

REPORT ON BOILERS.

No. 8673

Received at London Office -4 OCT 1935

Date of writing Report 11th July 1935 When handed in at Local Office 28th Sept 1935 Port of BilbaoNo. in Survey held at Bilbao Date, First Survey 12th Sept. 1934 Last Survey 4th Sept. 1935
Reg. Book: (Number of Visits 15.)

89506 on the M.V. "FERNANDO POO" Tons Gross 6911 Net 4220

Built at Bilbao By whom built Cia. Euskalduna Yard No. 97 When built 1935

Engines made at Barcelona By whom made La Maquinista Ter. y Marit. Engine No. When made 1935

Boilers made at Bilbao By whom made Cia. Euskalduna Boiler No. When made 1935

Owners Cia. Gasmediterranea Port belonging to Valencia

VERTICAL DONKEY BOILER.

Made at Bilbao By whom made Cia. Euskalduna Boiler No. When made 1935 Where fixed Engine room

Manufacturers of Steel Alas Hornos de Vizcaya

Total Heating Surface of Boiler 19.88 m² 214 sq ft. Is forced draught fitted Yes Coal or Oil fired OilNo. and Description of Boilers One vertical multitubular wet back Working pressure 7 kg/cm² 100 lbs/sq in.Tested by hydraulic pressure to 200 lbs/sq in. Date of test 15th February 1935 No. of Certificate 130

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 direct spring loaded 50 lb dia. each

Area of each set of valves per boiler per rule 3.53 sq in. as fitted 6.28 sq in. Pressure to which they are adjusted 100 lbs/sq in. Are they fitted with easing gear Yes

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

or woodwork Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated Yes Largest internal dia. of boiler 1450 mm Height 3525 mm

Shell plates: Material S.M. steel Tensile strength 44/50 kg/cm² Thickness 11 mm

Are the shell plates welded or flanged No Description of riveting: circ. seams end S.R. inter S.R. long. seams D.R.

Dia. of rivet holes in circ. seams 21 mm Pitch of rivets 54 mm Percentage of strength of circ. seams plate 61.1 rivets 47.7 of Longitudinal joint plate 68.2 rivets 78.0 combined

Working pressure of shell by rules 9.6 kg/cm² Thickness of butt straps outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Complete hemisphere Material S.M. steel

Tensile strength 41/47 kg/cm² Thickness 11 mm Radius 714 mm Working pressure by rules 11.12 kg/cm²Description of Furnace: Plain, spherical, or dished crown Spherical Material S.M. steel Tensile strength 41/47 kg/cm²

Thickness 12 mm External diameter top bottom Length as per rule Working pressure by rules

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 601 mm Working pressure by rule 11.55 kg/cm²Thickness of Ogee Ring 16 mm Diameter as per rule D 1428 mm d 1202 mm Working pressure by rule 7.25 kg/cm²Combustion Chamber: Material S.M. steel Tensile strength 41/47 kg/cm² Thickness of top plate 12 mm Radius 272 mm Working pressure by rule 34.1 kg/cm² Thickness of back plate 12 mm Diameter if circular 615 mm

Length as per rule 215 mm Pitch of stays 160 mm x 215 mm Are stays fitted with nuts or riveted over Riveted on

Diameter of stays over thread Working pressure of back plate by rules 11.5 kg/cm²Tube Plates: Material front S.M. steel back Tensile strength 41/47 kg/cm² Thickness 22 mm Mean pitch of stay tubes in nests 222.5 mm

If comprising shell, Dia. as per rule front back Pitch in outer vertical rows 77.5 mm Dia. of tube holes FRONT stay 66.5 mm plain 62.5 mm BACK stay 62.5 mm plain 62.5 mm

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules front back

Girders to combustion chamber tops: Material S.M. steel Tensile strength 44/50 kg/cm²

Depth and thickness of girder at centre Length as per rule

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

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 S.M. steel Tensile strength 41/47 kg/cm² Diameter 22.7 { at turned off part,
or
over threads 1" No. of threads per inch 10
Area supported by each stay 215 x 160 mm Working pressure by rules Are the stays drilled at the outer ends M
Tubes: Material seamless S.M. steel External diameter { plain 62.5 mm Thickness 3.75 mm
stay 63 mm Thickness 6.5 mm
No. of threads per inch 10 Pitch of tubes 77.5 x 77.5 mm Working pressure by rules 11.3 kg/cm²
Manhole Compensation: Size of opening in shell plate 300 x 400 mm Section of compensating ring 220 x 16 mm No. of rivets and diameter
of rivet holes 24 @ 21 mm Outer row rivet pitch at ends 140 mm Depth of flange if manhole flanged
Uptake: External diameter Thickness of uptake plate
Cross Tubes: No. External diameters { Thickness of plates

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

The foregoing is a correct description,
FOR LA COMPAÑIA EUSKALDUNA DE
REPARACIÓN Y REPARACIÓN DE BOMBAS
El Director

Manufacturer. No.

Dates of Survey 1934 During progress of work in shops - Sept. 12, Oct. 10, 30; Nov. 8, 22, 23; Dec. 4, 12, 18 Is the approved plan of boiler forwarded herewith 30/5/34
while building 1935 Jan 30 Feb 15 (If not state date of approval.)
During erection on board vessel - June 11, July 4 Aug 13, Sept. 4 Total No. of visits 15

GENERAL REMARKS

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

This Donkey Boiler has been constructed under survey, of tested materials and in accordance with the approved plans, rules and regulations and Secretary's letters. The workmanship and materials are good and the boiler tested by hydraulic pressure on completion to 200 lbs/sq" with satisfactory results. This boiler has been satisfactorily fitted on board and is eligible in my opinion to be classed, with the notation D.B. - 100 lbs, when the safety valves have been adjusted to 100 lbs/sq" and boiler examined under steam.

This Boiler is marked

No. 130
Boiler
200 lbs
W.P. 100 lbs
J.C.K. 15-2-35

This boiler has been examined under steam & its safety valves adjusted to 100 lbs/sq" accumulation test carried out & found satisfactory.

G. Dixon.

Survey Fee Rs. 227 When applied for, 27 April 1935
Travelling Expenses (if any) £ When received, 27 April 1935

Committee's Minute

Assigned

FRI. 22 NOV 1935

See other rpt. No. 8672

Joseph H. & G. Dixon.
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation