

## REPORT ON OIL ENGINE MACHINERY.

No. 8041.

5 JUL 1929

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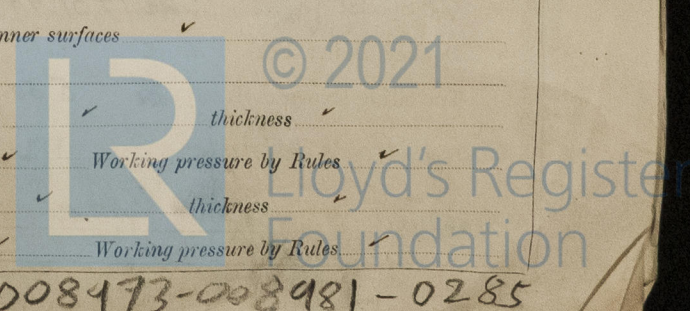
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Port of CopenhagenSurvey held at CopenhagenDate, First Survey 23<sup>rd</sup> January Last Survey 2<sup>nd</sup> July 1929Number of Visits 40on the Single Triple Quadruple Screw vessel"OSAKA I."Tons ☒ Gross ☒ Netat YokohamaBy whom built Messrs. Yokohama Dock Co. Ltd.Yard No. 173 When built ☒made at CopenhagenBy whom made Messrs. C. Burmeister & WainEngine No. 590 When made 1929Boilers made at ☒By whom made Messrs. C. Burmeister & WainBoiler No. ☒ When made ☒Horse Power 3000Owners ☒Port belonging to ☒

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes ☒Is Electric Light fitted ☒for which vessel is intended ☒ENGINES, &c.—Type of Engines Vertical Diesel Oil Engines (Crosshead type) 2 or 4 stroke cycle 4 Single or double acting SinglePressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 740 mm = 29 1/8" Length of stroke 500 mm = 19 3/4" No. of cylinders 6 No. of cranks 6Bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm Is there a bearing between each crank ☒Revolutions per minute 112 Wheel dia. 2136 mm Weight 1950 kg Means of ignition Die compression Kind of fuel used Gas oil flash point above 150°F.Shaft, dia. of journals as per Rule 470 mm Crank pin dia. 476 mm Crank Webs Mid. length breadth 770 mm shrunk Thickness parallel to axis 310 mmas fitted 476 mm as per Rule 476 mm as fitted 324 mm as per Rule 14.175"Propeller Shaft, diameter as per Rule 476 Intermediate Shafts, diameter as per Rule 324 mm Thrust Shaft, diameter at collars as per Rule 14.175"as fitted 476 as fitted 324 mm as fitted 14.175"Shaft, diameter as per Rule 476 Screw Shaft, diameter as per Rule 356 Is the tube ☒ screw ☒ shaft fitted with a continuous liner ☒as fitted 476 as fitted 375 as per Rule 13.9Liners, thickness in way of bushes as per Rule 18.5 Thickness between bushes as per Rule 13.9 Is the after end of the liner made watertight in theboss ☒ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ☒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 ☒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 so, state type ☒ Length of Bearing in Stern Bush next to and supporting propeller ☒Pitch ☒ No. of blades ☒ Material ☒ whether Moveable ☒ Total Developed Surface ☒ sq. feetof reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine ☒ Means of lubrication ☒Thickness of cylinder liners 53.5 mm Are the cylinders fitted with safety valves ☒ Are the exhaust pipes and silencers water cooled or lagged withinsulating 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 ☒Water Pumps, No. 2 off Centrifugal; 150 tons each Is the sea suction provided with an efficient strainer which can be cleared within the vessel ☒Pumps worked from the Main Engines, No. 1 off; 20 tons Diameter of pump 127 mm Stroke 288 mm Can one be overhauled while the other is at work ☒Connected to the Main Bilge Line ☒ No. and Size ☒ How driven ☒Pumps, No. and size ☒ Lubricating Oil Pumps, including Spare Pump, No. and size 2 off, log wheel pumps; 60 tons eachIndependent means arranged for circulating water through the Oil Cooler ☒ Suctions, connected to both Main Bilge Pumps and Auxiliary BilgeNo. and size:—In Machinery Spaces ☒RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule ☒Internal surfaces of the receivers be examined ☒ What means are provided for cleaning their inner surfaces ☒Drain arrangement fitted at the lowest part of each receiver ☒Pressure Air Receivers, No. ☒ Cubic capacity of each ☒ Internal diameter ☒ thickness ☒Welded or riveted longitudinal joint ☒ Material ☒ Range of tensile strength ☒ Working pressure by Rules ☒Air Receivers, No. Not yet finished Total cubic capacity ☒ Internal diameter ☒ thickness ☒Welded or riveted longitudinal joint ☒ Material ☒ Range of tensile strength ☒ Working pressure by Rules ☒

008473-008981-0285





IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting 17<sup>th</sup> September 28. Receivers ✓  
(If not, state date of approval)

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR As per accompanying list.

The foregoing is a correct description,

AKTIESELSKABET  
BURMEISTER & WAINSKIN- OG SKIBSBYGGERI

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 20, 30 Jan - 8, 15, 19, 26 Feb - 1, 16, 21, 25, 26 March 17, 19, 20, 23, 29 April - 2, 3, 4, 8, 11, 14, 17, 21, 22, 23, 24, 27, 31 May - 7, 8, 10, 12  
During erection on board vessel - - 14, 15, 17, 20, 24, 29 June - 2 July 1929.  
Total No. of visits 40.

Dates of Examination of principal parts—Cylinders and Covers 15/3, 17/4, 14/5, 22/5, 27/5 29. Pistons 25/3, 19/4, 16/5 29. Rods 25/2, 26/2, 23/3, 19/4 29. Connecting rods 23/1, 19/2, 25/3, 17/4, 29/4 29.  
Crank shaft 19/4, 14/5, 29. Flywheel shaft ✓ Thrust shaft 16/3, 23/4, 14/5, 22/5 29. 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.I. Steel Identification Mark 14.5.29 Flywheel shaft, Material ✓ Identification Mark ✓

Thrust shaft, Material S.M.I. Steel Identification Mark 22.5.29 Intermediate shafts, Material ✓ Identification Marks ✓

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material ✓ Identification Mark ✓

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 ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓ If so, have the requirements of the Rules been complied with ✓

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.

In accordance with the Society's Rules for Special Survey we have examined the material and workmanship from the commencement construction of the main and auxiliary engines with their accessories until the final test under full power working condition on the test bench in the shop and found all good and efficient.

The material used in the construction of the engines has been tested as required by the Rules, either by us or as per test certificates produced issued by Surveyors to this Society.

The dimensions are as specified and in accordance with the Rules, the approved plans and the requirements contained in the Secretary's letter dated the 17<sup>th</sup> September 1928.

The emergency starting air receiver for the engines which also shall be supplied by Messrs Burmeister & Wain, has not yet been received from the makers. — The receiver will be examined and tested by hydraulic pressure when the valve chests have been fitted, — before being despatched to Japan.

Recommend the vessel to have notation in the Register Book of **LMC** with date, and OIL ENGINE, when the machinery has been fitted on board under supervision and tested to the satisfaction of the local Surveyors to this Society.

The amount of Entry Fee ... 72,80

4/5 Special ... 1431,98

Donkey Boiler Fee ... £

Travelling Expenses (if any) ... 5,50

When applied for,

3.7.19

When received,

8.8.29

Committee's Minute

FRI, 17 JAN 1930

Assigned

See Yka Rpt. 4445

A. O. Jensen. M. Clausen  
Engineer Surveyors to Lloyd's Register of Shipping.



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Foundation