

# REPORT ON OIL ENGINE MACHINERY.

No. 6572

Received at London Office 11 OCT 1926

Date of writing Report 6th October 1926 When handed in at Local Office 6th October 1926 Port of **GOTHENBURG**

No. in Survey held at **GOTHENBURG** Date, First Survey 1st July, 1925 Last Survey 30th Sept 1926  
No. of Visits 70

3803 on the Single } Screw vessels "STENSBY" Tons Gross 3953  
Triple } Net 2394

built at **GOTHENBURG** By whom built **ERIKSBERGS MEK. VERKSTAB** Yard No. 221 When built 1926

Engines made at **GOTHENBURG** By whom made **ERIKSBERGS MEK. VERKSTAB** Engine No. 245 When made 1926

Boilers made at **GOTHENBURG** By whom made **ERIKSBERGS MEK. VERKSTAB** Boiler No. 389 When made 1926

Indicated Horse Power Owners **A/S MOTORTRAMP** Port belonging to **KALLEHAVE**

Net Horse Power as per Rule 355 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Type of Engines **One Diesel Oil Engine** 2 or 4 stroke cycle 4 Single or double acting **Single**  
Maximum pressure in cylinders **35 kg/cm<sup>2</sup>** No. of cylinders **6** Diameter of cylinders **630 mm (24 3/8")** No. of cranks **6** Length of stroke **1300 mm (51 1/2")**  
Pitch of bearings, adjacent to the Crank, measured from inner edge to inner edge **892 mm** Is there a bearing between each crank **Yes**  
Revolutions per minute **100** Flywheel dia. **2680 mm** Weight **13750 kgs.** Means of ignition **Diesel Syst.** Kind of fuel used **Diesel oil**  
Crank Shaft, dia. of journals as per Rule **404 mm** Crank pin dia. **404 mm** Crank Webs Mid. length breadth **270 mm** Thickness parallel to axis **270 mm**  
as fitted **404 mm** Mid. length thickness **175 mm** Thickness around eye-hole **175 mm**  
Wheel Shafts, diameter as per Rule **404 mm** Intermediate Shafts, diameter as per Rule **277 mm** Thrust Shaft, diameter at collars as per Rule **291 mm**  
as fitted **404 mm** as fitted **280 mm** as fitted **318 mm**  
Propeller Shafts, diameter as per Rule **308 mm** Is the **shaft fitted with a continuous liner** **Yes**  
as fitted **328 mm**  
Bronze Liners, thickness in way of bushes as per Rule **16 mm** Thickness between bushes as per rule **12 mm** Is the after end of the liner made watertight in the  
as fitted **18 mm** as fitted **18 mm**  
Cylinder boss **Yes** If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **Liner in one length**  
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 **Yes**  
If two liners are fitted, is the shaft lapped or protected between the liners **Yes** Is an approved Oil Gland or other appliance fitted at the after  
end of the tube shaft **No** Length of Bearing in Stern Bush next to and supporting propeller **1650 mm**

Propeller, dia. **4496 mm** Pitch **33 7/8 mm** No. of blades **4** Material **Metal** whether Moveable **No** Total Developed Surface **6.04** sq. feet

Method of reversing Engines **Both** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication  
used **Both** Thickness of cylinder liners **46 mm top 36 mm bottom** Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with  
conducting material **Both** If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine **To furnish**

Working Water Pumps, No. **1 and in addition the ballast pump can be used for cooling purpose** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**

Sea Pumps fitted to the Main Engines, No. **1** Diameter **160 mm** Stroke **196 mm** Can one be overhauled while the other is at work **Yes**

Pumps connected to the Main Bilge Line { No. and Size **The main engine pump - 20 tons, One trunk piston pump - 20 tons, The ballast pump - 100 tons**  
How driven **by Main engines** **Electric** **Electric**

Fast Pumps, No. and size **One 100 tons rotary pump** Lubricating Oil Pumps, including Spare Pump, No. and size **Two 20 tons rotary pumps**

Are there independent means arranged for circulating water through the Oil Cooler **Yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room **Two 3" and one 2 1/2" in tunnel well**

Holds, &c. **Two 3" in No. 1 hold, Two 3 1/2" in No. 2 hold, Two 3 1/2" in No. 3 hold**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 3 1/2" to the trunk piston bilge pump, One 6" to the ballast pump**

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **Yes** Are the Bilge Suctions in the Machinery Space

readily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges **Yes**

Are Sea Connections fitted direct on the skin of the ship **Yes** Are they fitted with Valves or Cocks **Both**

Are they fixed sufficiently high on the ship's side to be seen without lifting the **platform** Are the Overboard Discharges above or below the deep water line **Above**

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel **Yes** Are the Blow Off Cocks fitted with a spigot and brass covering plate **Yes**

Do pipes pass through the bunkers **No bunkers**

How are they protected **Yes**

Do pipes pass through the deep tanks **None**

Have they been tested as per Rule **Yes**

Are Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **Yes**

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

compartment to another **Yes** Is the Shaft Tunnel watertight **Yes** Is it fitted with a watertight door **Yes** Is it worked from **upper engine room platform**

