

REPORT ON OIL ENGINE MACHINERY.

No. 8994.

Rpt. 4b.

Date of writing Report 29/5/25 When handed in at Local Office 29/5/25 Port of Genoa
No. in Survey held at Genoa (Augsburg) Date, First Survey 7th JULY 1925 Last Survey 20th DEC 1925
Reg. Book. 606
on the Twin Screw vessels "METEOR" [MOTOR TANKER] 17 AUGSBURG Gross 1685 Tons Net 965
Master Built at Sestri Ponente By whom built N. ODERO & C. ALESS Yard No. 321 When built 1925
Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Munich A.G. Engines No. 287370 When made 1925-5
Donkey Boilers made at Sestri Ponente By whom made N. ODERO & C. ALESS & Co. Boiler No. 287380 When made 1925-5
Brake Horse Power 2x300 = 600 Owners "La Columbia" Soc. Maritt. Port belonging to Genoa
Nom. Horse Power as per Rule 215 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

IL ENGINES, &c.—Type of Engines 2 Sets Diesel M.A.N. Type. 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 45 kg/cm² No. of cylinders 12 (6 per motor) No. of cranks 12 Diameter of cylinders 13 9/16 (345 mm)
Length of stroke 19 1/16 (500 mm) Revolutions per minute 200 Means of ignition Compression—Solid Injection Kind of fuel used Diesel Oil

Is there a bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 418 mm
Distance between centres of main bearings 630 mm Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 210 mm as fitted 210 mm

WHEEL FITTED BETWEEN CRANK & THRUST SHAFT COUPLINGS. Breadth of crank webs as per Rule 310 mm as fitted 310 mm Thickness of ditto as per Rule 110 mm as fitted 110 mm
Diameter of flywheel shaft as per Rule 210 mm Diameter of tunnel shaft as per Rule 132 mm as fitted 145 mm Diameter of thrust shaft as per Rule 139 mm as fitted 145 mm

Diameter of screw shaft as per Rule 146 mm as fitted 156 mm Is the screw shaft 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 Yes LINER THICKNESS MADE 11-93 mm 12

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.
Type of outer gland fitted to stern tube. Lignum Vitae Length of stern bush 620 mm Diameter of propeller 2100 mm

Pitch of propeller 1600 mm No. of blades 4 state whether moveable No Total surface 1.33 square feet per propeller
Method of reversing Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners 27 mm

Are the cylinders fitted with safety valves Yes Means of lubrication forced 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 UP FUNNEL EXHAUST

No. of cooling water pumps 1 PER MOTOR Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes No. of bilge pumps fitted to the main engines 1 per motor Diameter of ditto 80 mm Stroke 110 mm

Can one be overhauled while the other is at work Yes No. of auxiliary pumps connected to the main bilge lines 1 in E.R. How driven Steam
Sizes of pumps 190 x 220 x 254 mm No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2 @ 65, 2 @ 60 mm
and in holds, etc. F.P.K. 70% Forehold 65% A.P.P.K. 70% No. of ballast pumps 2 How driven Steam Sizes of pumps 220 x 220 x 254 Ford 190 x 220 x 254 E.R.

Is the ballast pump fitted with a direct suction from the engine room bilges Yes State size 65 mm Is a separate auxiliary pump suction fitted in Engine Room and size Yes - 65 mm Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine Room always accessible Yes

Are the sluices on Engine Room bulkheads always accessible None 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 floor 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times Yes Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges Yes Is the screw shaft tunnel watertight NONE MACH. AFT. Is it fitted with a watertight door

worked from. If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.
No. of main air compressors NONE—Solid Inj. No. of stages Diameters Stroke Driven by
No. of auxiliary air compressors Two No. of stages Two Diameters 220-88 Stroke 225 Driven by HOT RULB MOTORS

ADDITIONAL No. of small auxiliary air compressors WORKED BY ECCENTRIC FROM MAIN SHAFTING No. of stages Two Diameters 230-114 Stroke 200 Driven by MAIN SHAFTING
No. of scavenging air pumps Diameter Stroke Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule 83.5 mm as fitted 70 mm APPROVED LTR.E. 3/11/24. Are the air compressors and their coolers made so as to be easy of access. Yes
OWNERS LETTER OF AGREEMENT ATTACHED.

