

REPORT ON BOILERS.

No. 8994

7 JUL 1925

Received at London Office

Date of writing Report 29/5 1925 When handed in at Local Office 29/5 1925 Port of Genova
 No. in Survey held at Genova (Sestri Ponente) Date, First Survey 3/10/24 Last Survey 9/4 1925
 on the TWIN-SCREW MOTOR TANKER "METEOR." (DONKEY BOILER ONLY) (Number of Visits 12) Gross 1685
 Tons Net 965
 Built at Sestri Ponente By whom built N. ODERO FU ALESS. & CO. Yard No. 321 When built 1925
 Engines made at AUGSBURG By whom made M. A. N. AK. GES. Engine No. 287370 When made 1925
 Boiler made at Sestri Ponente By whom made N. ODERO FU ALESS. & CO. Boiler No. 1396 When made 1925
 Indicated Horse Power ENG. 215 Owners "LA COLUMBIA" SOC. MARITTIMA Port belonging to Genova
 Donkey Boiler for Fees

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

DUAL SURVEY
L.R. & R.I.

Manufacturers of Steel Ilva Sarnia. (Letter for Record S)
 Total Heating Surface of Boilers 65 SQ. METRES ✓ Is forced draught fitted No ✓ Coal or Oil fired Gil ✓
 No. and Description of Boilers One cylindrical Multitubular Working Pressure 10 kg/cm²
 Tested by hydraulic pressure to 18.5 kg/cm² Date of test 23/1/25 No. of Certificate 155 Can each boiler be worked separately ✓
 Area of Firegrate in each Boiler 16 SQ. FT. No. and Description of safety valves to each boiler 2 Spring loaded each 62 mm Dia
 Area of each set of valves per boiler 6000 cm² Pressure to which they are adjusted 10 kg/cm² 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 Boilers on tween deck flat Is oil fuel carried in the double bottom under boilers ✓
 Smallest distance between shell of boiler and tank top/plating 2600 mm Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 2900 Length 2900 Shell plates: Material Steel Tensile strength 44.5 - 50 kg.
 Thickness 17 mm Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R. LAP inter. NONE}
 Circ. seams D.R. - D.B.S. Diameter of rivet holes in {circ. seams 22 mm long. seams 22 mm} Pitch of rivets 117 mm
 Percentage of strength of circ. end seams {plate 73% rivets 45%} Percentage of strength of circ. intermediate seam {plate 81.2 rivets 88.3}
 Percentage of strength of longitudinal joint {plate 88.3 rivets 91.8} Working pressure of shell by Rules 11 kg/cm²
 Thickness of butt straps {outer 17 mm inner 17} No. and Description of Furnaces in each Boiler One Corrugated
 Material Steel Tensile strength 40.5 - 47.5 kg. Smallest outside diameter 1028 mm
 Length of plain part {top 14 mm bottom 14 mm} Thickness of plates {crown 14 mm bottom 14 mm} Description of longitudinal joint Weld
 Dimensions of stiffening rings on furnace or c.c. bottom 13.9 kg. Working pressure of furnace by Rules 13.9 kg.
 End plates in steam space: Material Steel Tensile strength 40.5 - 47.5 Thickness 20 mm Pitch of stays 380 x 370 mm
 How are stays secured D. NUTS & RIVETED WASHERS. Working pressure by Rules 12.96 kg.
 End plates: Material {front Steel back "} Tensile strength {front 40.5 - 47.5 kg back "} Thickness {front 20 back 18}
 Can pitch of stay tubes in nests 196 mm Pitch across wide water spaces NONE Working pressure {front 26.4 kg. back 21.1 kg.}
 Orders to combustion chamber tops: Material Steel Tensile strength 44.5 - 50 kg. Depth and thickness of girder
 centre 160 x 34 Length as per Rule 560 Distance apart 190 No. and pitch of stays
 each 2 Working pressure by Rules 17.5 kg. Combustion chamber plates: Material Steel
 Tensile strength 40.5 - 47.5 kg. Thickness: Sides 15 Back 15 Top 15 Bottom 18
 Pitch of stays to ditto: Sides 180 x 170 Back 180 x 180 Top 190 x 170 Are stays fitted with nuts or riveted over Riveted
 Working pressure by Rules 11.2 kg. Front plate at bottom: Material Steel Tensile strength 40.5 - 47.5
 Thickness 20 mm Lower back plate: Material Steel Tensile strength 40.5 - 47.5 Thickness 20
 Pitch of stays at wide water space NO WIDE WATER SPACE. Are stays fitted with nuts or riveted over Riveted
 Working Pressure 20.4 kg. Main stays: Material Steel Tensile strength 44.5 - 50 kg.
 Diameter {At body of stay, 55 mm or over threads 6} No. of threads per inch 6 Area supported by each stay 380 x 370
 Working pressure by Rules 12.4 kg. Screw stays: Material Steel Tensile strength 40.5 - 47
 Diameter {At turned off part, 29 mm or over threads 10} No. of threads per inch 10 Area supported by each stay 180 x 180

"METEOR" — ODERO 321 (SESTRI) — DONKEY BOILER.

Working pressure by Rules 13 kg. Are the stays drilled at the outer ends No. ✓ Margin stays: Diameter { At turned off part, 38 1/2 ✓
 No. of threads per inch 10 ✓ Area supported by each stay 250 x 180 Working pressure by Rules 17.5 kg.
 Tubes: Material Steel ✓ External diameter { Plain 70 1/2 ✓ Thickness { 3.5 1/2 ✓ No. of threads per inch 10 ✓
 Pitch of tubes 98 1/2 Working pressure by Rules 13 kg. Manhole compensation: Size of opening
 shell plate 500 x 400 ✓ Section of compensating ring Wood 200 x 20 No. of rivets and diameter of rivet holes 36 @ 22 1/2
 Outer row rivet pitch at ends 125 1/2 Depth of flange if manhole flanged 90 1/2 ✓ 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
 stays _____ Inner radius of crown _____ Working pressure by Rules _____
 How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and p
 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
 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
 Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressu
 tubes _____, castings _____ and after assembly in place _____ Are drain cocks or valves fi
 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,

P. N. ODERO in ALESS. & C. Phisomun Manufacture

Dates of Survey { During progress of work in shops - - 1924 OCT. 3, NOV. 6, 8, DEC. 3, 18, 1925 JAN. 9, 20, 23 = 8 ✓ Is the approved plans of boiler and superheater forwarded herewith No. 3/
 while building { During erection on board vessel - - 1925 FEB. 13, MAR. 19, APR. 8, 9 = 4 ✓ (If not state date of approval.)
 Total No. of visits 12.

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

The boiler has been constructed under special survey of materials tested as required by the Rules, and scantlings and arrangements are in accordance with the plan as approved and amended, and also in accordance with the Secretary's letters and with the requirements of the Rules. Materials and workman are good.

In my opinion the boiler is eligible to be fitted on a classed vessel, & it has been securely fitted aboard the motor tanker "METEOR".

For identification it has been marked

No 155
LLOYDS TEST
18.5 KG/CM ²
W.P. 10 KG/CM ²
A.L. 23-1-25

DUAL SURVEY
L.R. & R.I.

Survey Fee £ See F.E. Rpt. } When applied for, _____ 192
 Travelling Expenses (if any) £ _____ : _____ } When received, _____ 192

Alex. Lawand.

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 10 JUL 1925

Assigned _____



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Foundation