

# REPORT ON OIL ENGINE MACHINERY.

No. 1243.

Received at London Office

28 MAR 1930

When handed in at Local Office 21<sup>st</sup> March 1930 Port of Bremen

Survey held at Augsburg

Date, First Survey 1<sup>st</sup> June 1929 Last Survey 20<sup>th</sup> March 1930

Number of Visits 68

Single }  
Twin } Screw vessel  
Triple }  
Quadruple }

Tons }  
Gross }  
Net }

By whom built *Jokohama Dock Yard* Yard No. *179* When built *1929/30*  
By whom made *Masch'fabrik Augsburg-Nürnberg* Engine No. *330340* When made *1929/30*  
By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
Owners *Kishimoto Kisen Kaisha* Port belonging to *Cruka*  
Power *2 x 3750* Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_  
Power as per Rule *2350*  
Each vessel is intended \_\_\_\_\_

VES, &c.—Type of Engines *2 x 56 2 1/2 60/90* 2 or 4 stroke cycle *2* Single or double acting *double*  
No. of cylinders *45 atm* Diameter of cylinders *600 mm* Length of stroke *900 mm* No. of cylinders *2 x 6* No. of cranks *2 x 6*  
Distance between adjacent to the Crank, measured from inner edge to inner edge *855 mm* Is there a bearing between each crank *yes*  
Flywheel dia. *2100 mm* Weight *3400 kg* Means of ignition *solid injection* Kind of fuel used *Minioil*  
Diameter of journals as per Rule \_\_\_\_\_ as fitted *420 mm* Crank pin dia. *420 mm* Crank Webs Mid. length breadth *560 mm* Thickness parallel to axis \_\_\_\_\_  
M. d. length thickness *235 mm* Thickness around eyehole \_\_\_\_\_  
Intermediate Shafts, diameter as per Rule *320* Thrust Shaft, diameter at collars as per Rule \_\_\_\_\_  
Screw Shaft, diameter as per Rule \_\_\_\_\_ as fitted *362* Is the { tube } shaft fitted with a continuous liner { \_\_\_\_\_  
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 \_\_\_\_\_  
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner \_\_\_\_\_

Do 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 so, state type \_\_\_\_\_ Is an approved Oil Gland or other appliance fitted at the after end of the tube \_\_\_\_\_  
Length of Bearing in Stern Bush next to and supporting propeller \_\_\_\_\_

Pitch \_\_\_\_\_ No. of blades \_\_\_\_\_ Material \_\_\_\_\_ whether Moveable \_\_\_\_\_ Total Developed Surface \_\_\_\_\_ sq. feet  
Propelling Engines *directly, Comp. air* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *governor* Means of lubrication \_\_\_\_\_  
Thickness of cylinder liners *40 mm* Are the cylinders fitted with safety valves *yes, 2* Are the exhaust pipes and silencers water cooled or lagged with \_\_\_\_\_  
Material *water cooled* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine \_\_\_\_\_

Pumps, No. *2 x 2* Is the sea suction provided with an efficient strainer which can be cleared within the vessel \_\_\_\_\_  
Worked from the Main Engines, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
to the Main Bilge Line { No. and Size \_\_\_\_\_  
How driven \_\_\_\_\_

No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size *2 x 74 m<sup>3</sup>/h, 50 inch height*  
Means arranged for circulating water through the Oil Cooler *yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge \_\_\_\_\_  
Size:—In Machinery Spaces \_\_\_\_\_

Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_  
Suction pipes in Holds and Tunnel Well fitted with strum-boxes \_\_\_\_\_ Are the Bilge Suctions in the Machinery Spaces \_\_\_\_\_  
Accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges \_\_\_\_\_  
Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks \_\_\_\_\_  
Suctions 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 \_\_\_\_\_  
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 \_\_\_\_\_  
through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
through the deep tanks \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_

