

## REPORT ON OIL ENGINE MACHINERY.

No. 2605

Date of writing Report *21<sup>st</sup> Aug 1925* When handed in at Local Office *19* Port of *Stockholm*  
 No. in Survey held at *Sickla, Skm. Dist.* Date, First Survey *11<sup>th</sup> Oct 1923* Last Survey *10<sup>th</sup> Aug 1925*  
 Reg. Book. *Single* on the *Twin* } Screw vessels *(not yet named)* Tons { Gross  
 Master *Gothenburg* Built at *Gothenburg* By whom built *Attebelaget Lindholmens Yard* No. *923* When built *1925*  
 Engines made at *Stockholm* By whom made *Attebelaget Lindholmens Yard* Engine No. *40452* When made *1925*  
 Donkey Boilers made at By whom made Boiler No. When made  
 Brake Horse Power *100* Owners *A. B. Svenska Ostasiatiska Kompaniet* Port belonging to *Gothenburg*  
 Nom. Horse Power as per Rule *25* Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

L ENGINES, &c.—Type of Engines *Stationary Diesel Oil Engine (type MT 2K2) or 4 stroke cycle* Single or double acting  
 Maximum pressure in cylinders *35 kg/cm<sup>2</sup>* No. of cylinders *2* No. of cranks *2* Diameter of cylinders *290 mm*  
 Length of stroke *430 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 92, Section 2, par. 7 of Rules) *397 mm*  
 Distance between centres of main bearings *689* 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  
 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 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  
 Are two liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil  
 Is the outer gland fitted to stern tube Length of stern brush Diameter 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 *28 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 Is the sea suction provided with an efficient strainer which can be cleared  
 No. in 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  
 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 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  
 main air compressors / No. of stages *2* Diameters *155/45 mm* Stroke *180 mm* Driven by *engine*  
 auxiliary air compressors No. of stages Diameters Stroke Driven by  
 small auxiliary air compressors No. of stages Diameters Stroke Driven by  
 scavenging air pumps *none fitted* Diameter Stroke Driven by  
 Number 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/sq. inch*  
 Thickness *15.5 mm* working pressure by Rules *1024 lbs/sq. 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/sq. inch* thickness *18.5 mm* Working pressure by rules *1020 lbs/sq. 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 *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 thickness of the cylinder liners is more than 1/15 of the cyl. diam.)			LLOYD'S TEST 14 kg. AT 24.4.25. A	
" " COVERS water passages	24.4.25.	—	4 kg./cm. <sup>2</sup>	ditto	
" " JACKETS.....	24.4.25.	—	ditto	ditto	
" " PISTON WATER PASSAGES.....	(open pistons)				
MAIN COMPRESSORS—1st STAGE.....	24.4.25.	10 kg./cm. <sup>2</sup>	20 kg./cm. <sup>2</sup>	A	
" " 2nd " .....	24.4.25.	70 —	140 —		
" " 3rd " .....	—				
AIR RECEIVERS—STARTING .....	24.4.25.	70 kg./cm. <sup>2</sup>	140 kg./cm. <sup>2</sup>	No 5308 LLOYD'S TEST 140 kg. W.P. 70 kg. AT 24.4.25. A No 5309 LLOYD'S TEST 140 kg. W.P. 70 kg. AT 24.4.25. A	
" " INJECTION .....	"	"	"		
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 12<sup>th</sup> Feb. 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 --  $\frac{11}{10} \frac{18}{23}$ ;  $\frac{10}{10} \frac{24}{24}$ ;  $\frac{3}{4} \frac{24}{24}$ ,  $\frac{10}{8} \frac{25}{25}$   
During erection on board vessel --  
Total No. of visits in shop 6

Dates of Examination of principal parts—Cylinders  $\frac{3}{4} \frac{24}{25}$ . Covers  $\frac{3}{4} \frac{24}{25}$ . Pistons  $\frac{24}{4} \frac{25}{25}$ . Rods -- Connecting rods  $\frac{11}{10} \frac{18}{23}$ .  
Crank shaft  $\frac{10}{10} \frac{24}{24}$ ;  $\frac{24}{4} \frac{25}{25}$  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 3.4.25  
Screw shaft and propeller

Completion of fitting sea connections -- Stern tube -- LLOYD'S No 6034  
Material of crank shaft *S.M. Steel* Identification Mark on Do. *AT 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.?

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel *see Item 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 Item Reports nos. 2602 and 2603.*

The amount of Entry Fee ... £ : : When applied for,  
Special ... *218.40* : : *21 Aug. 1925*  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) *19.11* : : *25 Sep. 1925*  
*237.51*

Committee's Minute

Assigned

TUES. 13 OCT 1925

*See Got J.C. 6812*

Engine Surveyor to Lloyd's Register of Shipping,  
Assisted by Mr. R. J. Anderson



© 2021

Lloyd's Register  
Foundation