

# REPORT ON BOILERS.

No. 11037

Received at London Office

20 SEP 1929

5a.

Writing Report 16/8/29 192 When handed in at Local Office 16/8/29 192 Port of GENOA

Survey held at GENOA Date, First Survey 2/4/29 Last Survey 24/7 1929

(Number of Visits 6) Tons { Gross 6482 Net 3633

on the M/V "MESSICO" ex "VEJO"

Built at Spezia By whom built Ansaldo San Giorgio Yard No. 195 When built 1921

nes made at Turin By whom made Ansaldo San Giorgio Engine No. When made 1921

rs made at Sampierdarena By whom made G. Ansaldo Boiler No. When made 1921

inal Horse Power 431 Owners Soc. Ital. di Nav. & Trasporti Port belonging to Genoa.

## MULTITUBULAR BOILERS - ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel - (Letter for Record -)

al Heating Surface of Boilers 181.4 sq.m. Is forced draught fitted Yes Coal or Oil fired Oil

and Description of Boilers 2 Cylindrical Multitubular, single ended Working Pressure 7 kg/cm<sup>2</sup>

ed by hydraulic pressure to - Date of test - No. of Certificate - Can each boiler be worked separately Yes

a of Firegrate in each Boiler 3.2 sq.m. No. and Description of safety valves to each boiler 2 Spring Loaded.

of each set of valves per boiler { per Rule 8300 sq.m/m as fitted 8200 " " Pressure to which they are adjusted 7 kg/cm<sup>2</sup> Are they fitted with easing gear Yes

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler No Main Boilers fitted.

allest distance between boilers or uptakes and bunkers of donkey boiler 1500 m/m. Is oil fuel carried in the double bottom under boilers No

allest distance between shell of boiler and tank top plating 3000 m/m. Is the bottom of the boiler insulated Yes

gest internal dia. of boilers 3120 m/m. Length 2860 m/m. Shell plates: Material Steel Tensile strength 44.55 Kg/cm<sup>2</sup>

ness 16 m/m. Are the shell plates welded or flanged - Description of riveting: circ. seams { end Double riveted inter. 84.5 m/m.

seams Double riveted. Diameter of rivet holes in { circ. seams 25 m/m. Pitch of rivets { 100.0 m/m. long. seams 25 m/m.

centage of strength of circ. end seams { plate 70.4% rivets 50.0% Percentage of strength of circ. intermediate seam { plate - rivets -

centage of strength of longitudinal joint { plate 75.0% rivets 94.1% combined - Working pressure of shell by Rules 7.9 Kg/cm<sup>2</sup>

hness of butt straps { outer 16 m/m. inner 16 m/m. No. and Description of Furnaces in each Boiler 2 Plain Furnaces.

erial Steel Tensile strength 41.47 kg/cm<sup>2</sup> Smallest outside diameter 932 m/m.

th of plain part { top - bottom - Thickness of plates { crown 16 m/m. bottom 16 m/m. Description of longitudinal joint Single riveted lap.

ensions of stiffening rings on furnace or c.c. bottom 85 m/m x 85 m/m Working pressure of furnace by Rules 8.3 kg/cm<sup>2</sup>.

plates in steam space: Material Steel Tensile strength 41-47 kg/cm<sup>2</sup> Thickness 19 m/m. Pitch of stays 375 m/m x 370 m/m.

are stays secured Double nutted through riveted pad pieces Working pressure by Rules 11.9 kg/cm<sup>2</sup>.

plates: Material { front Steel Tensile strength 40.5-47.5 kg/cm<sup>2</sup> Thickness 19 m/m. back Steel Tensile strength 40.5-47.5 " " Thickness 18 m/m.

pitch of stay tubes in nests 208 m/m x 208 m/m Width across wide water spaces 340 m/m. Working pressure { front 21 kgs/cm<sup>2</sup> back 18.7 " "

ders to combustion chamber tops: Material Steel Tensile strength 44 - 55 kgs. Depth and thickness of girder

entre 180 m/m x 18 m/m Length as per Rule 580 m/m Distance apart 188 m/m No. and pitch of stays

ach 2 x 180 m/m. Working pressure by Rules 22.75 kgs. Combustion chamber plates: Material Steel

ile strength 41-47 kgs. Thickness: Sides 13 m/m. Back 13 m/m Top 13 m/m Bottom 16 m/m.

th of stays to ditto: Sides 170 x 180 Back 180 x 180 Top 180 x 188 Are stays fitted with nuts or riveted over Riveted over.

