

# REPORT ON OIL ENGINE MACHINERY.

No. 7758

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No. in Survey held at Bilbao Date, First Survey March 20 1930 Last Survey 4 July 1930  
Reg. Book. Number of Visits 26

Single on the Turn Triple Quadruple } Screw vessel "ARTZA MENDI"  
Tons } Gross 2954.69  
Net 1527.06  
Built at Bilbao By whom built Cia. Enshalderna de Constr. Yard No. 91 When built 1930  
Engines made at Copenhagen By whom made Burmeister & Wain Engine No. 1724 When made 1930  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 1200 Owners Cia. Maritima Sota y Aguan Port belonging to Bilbao  
Nom. Horse Power as per Rule 272 271 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Trade for which vessel is intended Ocean going, general cargo

**L ENGINES, &c.**—Type of Engines Diesel oil engine, airless injection 2 or 4 stroke cycle 4 Single or double acting Single  
Maximum pressure in cylinders 39 kg/cm<sup>2</sup> Diameter of cylinders 550 mm Length of stroke 1000 mm No. of cylinders 6 No. of cranks 6  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 730 mm Is there a bearing between each crank Yes  
Revolutions per minute 125 Flywheel dia. 1362 mm Weight 839 kg Means of ignition Diesel Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 339.98 mm as fitted 345 mm Crank pin dia. 345 mm Crank Webs Mid. length breadth 696 mm Thickness parallel to axis 215 mm  
Mid. length thickness 195 mm Thickness around eyehole 170 mm

Propeller Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 9.61" as fitted 9 3/4" Thrust Shaft, diameter at collars as per Rule 10.09" as fitted 3 1/2"  
Screw Shaft, diameter as per Rule 10.69" as fitted 10 7/8" Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 0.623" as fitted 3/16" & 13/16" Thickness between bushes as per rule 0.468" as fitted 1/2" 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 junctions made by fusion through the whole thickness of the liner One length  
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 Yes  
If two 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 aft No If so, state type Dignum inter Length of Bearing in Stern Bush next to and supporting propeller 4'-6"

Propeller, dia. 11'-6" Pitch 9'-0" No. of blades 4 Material Cast iron whether Moveable No Total Developed Surface 41.5 sq. feet  
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced Thickness of cylinder liners 38 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Funnel  
Cooling Water Pumps, No. 2 Centrifugal, 60 ltr each Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Bilge Pumps worked from the Main Engines, No. One Diameter 150 mm Stroke 175 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size One - 150 x 175 } ; One Bilge - 70 ltr ; One Dallen - 250 ltr  
How driven Main engine ; Duplex plunger type driven by electric motor & gearing

Ballast Pumps, No. and size One Duplex - 250 ltr Lubricating Oil Pumps, including Spare Pump, No. and size Two - 25 ltr each  
Are there two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge pumps, No. and size:—In Machinery Spaces 65 mm dia suction, Port, Centre & Starboard, at after end. In Pump Room Yes

in Holds, &c. N1-2@65 mm, N2-2@70 mm, N3-2@65 mm, N4-2@65 mm, In main well 58 mm dia.  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - Bilge - 100 mm dia. ; 1 Bilge - 65 mm dia. ;  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes  
Are they fixed sufficiently 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  
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

That pipes pass through the bunkers How are they protected  
That pipes pass through the deep tanks Have they been tested as per Rule  
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 Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes

Main Air Compressors, No. None No. of stages Diameters Stroke Driven by  
Auxiliary Air Compressors, No. Three No. of stages 2 Diameters Stroke Driven by Airline Diesel Engine  
Small Auxiliary Air Compressors, No. One No. of stages 2 Diameters Stroke Driven by Hand

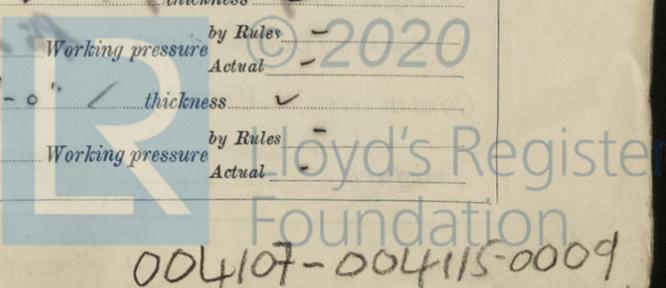
scavenging Air Pumps, No. Diameter Stroke Driven by  
Auxiliary Engines crank shafts, diameter as per Rule 161.8 mm as fitted 162 mm

**R RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes  
Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. One Cubic capacity of each 250 ltr Internal diameter thickness  
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

Starting Air Receivers, No. One Total cubic capacity 390 cu. ft. Internal diameter 6'-0" thickness Working pressure by Rules Actual

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual



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