

REPORT ON OIL ENGINE MACHINERY.

No. 2605

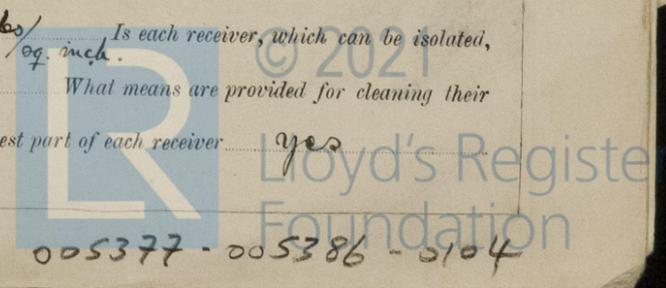
Registered at London Office

24 AUG. 1925 OCT. 1925

Date of writing Report *21st Aug 1925* When handed in at Local Office *19* Port of *Stockholm*
 No. in Survey held at *Sickla, Skm. Dist.* Date, First Survey *11th Oct. 1923* Last Survey *10th Aug 1925*
 Reg. Book. *Single* on the *Twin* } Screw vessels *(not yet named)* } Tons { Gross _____ Net _____
 Master _____ Built at *Gothenburg* By whom built *Aktiebolaget Lindholmen Yard No. 923* When built *1925*
 Engines made at *Stockholm* By whom made *Metric Atlas-Diesel - Motala* 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 _____

ENGINES, &c.—Type of Engines *Stationary Diesel Oil Engine (type MT 2K) 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 *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.*
 as fitted *165.0* —
 Diameter of crank pins *165 mm.* Breadth of crank webs as per Rule *217 mm.* Thickness of ditto as per Rule *91.5 mm.*
 as fitted *260* —
 as fitted *95.0* —
 Diameter of flywheel shaft as per Rule _____ as fitted _____ Diameter of tunnel shaft as per Rule _____ as fitted _____
 Diameter of screw 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 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 _____
 Are two liners 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 _____
 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 overhead 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. 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 suction 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 _____
 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 _____
 Are scavenging air pumps *none fitted* Diameter _____ Stroke _____ Driven by _____
 Are the air compressors and their coolers made so as to be easy of access _____

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.*
 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*
 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. AL 24.4.25 A	
COVERS water passages	24.4.25.	-	4 kg./cm ²	ditto	
JACKETS	24.4.25.	-	ditto	ditto	
PISTON WATER PASSAGES	(open pistons)				
MAIN COMPRESSORS—1st STAGE	24.4.25.	10 kg./cm ²	20 kg./cm ²	A	
	24.4.25.	70 -"	140 -"		
2nd "	-			A	
3rd "	-				
AIR RECEIVERS—STARTING	24.4.25.	70 kg./cm ²	140 kg./cm ²	No 5308 LLOYD'S TEST 140 kg. W.P. 70 kg. AL 24.4.25 A	
INJECTION	"	"	"		No 5309 LLOYD'S TEST 140 kg. W.P. 70 kg. AL 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 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-- 11/5/23; 10/24; 3/24, 10/25
 During erection on board vessel--
 Total No. of visits in shop 6

Dates of Examination of principal parts—Cylinders 3/24/25. Covers 3/24/25. Pistons 2/25. Rods - Connecting rods 11/5/23
 Crank shaft 10/24, 2/25. 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.
 Completion of fitting sea connections Stern tube Identification Mark on Do. LLOYD'S No 6034 AL/O. 10.24. A Material of thrust shaft Identification Marks on Do.
 Material of crank shaft P.M. Steel Identification Marks on Do. Material of screw shafts Identification Marks on Do.
 Material of tunnel 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 : : Sep. 1925
 No 237. 51

Committee's Minute

Assigned

TUES. 13 OCT 1925

See Got J.C. 6812

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



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