

## REPORT ON OIL ENGINE MACHINERY

No. 2666

16 MAR 1926

Date of writing Report 11 March 1926 When handed in at Local Office 10 Port of Stockholm  
 No. in Survey held at Sickla, Skm. Sistr. Date, First Survey 12 Febr. Last Survey 10 March 1926  
 Reg. Book. Single on the Twin Triple Screw vessels Tons Gross Net  
 Master                      Built at                      By whom built                      Yard No.                      When built                       
 Engines made at Stockholm By whom made Attila Atlas-Diesel Engine No. 40508 When made 1926  
 Donkey Boilers made at                      By whom made                      Boiler No.                      When made                       
 Brake Horse Power 32.5 Owners Messrs. Atlas Diesel Co. Ltd. Port belonging to London  
 Nom. Horse Power as per Rule 17 Is Refrigerating Machinery fitted for cargo purposes                      Is Electric Light fitted                     

OIL ENGINES, &c.—Type of Engines Stationary Diesel Oil Engine (Type MTI) 2 or 4 stroke cycle Single or double acting  
 Maximum pressure in cylinders 35 kg/cm<sup>2</sup> No. of cylinders 1 No. of cranks 1 Diameter of cylinders 250 mm  
 Length of stroke 370 mm Revolutions per minute 300 Means of ignition Diesel Kind of fuel used Crude Oil  
 Is there a bearing between each crank                      Span of bearings (Page 91, Section 2, par. 7 of Rules) 310 mm  
 Distance between centres of main bearings 593 mm Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 139 mm  
as fitted 145 "  
 Diameter of crank pins 145 mm Breadth of crank webs as per Rule 185 mm Thickness of ditto as per Rule 78 mm  
as fitted 210 " as fitted 82 "  
 Diameter of flywheel shaft as per Rule                      Diameter of tunnel shaft as per Rule                       
as fitted                      as fitted                       
 Diameter of screw shaft as per Rule                      Is the screw shaft fitted with a continuous liner the whole length of the stern tube  
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 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 two liners are fitted, is the shaft lapped or protected between the liners                      If without liners, is the shaft arranged to run in oil                       
 Type of outer gland fitted to stern tube                      Length of stern bush                      Diameter of propeller                       
 Pitch of propeller                      No. of blades                      state whether moveable                      Total surface                      square feet  
 Method of reversing                      Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners 2.5 mm  
 Are the cylinders fitted with safety valves yes Means of lubrication pumps Are the exhaust pipes and silencers water cooled or lagged with  
 non-conducting material                      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 1 Is the sea suction provided with an efficient strainer which can be cleared  
 within the vessel                      No. of bilge pumps fitted to the main engines                      Diameter of ditto                      Stroke                       
 Can one be overhauled while the other is at work                      No. of auxiliary pumps connected to the main bilge lines                      How driven                       
 Sizes of pumps                      No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room                       
 and in holds, etc.                      No. of ballast pumps                      How driven                      Sizes of pumps                       
 Is the ballast pump fitted with a direct suction from the engine room bilges                      State size                      Is a separate auxiliary pump suction fitted in  
 Engine Room and size                      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 valves or cocks                      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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times                      Are the bilge suction pipes, cocks and valves arranged so as to prevent any  
 communication between the sea and the bilges                      Is the screw shaft tunnel watertight                      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 1 No. of stages 2 Diameters 115/35 mm Stroke 115 mm Driven by engine  
 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                      Are the air compressors and their coolers made so as to be easy of access  
as fitted                     

AIR RECEIVERS:—No. of high pressure air receivers 1 Internal diameter 240 mm Cubic capacity of each 25 litres  
 material S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded Range of tensile strength 36 kg/cm<sup>2</sup> as a min.  
 thickness 15.5 mm working pressure by Rules 72 kg/cm<sup>2</sup> No. of starting air receivers 1 Internal diameter 300 mm  
 Total cubic capacity 96 litres Material S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded  
 Range of tensile strength 36 kg/cm<sup>2</sup> as a min. thickness 18.5 mm Working pressure by rules 72 kg/cm<sup>2</sup> 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 mudhole 120 mm 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 .....	(The cylinder liner is more than $\frac{1}{15}$ of the cylinder diam.				
" " COVERS .....	25.2.26.	—	4 kg/cm <sup>2</sup>	LLOYD'S TEST 4 kg. At 25.2.26 A	
" " JACKETS.....	25.2.26.	—	ditto	ditto	
" PISTON WATER PASSAGES.....	(open pistons)				
MAIN COMPRESSORS—1st STAGE.....	25.2.26.	10 kg/cm <sup>2</sup>	20 kg/cm <sup>2</sup>	A	
" 2nd " .....	25.2.26.	70 "—	140 "—		
" 3rd " .....					
AIR RECEIVERS—STARTING .....	24.2.26.	70 kg/cm <sup>2</sup>	140 kg/cm <sup>2</sup>	N:o 5363 LLOYD'S TEST 140 kg. W.P. 70 kg. At 24.2.26 A	
" INJECTION .....	24.2.26.	— "—	— "—	N:o 5364 LLOYD'S TEST 140 kg. W.P. 70 kg. At 24.2.26 A	
AIR PIPES .....	25.2.26.	— "—	— "—		
FUEL PIPES .....	25.2.26.	— "—	— "—		
FUEL PUMPS .....	25.2.26.	— "—	— "—	A	
SILENCER .....	(none ordered)				
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					

See Secretary's letter E 27.5.25.

PLANS. Are approved plans forwarded herewith for shafting  
(If not, state date of approval)

Receivers E 17.7.23

Separate Tanks

SPARE GEAR as per list, approved on the 25th May 1925, will be inspected when machinery is being fitted in ship.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops-- } 12, 18, 24 & 25; 2/3 26  
{ During erection on board vessel-- }  
Total No. of visits in shop 5

Dates of Examination of principal parts—Cylinders 18 & 25 26. Covers 18 & 25 26. Pistons 25 26. Rods Connecting rods 12 & 25 26.

Crank shaft 12 & 25 26 Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Engine seatings

Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions in shop 18.2.26.

Completion of fitting sea connections Stern tube LLOYD'S No 5361 At 25.2.26 A Screw shaft and propeller.

Material of crank shaft J.M. Steel 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.)

I am of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under Special Survey, I have respectfully to submit that it be approved as auxiliary to the main engine. The above engine has now been properly fitted and secured on board the M.V. Stordalen; tried under working conditions and found satisfactory. H. J. Sutherland Glasgow 4/10/26.

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ 218.40 : : H. March 1926.  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 19.11 : :  
Total 237.51 : : When received, 19

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.  
Issued by Mr. L. J. Andersson.



© 2019

Lloyd's Register Foundation