

REPORT ON OIL ENGINE MACHINERY.

No. 2602

Date of writing Report 20 Aug. 1925 When handed in at Local Office 24 AUG 1925 Port of Stockholm
 No. in Survey held at Sickla, Skm. Distr. Date, First Survey 28th Oct. 1918 Last Survey 12th Aug 1925
 Reg. Book. Single on the Twin {Screw vessels (not yet named)} Tons {Gross 50048 Net 19}
 Master Gothenburg Built at Gothenburg By whom built Aktubolaget Lindholm & Motala Yard No. 923 When built 1925
 Engines made at Stockholm By whom made Aktub. Atlas-Diesel Engine No. 50048 When made 1925
 Donkey Boilers made at Gothenburg By whom made Aktub. Atlas-Diesel Boiler No. 50048 When made 1925
 Brake Horse Power 1250 Owners A.B. Svenska Otfasiatiska Kompaniet Port belonging to Gothenburg
 Nom. Horse Power as new Rule 358 716 Total H.P. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

OIL ENGINES, &c. Type of Engines Polar Diesel Oil Engine type A6Z 2 or 4 stroke cycle Single or double acting
 Maximum pressure in cylinders 35 kg/cm² No. of cylinders 6 No. of cranks 6 Diameter of cylinders 630 mm
 Length of stroke 1000 mm Revolutions per minute 125 Means of ignition Diesel Kind of fuel used Crude Oil
 Is there a bearing between each crank Yes Span of bearings (Page 91, Section 2, par. 7 of (Rules) 860 mm
 Distance between centres of main bearings 1300 mm Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 378 mm
 Diameter of crank pins 380 mm Breadth of crank webs as per Rule 505 mm Thickness of ditto as per Rule 213 mm
 Diameter of flywheel shaft as per Rule 378 mm (combined with the thrust shaft) as fitted 720 mm Diameter of tunnel shaft as per Rule 275 mm
 Diameter of screw shaft as per Rule 380 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube
 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 manoeuvring cyls. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners 60 mm
 Are the cylinders fitted with safety valves yes Means of lubrication gear wheel 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
 How driven 1 Diameter of ditto 150 mm Stroke 220 mm (double acting)
 Can one be overhauled while the other is at work 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
 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 fitted 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
 Is the vessel fitted from If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 of main air compressors 1 No. of stages 3 Diameters 630-115/ Stroke 460 mm Driven by Main engine
 of auxiliary air compressors 1 No. of stages 3 Diameters 320-75/ Stroke 200 mm Driven by Electric motor
 of small auxiliary air compressors 1 No. of stages 2 Diameters 80/ Stroke 80 mm Driven by "Atlas" motor
 of scavenging air pumps none fitted 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

RECEIVERS:—No. of high pressure air receivers 2 Internal diameter 400 mm Cubic capacity of each 315 litres
 Material S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded Range of tensile strength min. 38 kg/mm²
 Thickness 23 mm Working pressure by Rules 73 kg/cm² No. of starting air receivers 1 Internal diameter 1900 mm
 Cubic capacity 13200 litres Material S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded
 Range of tensile strength 38 kg/mm² thickness 22.5 mm Working pressure by rules 15 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
 surfaces man- and mudholes resp. 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?

Rpt. 4

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	(The thickness of the cylinder liners is more than $\frac{1}{15}$ of the cyl. diam.)				
COVERS water passages	25.5.25	—	4 kg/cm ²	LLOYD'S TEST 4 kg. AI 25.5.25 A	
JACKETS	21 & 24/11 24:22/5 25	—	ditto	LLOYD'S TEST 4 kg. AI 22.5.25 A	
PISTON WATER PASSAGES	23.5.25	—	ditto	LLOYD'S TEST 4 kg. AI 23.5.25 A	
MAIN COMPRESSORS—1st STAGE	20.6.25	4 kg/cm ²	35 kg/cm ²	LLOYD'S TEST 35 kg. AI 20.6.25 A	
2nd ..	20.6.25	15 —	35 —	LLOYD'S TEST 140 kg. AI 23.5.25 A	
3rd ..	23.5.25	70 —	140 —	No 5321 LLOYD'S TEST 30 kg. W.P. 15 kg. AI 27.5.25 A	spare.
AIR RECEIVERS—STARTING	27.5.25	15 —	30 —	No 5322 LLOYD'S TEST 140 kg. W.P. 70 kg. AI 8.8.25 A	
INJECTION	30/6 & 8/8 25.	70 —	140 —	No 5323 LLOYD'S TEST 140 kg. W.P. 70 kg. AI 30.6.25 A	
AIR PIPES	20.6.25	70 —	140 —	HYDR. TEST 3.5 kg. AI 21.2.25 A	
FUEL PIPES	20.6.25	70 —	140 —		
FUEL PUMPS	20.6.25	70 —	140 —		
SILENCER	21.2.25	—	3.5 kg/cm ²		
WATER JACKET	(The silencer will be lagged with non-conducting material, when being fitted)				
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting
SPARE GEAR as per list, approved on the 20 October 1924, 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 -- 28/10, 30/11, 18/12, 27/1, 6/2, 20/2, 19/3, 4/4, 12/4, 21/5, 24/5, 24/6, 21/7, 20/8, 22/8, 23/8, 25/8, 27/8, 20/9, 30/9, 8/10, 12/10
During erection on board vessel --
Total No. of visits in shops 19.
Dates of Examination of principal parts—Cylinders 20/4, 22/5, 25/5 Covers 25/5, 27/5 Pistons 23/5, 25/5 Rods 27/9, 23/5, 25/5 Connecting rods 6/11, 20/12, 19/24
Crank shaft 28/10, 30/11, 18/12 Thrust shaft 12/8, 24/8, 23/8 Compr. shaft 4/7, 24/7, 25/7 Propeller Engines tried under working conditions in shop 20.4
Engines holding down bolts Completion of pumping arrangements
Completion of fitting sea connections Stern tube list. Screw shaft and propeller
Material of crank shaft I.M. Steel Identification Mark on Do. See appended list. Material of thrust shaft I.M. Steel Identification Mark on Do. LLOYD'S No 7 12.8.24 VB
Material of compr. shafts I.M. Steel Identification Marks on Do. LLOYD'S No 6030-1 AI 4.7.24 A 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 superior material and workmanship, and, as it has been designed and constructed in special survey, I have respectfully to submit that it will be eligible to be classed *LMC, as soon as it has been fitted in the ship to the satisfaction of the Society's Gothenburg surveyors.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 1145.87 : 21 Aug. 1925
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ 76.44 : Sept. 1925

Committee's Minute

Assigned

TUES. 13 OCT 1925

See Got. J.E. 6815

a. Erikson
Engineer Surveyor to Lloyd's Register of Shipping.
Assisted by Mr. L. J. Andersson.



© 2021

Lloyd's Register
Foundation