

REPORT ON OIL ENGINE MACHINERY.

No. 736

14 JAN 1925

Received at London Office

Date of writing Report 11th Jan 1925 When handed in at Local Office 19 Port of Augoburg
 No. in Survey held at Augoburg Date, First Survey 7th July Last Survey 20th Dec 1924
 Reg. Book. Single on the Twin } Screw vessels "METEOR" Tons { Gross 14 Net 14
 Master Lestri Ponenti Built at Augoburg By whom built H. Oderoff & Co. Yard No. 321 When built 1924
 Engines made at Augoburg By whom made Maschinenfabrik Augsburg-Humberg A.G. Engine No. 217370 When made 1924
 Donkey Boilers made at Augoburg By whom made Augoburg Boiler No. 287380 When made 1924
 Brake Horse Power 2 x 300 Owners Augoburg Port belonging to Augoburg
 Nom. Horse Power as per Rule 246 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

IL 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 Kgr No. of cylinders each Eng 6 No. of cranks each Eng 6 Diameter of cylinders 13 9/16" 345 mm
 Length of stroke 19 1/2" 500 mm Revolutions per minute 200 Means of ignition solid injection Kind of fuel used gas 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
 Diameter of crank pins 210 mm Breadth of crank webs as per Rule 310 mm Thickness of ditto as per Rule 110 mm
 Diameter of flywheel shaft as per Rule Diameter of tunnel shaft as per Rule Diameter of thrust shaft as per Rule
 Diameter of screw shaft as per Rule 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
 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 Yes If without liners, is the shaft arranged to run in oil Yes
 Type of outer gland fitted to stern tube Yes Length of stern bush Yes Diameter of propeller Yes
 Pitch of propeller Yes No. of blades Yes state whether moveable Yes Total surface Yes square feet 27
 Method of reversing Levers gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes 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 Yes
 No. of cooling water pumps 1 Is the sea suction provided with an efficient strainer which can be cleared Yes
 within the vessel Yes of bilge pumps fitted to the main engines 1 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 Yes How driven Yes
 Sizes of pumps Yes No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room Yes
 and in holds, etc. Yes No. of ballast pumps Yes How driven Yes Sizes of pumps Yes
 Is the ballast pump fitted with a direct suction from the engine room bilges Yes State size Yes Is a separate auxiliary pump suction fitted in Yes
 Engine Room and size Yes 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 Yes Are all connections with the sea direct on the skin of the ship Yes
 Are they valves or cocks Yes 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 Yes 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 Yes
 communication between the sea and the bilges Yes Is the screw shaft tunnel watertight Yes Is it fitted with a watertight door Yes
 worked from Yes If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes
 No. of main air compressors Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes
 No. of auxiliary air compressors Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes
 No. of small auxiliary air compressors Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes
 No. of scavenging air pumps Yes Diameter Yes Stroke Yes Driven by Yes
 Diameter of auxiliary Diesel Engine crank shafts as per Rule Are the air compressors and their coolers made so as to be easy of access Yes
as fitted

IR RECEIVERS:—No. of high pressure air receivers Yes Internal diameter Yes Cubic capacity of each Yes
 material Yes Seamless, lap welded or riveted longitudinal joint Yes Range of tensile strength Yes
 thickness Yes working pressure by Rules Yes No. of starting air receivers 2 Internal diameter 800 mm
 Total cubic capacity each 3500 litres Material Lim. Man. Steel Seamless, lap welded or riveted longitudinal joint Yes
 Range of tensile strength 34-41 Kgr thickness 16 mm Working pressure by rules 25 Kgr Is each receiver, which can be isolated, Yes
 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 Yes
 inner surfaces Yes Is there a drain arrangement fitted at the lowest part of each receiver Yes

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

PLANS. Are approved plans forwarded herewith for shafting

Receivers

Separate Tanks

SPARE GEAR

The foregoing is a correct description.

M. J. Fisher *M. J. Hamblin* Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *1924. 7/7, 29/8, 20/8, 13, 24, 25, 26, 27/10. 8, 9/11. 2, 4, 5/12. 16, 19, 20/12*
{ During erection on board vessel - - } *17.*
Total No. of visits

Dates of Examination of principal parts—Cylinders *23/10. 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 *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 *✓* Identification Mark on Do. *✓* 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 Kgr. per sq. cm., and found right and without alteration of form. In my opinion the work 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. (Npt. 7 on crank shaft attached.)*

The amount of Entry Fee ... £ : : When applied for,
Special ... £ : : 19.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19.

Committee's Minute

Assigned

G. H. E. Hamblin
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 10 JUL 1925



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