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **Yes**

Air Compressors, No. **1** No. of stages **3** Diameters **120, 540, 600 mm** Stroke **480 mm** Driven by **Main engine**

Auxiliary Air Compressors, No. **2** No. of stages **3** Diameters **68, 225, 318 mm** Stroke **170 mm** Driven by **aux. engines**

Auxiliary Air Compressors, No. **1** No. of stages **2** Diameters **34 & 106 mm** Stroke **80 mm** Driven by **Steam engine**

Engaging Air Pumps, No. **None** Diameter **Stroke** Driven by **Stroke**

Auxiliary Engines crank shafts, diameter as per Rule **162 mm**  
as fitted **162 mm**

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **Yes**

Are the internal surfaces of the receivers be examined **Yes** What means are provided for cleaning their inner surfaces **By means of caustic soda & steam**

Is there a drain arrangement fitted at the lowest part of each receiver **Yes**

Pressure Air Receivers, No. **6** Cubic capacity of each **400, 200, 35, 25 litres** Internal diameter **450, 358, 182, 182 mm** thickness **25, 21, 12, 12 mm**

Are they lap welded or riveted longitudinal joint **3 seamless 3 lap welded** Material **Steel** Range of tensile strength **36.0 - 37.7** Working pressure by Rules **6.5 kg/cm<sup>2</sup>**

Low Pressure Air Receivers, No. **1** Total cubic capacity **18.2 cubic metres** Internal diameter **1830 - 1880 mm** thickness **25 & 25.5 mm**

Are they lap welded or riveted longitudinal joint **Riveted** Material **St. Steel** Range of tensile strength **45.2 - 47.6 kg/cm<sup>2</sup>** Working pressure by Rules **2.5 kg/cm<sup>2</sup>**



IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....					Injection air receivers marked:
COVERS .....	12/11/25 & 16/11/25	1.0 kg/cm <sup>2</sup>	6.0 kg/cm <sup>2</sup>	R JK & 6.0 kg. 12.11.25 GA.	Main engine working
JACKETS .....	17/11/25	1.0 "	6.0 "	E	Nº 181 LLOYDS TEST 1850 LBS HP 925 LBS H.T. 29.10.25
PISTON WATER PASSAGES .....	16/11/25 & 17/11/25	65.0 "	190.0 "	R 130 kg. 16.11.25 JK	
MAIN COMPRESSORS—1st STAGE .....	5/1/25	1.0 "	5.0 "	E	Auxil. engine working
HP cylinder & air cooling coil .....	12/11/25	5 & 20 "	10 & 40 "	R 10 kg. 12.11.25 GA. 40 kg. 12.11.25 GA.	Nº 185 LLOYDS TEST 1850 LBS HP 925 LBS H.T. 29.10.25
2nd " .....	4/12/25	25.0 "	39.0 "	Nº 117 LLOYDS TEST 39 kg. 4.12.25	
3rd " .....	12.27.30/1/26, 10 & 17/3/26	65.0 "	130.0 "	R	Main engine spare
AIR RECEIVERS—STARTING .....	10/12/25, 2/2/26	25 & 65 "	75 & 130 "	R 75 kg. Initial date 130 kg.	Nº 182 LLOYDS TEST 1850 LBS HP 925 LBS H.T. 29.10.25
INJECTION .....	30/1/26	65 "	130 "	R 130 kg. 30.1.26 GA.	
AIR PIPES .....	10/3/26	65 "	130 "	R	Auxil. engine spare
FUEL PIPES .....					Nº 183 LLOYDS TEST 1850 LBS HP 925 LBS H.T. 29.10.25
FUEL PUMPS .....					
SILENCER .....					
WATER JACKET .....	18/12/25	1.0 "	6.0 "	R	
SEPARATE FUEL TANKS .....	17/11/25 & 18/1/25		1.0 "	R 1.0 kg. 18.1.26 GA.	

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Donkey Boilers

1/4/25

General Pumping Arrangements

20/4/25

Oil Fuel Burning Arrangements

29/9/25

SPARE GEAR For the main engine and compressor:

1 cylinder cover complete with all valves, valve seats & springs etc. and in addition 5 complete of discharge valves which can be used as air inlet valves and 2 extra valves and valve seats for same, 1 complete set of starting air valve and 2 complete sets of fuel valves and 2 extra valves & 3 seats for same, 1 cylinder liner, 1 piston complete with all piston rings and the addition 1 set of piston rings for one piston, 2 connecting rod top end bolts & nuts and 2 To be continued

The foregoing is a correct description,

Eriksbergs Mek. Verkstads Aktiebolag

Manufacturer.

