

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8065.

Received at London Office

Date of writing Report 15-2-32 19 When handed in at Local Office 16-2-32 19 Port of Kobe and Nagasaki  
 No. in Survey held at Kobe and Nagasaki Date, First Survey 7-7-32 (Kobe) Last Survey (Nag.) 17-3-1933  
 Reg. Book. Number of Visits 108-34  
 108-34  
 108-34

on the Single  
Twin  
Triple  
Quadruple  
Screw vessel *Mitsui Ship "KOSEI MARU" (Single Sc)* Tons { Gross 6665.81  
Net 4765.62  
 Built at *Nagasaki* By whom built *Mitsubishi Zosen Kaisha Ltd* Yard No. 522 When built 1933-3  
 Owners *Aurami Shoji Kaisha* Port belonging to *Kobe*  
 Oil Engines made at *Kobe* By whom made *Mitsubishi Zosen Kaisha Ltd* Contract No. 263 264 When made 1932  
 Generators made at *Nagasaki* By whom made *do do* Contract No. 265 When made "  
 No. of Sets 3 Engine Brake Horse Power 140 Nom. Horse Power as per Rule Total Capacity of Generators 90 Kilowatts.

OIL ENGINES, &c.—Type of Engines *Mitsubishi Vickers* 2 or 4 stroke cycle 4 Single or double acting *Single*  
 Maximum pressure in cylinders 47 Kg/cm<sup>2</sup> Diameter of cylinders 250 mm Length of stroke 380 mm No. of cylinders 3 No. of cranks 3  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 294 mm Is there a bearing between each crank *yes*  
 Revolutions per minute 400 Flywheel dia. 1400 mm Weight 2155 Kg Means of ignition *Impulse* Kind of fuel used *Diesel Oil*  
 Crank Shaft, dia. of journals as per Rule 138 mm as fitted 155 mm Crank pin dia. 155 mm Mid. length breadth 226 mm Thickness parallel to axis shrunk  
 Flywheel Shaft, diameter as per Rule 155 mm as fitted Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 24 mm  
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *forced* *Lagged Silencers*  
 Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *Water cooled (Bachmann type)*  
 Cooling Water Pumps, No. *One* Cy. dia. 100 mm Stroke 38 mm *connected to main eng.*  
 Lubricating Oil Pumps, No. and size *One* Cy. dia. 60 mm Stroke 38 mm  
 Air Compressors, No. *Two sets* No. of stages 3 Diameters 70 x 270 x 310 mm Stroke 180 mm Driven by *auxiliary engines*  
 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 *manhole*  
 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. *One* Total cubic capacity 267 litres Internal diameter 21" thickness 5/8"  
 Seamless, lap welded or riveted longitudinal joint *D. Riveted* Material *Steel* Range of tensile strength 28-32 Working pressure by Rules 646 lbs.

ELECTRIC GENERATORS:—Type *Multiple*  
 Pressure of supply 225 volts. Load 400 Amperes. Direct or Alternating Current *Direct*  
 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 *yes* Are the lubricating arrangements of the generators as per Rule *yes*

PLANS. Are approved plans forwarded herewith for Shafting 28-7-32 Receivers 19-8-32 Separate Tanks  
 (If not, state date of approval)

SPARE GEAR in accordance with Rules see separate list

The foregoing is a correct description,

*Tokujo Mase*

Manufacturer.



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Lloyd's Register  
Foundation

008691-008691-0023



Dates of Survey while building { During progress of work in shops - - 1932 July 7.15.26.28.30. Aug. 1.5.11.17.20.22. Sept. 1.3.5.13.15.17.19.22.27. Oct. 1.3.12.13.14.22.26.28. Nov. 14.16.19.28.  
 During erection on board vessel - - - Dec. 9.13  
 Total No. of visits 42

Dates of Examination of principal parts—Cylinders 28-9-32, 3-10-32 Covers 19-9-32, 3-10-32 Pistons 17-9-32-22-10-32 Piston rods

Connecting rods 30-7-32, 20-8-32 Crank and Flywheel shaft 3-8-32, 1-10-32 Intermediate shaft

Crank and Flywheel shaft, Material Steel Identification Mark <sup>LLOYD'S</sup> N°3299 A-B Identification Marks Intermediate shafts, Material Identification Marks

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.)

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 dynamometer and afterburner when connected to their respective generators; parallel running tests were also carried out and all found satisfactory and eligible for classification.

The machines have been shipped to Nagasaki where it is intended to install them on board Ship N°522

Stamped as follows:-

ENG. N°263	ENG. N°264	ENG. N°265
LLOYD'S	LLOYD'S	LLOYD'S
N°3351	N°3352	N°3353
13-12-32	13-12-32	13-12-32
A.O.M.	A.O.M.	A.O.M.

This machinery has been satisfactorily fitted on board + tried under full load working conditions, and all found satisfactory.

1m, 7.26 - Transfer.  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 600 :  
 And ... 40 :  
 Travelling Expenses (if any) £ 60 :

When applied for, 19...  
 When received, 19...  
 pd March 2nd 1933

*A. J. Morrison* *A. Buchanan*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned