

REPORT ON OIL ENGINE MACHINERY.

No. 9337

Received at London Office

26 MAY 1933

Date of writing Report 24th May 1933 When handed in at Local Office 24th May 1933 Port of Göteborg
No. in Survey held at Göteborg Date, First Survey 17th January Last Survey 24th May 1933
Reg. Book. Number of Visits 46

on the Single Screw vessel "KAAPAREN" EX "LARVIKSFJORD." Tons Gross 3385.68
Triple
Quadruple Net 1878.80

Built at GÖTHEBURG By whom built AKT. GÖTAVERKEN Yard No. 466 When built 1930
Engines made at GÖTHEBURG By whom made AKT. GÖTAVERKEN Engine No. 902/903 When made 1930
Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
Brake Horse Power 2125 Owners Pederaktiebolaget Transatlantic Port belonging to GÖTHEBURG
Nom. Horse Power as per Rule 224 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
Trade for which vessel is intended General

L ENGINES, &c. Type of Engines Two Diesel Oil Engines 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 49 kgs/cm² Diameter of cylinders 21 5/8" [550 mm] Length of stroke 37 3/8" [950 mm] No. of cylinders 16 No. of cranks 16
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 710 mm Is there a bearing between each crank Yes
Revolutions per minute 175 Flywheel dia. None Weight ✓ Means of ignition Diesel System Kind of fuel used Diesel fuel oil

Crank Shaft, dia. of journals as per Rule 347 mm Crank pin dia. 350 mm Crank Webs Mid. length breadth 620 mm Thickness parallel to axis 197-215 mm
as fitted 350 mm Mid. length thickness 213 mm Thickness around eyehole 171 mm
Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule 242 mm Thrust Shaft, diameter at collars as per Rule 254 mm
as fitted ✓ as fitted 245 mm as fitted 300 mm
Main Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 265 mm the shaft fitted with a continuous liner as fitted 273-275 mm as fitted 300 mm

Bronze Liners, thickness in way of bushes as per Rule 15.6 mm Thickness between bushes as per rule 11.7 mm Is the after end of the liner made watertight in the
as fitted 16-17 mm as fitted 15.5 mm
propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes in one length.

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 Yes
If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube
If No If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 1350 mm

Propeller, dia. 3320 mm Pitch 2780 mm No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 244 = 8.8 sq. feet
Method of reversing Engines with compressed air as a governor or other arrangement fitted to prevent racing of the engine when dechecked Yes Means of lubrication
Forced Thickness of cylinder liners Top 38 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
Bottom 37.5 mm lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being siphoned back to the engine Yes in a funnel.

Cooling Water Pumps, No. Two - 200 tons each Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Bilge Pumps worked from the Main Engines, No. 2 Diameter 150 mm Stroke 175 mm Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line { No. and Size One rotary ballast pumps 150 tons One plunger pump 20 tons Two main engine pumps
How driven Electric electric Main engine

Ballast Pumps, No. and size One 150 tons Rotary Lubricating Oil Pumps, including Spare Pump, No. and size Two - 80 tons each
Are two 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 Machinery Spaces Three - 3 1/2"; One - 3 1/2" in tunnel with one - 3 1/2" in same tank room In Pump Room ✓
Holds, &c. Two 3 1/2" in each hold.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 3 1/2"; One 3"; One 6"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all 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 plates Yes 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 ✓

Do all pipes pass through the bunkers No coal bunkers How are they protected ✓
Do all pipes pass through the deep tanks No deep tank Have they been tested as per Rule ✓
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

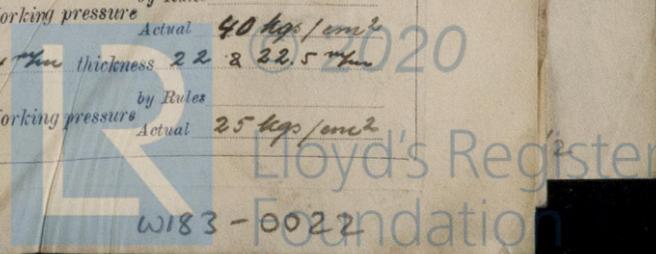
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper engine 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 ✓

Main Air Compressors, No. ✓ No. of stages 2 Diameters 2R320; HP320 Stroke 280 mm Driven by ✓
Auxiliary Air Compressors, No. 3 No. of stages 2 Diameters 2P235; HP207 Stroke 220 mm Driven by Eng. engines
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 106 2 3/4 Stroke 80 mm Driven by Oil engines

Exhausting Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
Auxiliary Engines crank shafts, diameter as per Rule 150 mm 20/9-52 for 1/4 470 3 of 180 mm No. — ✓
as fitted One of 150 mm; three of 180 mm Position 1st & 2nd on port side in the engine room.
3 cylinder 2 cylinder engine

