

# REPORT ON BOILERS.

No. 8994

7 JUL 1925

Received at London Office

Date of writing Report 29/7 1925 When handed in at Local Office 29/57 1925 Port of Genova

No. in Survey held at Genova (Sestri Ponente) Date, First Survey 3/10/24 Last Survey 9/4 1925  
No. of Book. 12 (DONKEY BOILER ONLY) Gross 1685  
on the TWIN-SCREW MOTOR TANKER "METEOR." (Number of Visits 12) Net 965

Registered at Sestri Ponente By whom built N. ODERO FU ALESS. & CO. Yard No. 321 When built 1925

Motors made at AUGSBURG By whom made M. A. N. AK. GES. Engine No. 287370 When made 1925  
287380

Boilers made at Sestri Ponente By whom made N. ODERO FU ALESS. & CO. Boiler No. 1396 When made 1925

Indicated Horse Power ENGS. 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 Sva Savona (Letter for Record S)

Total Heating Surface of Boilers 700 sq. METRES Is forced draught fitted No Coal or Oil fired Oil

Number and Description of Boilers One cylindrical Multitubular Working Pressure 10 kg/cm<sup>2</sup>

Tested by hydraulic pressure to 18.5 kg/cm<sup>2</sup> Date of test 23/1/25 No. of Certificate 155 Can each boiler be worked separately Yes

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

Pressure of each set of valves per boiler 6000 % Pressure to which they are adjusted 10 kg/cm<sup>2</sup> 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 Boiler on tween deck flat Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top/plating Boiler on tween deck flat Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 2600 mm 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

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 81.2  
rivets 88.3 Working pressure of shell by Rules 11 kg/cm<sup>2</sup>

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  
1030 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 Working pressure of furnace by Rules 13.9 kg.

Head 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.

Head plates: Material {front Steel  
back " Tensile strength { 40.5 - 47.5 kg  
" " Thickness { 20  
18

Span 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

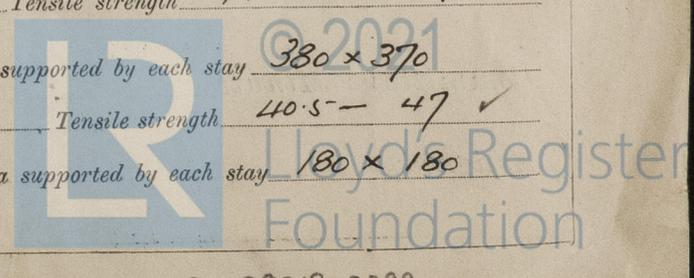
Pitch of stays at wide water space NO WIDE WATER SPACE. Are stays fitted with nuts or riveted over Riveted

Working Pressure 20.4 kg. Main stays: Material Steel Tensile strength 44.5 - 50 kg.

Diameter {At body of stay, 55 mm  
or 6 No. of threads per inch 6 Area supported by each stay 380 x 370  
Over threads Steel Tensile strength 40.5 - 47

Working pressure by Rules 12.4 kg. Screw stays: Material Steel Tensile strength 40.5 - 47

Diameter {At turned off part, 29 mm  
or 10 No. of threads per inch 10 Area supported by each stay 180 x 180  
Over threads



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

2

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 ✓  
 or Over threads  
 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 ✓  
 Stay 70 ✓  
 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 About 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. P. N. ODERO Manufacture

Dates of Survey { During progress of work in shops - - } <sup>1924</sup> OCT. 3, NOV. 6, 8, DEC. 3, 18, 1925 <sup>1925</sup> JAN. 9, 20, 23 <sup>15</sup> is the approved plans of boiler and superheater forwarded herewith No. 3/  
 while building { During erection on board vessel - - - } <sup>1925</sup> FEB. 13, MAR. 19, APR. 8, 9 = 4 Total No. of visits 12.  
 (If not state date of approval.)

**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 the 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 <sup>2</sup>
W.P. 10 KG/CM <sup>2</sup>
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 \_\_\_\_\_

