

-7 JUL 1925

REPORT ON OIL ENGINE MACHINERY.

No. 736

14 JAN 1925

Received at London Office

11th Jan 25
19. 25
When handed in at Local Office
19. Port of Augsburg
Date, First Survey 7th July
Last Survey 20th Dec 19 24
Number of Visits 14
on the Single } Screw vessels "METEOR"
Twin }
Triple }
Built at Leoti Ponente By whom built H. Oderso fu A. & L. Yard No 321 When built
Engines made at Augsburg By whom made Maschinenf. Augsburg-Humberg A.G. Engine No 287370 When made 1924
Boilers made at By whom made Boiler No. When made
Horse Power 2 x 300 Owners Port belonging to
Horse Power as per Rule 246. 215. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c. Type of Engines 2 sets main Diesel Engines 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 45 Kgs No. of cylinders each Eng 6 = 12 No. of cranks each Eng 6 = 12 Diameter of cylinders 13 9/16" 345 m/m
Length of stroke 500 m/m Revolutions per minute 200 Means of ignition solid injection Kind of fuel used gas oil
Distance between centres of main bearings 630 m/m Span of bearings (Page 92, Section 2, par. 7 of Rules) 418 mm
Diameter of crank pins 210 m/m Breadth of crank webs as per Rule 310 m/m as fitted 310 m/m Thickness of ditto as per Rule 110 m/m as fitted 110 m/m
Diameter of flywheel shaft as per Rule as fitted Diameter of tunnel shaft as per Rule as fitted Diameter of thrust shaft as per Rule as fitted
Diameter of screw shaft as per Rule as fitted Is the screw shaft fitted with a continuous liner the whole length of the stern tube
Is the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned
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 liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil
Diameter of outer gland fitted to stern tube Length of stern bush Diameter of propeller
No. of blades state whether moveable Total surface square feet
Kind of reversing Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched
Are the cylinders fitted with safety valves Means of lubrication forced Are the exhaust pipes water cooled
If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
No. of cooling water pumps Is the sea suction provided with an efficient strainer which can be cleared
No. of bilge pumps fitted to the main engines Diameter of ditto 80 m/m Stroke 110 m/m
No. of auxiliary pumps connected to the main bilge lines How driven
No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps: In engine room
No. of ballast pumps How driven Sizes of pumps
Is a separate auxiliary pump suction fitted in
Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible
Are the sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship
Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates
Are the discharge pipes 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 bilge suction pipes, cocks and valves arranged so as to prevent any
Is the screw shaft tunnel watertight Is it fitted with a watertight door
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 No. of stages Diameters Stroke Driven by
No. of auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of scavenging air pumps Diameter Stroke Driven by
Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access

RECEIVERS: No of high pressure air receivers Internal diameter Cubic capacity of each
Seamless, lap welded or riveted longitudinal joint Range of tensile strength
Working pressure by Rules No. of starting air receivers Internal diameter 800 m/m
Cubic capacity each 3500 litres Material Lim Mart. Steel Seamless, lap welded or riveted longitudinal joint
Tensile strength 34-41 Kgs thickness 16 m/m Working pressure by rules 25 Kgs Is each receiver, which can be isolated,
with a safety valve as per Rule Can the internal surfaces of the receivers be examined What means are provided for cleaning their
surfaces Is there a drain arrangement fitted at the lowest part of each receiver

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS <i>linen</i>	23, 24, 28/10/24	45 Kgr	90 Kgr	No 247. 90 AT	
" " COVERS <i>water</i>	28/10, 8, 11/11/24	4 "	20 "	No 247. 30 AT	
" " JACKETS	27, 28/10/24	4 "	9 "	" " 9 AT	
" " PISTON WATER PASSAGES	<i>none</i>				
MAIN COMPRESSORS—1st STAGE	✓				
" 2nd "	✓				
" 3rd "	✓				
AIR RECEIVERS—STARTING	4/12/24	25 Kgr	39 Kgr	No 247 A.B. 39 AT	
" INJECTION	✓			WP 25 "	
AIR PIPES	✓				
FUEL PIPES	11/11/24	250 Kgr	1000 Kgr	✓	
FUEL PUMPS	11/11/24	250 "	500 "	No 247, 500 Kgr	
SILENCER	✓				
" WATER JACKET	✓				
SEPARATE FUEL TANKS	✓				

PLANS. Are approved plans forwarded herewith for shafting *crank* *yes* Receivers *yes* Separate Tanks ✓
(If not, state date of approval)

SPARE GEAR

The foregoing is a correct description.
Maschinenfabrik Augsburg-Nürnberg A.G.
M. Müller Manufacturer.

Dates of Survey while building { During progress of work in shops - 1924: - 7/7, 27/8, 28/8, 29, 24, 25, 26, 27/10, 8, 9/11, 3, 4, 5/12, 16, 18, 20/12
During erection on board vessel - 17
Total No. of visits 17
Dates of Examination of principal parts—Cylinders 23/8-9/11, Covers 8, 9/11, Pistons 8, 9/11, Rods 28/8, Connecting rods 28/8
Crank shaft 27/8, Thrust shaft ✓, Tunnel shafts ✓, Screw shaft ✓, Propeller ✓, Stern tube ✓, Engine *bed plate* 23/10
Engines holding down bolts ✓, Completion of pumping arrangements ✓, Engines tried under working conditions 18-20/12
Completion of fitting sea connections ✓, Stern tube ✓, Screw shaft and propeller ✓
Material of crank shaft *J.M. steel*, Identification Mark on Do. *6284/55*, Material of thrust shaft ✓, Identification Mark on Do. ✓
Material of tunnel shafts ✓, Identification Marks on Do. ✓, Material of screw shafts ✓, Identification Marks on Do. ✓
Is the flash point of the oil to be used over 150° F. ✓
Is 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.) *These Diesel Engines and their accessories have been constructed under Special Survey in accordance with the approved plans and instructions as well as with the printed Rules. The materials used in the construction are good and the workmanship is satisfactory. Both engines have been tested under full power in the shop for about 20 hours and found to work well. The starting air receivers have been tested by hydraulic pressure of 39 kg per sq. cm and found tight and without alteration of form. In my opinion the vessel for which these engines are intended will be eligible for the record of + L M C (with date) when they have been satisfactorily fitted on board and the spare gear has been supplied as required by the Rules. (Rpt.) on crank shaft attached.*

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 52-0-0 ✓ 19
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ 21-0-0 ✓ 18/5/25 in Lon

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation