

REPORT ON OIL ENGINE MACHINERY.

No. 6195

1 SEP 1923

Received at London Office

Date of writing Report 17th Sept 1925 When handed in at Local Office 17th Sept 1925 Port of GOTHENBURG

No. in Survey held at GOTHENBURG Date, First Survey 5th Aug. 1924 Last Survey 16th September 1925

200-Book
SUPPLEMENT.

39007 on the Single } Screw vessel "FALSTERBO"
Twin }
Triple }

Tons { Gross 4085
Net 2353

Master Built at GOTHENBURG By whom built ERIKSBERGS M.K. AKTIEB. Yard No. 214 When built 1925

Engines made at GOTHENBURG By whom made ERIKSBERGS M.K. AKTIEB. Engine No. 241 When made 1925

Donkey Boilers made at GOTHENBURG By whom made ERIKSBERGS M.K. AKTIEB. Boiler No. 381 When made 1925

Brake Horse Power Owners ANGE. AKTIEB. FERM. Port belonging to KRISTINEHAMN.

Nom. Horse Power as per Rule 355 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

IL ENGINES, &c. Type of Engines One Diesel oil engine 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 35.0 kg/cm² No. of cylinders 6 No. of cranks 6 Diameter of cylinders 630 mm [24 3/8"]
Length of stroke 300 mm [51 3/8"] Revolutions per minute 95 Means of ignition Diesel system 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) 888 mm

Distance between centres of main bearings 1250 mm Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 404 mm
as fitted 404 mm
Diameter of crank pins 404 mm THICKNESS AROUND EYE BUSHES per Rule 173.5 mm PARALLEL as per Rule 253 mm
as fitted 175 Thickness of ditto as fitted 270 mm

Diameter of flywheel shaft as per Rule 404 mm Diameter of tunnel shaft as per Rule 277 mm Diameter of thrust shaft as per Rule 291 mm
as fitted 404 mm as fitted 280 mm as fitted 318 mm

Diameter of screw shaft as per Rule 394.5 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes
as fitted 328 mm

Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the joints burned 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

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

Type of outer gland fitted to stern tube Length of stern bush 1670 mm Diameter of propeller 4345 mm

Pitch of propeller 3050 mm No. of blades 4 state whether moveable No Total surface 5.86 square METERS

Method of reversing Reverser gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Thickness of cylinder liners 146 TOP 136 BOTTOM

Are the cylinders fitted with safety valves Yes Means of lubrication Oil pumps Are the exhaust pipes and silencers water cooled or lagged with

non-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 The

exhaust is led to the funnel No. of cooling water pumps 2 Is the sea suction provided with an efficient strainer which can be cleared

within the vessel Yes No. of bilge pumps fitted to the main engines 1 Diameter of ditto 160 mm Stroke 228 mm

Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines 1 How driven Electric

Sizes of pumps Diam=160 mm Stroke 230 mm No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room One 2 1/2 in tunnel well

and in holds, etc. Two 3 in 4 in hold, Two 3 1/2 in each of 11.2 in 3 holds No. of ballast pumps 1 How driven Electric Sizes of pumps 150 tons rotary pump

The ballast pump is also connected to the main bilge line. Is the ballast pump fitted with a direct suction from the engine room bilges Yes State size 5 1/2 in Is a separate auxiliary pump suction fitted in

Engine Room and size Yes, one 3 in Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine Room always accessible Yes

Are the sluices on Engine Room bulkheads always accessible None fitted Are all connections with the sea direct on the skin of the ship Yes

Are they valves or cocks Both Are they fired sufficiently high on the ship's side to be seen without lifting the floor plates No, by lifting of small plates

Are the discharge pipes 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times Yes Are the bilge suction pipes, cocks and valves arranged so as to prevent any

communication between the sea and the bilges Yes Is the screw shaft tunnel watertight Yes Is it fitted with a watertight door Yes

worked from upper eng. room platform 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 3 Diameters 20, 540, 600 mm Stroke 480 mm Driven by Main engine

No. of auxiliary air compressors 1 No. of stages 3 Diameters 78, 285, 318 mm Stroke 170 mm Driven by Auxil. engine

No. of small auxiliary air compressors 1 No. of stages 2 Diameters 34, 106 mm Stroke 80 mm Driven by Steam engine

No. of scavenging air pumps None Diameter Stroke Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule 162 mm Are the air compressors and their coolers made so as to be easy of access Yes

as fitted 162 mm

AIR RECEIVERS:—No. of high pressure air receivers 6 Internal diameter 450, 358, 182 mm Cubic capacity of each 400, 200, 35 litres

material L.M. Steel Seamless, lap welded or riveted longitudinal joint Lap welded & seamless Range of tensile strength 35.5 - 38.3 kg/cm²

thickness 25, 21, 12 mm working pressure by Rules 65 kg/cm² No. of starting air receivers 1 Internal diameters 1830, 1880 mm

