

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office THE 18 AUG. 1922

Date of writing Report 1<sup>st</sup> Aug. 1922 When handed in at Local Office 2<sup>nd</sup> Aug. 1922 Port of BILBAO

No. in Survey held at BILBAO Date, First Survey 26<sup>th</sup> Nov. 1921 Last Survey 29<sup>th</sup> Jul 1922  
 Reg. Book. on the S/S "CABO HUERTAS" (Number of Visits 30)

Built at BILBAO By whom built Soc. ESPANOLA DE CONSTR. NAVAL Yard No. 19 When built 1922

Engines made at STOCKTON By whom made MESSRS BLAIR & CO Engine No. 1946 when made 1921

Boilers made at STOCKTON By whom made MESSRS BLAIR & CO Boiler No. 6204 when made 1921

Registered Horse Power Owners YBARRA & CO Port belonging to SEVILLA

Nom. Horse Power as per Rule 253 ✓ Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ENGINES, &c.—Description of Engines TRI-COMPOUND

Dia. of Cylinders 22-36-59 Length of Stroke 39 Revs. per minute 78 No. of Cylinders 3 No. of Cranks 3

Dia. of Crank shaft journals as per rule 11.4" Dia. of Crank pin 12.25" Crank webs Mid. length breadth 23.5" Thickness parallel to axis shrunk  
as fitted 11.75" Mid. length thickness 7.25" Thickness around eye-hole ✓

Diameter of Thrust shaft under collars as per rule 11.4" Diameter of Tunnel shaft as per rule 10.856" Diameter of Screw shaft as per rule 12.42" Is the Screw shaft  
as fitted 12.25" as fitted 11.25" as fitted 13.50"

fitted with a continuous liner the whole length of the stern tube YES ✓ Is the after end of the liner made watertight in the propeller boss YES ✓

If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓

If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated FITTED LIGNUM VITAE ✓ Length of Stern Bush 4'-8" ✓ Diameter of Propeller 15'-6" ✓

Pitch of Propeller 15'-9" ✓ No. of Blades 4 ✓ State whether Moveable NO ✓ Total Surface 68 sq square feet.

No. of Feed Pumps fitted to the Main Engines 2 ✓ Diameter of ditto 2.75" Stroke 28" Can one be overhauled while the other is at work YES ✓

No. of Bilge Pumps fitted to the Main Engines 2 ✓ Diameter of ditto 4" Stroke 28" Can one be overhauled while the other is at work YES ✓

Total number and size of power driven Feed and Bilge Auxiliary Pumps DUPLEX FEED 7"x5"x8. BALLAST 9"x10"x10" DONKEY FEED 5'25"x3'5"x5"

No. and size of Pumps connected to the Main Bilge Line 1-10"x10" & 2-4"x28" & DOWNTON HAND PUMP.

No. and size of Ballast Pumps 1-9"x10"x10" No. and size of Lubricating Oil Pumps, including Spare Pump ✓

Are two independent means arranged for circulating water through the Oil Cooler ✓ No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 5-3" SUCT. 1-2 1/2" TUNNEL 4-2 1/2" COFFER DAMS and in Holds, &c. NO.1. HOLD 2-3" NO.2. HOLD 2-3"  
NO.3. HOLD 2-2 1/2" & 1-3 1/2"

No. and size of Main Water Circulating Pump Bilge Suctions 1-6" ✓ No. and size of Donkey Pump Direct Suctions ✓

to the Engine Room Bilges 1-4" ✓ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes YES ✓

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES ✓

Are all connections with the sea direct on the skin of the ship YES ✓ Are they Valves or Cocks BOTH ✓

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YES ✓ Are the Discharge Pipes above or below the deep water line ABOVE ✓

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate YES ✓

What Pipes are carried through the bunkers NONE ✓ How are they protected ✓

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES ✓

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another YES ✓ Is the Screw Shaft Tunnel watertight YES ✓ Is it fitted with a watertight door YES ✓ worked from DECK ✓

## MAIN BOILERS, &amp;c.—(Letter for record)

Total Heating Surface of Boilers 4120 ✓For ced Draft fitted NO No. and Description of Boilers TWO SINGLE ENDED ✓ Working Pressure 180 lbsIS A REPORT ON MAIN BOILERS NOW FORWARDED? YESIS A DONKEY BOILER FITTED? YESIf so, is a report now forwarded? YESPLANS Are approved plans forwarded herewith for Shafting ✓ Main Boilers 25/3/20 Auxiliary Boilers ✓ Donkey Boilers YES  
 (If not state date of approval)General Pumping Arrangements 24/3/21Oil fuel Burning Piping Arrangements 24/3/21

