

REPORT ON OIL ENGINE MACHINERY.

No. 8393

15 JAN 1934

Date of writing Report 2nd Jan 1934 When handed in at Local Office 10 Port of BILBAO Received at London Office

Survey held at BILBAO Date, First Survey 30.1.32 Last Survey 29.12.1933

Book No. 2902 on the Single Screw vessel (Motor Ship) "CAMPECHE" Number of Visits 95

Tons { Gross 6300
Net

Built at Badajoz By whom built Soc. Esp. de Const. Naval Yard No. 66 When built 1933-4

Engines made at Bilbao By whom made Soc. Esp. de Const. Naval Engine No. P. 5160335 When made 1933

Boilers made at By whom made Boiler No. S. 5160336 When made

Indicated Horse Power 2 x 1500 Owners C. A. M. P. S. A. Port belonging to

Net Horse Power as per Rule 776 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted

Use for which vessel is intended 13⁵/₈ 40¹⁵/₁₆

ENGINES, &c.—Type of Engines Constructora Naval Sulzer 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 600 lbs Diameter of cylinders 600 mm Length of stroke 1040 mm No. of cylinders 2 x 4 No. of cranks 2 x 4

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 440 mm Is there a bearing between each crank yes

Revolutions per minute 130 Flywheel dia. 2100 mm Weight 4800 kgs Means of ignition Air inj. Kind of fuel used

Crank Shaft, dia. of journals 390 mm Crank pin dia. 390 mm Crank Webs Mid. length breadth 620 mm Thickness parallel to axis 245 mm

Intermediate Shafts, diameter 400 mm Thrust Shaft, diameter at collars 400 mm

Propeller Shaft, diameter 400 mm Is the tube shaft fitted with a continuous liner

Liner Liners, 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

propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

Oil Liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines Air inj. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Oiliness Thickness of cylinder liners Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

insulating material lagged If the exhaust is led overhead near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No. 2 Constructora Naval Drysdale Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. 1 ea. eng. Diameter 140 mm Stroke 320 mm Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size How driven

Oil Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 2 Constructora Naval Drysdale

Oil Coolers, No. and size:—In Machinery Spaces Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Oil Coolers, No. and size:—In Pump Room

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

Are they easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fired sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

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

How are they protected

Are pipes pass through the bunkers Have they been tested as per Rule

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

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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. 1 ea. engine No. of stages 3 Diameters 570/480/150 Stroke 400 mm Driven by Main Engines

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 240/80 Stroke 140 mm Driven by Aux. Diesel Eng.

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Working Air Pumps, No. 1 each engine Diameter 1340 mm Stroke 650 mm Driven by Main Engines

Auxiliary Engines crank shafts, diameter as per Rule 135 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Are the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. 2 Reserul Cubic capacity of each 150 litres Internal diameter 400 thickness 10.5

Are they seamless or lap welded or riveted longitudinal joint Seamless Material Certificatis fornadaa with Bbo. Rpt. no. 8338 Range of tensile strength 41-47 kgs Working pressure Actual 45 kgs/cm²

Working Air Receivers, No. 2 Total cubic capacity 24 c.m. Internal diameter 1740/1800 thickness 30 mm

Are they seamless or lap welded or riveted longitudinal joint riveted Material S.M. steel Range of tensile strength 41-47 kgs Working pressure Actual 30 kgs/cm²

For acceptance of Air Receivers see correspondence with "Campero" Bbo. 8338

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting No 25+26/2/32 Receivers No 12.4.32 Separate Tanks

Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.

State the principal additional spare gear supplied Main Engines: byls. line complete with rubber & copper piston rod and 1 crosshead complete with guide shoes. Aux. Eng: 1 cylinder liner, 1 cylinder cover, 1 crosshead & piston complete with rod & rings.

The foregoing is a correct description.

SOCIEDAD ESPANOLA DE CONSTRUCCION NAVAL Astilleros y Talleres de Sest

Amirante

Manufacturer.

Table with columns for Dates of Survey while building and Total No. of visits. Includes dates from 1932 to 1933 and a total of 95 visits in shops.

Table with columns for Dates of Examination of principal parts. Lists dates for Cylinders, Covers, Pistons, Connecting rods, Crank shaft, Flywheel shaft, Thrust shaft, Intermediate shafts, Tube shaft, Screw shaft, Propeller, Stern tube, Engine seatings, and Engines holding down bolts.

Table with columns for Completion of fitting sea connections, Completion of pumping arrangements, and Engines tried under working conditions. Lists materials like S.M. Steel and identification marks.

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

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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 M.S. CAMPERO.

General Remarks (State quality of workmanship, opinions as to class, &c. The above machinery has been constructed under special survey in accordance with the Society's Rules & Regulations, the approved plans and the Secretary's letters. The materials used in the construction and the workmanship are good. Shop trials of the main and auxiliary engines have been carried out with satisfactory results. The starting air receivers were tested by water pressure to 44 kg/cm² and found good & tight.

In our opinion the vessel for which this machinery is intended will be eligible to have the notation + LMC (with date) when the machinery has been satisfactorily fitted on board & tried under working conditions.

(Enclosed herewith 6 forging reports.)

Table listing fees: Entry Fee, Special aux., Donkey Boiler Fee, Travelling Expenses, and Committee's Minute. Includes amounts in pounds and dates.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 15 JUN 1934

Assigned See Cd 26 1421

