

# REPORT ON OIL ENGINE MACHINERY.

No. 8054

13 JAN 1932

Report Jan 12<sup>th</sup> 1932 When handed in at Local Office 13<sup>th</sup> Jan 1932 Port of Bilbao.  
 Survey held at Bilbao. Date, First Survey 2<sup>nd</sup> Dec. 30 Last Survey 23<sup>rd</sup> Dec. 31.  
 Number of Visits 97.

Single the Twin Triple Quadriple Screw vessel "CABO SANTO TOME"  
 Gross 11868.  
 Net 7521.  
 By whom built Messrs. Soc. Española de Cons. Naval. Yard No. 39. When built 1931.  
 By whom made Messrs. "M.A.N." Engine No. 330540. When made 1931.  
 By whom made Messrs. Soc. Esp. de Cons. Naval. Boiler No. 120 When made 1931.  
 Owners Messrs. Barra et Co. Port belonging to Seville.  
 Power 2 x 4600.  
 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Passenger and general cargo.

Types of Engines "M.A.N. Diesel (Solid Injection) or 4 stroke cycle 2. Single or double acting double  
 re in cylinders 45 atm. Diameter of cylinders 600 M.M. Length of stroke 900 M.M. No. of cylinders 2 x 7. No. of cranks 2 x 7.  
 adjacent to the Crank, measured from inner edge to inner edge 885 M.M. Is there a bearing between each crank Yes.  
 minute 133. Flywheel dia. 2100 M.M. Weight 3120 Kgs. Means of ignition Compression Kind of fuel used Heavy oil.

dia. of journals as per Rule 420 M.M. Crank pin dia. 420 M.M. Crank Webs Mid. length breadth 560 M.M. Thickness parallel to axis  
 as fitted 420 M.M. Mid. length thickness 235 M.M. Thickness around eye-hole  
 dia. diameter as per Rule Intermediate Shafts, diameter as per Rule 345 M.M. Thrust Shaft, diameter at collars as per Rule  
 as fitted 420 M.M. as fitted 400 M.M. as fitted 400 M.M.

Screw Shaft, diameter as per Rule 400 M.M. Is the screw shaft fitted with a continuous liner No.  
 thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the  
 as fitted If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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  
 Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 If so, state type Cedervall's "Salvo". Length of Bearing in Stern Bush next to and supporting propeller 1630 M.M.

4650 M.M. Pitch 3960 M.M. No. of blades 4 Material Man Bronze whether Moveable Yes. Total Developed Surface 8.81 M.<sup>2</sup>  
 reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication  
 Thickness of cylinder liners 42.5 M.M. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with

material Lagged. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine  
 r Pumps, No. 3 x 85 M<sup>3</sup>/HR. FRESH WATER Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.  
 worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

to the Main Bilge Line No. and Size Bilge pump 110 M<sup>3</sup>/HR. Emergency pump 110 M<sup>3</sup>/HR. Ballast pump 150 M<sup>3</sup>/HR.  
 How driven By electric motor also gear. (Duplex double acting).  
 s. No. and size One 150 M<sup>3</sup>/HR. Lubricating Oil Pumps, including Spar Pump, No. and size 3 Heat pumps 43 M<sup>3</sup>/HR.

dent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 size:—In Machinery Spaces Six x 76 M.M. In Pump Room  
 ne pk. 1 x 76 M.M. Nos. 1, 2, & 3 holds 2 x 76 each. Nos 4 & 5 holds 3 x 76 M.M. each. Tunnel well 1 x 89 M.M.

Power Pump Direct Suctions to the Engine Room Bilges, No. and size Bilge pump 1 x 140 M.M. Emer. pump 1 x 140 M.M. Ball. pump 1 x 20 M.M.  
 re Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces  
 accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes, also Tunnel well.

nections fitted direct on the skin of the ship On C.I. extensions Are they fitted with Valves or Cocks Values (D.B. Blow Dn. cock).  
 efficiently high on the ship's side to be seen without lifting the platform plates Yes. Are the Overboard Discharges above or below the deep water line above.  
 d 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.

through the bunkers How are they protected Yes.  
 through the deep tanks Ford bilge & ballast lines. Have they been tested as per Rule Yes.

locks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
 nt 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  
 another Yes. Is the Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from upper dk.

what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
 pressors, No. No. of stages Diameters Stroke Driven by  
 Compressors, No. 2 x 315 M<sup>3</sup>/HR. No. of stages 3. Diameters 350/295/100 M.M. Stroke 220 M.M. Driven by Aux. engine.

ry Air Compressors, No. 1 hand comp. No. of stages Diameters Stroke Driven by Emer. engine.  
 r Pumps, No. 2 x 2 Tandem. Diameter 1380 M.M. Stroke 820 M.M. Driven by Main eng.

