

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 8786

Received at London Office

5 NOV 1934

Date of writing Report 10-10-1934. When handed in at Local Office 19 Port of **KOBE.**

No. in Survey held at **Kobe** Date, First Survey 26-10-33. Last Survey 12-9-1934. Reg. Book. Number of Visits 11.

on the **Single** **M/V "KIYOSUMI MARU"** Tons { Gross 6992. Net 3829. **Screw vessel**

Built at **KOBE** By whom built **Kawasaki Dockyard Co. Ltd** Yard No. **583** When built **1934.**

Owners **KOKUSAI KISEN KABUSHIKI KAISHA.** Port belonging to **TOKIO.**

Oil Engines made at **Kobe** By whom made **Kobe Works, M.B.J.K.** Contract No. **471** When made **1933.**

Generators made at **Nagasaki** By whom made **Nag. Works, M. B. Denki K.** Contract No. When made **1934.**

No. of Sets **One** Engine Brake Horse Power **50** Nom. Horse Power as per Rule Total Capacity of Generators **30** Kilowatts.

**OIL ENGINES, &c.** Type of Engines **M.R.W.3. Vertical trunk piston, 2 or 4 stroke cycle 4 Single or double acting Single**

Maximum pressure in cylinders **55 Kg/cm<sup>2</sup>** Diameter of cylinders **150 mm** Length of stroke **230 mm** No. of cylinders **3** No. of cranks **3**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **175 mm** Is there a bearing between each crank **Yes**

Revolutions per minute **700** Flywheel dia. **840 mm** Weight **494 Kg.** Means of ignition **Comp.** Kind of fuel used **Heavy diesel oil.**

Crank Shaft, dia. of journals **92 mm** Crank pin dia. **92 mm** Crank Webs Mid. length breadth **136 mm** Thickness parallel to axis **shrunk**

Flywheel Shaft, diameter **92 mm** Intermediate Shafts, diameter **as fitted** Thickness of cylinder liners **14 mm**

Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication **forced feed**

Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **Exhaust pipe water cooled. Silencer asbestos lagged.**

Cooling Water Pumps, No. **One (independent)** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **YES.**

Lubricating Oil Pumps, No. and size **One - Geared pump.**

Air Compressors, No. **One** No. of stages **2** Diameters **HP 48 mm LP 140 mm** Stroke **135 mm** Driven by **Aux. engine**

Scavenging Air Pumps, No. Diameter Stroke Driven by

**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 **Hand hole**

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

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

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

Starting Air Receivers, No. **Two** Total cubic capacity **One - 120 litre One - 35 litre** Internal diameter **15 inches 190 mm** thickness **7/16" 7.5 mm**

Seamless, lap welded or riveted longitudinal joint **Seamless** Material **Steel Steel** Range of tensile strength **28-35 tons** Working pressure by Rules **30 kg/cm<sup>2</sup>**

**ELECTRIC GENERATORS:** Type **30 KW. Multipole. COMPOUND WOUND.**

Pressure of supply **225** volts. Load **133** Amperes. Direct or Alternating Current **D.C.**

If alternating current system, state frequency of periods per second

Has the **Automatic Governor** been tested and found efficient when the whole load is suddenly thrown on or off **YES**

Generators, do they comply with the requirements regarding rating **YES** are they compound wound **yes**

are they over compounded 5 per cent. **YES**, if not compound wound state distance between each generator.

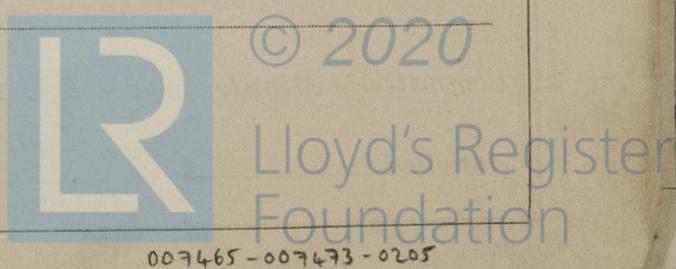
is an adjustable regulating resistance fitted in series with each shunt field **YES.** Are all terminals accessible, clearly marked, and furnished with sockets **YES**

are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule **YES**

PLANS. Are approved plans forwarded herewith for Shafting **11-11-33.** Receivers **24-10-33.** Separate Tanks **✓**

SPARE GEAR **Emergency**

The foregoing is a correct description.  
**KOBE WORKS, MITSUBISHI KAISEN KAISHA**  
*A. Nakagawa* Manufacturer.  
**Superintendent Engineer.**



Dates of Survey while building: During progress of work in shops - 1933- Oct-26, Nov-4, 28, 30, Dec-7, 1934-Jan-15, Feb. 2, 17.  
 During erection on board vessel - - - JULY 17. AUG 15. SEPT 12  
 Total No. of visits 11.

Dates of Examination of principal parts—Cylinders 27-12-33 Covers 20-12-33 Pistons 25-6-34 Piston rods ✓  
 Connecting rods 26-10, 4-30-11-33, 2-2-34, 25-6-34 Crank and Flywheel shaft 28-11-33, 7-12-33, 15-1-34, 17-2-34, 25-6-34 Intermediate shaft ✓  
 Crank and Flywheel shaft, Material Steel Identification Mark R. no. 3726, KK 17-2-34 Intermediate shafts, Material ✓ Identification Marks

Is this machinery duplicate of a previous case Yes If so, state name of vessel Waga Dockyard 386.

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 The machinery herein described has been constructed under Special Survey in accordance with the Rules and approved plans. The materials and workmanship are good. The machinery has been tried on the test bed under full load, overload and governor tests when connected to its generator and all found satisfactory and eligible in my opinion for classification. The machinery has been shipped to Kawasaki Dockyard where it is intended to install them on board ship no. 583.

Stamped as follows:-  
 Mach no. 471.  
 LLOYDS  
 NO. 70  
 KK 25-6-34.

This emergency generator was afterwards efficiently installed in the vessel, and tried under full working conditions with satisfactory results.

*K. Kishigami*  
 Surveyor to Lloyd's Register of Shipping.

*A. E. Munn*

The amount of Fee ... .. £	:	:	When applied for,
			19.....
Travelling Expenses (if any) £	:	:	When received,
			19.....

Committee's Minute FRI. 9 NOV 1934  
 Assigned See other Kob. 3.6. 8786



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