

REPORT ON BOILERS.

No. 16566

25 OCT 1947

Received at London Office.

Date of writing Report. 27/9/47 When handed in at Local Office. 27/9/47 Port of GENOA

No. in Survey held at SUPP. Date, First Survey 23/7/47 Last Survey 24/9/47

85802 on the TWEEN S.M.S. HRIETE (EX BEALF. II. - 47). (Number of Visits... 3) Tons Gross 1069 Net 874

Master Built at GÖTEBORGS By whom built M.V. AKTIEB GÖTEBORGS Yard No. 1910 When built 1910

Engines made at STOCKHOLM. By whom made M.V. AKTIEB GÖTEBORGS. Engine No. 1915 When made 1915

Boilers made at GÖTEBORGS By whom made GÖTEVERKEN Boiler No. 1915 When made 1915

Nominal Horse Power 1208 Owners TRANSOCEANICA ITALIANA ESPORTAZIONE Port belonging to ROMA.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record S.)

Total Heating Surface of Boilers 119 M² Is forced draught fitted No Coal or Oil fired OIL FIRED.

No. and Description of Boilers 1 Cylindrical 2 FURNACES. Working Pressure 130 lbs.

Tested by hydraulic pressure to 150 lbs. Date of test No. of Certificate Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 SPRINGS LOADED.

Area of each set of valves per boiler per Rule 90x3 1/2" as fitted Pressure to which they are adjusted 130 lbs. 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 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 3700 mm Length 3060 mm Shell plates: Material S.M.S. Tensile strength DOUBLE 215-229

Thickness 26 mm Are the shell plates welded or flanged Description of riveting: circ. seams 26 mm inter 85 mm

long. seams TRED. D.B.S.T. Diameter of rivet holes in circ. seams 26 mm Pitch of rivets 200 mm

Percentage of strength of circ. end seams plate rivets Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate rivets combined Working pressure of shell by Rules

Thickness of butt straps outer 17 mm inner 17 mm No. and Description of Furnaces in each Boiler 2 FURNACES FOX TYPE

Material S.M.S. Tensile strength Smallest outside diameter 114 mm

Length of plain part top 250 mm bottom 250 mm Thickness of plates crown 16 mm Description of longitudinal joint LAP WELDED.

Dimensions of stiffening rings on furnace or c.c. bottom NONE Working pressure of furnace by Rules

End plates in steam space: Material S.M.S. Tensile strength Thickness 22 mm Pitch of stays 440 x 390 mm

How are stays secured WITH DOUBLE NUTS & RIVETED WASHES OUTSIDE Working pressure by Rules

Tube plates: Material front S.M.S. back S.M.S. Tensile strength Thickness 21 mm

Mean pitch of stay tubes in nests 387 x 218 mm Pitch across wide water spaces 350 mm Working pressure front back

Girders to combustion chamber tops: Material S.M.S. Tensile strength Depth and thickness of girder 220 mm

at centre 180 mm x 17 mm Length as per Rule 670 mm Distance apart 200 mm No. and pitch of stays

in each 2 @ 180 mm Working pressure by Rules Combustion chamber plates: Material S.M.S.

Tensile strength Thickness: Sides 17/15 mm Back 15 mm Top 17 mm Bottom 15 mm

Pitch of stays to ditto: Sides 200 x 200 mm Back 194 x 194 mm Top 180 x 200 mm Are stays fitted with nuts or riveted over RIVETED OVER

Working pressure by Rules Front plate at bottom: Material S.M.S. Tensile strength Thickness 21 mm

Lower back plate: Material S.M.S. Tensile strength Thickness 21 mm

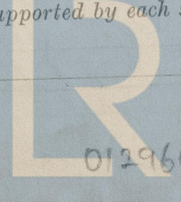
Pitch of stays at wide water space 350 mm Are stays fitted with nuts or riveted over RIVETED OVER

Working pressure 350 mm Main stays: Material S.M.S. Tensile strength Area supported by each stay 161600 mm²

Diameter At body of stay 2 1/2" No. of threads per inch 6

Working pressure by Rules 138 mm Screw stays: Material S.M.T. Tensile strength Area supported by each stay 37636 mm²

Diameter At turned off part 1 1/2" No. of threads per inch 9



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Working pressure by Rules. — Are the stays drilled at the outer ends. No ✓ Margin stays: Diameter { At turned off part, 1.76" or Over threads, —
No. of threads per inch. 9 Area supported by each stay. 37636 sq. in. Working pressure by Rules. —
Tubes: Material. S. M. S. External diameter { Plain. 3 1/4" ✓ Stay. 2 1/4" ✓ Thickness. 11/16" No. of threads per inch. 9
Pitch of tubes. 10 1/2 x 10 1/2 in. Working pressure by Rules. — Manhole compensation: Size of opening in
shell plate. 400 x 300 in. Section of compensating ring. 180 x 30 No. of rivets and diameter of rivet holes. 32 1/2 x 25 in.
Outer row rivet pitch at ends. 130 in. Depth of flange if manhole flanged. — 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 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. YES.

The foregoing is a correct description,

Manufacturer.
Are the approved plans of boiler and superheater forwarded herewith. No
(If not state date of approval.)
Total No. of visits. —
**SENT TO LONDON
FOR APPROVAL ON THE
13/7/47 NOT RETURNED**

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 have been examined through out and found in order
all mountings and safety valves carefully examined found in
order, the workmanship are good, the boiler is satisfactory
fitted and the fitting is in order steam pipes and feed
tested as per Rules requirements, Boiler tested and found in
order tight. Safety valve adjusted to 130 lbs.
This Boiler is intended only for the auxiliary
steam engine. — The oil feed having no timer is by guarantee

Survey Fee ... £ SEE Rpt 9. : } When applied for, 19.....
Travelling Expenses (if any) £ SEE Rpt 9. : } When received, 19.....

W. J. J. J. J.
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 27 FEB 1948

Committee's Minute.....

Assigned..... see minute on
Rpts 8 & 9