

REPORT ON OIL ENGINE MACHINERY.

No. 861

16 AUG 1926

Received at London Office

Date of writing Report 9/8 1926 When handed in at Local Office

Port of Bremen

No. in Survey held at Augsburg
Reg. Book.Date, First Survey 11th January 26 Last Survey 2nd August 1926.
Number of Visits 42÷ on the ^{Single} ~~Twin~~ ^{Triple} Screw vessels

"Cabo Quilotas"

Tons { Gross ÷
Net ÷

Built at Bilbao

By whom built Compania Euskalduna Yard No. 74 When built 1926

Engines made at Augsburg

By whom made Maschfabr. Augsburg-Nürnberg Engine No. 26060 When made 1926

Donkey Boilers made at 2250 with Supercharging.

By whom made ÷ Boiler No. ÷ When made ÷

Brake Horse Power 2000

Owners Ybarra y Cia.

Port belonging to Sevilla.

Nom. Horse Power as per Rule 438

Is Refrigerating Machinery fitted for cargo purposes ÷

Is Electric Light fitted ÷

OIL ENGINES, &c. Type of Engines M.A.N. Oil engine 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kgs/cm² No. of cylinders 6 Diameter of cylinders 700 mm No. of cranks 6 Length of stroke 1400 mm

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 970 mm

Is there a bearing between each crank yes.

Revolutions per minute 108/113 Flywheel dia. 2700 mm Weight 10,000 kgs Means of ignition Diesel syst. Kind of fuel used Gas oil

Crank Shaft, dia. of journals as per Rule 443.7 mm as fitted 450 mm Crank pin dia. 450 mm Crank Webs Mid. length breadth 840 mm Thickness parallel to axis 455 mm

Flywheel Shafts, diameter as per Rule ÷ as fitted ÷ Intermediate Shafts, diameter as per Rule ÷ as fitted ÷ Thrust Shaft, diameter at collars as per Rule ÷ as fitted ÷

Screw Shafts, diameter as per Rule ÷ as fitted ÷ Is the { tube { screw } shaft fitted with a continuous liner { ÷

Oil Liners, thickness in way of bushes as per Rule ÷ as fitted ÷ Thickness between bushes as per rule ÷ as fitted ÷ 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 ÷

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 shaft ÷ 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 direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

used Thickness of cylinder liners 52.5/40 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

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 ÷

Suction Water Pumps, No. ÷ Is the sea suction provided with an efficient strainer which can be cleared within the vessel ÷

Suction Pumps fitted to the Main Engines, No. 1 Diameter 160 mm Stroke 150 mm Can one be overhauled while the other is at work ÷

Pumps connected to the Main Bilge Line { No. and Size ÷

How driven ÷ Lubricating Oil Pumps, including Spare Pump, No. and size 1 Rotating Pump.

Two independent means arranged for circulating water through the Oil Cooler ÷ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room ÷

Cocks, &c. ÷

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

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ÷ Are the Bilge Suctions in the Machinery Space

from 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 ÷

They are fixed 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 ÷

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 ÷

Pipes pass through the bunkers ÷ How are they protected ÷

Pipes pass through the deep tanks ÷ Have they been tested as per Rule ÷

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

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 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 No. of stages 3 Diameters 700/620/150 Stroke 500 mm Driven by crank shaft

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 350/295/85 Stroke 220 mm Driven by Aust. Oil Engine

Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 60/32 mm Stroke 35 mm Driven by hand worked

charging Air Pumps, No. 1 Turbo Blower Diameter of wheel 750 mm Stroke ÷ Driven by Electric Motor.

Suction Engines crank shafts, diameter as per Rule ÷ as fitted 155 mm.

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

Internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces flanges.

Is a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. 1 Cubic capacity of each 200 litres Internal diameter 405 mm thickness 17.5 mm

Is lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 42÷50 kg/mm² Working pressure by Rules 81.6 kg/cm²

Suction Air Receivers, No. 7 Total cubic capacity 8400 litres Internal diameter 585 mm thickness 27.5 mm

Is lap welded or riveted longitudinal joint Seamless Material S.M. steel Range of tensile strength 42÷50 kg/mm² Working pressure by Rules 95.8 kg/cm²

Air Receivers for Auxiliaries: No. 2: 1 of 80 lit, 1 of 275 litres. Int. d 405 mm, Thicken. 17.5 mm Seamless.

Rules: 81.6 kg/cm². Range of tens. str. 42÷50 kg/mm²

IS A DONKEY BOILER FITTED?
HYDRAULIC TESTS:—

If so, is a report now forwarded?