Accessories, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_  
Means 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 \_\_\_\_\_  
to another \_\_\_\_\_ Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_  
What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork \_\_\_\_\_

Compressors, No. \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_  
Air Compressors, No. *2* No. of stages *3* Diameters *360/305/105 mm* Stroke *250 mm* Driven by *electric motor*  
Air Compressors, No. *1* No. of stages *2* Diameters *100/35* Stroke *100* Driven by *Diesel engine*  
Air Pumps, No. *3 turbo Horners* Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_  
Engines crank shafts, diameter as per Rule \_\_\_\_\_ as fitted *170 mm*

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*  
Internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *bottom openings*  
Main arrangement fitted at the lowest part of each receiver *yes*

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 \_\_\_\_\_  
Receivers, No. *4 for aux. engines* Total cubic capacity *400 lbs* Internal diameter *405 mm* thickness *17.5 mm*  
Welded or riveted longitudinal joint *seamless* Material *S. M. Steel* Range of tensile strength *44-50 kg/mm<sup>2</sup>* Working pressure by Rules \_\_\_\_\_

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *yes*  
(If not, state date of approval)

Receivers *yes*

Separate Tanks

Donkey Boilers \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_

Oil Fuel Burning Arrangements \_\_\_\_\_

SPARE GEAR *In accordance with the Society's Rules and Regulations*

The foregoing is a correct description.

**Maschinenfabrik Augsburg-Nürnberg A.G.**

*M. Schramm* Manufacturer.

Dates of Survey while building  
 During progress of work in shops - June 1, 3, 4, 10, 11, 20, 25, 27, July 27, August 2, 5, Sept. 2, 3, 4, Oct. 7, 14, 19, 23, 31, Nov. 5, 6, 13, 25, 26, 30, Dec. 2, 3, 4, 5, 7, 12, 18, 24, 30, 31, January 30, 2, 3, 4, 8, 9, 10, 11, 13, 20, 21, 23, 24, 31, Feb. 1, 10, 14, 15, 17, 18, 21, 22, 25, March 4, 5, 6, 15, 16, 17, 18, 19, 20  
 During erection on board vessel -  
 Total No. of visits

Dates of Examination of principal parts - Cylinders *Dec 23, 24* Covers *Dec. 12, 23, 24, 30* Pistons *Nov. 26* Rods *23, 12, 29* Connecting rods *24, 12, 29*  
 Crank shafts *30, 12, 29* Flywheel shafts *and* Thrust shafts *25, 10, 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. Steel* Identification Mark *LLOYD'S 3624/22, V.S. 27, 9, 29* Flywheel shaft, Material *Stuhtblokes* Identification Mark *LLOYD'S P.K. 917, 25*  
 Thrust shafts Material *S. M. Steel* Identification Mark *LLOYD'S 13908/09 K.H. 18, 10, 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. *These Diesel engines and their accessories have been constructed under Special Survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the constructions are good and the workmanship is satisfactory. The engines have been tested under full working conditions during several hours on the makers test bed with satisfactory result and were found to be in safe working conditions. In my opinion the vessel for which these engines are intended will be eligible for the notation \* LMC (with date) when the engines and their accessories have been satisfactorily fitted on board. Max. pressure in the cylinders not to exceed 45 atm. For identification the cylinder jackets have been stamped*

*LLOYD'S TEST 6 atm No 703 V.S. 23.12.29.*

*2 crankshafts for Diesel engines driving auxiliary machinery are tested by the Team Lloyd (Please see London Letter E 10<sup>th</sup> July 1929).*

The amount of Entry Fee *4/5* £ 4 : 16 : 0  
 Special *4/5* ... £ 127 : 0 : 0  
 Donkey Boiler Fee ... £ : : :  
 Travelling Expenses (if any) £ 4 : 0 : 0  
 When applied for, *25.8.1930*  
 When received, *10/5/30*

*K. J. ...*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned *See F. E. Rpt.*  
 FPI 31 OCT 1930



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.