

REPORT ON OIL ENGINE MACHINERY.

No. 8030

23 AUG 1930

Received at London Office

Date of writing Report *9th Aug 1930* When handed in at Local Office *9th Aug 1930* Port of *GOTHENBURG*
No. in Survey held at *GOTHENBURG* Date, First Survey *16th Jan 1929* Last Survey *14 Aug 1930*
Reg. Book. Number of Visits *61*

87706 on the *Single* } Screw vessel *"VELMA"* Tons { Gross *9720*
Twin }
Triple }
Quadruple }

Built at *GOTHENBURG* By whom built *A.B. GÖTAVERKEN* Yard No. *432* When built *1930*
Engines made at *GOTHENBURG* By whom made *A.B. GÖTAVERKEN* Engine No. *1887* When made *1930*
Donkey Boilers made at *STOCKTON* By whom made *RILEY BROS. (BOILERMAKERS) LTD.* Boiler No. *15944* When made *1930*
Brake Horse Power *✓* Owners *SKIBS A/S NORDHEIM* Port belonging to *OSLO*
Nom. Horse Power as per Rule *724* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *YES*
Trade for which vessel is intended *GENERAL*

IL ENGINES, &c.—Type of Engines *Two Diesel Oil Engines (B. & W. type)* 2 or 4 stroke cycle *4* Single or double acting *single*
Maximum pressure in cylinders *35 kg/cm²* Diameter of cylinders *550 mm (21 5/8")* Length of stroke *1000 mm (39 3/8")* No. of cylinders *16* No. of cranks *16*
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *794 mm* Is there a bearing between each crank *yes*
Revolutions per minute *155* Flywheel dia. *None* Weight *✓* Means of ignition *Diesel system* Kind of fuel used *Diesel oil*
Crank Shaft, dia. of journals *as per Rule 347 mm* Crank pin dia. *350 mm* Crank Webs *Mid. length breadth 690 mm* Thickness parallel to axis *197-213 mm*
as fitted 350 mm *Mid. length thickness 213 mm* Thickness around eyehole *191 mm*
Flywheel Shaft, diameter *as per Rule* Intermediate Shafts, diameter *as per Rule 255 mm* Thrust Shaft, diameter at collars *as per Rule 300 mm*
as fitted *as fitted 255 mm* *as fitted 300 mm*
Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as per Rule 288 mm* Is the *tube* shaft fitted with a continuous liner *yes*
as fitted *as fitted 288 mm* *screw*

Bronze Liners, thickness in way of bushes *as per Rule 16.4 mm* Thickness between bushes *as per rule 19.3 mm* Is the after end of the liner made watertight in the
as fitted 17-19 mm *as fitted 16 mm* *✓*
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *✓*

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*
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

propeller, dia. *3638 mm* Pitch *2489 mm* No. of blades *4* Material *Bronze* whether Moveable *No* Total Developed Surface *2.465 = 9.3* sq. feet
If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *1345 mm*

Method of reversing Engines *Direct reversal by means of compound air* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication
oil system *oil*
Thickness of cylinder liners *Bottom 27.5 mm* Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material *Lagged* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *led to a funnel*
Cooling Water Pumps, No. *Centrifugal pumps* 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 *135 mm* Can one be overhauled while the other is at work *yes*
Pumps connected to the Main Bilge Line { No. and Size *Two direct driven pumps 22 tons each, plunger bilge pump 20 tons, the after bilge pump 1 bilge & ballast pump*
How driven *Main engines, Electric, Electric, Steam*

Ballast Pumps, No. and size *One 100 tons rotary in each space* Lubricating Oil Pumps, including Spare Pump, No. and size *Two, 70 tons rotary pumps*
(Charge pumps) Two 400 tons double 20" x 4" x 18" and one 3" x 10" x 1/2" in pump room amidships.
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" and two 3 1/2" (Two from effluents in way of main engine)*
In Holds, &c. *None*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One 3 1/2" to bilge pump and one 5" to 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 Spaces

and 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 *yes*

What pipes pass through the bunkers *No bunkers* How are they protected *✓*
What pipes pass through the deep tanks *Main cargo lines & heating coils* Have they been tested as per Rule *yes*

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 *to tunnel* Is it fitted with a watertight door *✓* worked from *✓*
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. *2* No. of stages *3* Diameters *120, 540 & 600 mm* Stroke *440 mm* Driven by *Main engines*
Auxiliary Air Compressors, No. *2* No. of stages *3* Diameters *68-225 mm* Stroke *890 mm* Driven by *Aut. engines* *✓*

Small Auxiliary Air Compressors, No. *1* No. of stages *2* Diameters *34-106 mm* Stroke *80 mm* Driven by *Steam engines* *✓*
Scavenging Air Pumps, No. *None* Diameter *✓* Stroke *✓* Driven by *✓*

Auxiliary Engines crank shafts, diameter *as per Rule 170 mm*
as fitted 170 mm

AIR RECEIVERS:—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 injection air recovers by means of caustic soda & steam*

Is there a drain arrangement fitted at the lowest part of each receiver *yes*
High Pressure Air Receivers, No. *8* Cubic capacity of each *30, 350 litres* Internal diameter *450 mm* thickness *25.5 mm*
34 35 *373-391 mm* *21.5 mm*

Seamless, lap welded or riveted longitudinal joint *3 seamless* Material *S.M. Steel* Range of tensile strength *28-32 tons/p.* Working pressure by Rules *71.5 kg/cm²*
Starting Air Receivers, No. *2* Total cubic capacity *2 x 15.5 = 31 cub. metres* Internal diameters *1800 & 1850 mm* thickness *25 & 25.5 mm*
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *S.M. Steel* Range of tensile strength *47.4-48.5 kg/cm²* Working pressure by Rules *27.2 kg/cm²*

