

# REPORT ON BOILERS

No. 6052.

Received at London Office

18 AUG. 1922

Date of writing Report 1<sup>st</sup> Aug 1922 When handed in at Local Office 1<sup>st</sup> Aug 1922 Port of BILBAO

No. in Survey held at BILBAO Date, First Survey 14<sup>th</sup> JUNE Last Survey 6<sup>th</sup> JULY 1922

Reg. Book. S/S 'CABO HUERTAS' (Number of Visits 5) } Gross Tons }  
 on the } Net Tons }

Master YBARRA & Co Built at BILBAO By whom built SOC. ESPAÑOLA DE CONSTR. NAVAL When built 1922

Engines made at STOCKTON By whom made MESSRS BLAIR & CO When made 1921

Boilers made at STOCKTON By whom made MESSRS BLAIR & CO When made 1921

Registered Horse Power                      Owners YBARRA & Co Port belonging to SEVILLA

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel MESSRS JOHN SPENCER & SONS

(Letter for record                     ) Total Heating Surface of Boilers 4120 Is forced draft fitted NO No. and Description of

Boilers TWO SINGLE ENDED Working Pressure 180 Tested by hydraulic pressure to 360 Date of test                     

No. of Certificate 6204 Can each boiler be worked separately YES Area of fire grate in each boiler 60.2 No. and Description of

safety valves to each boiler 2 DIRECT SPRING Area of each valve 7.07 Pressure to which they are adjusted 182 lb

Are they fitted with easing gear YES In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Smallest distance between boilers or uptakes and bunkers or woodwork 1'-6" Mean dia. of boilers 15'-3" Length 10'-6"

Material of shell plates STEEL Thickness 1 1/32 Range of tensile strength 28-32 Are the shell plates welded or flanged NO

Descrip. of riveting: cir. seams 2 R LAP long. seams 2 BUTT STRAPS Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8 7/8

~~Top of plates or~~ width of butt straps 18 5/8 x 1 5/32 Per centages of strength of longitudinal joint 86.4 Working pressure of shell by

rules 182 Size of manhole in shell 16" x 12" Size of compensating ring 7 1/2 x 1 1/32 No. and Description of Furnaces in each

boiler 3 MORISON Material STEEL Outside diameter 47 13/32 Length of plain part                      Thickness of plates 37/64

Description of longitudinal joint WELD No. of strengthening rings                      Working pressure of furnace by the rules 192 Combustion chamber

plates: Material STEEL Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 3/4 Pitch of stays to ditto: Sides 9 x 9 1/2 Back 9 1/2 x 9 1/2

Top 10 x 8 3/4 If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 185 Material of stays STEEL Area at

smallest part 1.99 Area supported by each stay 87.8 Working pressure by rules 204 End plates in steam space: Material STEEL Thickness 1/4

Pitch of stays 18 1/2 x 20 How are stays secured NUTS & WASHERS Working pressure by rules 200 Material of stays STEEL Area at smallest part 7.24

Area supported by each stay 375 Working pressure by rules 201 Material of Front plates at bottom STEEL Thickness 1/16 Material of

Lower back plate STEEL Thickness 1" Greatest pitch of stays 14 1/2 x 9 1/4 Working pressure of plate by rules 232 Diameter of tubes 3 1/2

Pitch of tubes 4 3/4 x 4 7/8 Material of tube plates STEEL Thickness: Front 1 1/16 Back 1 1/16 Mean pitch of stays 11 5/32 Pitch across wide

water spaces 14 1/2 Working pressures by rules 191 Girders to Chamber tops: Material STEEL Depth and thickness of

girder at centre 7 3/4 x 1 5/8 Length as per rule 28 1/4 Distance apart 10" Number and pitch of Stays in each 2 - 8 3/4

Working pressure by rules 189 Steam dome: description of joint to shell                      % of strength of joint                     

Diameter                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                     

Pitch of rivets                      Working pressure of shell by rules                      Crown plates                      Thickness                      How stayed                     

**SUPERHEATER.** Type                      Date of Approval of Plan                      Tested by Hydraulic Pressure to                     

Date of Test                      Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler                     

Diameter of Safety Valve                      Pressure to which each is adjusted                      Is Easing Gear fitted                     

## VERTICAL DONKEY BOILER— No. 8577 Description COCHRAN Manufacturers of steel D COLVILLE & SONS

Made at ANNAN By whom made COCHRAN & Co When made 1921 Where fixed DECK Working pressure 100 lbs

tested by hydraulic pressure to 200 Date of test 11/2/21 No. of Certificate                      Fire grate area                      Description of safety valves DIRECT SPRING

No. of safety valves 2 Area of each 3.976 Pressure to which they are adjusted 100 lbs If fitted with easing gear YES If steam from main boilers can

enter the donkey boiler NO Dia. of donkey boiler 7'-6" Length 16'-3" Material of shell plates STEEL Thickness 9/16 x 21/32 Range of tensile

strength 28/32 Descrip. of riveting long. seams LAP D-R Dia. of rivet holes 29/32 Whether punched or drilled DRILLED Pitch of rivets 2-88

Lap of plating 4 1/2 Per centage of strength of joint                      Rivets 69 Working pressure of shell by rules 103 Thickness of shell crown plates 29/32 - 1/2

Radius of do. 45" No. of Stays to do.                      Dia. of stays                      Diameter of furnace Top RADIUS Bottom 78" Length of furnace 50 3/4"

Thickness of furnace plates 29/32 Description of joint RIVETED RING Working pressure of furnace by rules 100 Thickness of furnace crown

plates 9/16 Radius of do. 39" Stayed by HEMISPHERE Diameter of uptake 21 1/2 x 25 Thickness of uptake plates 9/16

Thickness of ~~water~~ tubes PLATES F 15/16 B. 13/16

The foregoing is a correct description, Manufacturer.

Dates of Survey while building { During progress of work in shops - - } See Glasgow Report No 40865  
 { During erection on board vessel - - } 1922 14<sup>th</sup> 26<sup>th</sup> & 30<sup>th</sup> JUNE 4<sup>th</sup> & 6<sup>th</sup> JULY  
 Total No. of visits 5

Is the approved plan of main boiler forwarded herewith NO

" " " donkey " " YES

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

These boilers were examined whilst being erected on board at Bilbao and on completion they were examined under steam and the safety valves adjusted to their respective working pressures, 180 lbs & 100 lbs.

This vessel is eligible in my opinion to have notation of 2. S.B. working pressure 180 lbs and donkey boiler, working pressure 100 lbs noted in the register book.

C. H. Fowling

B/L 1370

Certificates (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £	:	:	When applied for,
Special .. .. . £	:	:	.....19.....
Donkey Boiler Fee .. .. £	:	:	When received,
Travelling Expenses (if any) £	:	:	.....19.....

Committee's Minute

Assigned

TUE 15 AUG 1922

C. H. Fowling  
Engineer Surveyor to Lloyd's Register of Shipping



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Foundation