

REPORT ON OIL ENGINE MACHINERY.

No. 10355.

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Port of Copenhagen

No. in Survey held at Copenhagen & Skibtor Reg. Book.

Date, First Survey 20th August 1936 Last Survey 28th September 1937. Number of Visits 79.

on the Triple Screw vessel "ALEX VAN OPSTAL" Tons ^{Gross} 5965.14 _{Net} 3446.93

Built at Skibtor By whom built As Skibtor Skibsvarf Yard No. 80 When built 1937
Engines made at Copenhagen By whom made Martin of Skibbyggeri Engine No. 2660 When made 1937.
Donkey Boilers made at Amman By whom made Cochran & Co. Ltd. Boiler No. 13483 When made 1937.
Brake Horse Power 4600 Owners (Lloyd Royal) Soc. Anonyme Port belonging to Antwerp.
Nom. Horse Power as per Rule 1030 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes
Trade for which vessel is intended Passengers & general cargo - ocean going

OIL ENGINES, &c.—Type of Engines Vertical Diesel engines, solid injection 2 or 4 stroke cycle 2 Single or double acting double
Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 620 mm Length of stroke 1400 mm No. of cylinders 5 No. of cranks 5
Mean Indicated Pressure 6 kg/cm² Flywheel 16400 kgm² Weight Ball. 60°/3910 kgmt Means of ignition compression Kind of fuel used Crude oil
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1150 mm Is there a bearing between each crank yes
Revolutions per minute 95 Crank pin dia. 485 mm Crank Webs Mid. length breadth 1040 mm Thickness parallel to axis 250 mm
Crank Shaft, ^{Solid forged} dia. of journals as per Rule ^{Semi built} as fitted 485 mm ^{All built} cr hole 115 mm Crank pin dia. 485 mm Crank Webs Mid. length thickness 240 mm Thickness around eye hole 272.5 mm
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted 377 mm Thrust Shaft, diameter at collars as per Rule 400 mm
Tube Shaft, diameter as per Rule Screw Shaft, diameter as fitted 415 mm Is the ^{tube} _{screw} shaft fitted with a continuous liner yes
Bronze Liners, thickness in way of bushes as per Rule 21 mm Thickness between bushes as per Rule 16 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 junctions made by fusion through the whole thickness of the liner yes

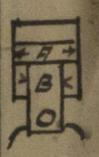
If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes
If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft yes Length of Bearing in Stern Bush next to and supporting propeller 2100 mm
Propeller, dia. 5350 mm Pitch 4750 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 9.8 m²
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication forced Thickness of cylinder liners 42 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 to funnel

Cooling Water Pumps, No. 3 off - 240 l/min 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 160 mm Stroke 240 mm Can one be overhauled while the other is at work yes
Pumps connected to the Main Bilge Line ^{No. and Size} 2 engine bilge pumps, 22 l/min each ^{How driven} by main engine 2 ballast & bilge pumps 200 l/min each electrically
Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements no

Ballast Pumps, No. and size 2 off 200 l/min each Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 off 225 l/min 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 3 off 3" Funnel 1 off 2 1/2" Copp. damper. 6 l/s 7-1 off 2" each Pump Room 2 off 3"
In Holds, &c. NI: 2 off 3" NI: II 2 off 3 1/2" from deep tanks 1 off 2 1/2" each NI: IV 2 off 3" NI 2 off 3" 2 off 3" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 off 5"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces led 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 valves
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 & below
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 none How are they protected no
What pipes pass through the deep tanks all forward bilge pipes 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 yes Is it fitted with a watertight door yes worked from the engine room

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork no
Main Air Compressors, No. 1 No. of stages 1 Diameters 190 mm Stroke 190 mm Driven by air engines
Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 280-250 mm Stroke 190 mm Driven by air engines
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 106-34 mm Stroke 80 mm Driven by steam
What provision is made for first charging the Air Receivers steam driven air compressor.
Scavenging Air Pumps, No. 2 off 230 m³/min. each Diameter 135 mm Stroke 3 Driven by main engine
Auxiliary Engines crank shafts, diameter as per Rule 150 mm Position in the engine room
Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes



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