

REPORT ON OIL ENGINE MACHINERY.

No. 2604

Received at London Office

24 AUG 1925 8 OCT 1925

Date of writing Report 21st Aug. 1925 When handed in at Local Office

Port of Stockholm

No. in Survey held at Sjökla, Sjökl. Dist.

Date, First Survey 11 Oct. 1923

Last Survey 10 Aug. 1925

Reg. Book.

Number of Visits 6

on the ^{Single} ~~Twin~~ ^{Triple} Screw vessels (not yet named)Tons ^{Gross} ~~Net~~

Master Built at Gothenburg By whom built Aktiebolaget Lindholm Yard No. 923 When built 1925

Engines made at Stockholm By whom made Aktiebolaget Atlas-Diesel Engine No. 40451 When made 1925

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 100 Owners A.B. Svenska Ostersjöska 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 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 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 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 as fitted 260 mm Thickness of ditto as per Rule 91.5 mm as fitted 95.0 mm

(The flywheel is fitted on the crank shaft) Diameter of flywheel shaft as per Rule as fitted Diameter of tunnel shaft as per Rule as fitted Diameter of thrust 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

Is 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

Is the 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 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 1 Is the sea suction provided with an efficient strainer which can be cleared

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 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 the key 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

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 1 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 as fitted 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

S.M. Steel Seamless, lap welded or riveted longitudinal joint lap welded Range of tensile strength min 23 tons/inch

Thickness 15.5 mm Working pressure by Rules 1024 lb/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/inch thickness 18.5 mm Working pressure by rules 1020 lb/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 manhole 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?

Rpt. 4b

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 cylinder diam.)				
COVERS water passages	24.4.25	—	4 kg/cm ²	LLOYD'S TEST AI 24.4.25 A	
JACKETS	24.4.25	—	ditto	ditto	
PISTON WATER PASSAGES	(open pistons) 24.4.25	10 kg/cm ²	20 kg/cm ²	A	
MAIN COMPRESSORS—1st STAGE	24.4.25	70 —	140 —		
2nd	—	—	—	No 5306 LLOYD'S TEST 140 kg. WP 70 kg. AI 24.4.25 A	
3rd	24.4.25	70 kg/cm ²	140 kg/cm ²	No 5307 LLOYD'S TEST 140 kg. WP 70 kg. AI 24.4.25 A	
AIR RECEIVERS—STARTING	"	"	"	"	
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.*
SPARE GEAR as per list, approved on the 12th Feb. 1923, will be inspected, when machinery is being fitted on ship

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 11 5/8 23; 10 24; 31 3; 24 4; 10 8 25.
During erection on board vessel --
Total No. of visits in shop 6
Dates of Examination of principal parts—Cylinders 31 3; 24 4; 25. Covers 31 3; 24 4; 25. Pistons 24 4; 25. Rods ~ Connecting rods 11 5/8 23; 2 10 23; 2 in the vessel
Crank shaft 10 24; 24 4; 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 31 3 of pumps
Completion of fitting sea connections Stern tube LLOYD'S No 6035 AI 10.10.24 A Material of thrust shaft ~ Identification Mark on Do.
Material of crank shaft I.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 Skm 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 Skm. 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. 2. 1925.
R. 237. 51

Committee's Minute

Assigned

TUES. 13 OCT 1925

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



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Foundation