

## REPORT ON BOILERS.

No. 2282

Received at London Office 2- NOV 1954

Writing Report 18-10-1954 When handed in at Local Office 19 Port of CADIZ

Survey held at CADIZ Date, First Survey 22-8-1953 Last Survey 30-9-54 19

on the S.S. "ALMIRANTE LOBO" (Number of Visits 13) Tons { Gross 4183.34 Net 2246.71

at CADIZ By whom built Astilleros de Cadiz, S.A. Yard No. 40 When built 1954

es made at Cadiz By whom made Astilleros de Cadiz, S.A. Engine No. 10 When made 1954

s made at Cadiz By whom made Astilleros de Cadiz, S.A. Boiler No. 7 When made 1954

al Horse Power 2493 Owners Marina de Guerra Española Port belonging to --

## TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

facturers of Steel Altos Hornos de Vizcaya, S.A. (Letter for Record S)

Heating Surface of Boilers 138.5 M<sup>2</sup> Of Superheaters --

for Register Book 138.5 M<sup>2</sup> Is forced draught fitted Yes ✓ Coal or Oil fired Oil ✓

nd Description of Boilers 1 Multitubular ✓ Working Pressure 12.65 Kg/cm<sup>2</sup> 180 Lbs. ✓

l by hydraulic pressure to 22.5 Kg/cm<sup>2</sup> Date of test 19-1-54 No. of Certificate 115 Can each boiler be worked separately --

of Firegrate in each Boiler -- No. and Description of safety valves to each boiler 1 - 3½" Double Spring ✓

of each set of valves per boiler { per Rule App. Pressure to which they are adjusted 12.65 Kg/cm<sup>2</sup> Are they fitted with easing gear Yes ✓  
as fitted 9.62 sq. inch. ✓

se of donkey boilers, state whether steam from main boilers can enter the donkey boiler No ✓

est distance between boilers or uptakes and bunkers or woodwork Well clear ✓ Is oil fuel carried in the double bottom under boilers No ✓

est distance between shell of boiler and tank top plating 18" Is the bottom of the boiler insulated No ✓

est internal dia. of boilers 3696 mm. ✓ Length 3122 mm. ✓ Shell plates: Material Steel ✓ Tensile strength 44/50 Kgs. ✓

sion welded, state name of welding Firm -- Have all the requirements of the Rules for Class I vessels

complied with -- Thickness 27 mm. ✓ Are the shell plates welded or flanged No ✓ Description of riveting: circ. seams { end D.R. ✓  
inter D.R. ✓

seams T.R. D.B. Straps ✓ Diameter of rivet holes in { circ. seams 32 mm. Pitch of rivets { 85 mm.  
long. seams 32 mm. 189 mm.

ntage of strength of circ. end seams { plate 62 Percentage of strength of circ. intermediate seam { plate 62  
rivets 57 rivets 57

ntage of strength of longitudinal joint { plate 83  
rivets 120  
combined 90.3

tness of butt straps { outer 27 mm. ✓ inner 27 mm. ✓ No. and Description of Furnaces in each Boiler 2 - Morrison ✓

rial Steel ✓ Tensile strength 41/47 Kgs./mm<sup>2</sup> ✓ Smallest outside diameter 1026 mm. ✓

th of plain part { top 190 mm. Thickness of plates 13 mm. ✓ Description of longitudinal joint Welded ✓  
bottom 190 mm.

nsions of stiffening rings on furnace or c.c. bottom --

plates in steam space: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup> ✓ Thickness 25 mm ✓ Pitch of stays 420x390 mm. ✓

are stays secured Loose washers with nuts inside and outside. ✓

plates: Material { front Steel ✓ Tensile strength { 44/50 Kgs./mm<sup>2</sup> ✓ Thickness { 27 mm. ✓  
back Steel ✓ 44/50 Kgs./mm<sup>2</sup> ✓ 22 mm. ✓

pitch of stay tubes in nests 275 mm. ✓ Pitch across wide water spaces 357 mm.