## SPARE GEAR. State the articles supplied:—

1. H.P. Slide valve spindle. Set of metallic packing. Complete set of Air pump valves

1 Propeller. 2 Top end bolts & nuts. 2 Bottom end bolts & nuts. 2 Main bearing bolts & nuts.

1 Set of Coupling bolts. 1 Set of Feed & bilge pump valves. H.P. I.P. & L.P. piston rings.

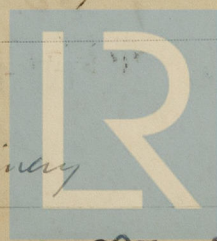
2. Safety valve spring. Assorted iron bars, bolts, nuts & studs etc. Condenser tubes & flanges.

Boiler tubes. 1 Set spring for L.P. pistons. ✓

The foregoing is a correct description

Sociedad Española de Construcción Naval

D. A. Fullerton for Installation of Machinery



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Lloyd's Register  
Foundation

002870-002875-0127



During progress of work in shops - - See Middleboro' Report No 10965

Dates of Survey while building

During erection on board vessel - - 1921. Nov. 26<sup>th</sup> & Dec. 12 & 30<sup>th</sup> 1922. March 20 & 23 May 17, 29 & 30<sup>th</sup> June 12, 8, 14, 19, 20, 21, 22, 23, 26 & 30<sup>th</sup> July 3, 4, 5

6<sup>th</sup> 10 11 12 14 15 18 19 20<sup>th</sup>

Total No. of visits 30.

Dates of Examination of principal parts - Cylinders	✓	Slides	✓
Covers	✓	Pistons	✓
Connecting rods	✓	Crank shaft	✓
Tunnel shafts	✓	Screw shaft	✓
Stern tube	✓	Engines holding down bolts	14/6/22
Completion of pumping arrangements	23/6/22	Boilers fixed	8/6/22
Completion of fitting sea connections	19/6/22	Stern tube	12/5/22
Main boiler safety valves adjusted	30/6/22	Thickness of adjusting washers	P. 8 7/8 S. 8 7/8 P. 10 7/8 S. 9 5/8
Material of Crank shaft	Ing. Steel	Identification Mark on Do.	7286
Material of Thrust shaft	Ing. Steel	Identification Mark on Do.	5485 N.
Material of Tunnel shafts	Ing. Steel	Identification Marks on Do.	5485 N
Material of Screw shafts	Ing. Steel	Identification Marks on Do.	7286
Material of Steam Pipes	Lap welded wrought iron	Test pressure	540 lbs per sq in
Is an installation fitted for burning oil fuel	YES	Is the flash point of the oil to be used over 150°F.	YES
Have the requirements of the Rules for carrying and burning oil fuel been complied with	YES		
Is this machinery duplicate of a previous case	YES	If so, state name of vessel	S/S 'CABO ROCHE'
General Remarks (State quality of workmanship, opinions as to class, &c. Workmanship good.			

The engines & boilers of the vessel have been examined whilst being erected on board at Bilbao.

On Completion the machinery was tried under steam and found satisfactory. The oil fuel burning system was fitted and tested in accordance with Section 49 of the Rules and on Completion was tried under working Condition & found in order.

This vessel is now eligible in my opinion to have notation of T.L.M.C. 7.22 Electric lighting and fitted for the burning of oil fuel, flash point above 150°F recorded in the register book.

It is submitted that  
this vessel is eligible for  
THE RECORD.

+ L.M.C. 7.22 . C.L.

Fitted for Oil Fuel 7.22, F.P. above 150°F.

A.P.B.

10/8/22

Am

C. H. Fowling

Engineer Surveyor to Lloyd's Register of Shipping.

Perkins.

The amount of Entry Fee ... £ 17.5 : When applied for,

Special ~~fitting~~ <sup>fitting</sup> on board £ 1500 <sup>13<sup>th</sup> Dec 4/81</sup> 1922

ELECTRIC INSTALLATION 250

Donkey Boiler Fee ... £ : When received,

Travelling Expenses (if any) £ 50 : 4/81 1922.

Committee's Minute

TUE 15 AUG. 1922

Assigned

+ L.M.C. 7.22 . C.L.  
Fitted for oil fuel 7.22  
F.P. above 150°F.



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