R 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 and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. 1 Cubic capacity of each 250 litres Internal diameter 380 mm thickness 15 mm
Are all receivers, lap welded or riveted longitudinal joint Lap welded Material S. H. Steel Range of tensile strength Not available Working pressure Actual 40 kgs/cm²
by Rules Actual 22 & 22.5 mm

Low Pressure Air Receivers, No. Two Total cubic capacity 2 x 14 = 28 m³ Internal diameter 1600-1644 mm thickness 22 & 22.5 mm
Are all receivers, lap welded or riveted longitudinal joint Riveted Material S. H. Steel Range of tensile strength Not available Working pressure Actual 25 kgs/cm²
by Rules Actual 25 kgs/cm²



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting *22.11.38, 20.9.32* Receivers *22.11.32* Separate Tanks *1.3.33*
(If not, state date of approval)

Donkey Boilers General Pumping Arrangements *22.11.32* Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *For the main engines, 1 cylinder liner, 1 cooling jacket, 4 halves of crank pin and gudgeon pin brasses, 2 halves of main bearing brasses, 4 sets of piston rings for one piston, 2 telescopic pipes, 15 exhaust valves complete with 4 extra spindles & 8 extra valve seats for same, 1 suction valve complete, 8 fuel valves complete with 8 extra valves and seats and 16 atomizers for same, 1 starting air valve complete, for the fuel pumps: 1 suction valve, 8 plungers with liners, 8 slide valves with liners, 12 delivery pipes to the fuel valve, 12 delivery pipes for the thrust block & pads, 1 propeller shaft, 2 bronze propellers.*
For the auxiliary engines
Type 280/350 HKK-2 - 3 off. 1 cylinder cover, 1 piston with gudgeon pin, 4 sets of piston rings for one piston, 5 exhaust valves complete with 4 extra spindles and 6 extra seats for same, 2 halves of crank pin and 4 halves of main bearing brasses, 1 set of gudgeon pin bushes.
Type 240/360 HK3 - 1 off. 2 fuel valves complete, 2 extra atomizers & 2 extra slide valves with liners, 2 exhaust valves complete, 2 halves of crank pin, 2 of main bearing and 1 of gudgeon pin brasses.
Compressors: 1 set of valves and rings of each type & size, 1 cylinder cover for the emergency pump.
Pumps: 2 valves for the rotary ballast pump. 1/2 set of valves for suction & sanitary pumps.
A number of springs of each size for main & auxiliary engines.

The foregoing is a correct description.

AKTIEBOLAGET GÖTAVERKEN

H. G. Hammar, Manufacturer.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - - -
Total No. of visits

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
Crank shaft, Material *S. M. Steel* Identification Mark *N.V. 3.10.29 H.G.B.* Flywheel shaft, Material Identification Mark
Thrust shaft, Material *S. M. Steel* Identification Mark *N.V. 2.5.30 L.F.H.* Intermediate shafts, Material *S. M. Steel* Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material *S. M. Steel* Identification Mark
Port *N.V. 2.5.30 L.F.H. 3.4.33 H.B.*
Spare *272 N. 271 N.*

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *No*

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.) *The machinery of this vessel has been built under special survey of the Norwegian Veritas. The soundings and arrangements of the machinery has been verified as stated above. The machinery has been surveyed and repaired as per report attached. The auxiliary machinery consists of 3 - 2 cylinder single acting diesel oil engine with cyl. diam. 280 mm and stroke 450 mm & 1 - 3 cylinder do. with cylinder diam. 240 mm and stroke 360 mm each working a generator of 66 kw.*

The machinery has been tested under full working conditions and found to work satisfactorily.

The machinery of this vessel is eligible in our opinion to be classed LMC in the Register Book and to have record of LMC 5.33.

The amount of Entry Fee .. £ : : When applied for,
Special £ : : 19
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 19

V. Paulow *E. Bernelius*
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute

TUE. 30 MAY 1939

Assigned

*See other Rpt
Job 9337*



© 2020

Lloyd's Register Foundation

Rpt. 13.

RE

Date of writing

No. in Series
Reg. Book

Built at

Owners

Electric Light

Is the Vessel

System of

Pressure of

Direct or Alternating

If alternating

Has the Auto

Generators,

are they over

Where more than

series with each

Are all terminals

short circuited

Position of

is the ventilator

if situated near

are their axes

Earthing, and

their respective

Main Switch

a fuse on each

Switchboard

are they protected

woodwork or other

are they constructed

permanently with

with mica or other

and is the frame

Y

bars

Y

Main Switch

A double

equalize

Instruments

Earth Testin

fitted with

Switches, C

Joint Boxes

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