole flanged 98 mm 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
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 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 or
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
CANTIERI RIUNITI DELL'ADRIATICO
Fabbrica Macchine S. Andrea
The foregoing is a correct description,
Manufacturer

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - - -
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
1945 Nov 13. Dec 5. 17. 1947 Feb. Total No. of visits seven
27. May 10. Aug 5.

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler was made in Trieste under special survey of the Registro Italiano Tur-
vatori and with material tested by GL & RI. The drawing of
Boiler was approved in London with letter dated F 18.2.46
The Boiler and mountings have been carefully examined
by the undersigned and tested hydraulically to 23 kg/cm²
and found good. The Boiler examined under steam and
the safety valves tested for accumulation and adjusted
to blow at 18.5 lbs.

Survey Fee ... Liv 48.300 When applied for 27/8 47
Travelling Expenses (if any) £ : : When received

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 8 JAN 1948
Assigned See fe. mark. rpt.