

REPORT ON OIL ENGINE MACHINERY.

No. 2606

Date of writing Report 21st Aug. 1925 When handed in at Local Office 19 Port of Stockholm
No. in Survey held at Sickla, Hem. Distr. Date, First Survey 11 Oct. 1923 Last Survey 10 Aug. 1925
Reg. Book. Single on the Twin } Screw vessels (not yet named) Tons { Gross Net
Number of Visits

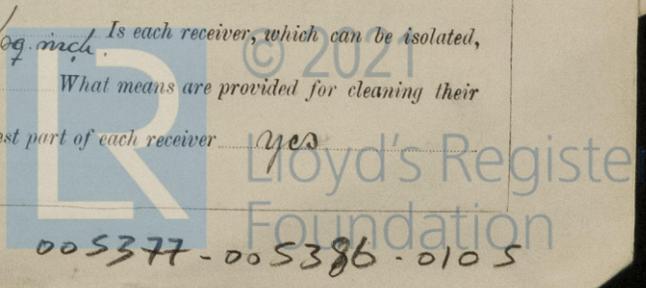
Master Built at Gothenburg By whom built Aktiebolaget Lindholmsvarv No. 923 When built 1925
Engines made at Stockholm By whom made Aktiebolaget Atlas-Diesel Engine No. 40453 When made 1925
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 100 Owners A.B. Svenska Ostersjotiska Kompaniet Port belonging to Gothenburg
Nom. Horse Power as per new Rule 25 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

MAIN ENGINES, &c.—Type of Engines Stationary Diesel Oil Engine (type MT.2K) 2 or 4 stroke cycle Single or double acting
Maximum pressure in cylinders 35 kg/cm² No. of cylinders 2 No. of cranks 2 Diameter of cylinders 290 mm.
Length of stroke 4/30 mm. Revolutions per minute 300 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) Metric 397 mm.
Distance between centres of main bearings 689 mm. Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 163.4 mm.
Diameter of crank pins 165 mm. Breadth of crank webs as per Rule 217 mm. Thickness of ditto as per Rule 91.5 mm.
(The flywheel is fitted on the crank shaft) as fitted 260 - " as fitted 95.0 - "
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 fitted 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
Does the liner do 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
Diameter 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 2.8 mm.
Are the cylinders fitted with safety valves yes Means of lubrication pumps Are the exhaust pipes and silencers water cooled or lagged with 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
No. in the vessel 2 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
No. of pumps 3.4 No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room
No. 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 the 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 the key 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
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 155/45 mm. Stroke 180 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 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 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 min 23 tons/sg. inch.
Thickness 15.5 mm. Working pressure by Rules 1024 lbs/sg. inch. No. of starting air receivers 1 Internal diameter 300 mm.
Cubic capacity 96 litres Material S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded
Range of tensile strength min 23 tons/sg. inch. thickness 18.5 mm. Working pressure by rules 1020 lbs/sg. inch. Is each receiver, which can be isolated, 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 mud hole 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	24.4.25.	-	4 kg/cm ²	LLOYD'S TEST 4 kg. AI 24.4.25 A	(The thickness of the cylinder liners is more than 1/5 of the cylinder diam.)
COVERS water passages	24.4.25.	-	ditto	ditto	
JACKETS	(open pistons)				
PISTON WATER PASSAGES	24.4.25.	10 kg/cm ²	20 kg/cm ²	A	
MAIN COMPRESSORS—1st STAGE	24.4.25.	70 --	140 --		
2nd "				No 5310 LLOYD'S TEST 140 kg. WP. 70 kg. AI 24.4.25 A	
3rd "					
AIR RECEIVERS—STARTING	24.4.25.	70 kg/cm ²	140 kg/cm ²		
INJECTION	"	"	"	No 5311 LLOYD'S TEST 140 kg. WP. 70 kg. AI 24.4.25 A	
AIR PIPES	"	"	"		
FUEL PIPES	"	"	"	A	
FUEL PUMPS	"	"	"		
SILENCER					
WATER JACKET					
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *See Secretary's letter E.3.1.23.* Receivers *E. 3.1.23.* Separate Tanks

SPARE GEAR as per list, approved on the 12th Febr. 1923, 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 -- 11/5/23; 10/24; 20/24, 10/8 25. During erection on board vessel -- in shop 6. Total No. of visits

Dates of Examination of principal parts—Cylinders 20/24, 25 Covers 20/24, 25 Pistons 24/25 Rods Connecting rods 11/5/23; 2/4 Crank shaft 10/24; 24/25 Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Engine seatings Engines tried under working conditions in shop 20.4.25. Engines holding down bolts Completion of pumping arrangements Screw shaft and propeller Completion of fitting sea connections Stern tube

Material of crank shaft *I.M. Steel* Identification Mark on Do. *LLOYD'S No 6036 AI 10.10.24 A* 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. If so, state name of vessel *see Ikm. report no 2517*

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 engines, see Ikm. Reports 2602 and 2603.*

Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : : When applied for, Special ... *Rs 218.40* : : *21 Aug. 1925* Donkey Boiler Fee ... £ : : Travelling Expenses (if any) *Rs 19.11* : : *Dep. 19.25* *Rs 237.51*

A. Gakson
Engineer Surveyor to Lloyd's Register of Shipping.
Assisted by Mr. K. J. Andersson

Committee's Minute
Assigned
See Gov. G.E. 6213
THES. 13 OCT 1925