Total cubic capacity 18,2 cubic meters Material L.M. Steel Seamless, lap welded or riveted longitudinal joint Riveted longitud. joint

Range of tensile strength 47.5 - 48.5 kg/cm² thickness 25, 25.5 mm Working pressure by rules 25 kg/cm² Is each receiver, which can be isolated,

fitted 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

inner surfaces The high pressure air receivers by means of caustic soda Is there a drain arrangement fitted at the lowest part of each receiver Yes

95

002206-002214-00475

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 receiver
COVERS	12.16.26/1/25.	1.0 Kg/cm ²	6.0 Kg/cm ²	R	Main engine working
JACKETS.....					Nº 3248
PISTON WATER PASSAGES.....	4/11/24, 5/1/25.	1.0 "	6.0 "	R	LLOYD'S TEST
MAIN COMPRESSORS—1st STAGE.....	14/12/24, 13/2/25.	65.0 "	130.0 "	R	1850 LBS
2nd	7/10/24, 19/12/24, 24/2/25	1.0 "	6.0 "	R	WP 925 LBS
3rd	16/8/24, 21/8/24, 21/10/24	5.20.0 "	10.40 "	R	Nº 319, 320, 321
AIR RECEIVERS—STARTING	18/5/25	25.0 "	39.0 "	R	LLOYD'S TEST
INJECTION	14.16/2/25	65.0 "	130.0 "	R	1850 LBS
AIR PIPES	17/2/25, 23/2/25, 22/8/25	25.65.0 "	75.130 "	R	WP 925 LBS
FUEL PIPES	* 23/2/25	65.0 "	130 "	R	Nº 318, 325
FUEL PUMPS	4/12/24	65.0 "	130 "	R	LLOYD'S TEST
SILENCER					1850 LBS
WATER JACKET	18/5/25	1.0 "	4.0 "	R	WP 925 LBS
SEPARATE FUEL TANKS	20/2/25, 9/3/25	✓	0.8 Kg/cm ²	R	Nº 318, 325

PLANS. Are approved plans forwarded herewith for shafting

2/6/24

Receivers

10/5/24, 13/6/24

Separate Tanks

Yes

SPARE GEAR

For the main engine:—

1 cylinder cover complete with all valves, valve seats & springs etc. in addition 5 sets of discharge valves. 2 extra valves for same which can be used as air inlet valves. 1 complete set of starting air valve and 2 complete sets of fuel valves. 2 extra valves. 5 seats for same. 1 cylinder liner & cooling jacket with bolts & nuts for connection to cylinder covers. 1 piston rod & rod complete with all piston rings and in addition 2 sets of piston rings for one.

The foregoing is a correct description,

Erikshagens Mek. Verkstads Aktiebolag

Lund

Manufacturer.

Dates of Survey while building
During progress of work in shops:—
1924: Aug 5, 16, 21, 23, Sept 17, 19, 29, Oct 2, 3, 7, 25, 28, 30, Nov 4, 10, 20, 24, 29, Dec 4, 5, 6, 8, 13, 16, 18, 19, 22.
1925: Jan 5, 12, 14, 16, 22, 26, 29, 31, 31, Feb 4, 13, 14, 16, 17, 23, 24, 26, 27, March 2, 6, 9, 13, April 6, May 6, 11, Aug 22, 24.
During erection on board vessel:—
1925: March 10, April 25, May 18, July 1, 17, 20, Aug 24, 26, Sept 2, 3, 4, 5, 14, 16.
Total No. of visits 68.

Dates of Examination of principal parts—Cylinders 5/8/24, 12/14/1/25 Covers 29/9/24, 12/14/1/25 Pistons 4/11/24 Rods 28/10/24 Connecting rods 5/1/25
Crank shaft Thrust shaft 29/1/25 Tunnel shafts 29/1/25, 2/9/25 Screw shaft 29/1/25 Propeller 18/5/25 Stern tube 5/5/25 Engine seatings 10/3/25
Engines holding down bolts 25/4/25 Completion of pumping arrangements 4/9/25 Engines tried under working conditions 5/9/25, 16/9/25.
Completion of fitting sea connections 2/9/25 Stern tube 18/5/25 Screw shaft and propeller 2/9/25
Material of crank shaft S.M. Steel Identification Mark on Do. CRH. 12.9.1924. Material of thrust shaft S.M. Steel Identification Mark on Do. AS. 29.1.25
Material of tunnel shafts S.M. Steel Identification Marks on Do. See below. Material of screw shafts S.M. Steel Identification Marks on Do. AS. 29.1.25

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

Is this machinery duplicate of a previous case Yes If so, state name of vessel "ERLAND", "KORSHOLM."