Dates of Survey while building	During progress of work in shops--	1925: July 1, Aug 24, Sept 4, 10, 18, 25, 26, Oct 8, 14, 14, 16, 20, 26, Nov 2, 3, 4, 6, 12, 13, 16, 20, 23, 25, 27, 28, Dec 1, 2, 2, 4, 5, 10, 16, 18.
	During erection on board vessel--	1926: Jan 2, 4, 5, 7, 12, 18, 20, 26, 27, 27, 30, Feb. 2, 2, 16, 18, March 5, 8, 9, 10, 10, 16, 17, April 9, Sept 10, 24.
	Total No. of visits	70

Dates of Examination of principal parts—Cylinders	26/9/25, 12.16/11/25	Covers	12.16/11/25	Pistons	17/11/25	Rods	23/11/25	Connecting rods	23/11/25
Crank shaft	✓	Flywheel shaft	and	Thrust shaft	13/11/25, 25/11/25	Intermediate shafts	23/11/25	Tube shaft	✓
Screw shaft	8/10/25	Propeller	5/3/26	Stern tube	1/2/25, 9/4/26	Engine seatings	30/6/26	Engines holding down bolts	5/3/26
Completion of filling sea connections	20/4/26	Completion of pumping arrangements	27/9/26	Engines tried under working conditions	30/9/26				
Crank shaft, Material	L.M. Steel	Identification Mark	28.5.25.	Flywheel shaft, Material	✓	Identification Mark	✓		
Thrust shaft, Material	L.M. Steel	Identification Mark	23.11.25 JK	Intermediate shafts, Material	L.M. Steel	Identification Marks	See below		
Tube shaft, Material	✓	Identification Mark	✓	Screw shaft, Material	L.M. Steel	Identification Mark	8.10.25 V.B.		

Is the flash point of the oil to be used over 150° F. Yes.

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. Identification marks on shafts:—

E 1401	E 69	E 360	E 361	E 357
23.11.25 JK	23.11.25 JK	23.11.25 JK	23.11.25 JK	23.11.25 JK

LLOYDS Nº 1974 G	LLOYDS Nº 1851 G	LLOYDS Nº 2109 G
GA 26.10.25	GA 26.10.25	GA 26.10.25

LLOYDS Nº 68
2.10.25

The main and auxiliary engines of this vessel have been built under special survey and all the requirements of the Rules have been complied with. The workmanship is good and the material fulfills the requirements of the Rules. To be continued.

The machinery of this vessel is worthy in our opinion to be classed in the Register Book of this Society with the notation of +LHC 9.26.

Working pressure of the donkey boiler 80 lbs per square inch.

The amount of Entry Fee ...	£ 91:00	When applied for,
Special ...	£ 1424:15	6 Oct. 1926
Donkey Boiler Fee ...	£	When received,
Travelling Expenses (if any) £		26.10.26

Committee's Minute

Assigned

+ Rmc 9.26 CL  
Oil Engines DB 80/16

V. Nilow, G. Brander  
Engineer Surveyor to Lloyd's Register of Shipping



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Lloyd's Register Foundation



of Gothenburg

Continuation of Report No. 6572 dated 6<sup>th</sup> October 1926 on themachinery of the Single Screw Motorship "STENSBY" N<sup>o</sup> 83803 in the R. B.

The dimensions are as specified and in accordance with the Rules and approved plans.

The main engine was tested under full working power on a sixteen hours trial trip and proved to work satisfactory both ahead and astern. The auxiliary engines have also been tested under all working conditions and found in good order.

The auxiliary engines consist of one 2-cylinder & two 1-cyl. stroke cycle, single acting Diesel oil engines diam 310 mm and stroke 50 mm. The 2-cyl engine is working a dynamo of 66 K.W. and each 1-cyl engine working a dynamo of 33 K.W.

The vessel has been fitted with wireless telegraphy of the Telefunken system. A fan has been fitted for supplying air to the cylinders.

Spare gear continued.

of top end braces, 2 conn. rod bottom end bolts and nuts and 2 halves of bottom end braces, 2 main bearing bolts and nuts and 2 lower halves of main bearing braces, 1 set of coupling bolts for the crank shaft, 1 set of the intermediate shafts, 1 propeller shaft with nut, 1 set of cylinder cover studs and nuts, 1 set of all working parts for a fuel pump, 1 cam roller with pin of each, 1 set of piston rings for the compressor, 1/2 set of valves for the compressor, 1 set of rings for the engine and compressor.

for the auxiliary engines with compressors, pumps and donkey boiler.

complete sets of discharge valves which can be used as air inlet valves and 4 extra valves for same, 2 complete sets of fuel valves and 3 extra valves & 2 seats for same, 1 starting air valve complete, 2 sets of piston rings for one piston, 1 set of crosshead braces, 2 conn. rod bottom end bolts and nuts and 2 halves of bottom end braces, 4 main bearing bolts & nuts and 2 halves of main bearing braces, 1 set of all working parts for fuel pump, 1 set of springs for one engine and compressor of each, 1/2 set of valves for one compressor of each size, 1 set of piston rings for one compressor of each size, 1 HP air cooling coil of each size, 1 set of cylinder cover studs and nuts, 1/2 set of valves for the bilge & sanitary pumps, 1/2 set of valves for the donkey boiler feed pump, 1 safety valve for the donkey boiler, 1 check valve for the donkey boiler.

quantity of assorted bolts and nuts and lengths of pipes with flanges and flanges suitable for each for the fuel and air delivery for main and auxiliary engines.

G.S.



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