Working pressure by Rules 7.9 x 8.7 Front plate at bottom: Material Steel Tensile strength 41-47

hness 19 m/m Lower back plate: Material Steel Tensile strength 41-47 Thickness 19 m/m

h of stays at wide water space 340 m/m Are stays fitted with nuts or riveted over Riveted over

Working Pressure 9.2 kg/cm<sup>2</sup> Main stays: Material Steel Tensile strength 44-55

meter { At body of stay, 55 m/m No. of threads per inch 10 Area supported by each stay 138,750 m/m<sup>2</sup> Over threads -

Working pressure by Rules 9.73 kg/cm<sup>2</sup> Screw stays: Material Steel Tensile strength 41-47 m/m<sup>2</sup>

meter { At turned off part, 26 m/m No. of threads per inch 10 Area supported by each stay 32,400 m/m<sup>2</sup> Over threads -



Working pressure by Rules 6.62 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 32 m/m.  
or  
Over threads -  
No. of threads per inch 10 Area supported by each stay 26460 m/m<sup>2</sup> Working pressure by Rules 13.9 kg.cm<sup>2</sup>  
Tubes: Material Steel External diameter { Plain 76 m/m. Thickness { 3.5 m/m. No. of threads per inch 10  
Stay 76 m/m. 7 m/m  
Pitch of tubes 104 m/m Working pressure by Rules 13 kgs. Manhole compensation: Size of opening  
shell plate 500 m/m x 400 m/m Section of compensating ring 100 m/m x 26 m/m No. of rivets and diameter of rivet holes 52. 32 m/m dia.  
Outer row rivet pitch at ends 90 m/m Depth of flange if manhole flanged 100 Steam Dome: Material  
Tensile strength 302 Thickness of shell 3.5 m/m Description of longitudinal joint  
Diameter of rivet holes 32 m/m Pitch of rivets 104 m/m Percentage of strength of joint { Plate  
Rivets  
Internal diameter 104 m/m Working pressure by Rules 13 kgs. Thickness of crown 3.5 m/m No. and diam.  
stays 52 Inner radius of crown 100 m/m Working pressure by Rules 13 kgs.  
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 32 m/m

Type of Superheater  
Number of elements 1 Material of tubes Steel Manufacturers of Steel castings  
Material of headers Steel Tensile strength 302 Thickness 3.5 m/m Can the superheater be shut  
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 100 cm<sup>2</sup> Are the safety valves fitted with easing gear Yes Working pressure  
Rules 13 kgs. Pressure to which the safety valves are adjusted 100 lb. per sq. inch Hydraulic test pr  
tubes 100 lb. per sq. inch and after assembly in place 100 lb. per sq. inch Are drain cocks or valves  
to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,

Manufactured

Dates { During progress of work in shops - - April 8th, 29th, May 13th, 20th  
of Survey { 27th, July 24th  
During erection on board vessel - - -  
Are the approved plans of boiler forwarded herewith Yes  
(If not state date of approval.)  
Total No. of visits Six

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been opened out and examined internally and externally together with their safety valves and mountings. The scantlings have been checked with the approved plan and found correct.

The condition of the Boilers is good and the workmanship and materials appear to be a good quality. When examined under steam they were found tight and satisfactory. The safety valves have been adjusted to 100 lb. per sq. inch and an accumulation test held with satisfactory results.

Sizes of compression washer are:-

Starboard Boiler.

Port Boiler.

10 m/m Aft. 7 m/m Ford.

19 m/m Aft. 21 m/m Ford.

Survey Fee See First Entry When applied for, 192  
Report on Machinery.  
Travelling Expenses (if any) £ See First Entry When received, 192

G. Clark

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Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

192 4 OCT 1929

Assigned

See Gen yph attached

FRI. 1 NOV '29  
TUE. 14 JAN 1930

TUE. 28 JAN 1930  
FRI. 7 MAR 1930  
FRI. 6 JUN 1930

TUE. 22 JUL 1930

TUE. 26 AUG 1930

TUE. 18 NOV 1930

TUE. 24 MAR 1931

TUE. 21 APR 1931

Lloyd's Register  
Foundation