IR RECEIVERS:—No. of high pressure air receivers 2 Internal diameter 800 mm Cubic capacity of each 3500 litres
Material S.M. Steel Seamless, lap welded or riveted longitudinal joint Yes Range of tensile strength 34-44 kg/cm²

Thickness 16 mm working pressure by Rules 25 kg/cm² No. of starting air receivers 2 Internal diameter 1400 mm
Total cubic capacity 10 cub. m. (5 cu. m. each) Material Steel Seamless, lap welded or riveted longitudinal joint Yes

Range of tensile strength 44-50 kg/cm² thickness 10 mm Working pressure by rules 10 kg/cm² 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 Yes What means are provided for cleaning their inner surfaces Manhole door Is there a drain arrangement fitted at the lowest part of each receiver Yes

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS		45 Kg/cm ²	90 Kg		
" " COVERS		4 "	20 "		Bremen Rpt. 736
" " JACKETS		4 "	9 "		
" PISTON WATER PASSAGES	None				
MAIN COMPRESSORS—1st STAGE	None - Solid Injection				
" 2nd "					
" 3rd "					
AIR RECEIVERS—STARTING		25 Kg.	39 Kg		
" INJECTION	None				
AIR PIPES (MANOEUVRING)	5/3/25	25 Kg.	50 Kg		
FUEL PIPES		250 Kg.	1000 Kg.		Bremen Rpt. 736
FUEL PUMPS		250 Kg	500 "		" " "
SILENCER					
" WATER JACKET	None				
SEPARATE FUEL TANKS	5/3/25		Rule Heads		

PLANS. Are approved plans forwarded herewith for shafting YES.

Receivers No — 15/8/24

Separate Tanks. Plans now sent

SPARE GEAR 1 cyl cover complete for main motor, one complete set of valve, seats & springs for main motor and fuel injection valves for 6 cylinders, one cover complete (last bolt) for aux motor, 1 piston complete and one set of rings for main motor, set of rings for aux motor, set of gear wheels for main motor, 2 Tappan & Bottomland & 2 main bearing bolts for main & aux motors, set of coupling bolts for crank shaft & set for thrust (no intermediate) shaft, complete set of compressor rings, half set of compressor valves, complete set of fuel pump parts, main & aux motor set of valves for daily fuel pump, water cam pump & one bilge pump. Also a very considerable number of additional spares for practically all important parts. The foregoing is a correct description.

P. N. ODERO in ALESS. & C. V. Chiavari, Manufacturer.

Dates of Survey while building { During progress of work in shops - 1924
During erection on board vessel - 1925
Total No. of visits BREMEN 17 + GENOA 22 = 39.

Dates of Examination of principal parts—Cylinders — Covers — Pistons — Rods — Connecting rods —
Crank shaft — Thrust shafts 6/11/24 Tunnel shafts None Screw shafts 9/1/25 Propellers 8/11/24 Stern tube 20/1/25 Engine seatings 3/12/24
Engines holding down bolts 19/3/25 Completion of pumping arrangements 8/4/25 Engines tried under working conditions 8/4/25
Completion of fitting sea connections 19/3/25 Stern tube 23/1/25 Screw shaft and propeller 5/3/25
Material of crank shaft Steel Identification Mark on Do. 6284-85 Material of thrust shaft Steel Identification Mark on Do. LLOYDS 367-375 A.S.M.
Material of tunnel shafts None Identification Marks on Do. — Material of screw shafts Steel Identification Marks on Do. LLOYDS 364-365 A.S.M.

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

this machinery duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. See Bremen Report 736 on Main Motors. The main motors have been installed in a satisfactory manner on board the air receivers (approved 15/3/24) have been built in accordance with the approved plan and the Society Rules, and have been tested hydraulically as required & found tight. Materials and workmanship are good. The auxiliary motors have been built and surveyed as required (See Secretary's letter E. 3/11/24) & on completion have been tried under working conditions and found satisfactory. Bureau letter accepting these motors is attached. A sample taken from the crankshaft showed a tensile strength of 65.9 kg/cm² with an elongation of 19% on a standard test piece. In our opinion the vessel is eligible for the Record L.M.C. 4.25 (Oil Eng.).

Amount of Entry Fee ... £ 468 =
Special INSTALLATION ONLY ... £ 1258 =
Donkey Boiler Fee ... £ 550 =
Travelling Expenses (if any) £ 172 =

When applied for, 27/5/25

When received, 8/6/25

Alex. Lawrence.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 10 JUL 1925

Signed

CERTIFICATE WRITTEN 2 Mb 4.25 C.L. oil engines

DUAL SURVEY L.R. & R.I.



Lloyd's Register Foundation