

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 9745

Received at London Office

30 OCT 1936

Date of writing Report 12-9-1936 When handed in at Local Office 17-9-1936 Port of KOBE
 No. in Survey held at TAMA Date, First Survey 28-9-35 Last Survey 31-8-1936
 Reg. Book. Number of Visits 20

Single
 on the ~~Turn~~
~~Triple~~
~~Quadruple~~

Screw ~~cessa~~ MOTORSHIP "TOKYO MARU"

Tons { Gross 6486.01
 Net 3863.68

Built at TAMA By whom built MITSUI BUSSAN KAISHA Yard No. 217 When built 1936.

Owners SETTSU SHOSEN K. K. Port belonging to OSAKA

Oil Engines made at TAMA By whom made MITSUI BUSSAN KAISHA Contract No. 112-3-4 When made 1936

Generators made at TOKIO By whom made SHIBAURA ENGINEERING WORKS Contract No. 354334-78 When made 1936

No. of Sets 3 Engine Brake Horse Power 360^{EACH} Nom. Horse Power as per Rule 90 Total Capacity of Generators 720 Kilowatts.

OIL ENGINES, &c.—Type of Engines BURMEISTER & WAIN 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 364 mm Is there a bearing between each crank YES

Revolutions per minute 450 Flywheel dia. 1250 mm Weight 1050 Kg Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

Crank Shaft, dia. of journals as per Rule 169 mm as fitted 180 mm Crank pin dia. 180 mm Crank Webs Mid. length breadth 230 mm Mid. length thickness 97.5 mm Thickness parallel to axis Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 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 LUBRICATION

Are the cylinders fitted with safety valves YES Are the exhaust pipes ~~water cooled~~ water cooled ~~lagged with non-conducting material~~ YES

Cooling Water Pumps, No. 1 DEPENDENT Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

Lubricating Oil Pumps, No. and size 1 GEAR PUMP TYPE COUPLED DIRECT EACH ENGINE CAPACITY 6.5 M³ PER HOUR

Air Compressors, No. 1 No. of stages 1 Diameters 1 Stroke 1 Driven by 1

Scavenging Air Pumps, No. 1 Diameter 1 Stroke 1 Driven by 1

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 BY AIR HOSE

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

High Pressure Air Receivers, No. 1 Cubic capacity of each 1 Internal diameter 1 thickness 1

Seamless, lap welded or riveted longitudinal joint 1 Material 1 Range of tensile strength 1 Working pressure by Rules 1

Starting Air Receivers, No. 1 Total cubic capacity 500 LITERS Internal diameter 550 mm thickness TOP 16 mm BOTT. 21 mm SHELL 12 mm

Seamless, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 26-30 T/D Working pressure by Rules 30.4 kg/cm²

ELECTRIC GENERATORS:—Type DIRECT CURRENT COMPOUND.

Pressure of supply 225 volts Load 1067 Amperes Direct or Alternating Current DIRECT.

If alternating current system, state frequency of periods per second 1

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 1

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 10-10-35 Receivers 28-6-35 Separate Tanks 29-1-36
 (If not, state date of approval)

SPARE GEAR IN ACCORDANCE WITH OR IN EXCESS OF THE RULE REQUIREMENTS AND THE

FOLLOWING IMPORTANT ADDITIONAL ITEMS:—

TWO CYLINDER LINERS WITH PACKING RINGS.

TWO CYLINDER COVERS WITH STUDS.

ONE CONNECTING ROD COMPLETE.

TWO PISTONS COMPLETE WITH RINGS AND GUDGEON PIN.

ONE SET OF GEAR WHEEL FOR DRIVING CAM SHAFT.

TWO SETS OF GOVERNOR SPRINGS.

The foregoing is a correct description.

PER PRO MITSUI BUSSAN KAISHA, LTD.

Saito
 SUB-MANAGER SHIPBUILDING DEPT.

Manufacturer.



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008146-008137-0158

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - - -
Total No. of visits

1935 SEP. 28. OCT. 25.
1936 JAN. 14 MAR. 31. APR. 22. MAY 2. 7. 24. 26 JUNE 10. 16. 17. 18. 27. 30.
1936 JUN. 30. AUG. 20. 22. 24. 31.
20.

Dates of Examination of principal parts—Cylinders 7-5-36 + 16-6-36 Covers 7-5-35 + 16-6-36 Pistons 10+16-6-36 Piston rods ✓

Connecting rods 14-1-36 Crank and Flywheel shaft 26-5-36 Intermediate shaft ✓

Crank and Flywheel shafts, Material STEEL Identification Mark Nos. 966, 976 + 977.

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case YES If so, state name of vessel M.S. "OTOWASAN MARU" (TAMA S. NO. 211) & M.S. "CANBERRA MARU" (TAMA S. NO. 216)

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

Each engine was constructed under Special Survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

On completion, the engines and generators were efficiently installed in the vessel and tried under full working condition with satisfactory results.

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

Committee's Minute

Assigned

TUE 3 NOV 1936

See Kob. J.E. 9745

e. Macpherson, & M. Kamakura.
Surveyor to Lloyd's Register of Shipping.



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