

# REPORT ON OIL ENGINE MACHINERY

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No. in Survey held at Copenhagen Date, First Survey 24<sup>th</sup> October 1925 Last Survey 17<sup>th</sup> March 1926  
 Reg. Book. Number of Visits 40

on the Single Motor Twin Triple Screw Vessels Tons Gross Net

Built at Dunkirk By whom built Societe des Ateliers et Chantiers de France Yard No. 137 When built ✓

Engines made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggeri Engine No. 1218 When made 1925-26  
 Designated "SAGAI"

Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Brake Horse Power 1000 Owners ✓ Port belonging to ✓

Nom. Horse Power as per Rule 222 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

**OIL ENGINES, &c.**—Type of Engines Vertical Diesel Oil Engines (Cross head type) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 35 1/2 cm<sup>2</sup> No. of cylinders 6 Diameter of cylinders 500 mm = 19 1/16" No. of cranks 6 Length of stroke 250 mm = 9 7/32"

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 698 mm Is there a bearing between each crank Yes

Revolutions per minute 120 Flywheel dia. 2280 mm Weight 7200 kg Means of ignition Air Compression Kind of fuel used Crude oil, flash point above 150° F.

**Crank Shaft**, dia. of journals as per Rule 334.97 mm as fitted 336 mm Crank pin dia. 336 mm Crank Webs Mid. length breadth 190 mm Mid. length thickness 630 mm Thickness parallel to axis 210 mm Thickness around eye-hole 63 mm

**Flywheel Shafts**, diameter as per Rule 334.97 mm as fitted 336 mm **Intermediate Shafts**, diameter as per Rule ✓ as fitted ✓ **Thrust Shaft**, diameter at collars as per Rule 334.97 mm as fitted 336 mm

**Tube Shafts**, diameter as per Rule ✓ as fitted ✓ **Screw Shaft**, diameter as per Rule ✓ as fitted ✓ Is the { tube screw } shaft fitted with a continuous liner { ✓ }

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

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 ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft ✓ Length of Bearing in Stern Bush next to and supporting propeller ✓

**Propeller**, dia. ✓ Pitch ✓ No. of blades ✓ Material ✓ whether Moveable ✓ Total Developed Surface ✓ sq. feet

**Method of reversing Engines** Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication ✓ Thickness of cylinder liners 36 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 ✓

**Cooling Water Pumps**, No. One off 50 Tons Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

**Bilge Pumps** fitted to the Main Engines, No. One off Diameter of trunk 150 mm Stroke 80 mm Can one be overhauled while the other is at work ✓

**Pumps connected to the Main Bilge Line** { No. and Size ✓ How driven ✓ }

**Ballast Pumps**, No. and size One off 100 Tons **Lubricating Oil Pumps**, including Spare Pump, No. and size 2 off - 25 Tons each

Are two independent means arranged for circulating water through the Oil Cooler ✓ **Suctions**, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room ✓

**Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size ✓

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓

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

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

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

That pipes pass through the bunkers ✓ How are they protected ✓

That pipes pass through the deep tanks ✓ 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 ✓

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 ✓ Is the Shaft Tunnel watertight ✓ 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. One off No. of stages 3 Diameters 480 mm - 430 mm - 98 mm Stroke 490 mm Driven by the main engine

**Auxiliary Air Compressors**, No. 3 No. of stages 2 Diameters 225 mm - 68 mm Stroke 220 mm Driven by the auxiliary engines

**Small Auxiliary Air Compressors**, No. One off No. of stages 2 Diameters 2 1/2" - 1 5/16" Stroke 5" Driven by hand

**Scavenging Air Pumps**, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

**Auxiliary Engines** crank shafts, diameter as per Rule 161.6 mm as fitted 162 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 Starting air receiver is fitted with man hole

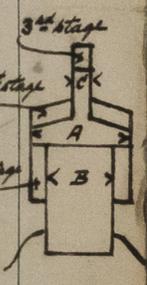
Is there a drain arrangement fitted at the lowest part of each receiver Yes

**High Pressure Air Receivers**, No. 3 Cubic capacity of each I - 250 litres II - 150 " III - 25 " Internal diameter I - 494 mm II - 312 " III - 7 1/4 " thickness I - 23 mm II - 19 mm III - 3/8 "

Seamless, lap welded or riveted longitudinal joint II - lap welded Material S.M. Steel Range of tensile strength II - 29.9 - 32.8 Working pressure by Rules 65 ATM Shell - 15 1/16 + 1/32

**Starting Air Receivers**, No. One off Total cubic capacity 10 M<sup>3</sup> = 353 cubic feet Internal diameter 6'0" thickness Ends - 1 3/16

Seamless, lap welded or riveted longitudinal joint double butt straps Material S.M. Steel Range of tensile strength Ends - 41.8 - 45.1 Working pressure by Rules 25 ATM approved



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