

## REPORT ON OIL ENGINE MACHINERY.

No. 2858.

Date of writing Report 31/12 1928 When handed in at Local Office 19 Port of Copenhagen  
No. in Survey held at Helby & Nakskov Date, First Survey 7/11 1927 Last Survey 23/12 1928  
Reg. Book. Number of Visits 15

92048 on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessel "SIR KARL KNUDSEN"  
Built at Nakskov By whom built a/s Nakskov Skibsværft. Yard No. 33 When built 1928  
Engines made at Helby By whom made a/s Helby Dieselmotor Fabrik. Engine No. 249 When made 1928  
Donkey Boilers made at { a/s { a/s By whom made { a/s { a/s Babcock & Wilcox Ltd. Boiler No. 826-7 When made { 1927-8 { 1928  
Brake Horse Power 3000 Owners A. F. Klemmensen & Co. a/s Port belonging to Oslo.  
Nom. Horse Power as per Rule 624 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes.  
Trade for which vessel is intended Ocean Steamer, carrying petroleum in bulk.

AUXILIARY OIL ENGINES, &c.—Type of Engines Vertical Diesel, trunk type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank yes.

Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2710 kg Means of ignition compression Kind of fuel used ord. Diesel oil.

Crank Shaft, dia. of journals as per Rule 161.8 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm Mid. length thickness 95 mm Thickness parallel to axis shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube { 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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material 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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. Diameter Stroke 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 Lubricating Oil Pumps, including Spare Pump, No. and size

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 Machinery Spaces

In Holds, &c.

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 Spaces

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

What pipes pass through the bunkers How are they protected

What 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 "Shift" 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. No. of stages Diameters A B C Stroke Driven by

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameter 318-285-78 Stroke 170 mm Driven by 2 auxil. engines

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

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 steam pipes fitted

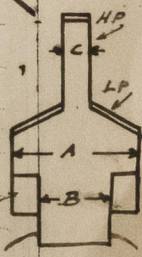
Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 2 Cubic capacity of each 25 litres Internal diameter 7 1/4" thickness 0.395"

Seamless, lap welded or riveted longitudinal joint seamless Material steel Range of tensile strength 31.1-31.7 t Working pressure by Rules 1568 lb. 110 kg/cm<sup>2</sup>

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules





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