

REPORT ON BOILERS.

No. 8054
18 JAN 1932

Received at London Office

Report 12th Jan 1932 When handed in at Local Office 12 Jan 1932 Port of Bilbao.

Survey held at Bilbao

Date, First Survey 30th May. Last Survey 23rd Dec. 1931.

the Twin Sc. M.V. "CABO SANTO TOME" (Number of Visits 9) Gross 11868.
Tons Net 7521.

Bilbao. By whom built Messrs. Soc. Española de Con. Naval. Yard No. 39. When built 1931.

at Augsburg By whom made Messrs. "M.A.N." Engine No. 330540 330550 When made 1931.

at By whom made Messrs. Ybarra & Co. Boiler No. When made

Port belonging to Seville.

AL DONKEY BOILER.

Bilbao By whom made Messrs. S.E.C.N. Boiler No. 120. When made 1931. Where fixed Aft. Blk. Hdz. of E.R. ON PLATFORM IN WAY OF UPPER DK.

of Steel Messrs. Altos Hornos de Vizcaya. Surface of Boiler 65 sq. ft. Is forced draught fitted Yes. Coal or Oil fired Oil.

Description of Boilers One, vertical cross tube donkey boiler. Working pressure 80 lbs./sq. in.

Static pressure to 160 lbs./sq. in. Date of test 24th September 1931. No. of Certificate 120.

Rate in each Boiler No. and Description of safety valves to each boiler One, spring loaded.

Set of valves per boiler per rule 1964 sq. in. as fitted 2043 sq. in. Pressure to which they are adjusted 80 lbs./sq. in. Are they fitted with easing gear Yes.

Connecting rods steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

Tube shaft Is oil fuel carried in the double bottom under boiler Smallest distance between base of boiler and tank top plating

holding down bolts Is the base of the boiler insulated Yes. Largest internal dia. of boiler 1067 mm. Height 3330 mm.

working conditions Material Mild steel. Tensile strength 44/55 Kgs./sq. cm. Thickness 10 mm.

Identification Mark K.H. plates welded or flanged No. Description of riveting: circ. seams Single end, Single inter, long. seams Double.

Identification Mark K.H. plates in circ. seams 21 mm. Pitch of rivets 51 mm. Percentage of strength of circ. seams plate 58.8 rivets 55.8 of Longitudinal joint plate 67.7 rivets 87.5 combined

plates in long. seams 21 mm. Pitch of rivets 65 mm. Percentage of strength of circ. seams plate 58.8 rivets 55.8 of Longitudinal joint plate 67.7 rivets 87.5 combined

complied with Measure of shell by rules 11.6 Kgs./sq. cm. [165 lbs./sq. in.] Thickness of butt straps outer inner

Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Mild steel.

44/47 Kgs./sq. cm. Thickness 11 mm. Radius 1067 mm. Working pressure by rules 8.4 Kgs./sq. cm. [120 lbs./sq. in.]

Furnace: Plain, spherical, or dished crown Dished crown Material Mild steel Tensile strength 44/47 Kgs./sq. cm.

External diameter top 860 mm. bottom 907 mm. Length as per rule 1278 mm. Working pressure by rules 5.8 Kgs./sq. cm. [82.5 lbs./sq. in.]

stays circumferentially and vertically Are stays fitted with nuts or riveted over

stays over thread Radius of spherical or dished furnace crown 838 mm. Working pressure by rule 10.8 Kgs./sq. cm. [153 lbs./sq. in.]

stays over thread 11 mm. Diameter as per rule 1067 mm. Working pressure by rule 6.16 Kgs./sq. cm. [87 lbs./sq. in.]

chamber: Material Tensile strength Thickness of top plate

Working pressure by rule Thickness of back plate Diameter if circular

Pitch of stays Are stays fitted with nuts or riveted over

Working pressure of back plate by rules

Material front back Tensile strength Thickness Mean pitch of stay tubes in nests

shell, Dia. as per rule front back Pitch in outer vertical rows Dia. of tube holes FRONT stay plain BACK stay plain

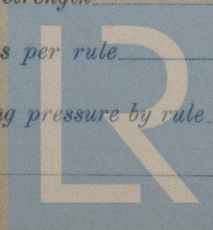
tube in outer vertical rows a stay tube Working pressure by rules front back

combustion chamber tops: Material Tensile strength

Thickness of girder at centre Length as per rule

No. and pitch of stays in each Working pressure by rule

W513-0047



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Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____ or over threads _____ }
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____ or over threads _____ } No. of threads per inch _____
 Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material _____ External diameter { plain _____ stay _____ } Thickness { _____ }
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____

Manhole Compensation: Size of opening in shell plate **440 x 340 M.M.** Section of compensating ring  No. of rivets _____
 of rivet holes **44** **19 M.M.** Outer row rivet pitch at ends **90 M.M.** Depth of flange if manhole flanged **63 M.M.**

Uptake: External diameter **302 M.M.** Thickness of uptake plate **11 M.M.**

Cross Tubes: No. **3** External diameters **203 M.M.** Thickness of plates **8 M.M.**

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

The foregoing is a correct description
SOCIEDAD ESPAÑOLA DE CONSTRUCCION NAVAL
 Astilleros y Talleres de Sestao

R. A. Fullerton

Jefe del Departamento de Maquinaria.
 Is the approved plan of boiler forwarded herewith **6.**
 (If not state date of approval.)

Dates of Survey { During progress of work in shops - - } **MAY 30. JUNE 22. JULY 9. AUG. 6 & 11 SEP. 15 & 24.**
 while building { During erection on board vessel - - } **DEC. 11. 23.** Total No. of visits **9.**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This Donkey Boiler has constructed under Special Survey, of tested materials, and in accordance with the approved plans, and the rules and regulations of the Society, and on completion proved good and tight under the hydraulic pressure of 160 lbs./sq. in. The workmanship and materials were found to be good. The boiler has been efficiently fitted board the vessel, examined under steam pressure, and the safety valve adjusted to 80 lbs./sq. in. working pressure; safety valve found satisfactory under accumulation of pressure test.*
This boiler is in my opinion eligible to be classed, and to have notation of working pressure "80 lbs" in the Register Book.

Survey Fee £ **6 : 6 : -** When applied for, **30/12/1931.**
 Travelling Expenses (if any) £ **Charged on Machinery Rpt.** When received, **7/1/1932.**

George R. Chappell
 Engineer Surveyor to Lloyd's Register

Committee's Minute **FRI. 22 JAN 1932**
 Assigned *See F. E. Rpt.*



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