ers to combustion chamber tops: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup> ✓ Depth and thickness of girder

ntre 205 mm x 19 mm x 2 ✓ Length as per Rule 730 mm ✓ Distance apart 225 mm ✓ No. and pitch of stays

ch 2 @ 230 mm. ✓ Combustion chamber plates: Material Steel ✓

ile strength 41/47 Kgs./mm<sup>2</sup> ✓ Thickness: Sides 22 mm. ✓ Back 17 mm. ✓ Top 22 mm. ✓ Bottom 22 mm. ✓

of stays to ditto: Sides 230 x 230 mm Back 216x224.5 mm Top 225x230 mm Are stays fitted with nuts or riveted over Nuts ✓

t plate at bottom: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup>

tness 25 mm. ✓ Lower back plate: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup> ✓ Thickness 25 mm. ✓

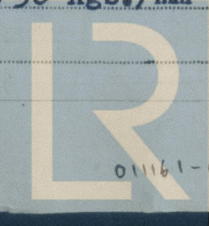
of stays at wide water space 357 mm. ✓ Are stays fitted with nuts or riveted over Nuts ✓

a stays: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup> ✓

eter { At body of stay 70 mm. ✓ No. of threads per inch 7 ✓  
Over threads

w stays: Material Steel ✓ Tensile strength 44/50 Kgs./mm<sup>2</sup> ✓

eter { At turned off part 1 5/8" ✓ No. of threads per inch 9 ✓  
Over threads



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Are the stays drilled at the outer ends..... No  
No. of threads per inch..... 9 ✓  
Tubes: Material Steel ✓ External diameter { Plain 83 mm. ✓  
Stay 83 mm. ✓ Thickness { 4 mm. ✓  
8 mm. ✓ No. of threads per inch..... 9 ✓  
Pitch of tubes..... 108 x 113.5 mm. ✓ Manhole compensation: Size of open  
shell plate 410 x 310 mm. ✓ Section of compensating ring 27x810x347.5 mm ✓ No. of rivets and diameter of rivet holes..... 32 @ 32 mm. ✓  
Outer row rivet pitch at ends..... 201 mm. ✓ Depth of flange if manhole flanged..... - Steam Dome: Material..... -  
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..... Thickness of crown..... No. and diam  
stays..... Inner radius of crown.....  
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.....  
Type of Superheater..... Manufacturers of { Tubes.....  
Steel forgings.....  
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.....  
Pressure to which the safety valves are adjusted..... Hydraulic test pressure.....  
tubes..... forgings and castings..... and after assembly in place..... Are drain cocks  
valves fitted to free the superheater from water where necessary.....  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with.....

The foregoing is a correct description,  
ASTILLEROS DE CADIZ, S. A.  
Manufac

Dates of Survey while building { During progress of work in shops - - - 22-8-54 to 19-1-54  
During erection on board vessel - - - 29-1-54 to 30-9-54  
Are the approved plans of boiler and superheater forwarded herewith 15-5-54  
(If not state date of approval.)  
Total No. of visits..... 18

Is this Boiler a duplicate of a previous case..... Yes If so, state Vessel's name and Report No. S.S. "ANCUD" CdZ. Rpt. No. 2

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

This Boiler has been constructed in accordance with the Rules, approved plans and Secretary's Letters.

The materials and workmanship are good.

The Boiler has now been satisfactorily installed on board the vessel, tested under full working conditions and the safety valves adjusted to 12.65 Kgs./cm<sup>2</sup>.

Survey Fee ... £ : : When applied for.....19.....  
Travelling Expenses (if any) £ : : When received.....19.....

Committee's Minute

Assigned

See Rpt. 4.

N. M. Russell  
Engineer Surveyor to Lloyd's Register of Shipping

FRIDAY 3-DEC 1954



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Manufacturer's Name or Trade Mark

ALTOS HORNOS DE VIZCAYA

OPEN HEARTH.

STEEL.