

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8857.

Date of writing Report

19

When handed in at Local Office

19

Port of

Received at London Office

21 JAN 1935

No. in Survey held at
Reg. Book.

KOBE.

Date, First Survey 14-2-34. Last Survey 11-12-1934.

Number of Visits 37.

Single
on the ~~Top~~
Triple
Quadruple

Screw vessel

MOTOR VESSEL "KYOKUTO MARU."

Tons { Gross 10052.
Net 5821.

Built at KOBE

By whom built KAWASAKI DOCKYARD CO. Yard No. 584 When built 1934.

Owners IINO SHOJI KABUSHIKI KAISHA

Port belonging to NAKAMAIZURU.

Oil Engines made at KOBE

By whom made KAWASAKI DOCKYARD CO. Contract No. 210
211 When made 1934

Generators made at KOBE

By whom made KAWASAKI DOCKYARD CO. Contract No. 13153
13154 13155 When made 1934

No. of Sets 3 Engine Brake Horse Power 440. Nom. Horse Power as per Rule 86. Total Capacity of Generators 885 Kilowatts.

OIL ENGINES, &c.—Type of Engines M.A.N. 2 or 4 stroke cycle 4 Single or double acting SINGLE.

Maximum pressure in cylinders 49 kg/cm². Diameter of cylinders 285 mm. Length of stroke 420 mm. No. of cylinders 7. No. of cranks 7.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 328 mm. Is there a bearing between each crank YES.

Revolutions per minute 375. Flywheel dia. 1700 mm. Weight 1770 kg. Means of ignition COMPRESSION. Kind of fuel used HEAVY OIL.

Crank Shaft, dia. of journals as per Rule 169.3 mm. as fitted 170 mm. Crank pin dia. 170 mm. Crank Webs Mid. length breadth 280 mm. Thickness parallel to axis 2. Mid. length thickness 90 mm. shrunk Thickness around eyehole 4.

Flywheel Shaft, diameter as per Rule 2. as fitted 2. Intermediate Shafts, diameter as per Rule 2. as fitted 2. Thickness of cylinder liners 17.5 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when decoupled 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 YES.

Cooling Water Pumps, No. 2. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES.

Lubricating Oil Pumps, No. and size 1 SET GEAR PUMP TYPE COUPLED DIRECT EACH ENGINE. CAPACITY 6 M³/HR.

Air Compressors, No. 2. No. of stages 3. Diameters 350, 295, 160 mm. Stroke 240 mm. Driven by AUX DIESEL ENGINES.

Scavenging Air Pumps, No. 2. Diameter 200 mm. Stroke 240 mm. Driven by 2.

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 STEAM.

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

High Pressure Air Receivers, No. 2. Cubic capacity of each 400 litres. Internal diameter 406.4 mm. thickness 11.78 mm.

Seamless, lap welded or riveted longitudinal joint SEAMLESS. Material STEEL. Range of tensile strength 28/32 T/d. Working pressure by Rules 30 kg/cm².

Starting Air Receivers, No. 1. Total cubic capacity 400 litres. Internal diameter 406.4 mm. thickness 11.78 mm.

Seamless, lap welded or riveted longitudinal joint SEAMLESS. Material STEEL. Range of tensile strength 28/32 T/d. Working pressure by Rules 30 kg/cm².

ELECTRIC GENERATORS:—Type DIRECT CURRENT COMPOUND.

Pressure of supply 230 volts. Load 1283. Amperes. Direct or Alternating Current DIRECT.

If alternating current system, state frequency of periods per second 50.

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 2.

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 11-10-33. Receivers 7-12-33. Separate Tanks 5-7-34.

(If not, state date of approval)

SPARE GEAR

ONE CYLINDER LINER.

4 SETS. CYLINDER RELIEF VALVES.

1 SET. SKEW GEAR.

8 SETS. FUEL VALVES.

3 SETS. CYLINDER COVERS COMPLETE.

4 SETS. INLET VALVES.

21 SETS. PISTON RINGS.

4 SETS. EXHAUST VALVES.

1 SET. CYLINDER COVER STUDS & NUTS.

1 SET. AIR COMPRESSOR PISTON RINGS.

4 SETS. PISTON COMPLETE WITH GUIDERON & RINGS.

2 SETS. AIR COMPRESSOR SUCTION VALVES.

2 SETS. CRANKPIN BEARING BOLTS & NUTS.

2 SETS. AIR COMPRESSOR DELIVERY VALVES.

4 SETS. MAIN BEARING BOLTS & NUTS.

3 SETS. FUEL PUMP.

The foregoing is a correct description,

Yoshikida Chuo Kawasaki Dock Yard Manufacturer.



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010309-010316-0122

Dates of Survey while building { During progress of work in shops - - } Feb/34. 14.17. MAY/34. 25. 26. 29. 30. Jun/34. 19. 30. Jul/34. 3. 6. 10. 11. 13. 20. Aug/34. 2. 8. 15. 18. 25. 29. SEP/34. 1. 2. 10. 15. 16. 25. 26. OCT/34. 7.
{ During erection on board vessel - - - } OCT/34. 12. 20. 22. 23. NOV/34. 3. 17. 20. 27. DEC/34. 11.
Total No. of visits 37.

Dates of Examination of principal parts—Cylinders 11. 7. 34. 2. 5. 34 Covers 25. 8. 34. Pistons 25. 26. 5/34. Piston rods ✓

Connecting rods 23. 7. 34. Crank and Flywheel shaft 10. 7. 34. Intermediate shaft ✓

Crank and Flywheel shaft, Material STEEL. Identification Mark 3863 17. 1. 34. 3897. 25. 1. 34. Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case YES. If so, state name of vessel "TOR MARU"

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 conditions with satisfactory results, and eligible in my opinion for the record of "ELECTRIC LIGHT".

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

(See other reports)
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 25 JAN 1935

Assigned

See Kob. J.E. 8857



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