General Remarks (State quality of workmanship, opinions as to class, &c. Identification marks:—

R	R	LLOYD'S	R
Nº 5678	Nº 5676	Nº 5864	Nº 5677
A.S. 29.1.25	A.S. 29.1.25	GA. 2.9.25	A.S. 29.1.25

R
Nº 1474, 1475, 1504
A.S. 4.12.25.

R
Nº 5680
A.S. 29.1.25.

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 fulfils the requirements of the Rule.

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 9.25. Working pressure of Donkey boiler not to exceed 80 lbs/□.

The amount of Entry Fee ... £ 91 : 00
Special ... £ 1424 : 15
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

Committee's Minute TUES. 6 OCT 1925

Assigned

CERTIFICATE WRITTEN

+LHC 9.25 C.L.
oil engines

V. Paulow

Engineer Surveyor to Lloyd's Register of Shipping.

Adunden, Sp. Brand



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Lloyd's Register Foundation

Single Screw Motorship "FALSTERBO" No. 39007 in the Register Book.

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

The main engine were tested under full working power on a nine hours trial trip and proved to work satisfactorily both ahead & astern.

The auxiliary engines have also been tested under full working power and found in good condition.

The auxiliary machinery consists of:-

Three 2-cylinders, 4-stroke cycle single acting Diesel oil engines of cylinder diam 310^{mm} & stroke 350^{mm}, each working a dynamo of 66 Kw. 220 volts & 300 amperes which have to supply the electric current motive power to the following:-

One 15 HP shunt wound motor, working the ballast pump.

One 8 HP shunt " " " " bilge & sanitary pumps.

Two 30 HP " " motors, " " { cooling water pump & the lubricating oil pumps combined.

One 4 HP shunt " motor, " " oil pump to the daily fuel service tanks

One 35 HP " " " " " fan for the forced air supply.

One 6 HP semi " " " " main engine turning gear.

One 3 HP shunt " " " " drilling machine & turning lathe.

Two 12 HP " " " " steering engine

Two 30 HP " " " " windlass

Ten 25 HP compound " " " " winches

One 25 HP " " " " " moving winch

Also current for the lighting purpose with the voltage reduced from 220 to 110 volts after having passed the transformer.

This vessel is also fitted with wireless telegraphy of the telefunken system.

One 150 tons rotary pump for ballast & bilge purpose.

One 3x20 tons plunger pump for bilge discharging & sanitary purpose. This pump has three plungers of diam 165^{mm} & stroke 230^{mm}.

Two 80 tons centrifugal pumps for the cooling water.

Two 35 tons rotary " " " lubricating oil,

One 15 tons " " " " oil to the daily fuel tanks.

A fan has been fitted for supplying air to the cylinders.

Spare gear continued:

piston, 2 connecting rod top-end bolts & nuts & 2 halves of crosshead brasses, 2 connecting rod bottom-end bolts & nuts & 2 halves of bottom-end brasses, 2 main bearing bolts & nuts & 3 halves of main bearings, 1 set of coupling bolts for the crank shaft, 1 dial for the intermediate shaft, 1 propeller shaft with nut, 1 propeller, 1 set of all working parts for the fuel pump, 1 cam roller with pin of each size, 1 starting air slide valve complete, 1 set of piston rings for the compressor, 1/2 set of valves for the compressor, 1 set of springs for the engine and compressor, 1 valve for the fuel oil overflow valve, 1 cooling coil for the

To be continued.

Single screw Motorship "FALSTERBO" N^o 39007 in the Register Book.

compressor.

For the auxiliary machinery:-

4 complete sets of discharge valves which can be used as air suction valves and 2 extra valves for same, 2 complete sets of fuel valves and 2 extra valves for same, 1 starting air valve complete, 2 sets of piston rings for one piston, 1 set of crosshead brasses, 2 connecting rod bottom end bolts and nuts and 2 halves of bottom end brasses, 2 main bearing bolts and nuts and 2 halves of main bearing brasses, 1 set of all working parts for a fuel pump, 2 cam rollers with pins for the fuel valves, 1 set of springs for one engine & compressor, 1 set of valves for one compressor, 1 set of piston rings for one compressor, 1 air cooling coil for the compressor, 1 set of cylinder cover studs & nuts, 1 valve for the fuel pump overflow valve.

1/2 set of valves for the bilge & sanitary pumps.

2 safety valve springs for the donkey boiler.

1 check valve for the donkey boiler.

6 water glasses. " " " " "

A quantity of assorted bolts and nuts and lengths of pipes with unions and flanges for fuel and air delivery for the main & auxiliary engines.

L. Brandt