

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 6046 A.

Received at London Office

JUL -9 1937

Date of writing Report 19 When handed in at Local Office 19 Port of

No. in Survey held at Kobe Date, First Survey Last Survey 19
Reg. Book. Number of Visits

Single on the Twin Triple Screw vessel *Moto vessel "KOTOKU MARU"* Tons { Gross 6901 Net 5860
Quadruple

Built at *Nagasaki* By whom built *Mitsubishi Jukogyo K.K.* Yard No. *671* When built *1937*

Owners *Niomi Shoji K.K.* Port belonging to *Osaka*

Oil Engines made at *Kobe* By whom made *Mitsubishi Jukogyo K.K. Kobe* Contract No. *744, 745, 746* When made *1937*

Generators made at By whom made Contract No. When made

No. of Sets *3* Engine Brake Horse Power *140* Each Nom. Horse Power as per Rule *27* Each Total Capacity of Generators *270* Kilowatts.

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

Maximum pressure in cylinders *47 kg/cm²* 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 *290 mm.* Is there a bearing between each crank *Yes*

Revolutions per minute *360* Flywheel dia. *1,400 mm.* Weight *2155 kg.* Means of ignition *Compression* Kind of fuel used *Heavy oil*

Crank Shaft, dia. of journals *as per Rule 138 mm.* Crank pin dia. *155 mm.* Crank Webs *Mid. length breadth 226 mm. Thickness parallel to axis*
as fitted 155 mm. *Mid. length thickness 83 mm. Thickness around eye hole*

Flywheel Shaft, diameter *as per Rule 138 mm.* Intermediate Shafts, diameter *as per Rule* Thickness of cylinder liners *24 mm.*
as fitted 155 mm. *as fitted*

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

Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *Water cooled & lagged*

Cooling Water Pumps, No. *one* Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size *one, single acting 60 mm x 38 mm driven by engine*

Air Compressors, No. *2* No. of stages *3* Diameters *70, 319/270, 319/70 mm.* Stroke *180 mm.* Driven by *driven air compressor* *2 of these 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

Can the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *Man 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. *one* Total cubic capacity *267 litres* Internal diameter *21"* thickness *0.625"*

Seamless, lap welded or riveted longitudinal joint *D.R.D.B.* Material *Steel* Range of tensile strength *28-35 tons/inch²* Working pressure by Rules *45 kg/cm²*

ELECTRIC GENERATORS:—Type

Pressure of supply volts. Load Amperes. Direct or Alternating Current

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

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

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

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

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

PLANS. Are approved plans forwarded herewith for Shafting *7/7/36* Receivers *7/7/36* Separate Tanks

SPARE GEAR

The foregoing is a correct description,
KOBÉ WORKS, MITSUBISHI JUKOGYO KAWASAKI

M. Seki Manufacturer.

Superintendent Engineer



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010369-010377-0274

Dates of Survey while building {

 During progress of work in shops - - 1936 Sep. 12, 16, 17, 25, 29, Oct. 3, 7, 20, 26, Nov. 14, 17, 18, 19, 25, 26, 28, Dec. 3, 4, 10, 12, 17, 18, 22, 23, 26, 27, 1937 Jan. 8, 12, 13, 14, 19, 20, 25, 26, 28, Feb. 2, 3, 4, 10, 12,

 During erection on board vessel - - -

 Total No. of visits

Dates of Examination of principal parts—Cylinders 14/11/36, 17/11/36, 18/12/36 Covers 22/12/36, 26/12/36, 19/1/37 Pistons 14/11/36, 18/11/36, 18/12/36 Piston rods ✓

 Connecting rods 1/12/36 Crank and Flywheel shaft 1-12-36 Intermediate shaft ✓

Crank and Flywheel shafts, Material Forged mild steel Identification Mark F.I.R. LLOYD'S No. 5692

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines have been constructed under special survey in accordance with the Rules and approved plans.

 The materials and workmanship are good.

 Stamped as follows:-

M.N. 744	M.N. 745	M.N. 746
LLOYD'S No. 123	LLOYD'S No. 124	LLOYD'S No. 125
2-2-37 R	2-2-37 R	2-2-37 R

1 in. 9.28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 600 : When applied for, 19...

 Travelling Expenses (if any) £ 30 : When received, June 20, 1937.

J. Hamada
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 16 JUL 1937

 Assigned