Rpt. 51

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE. kg/cm ²	TEST PRESSURE. kg/cm ²	STAMPED LLOYD'S TEST.	REMARKS.
ENGINE CYLINDERS <i>Liners</i>	5.6.8. 10/5/26	35	75	75 Atm. P.K. 5.6.8. 10/5/26.	
" " <i>COVERS</i>	5.6/5/26. 5/7/26	2	20	20 Atm. P.K. Date.	
" " <i>JACKETS</i>	7.8/6/26.	2	6	6 Atm. P.K. 4.5/5/26.	
" " <i>PISTON WATER PASSAGES</i>	4.5/5/26.	2	10	10 Atm. P.K. 4.5/5/26.	
MAIN COMPRESSORS—1st STAGE	11/5/26	3 2 40	10	10 Atm. P.K. 11/5/26.	
" 2nd "	10/4/26	16 2 150	10	10 Atm. P.K. 10/4/26.	
" 3rd "	25.28/5/26 1/6/26.	80	160	160 Atm. H.P. 80 Atm. P.K. Date	
AIR RECEIVERS—STARTING	23/4/26 28/7/26	80	160	160 Atm. H.P. 80 Atm. P.K. 23/4/26.	
" INJECTION <i>Blast</i>	27/7/26.	80	240	240 Atm. H.P. 80 Atm. P.K. 27/7/26.	Where possible marked.
AIR PIPES <i>Starting</i>	26/7/26	80	300	300 Atm. P.K. 26/7/26.	Not stamped.
FUEL PIPES	29/5/26	80	150	150 Atm. P.K. 29/5/26.	
FUEL PUMPS	26/31/5/26. 1/6/26.	÷	6	6 Atm. P.K. Date.	
SILENCER Exhaust manifold	26/7/26.	2 ÷ 3	10	10 Atm. P.K. 26/7/26.	Where possible marked.
Cooling water line.					
WATER JACKET					
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for Shafting *Crank shaft 2/11/25* Receivers *22/12/25* Separate Tanks *÷*
(If not, state date of approval)
General Pumping Arrangements *÷* Oil Fuel Burning Arrangements *÷*
Donkey Boilers *÷*

SPARE GEAR: As per Rules.

Kaschmahr L-4

The foregoing is a true description

Manufacturer.

Dates of Survey while building	Jan: 11, 29. Mar: 9, 15, 16, 17. Apr: 10, 21, 22, 26, 28. May: 4, 5, 6, 8, 10, 11, 14, 15, 17, 18, 21, 22. June: 1, 7, 8, 10, 17, 23, 28. July: 2, 5, 12, 26, 27, 28. Aug: 2.
Total No. of visits	42.
Dates of Examination of principal parts—Cylinders	7/6/26
Covers	5/6/26
Pistons	4.5/5/26
Rods	8/5/26
Connecting rods	26/4/26
Crank shaft	2/8/26
Flywheel shaft	÷
Thrust shaft	÷
Intermediate shafts	÷
Tube shaft	÷
Screw shaft	÷
Propeller	÷
Stern tube	÷
Engine seatings	÷
Engines holding down bolts	÷
Engines tried under working conditions	÷
Completion of fitting sea connections	÷
Completion of pumping arrangements	÷
Crank shaft, Material <i>S.M. Steel</i>	Identification Mark <i>M.B. 17/5/26</i>
Thrust shaft, Material	÷
Intermediate shafts, Material	÷
Screw shaft, Material	÷
Tube shaft, Material	÷
Is the flash point of the oil to be used over 150° F.	Yes.

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"Temeraire" 41.121, "Cabo Palos"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *This Diesel Engine and its accessories have been constructed under Special Survey in accordance of the approved plans and instructions as well with the printed Rules. The materials used in the construction are good and the workmanship is satisfactory. The starting and injection air receivers have been examined when manufactured and found to be in conformity with the approved plans. They have been tested by internal hydraulic pressure of 160 atmos and found satisfactory. In my opinion vessel for which this engine is intended will be eligible for the record of +L.M.C. when this engine and its accessories have been satisfactorily fitted on board and examined under full working condition. The cylinder jackets have been stamped:*

LLOYD'S TEST 6 ATM. 7-8/6/26 P.K.

The amount of Entry Fee	4/5	4:0	When applied for,
Special	4/5	72:10	11.8
Donkey Boiler Fee	...	4:10	1.9
Travelling Expenses (if any)

Committee's Minute
Assigned

J.A. Witzfeld
Engineer Surveyor Lloyd's Register of Shipping.

FRI. 13 JAN 1928

FRI. 20 JAN 1928

© 2021

Lloyd's Register Foundation