igines crank shafts, diameter as per Rule 170 M.M. as fitted Yes.  
 EIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.  
 al surfaces of the receivers be examined and cleaned Yes. Is a drain fitted at the lowest part of each receiver Yes.

re Air Receivers, No. Cubic capacity of each Internal diameter thickness  
 elded or riveted longitudinal joint Material 15 M<sup>3</sup> Range of tensile strength 1800 M.M. Working pressure by Rules  
 Receivers, No. 2 main engines Total cubic capacity 400 LTRS. Internal diameter 405 M.M. thickness 17.5 M.M. Actual 31 M.M.

elded or riveted longitudinal joint Main needed S.M. Steel. Range of tensile strength 44/50 Ks/B.M. Working pressure by Rules  
 Actual 30 atm.

WS73-0031

Lloyd's Register Foundation



IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

Is the donkey boiler intended to be used for domestic purposes only?

Yes.

PLANS. Are approved plans forwarded herewith for Shafting 14.5.30 [3 plans]. Receivers ✓

Separate Tanks 5.8.30.

Donkey Boilers 4.3.31, 17.4.31.

General Pumping Arrangements 28.8.30.

Oil Fuel Burning Arrangements 20.7.

## SPARE GEAR.

Has the spare gear required by the Rules been supplied?

Yes.

State the principal additional spare gear supplied ✓

## INTER. SHAFTING MARKED.

	LLOYDS.	3	2	4	5	988
P.	929 3.7.31 G.D.	1.8.31 G.D.	22.7.31 G.D.	1.8.31 G.D.	1.8.31 G.D.	2.7.31 G.D.

	LLOYDS	17	15	16	14	931
S.	968 6.5.31 J.C.K.	18.9.31 G.R.C.	18.9.31 G.R.C.	18.9.31 G.R.C.	18.9.31 G.R.C.	27.5.31 G.D.

The foregoing is a correct description.

SOCIEDAD ESPAÑOLA DE CONSTRUCCION NAVAL  
Astilleros y Talleres de Cádiz

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1930. 1931.   
 During erection on board vessel - DEC. 2.6.9.13.31. JAN. 3.20.21.30. FEB. 6.7.28. MAR. 2.3.4.10.11.18.23.25.30. APR. 1.6.22.24.27. MAY. 4.5.7.15.26.28.   
 Total No. of visits 97. NOV. 2.3.4.5.6.9.10.12.19.20.21.24.26.27. DEC. 1.3.4.5.7.9.10.11.21.23.

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓

Crank shaft ✓ Flywheel shaft ✓ Thrust shaft S. 15.9.31. Intermediate shafts S. 19.10.31. Tube shaft ✓

Screw shaft S. 4.8.31. Propeller S. 6.8.31. Stern tube S. 17.7.31. Engine seatings 1.9.31. Engines holding down bolts ✓

Completion of fitting sea connections 6.8.31. Completion of pumping arrangements 11.12.31. Engines tried under working conditions ✓

Crank shaft, Material ✓ Identification Mark No. Brem. Rpx. Flywheel shaft, Material ✓ Identification Mark No. 9

Thrust shaft, Material Ingot steel. Identification Mark 2.7.31. 22.7.31. Intermediate shafts, Material Ingot steel. Identification Marks P. 98

Tube shaft, Material ✓ Identification Mark 4.D. 4.D. Screw shaft, Material Ingot steel. Identification Mark 16.6.4.

Is the flash point of the oil to be used over 150° F. Yes.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No. If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓

Is this machinery duplicate of a previous case Yes. If so, state name of vessel "Cabo San Agustin"

General Remarks (State quality of workmanship, opinions as to class, &amp;c.) The machinery as stated in Bremen Report No. 1343. has now been satisfactorily fitted on board this

in accordance with the approved plans, and the Rules &amp; Regulations of the Society. The workmanship and material employed during instal-

were found to be good. The machinery has been tested under

working conditions, on sea trial, and found satisfactory.

Starting and manœuvring of engines found satisfactory.

The machinery of this vessel

is in my opinion eligible to be classed, and to have record of

"H.L.M.C. 12, 31" in the Register Book.

Certificate (if required) to be sent to

The amount of Entry Fee £ 1 : 4. :  
Special ... £ 50 : 14. :  
Donkey Boiler Fee ... £ 6 : 6. :  
Travelling Expenses (if any) £ 15.13.1.0  
Holiday Fee. Pts. 85. 5.5.6.

Committee's Minute FRI. 22 JAN 1932

Assigned + H.L.M.C. 12.31

Oil Eng.

CERTIFICATE WRITTEN.

George R. Chappel  
Engineer Surveyor to Lloyd's Register of



© 2020

Lloyd's Register  
Foundation