

4c. REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8656

Received at London Office 23 JUL 1934

of writing Report 19 When handed in at Local Office 19 Port of FX
 in Survey held at KOBE. Date, First Survey 18-11-33 Last Survey 22-6-1934
 Book. Single on the Twin Triple Quadruple Screw vessel **TOA MARU** Tons { Gross 10052 Net 9038
 Number of Visits
 built at KOBE By whom built KAWASAKI DOCKYARD Co. Yard No. 572 When built 1934
 owners IINO SHOJI KABUSHIKI KAISHA. Port belonging to NAKAMAIZURU.
 Engines made at KOBE By whom made KAWASAKI DOCKYARD Co. Contract No. 206-7-8 When made 1934
 Generators made at KOBE By whom made KAWASAKI DOCKYARD Co. Contract No. 206-7-8 When made 1934
 of Sets 3 Engine Brake Horse Power 440 Nom. Horse Power as per Rule 86 Total Capacity of Generators 885 Kilowatts.

ENGINES, &c.—Type of Engines M.A.N. 2 or 4 stroke cycle 4 Single or double acting SINGLE
 Maximum pressure in cylinders 14.9 kg/cm² Diameter of cylinders 285 mm Length of stroke 420 mm No. of cylinders 7 No. of cranks 7
 Distance 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 as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 280 mm Thickness parallel to axis shrink
 as fitted 170 mm Mid. length thickness 90 mm Thickness around eyehole shrink
 Wheel Shaft, diameter as per Rule shrink as fitted shrink Intermediate Shafts, diameter as per Rule shrink as fitted shrink Thickness of cylinder liners 17.5 mm
 Is a governor or other arrangement fitted to prevent racing of the engine when disengaged 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 LAGGED
 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/H.
 Compressors, No. 2 No. of stages 3 Diameters 350.295.100 mm Stroke 240 mm Driven by AUX DIESEL ENGINES
 Sucking Air Pumps, No. shrink Diameter shrink Stroke shrink Driven by shrink

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES
 Are 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. shrink Cubic capacity of each shrink Internal diameter shrink thickness shrink
 unless, lap welded or riveted longitudinal joint shrink Material shrink Range of tensile strength shrink Working pressure by Rules shrink
 Sucking Air Receivers, No. 1 Total cubic capacity 400 LITRES Internal diameter 406.4 mm thickness 11.78 mm
 unless, lap welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength 28.32 T.P. 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
 Is an alternating current system, state frequency of periods per second shrink
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off YES
 Do the 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 shrink
 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

APPROVALS. Are approved plans forwarded herewith for Shafting 20-3-33 Receivers 13-4-34 Separate Tanks 11-10-33
 (If not, state date of approval)

- ARE GEAR PLACED ON BOARD.
- CYLINDER LINER. 1
 - SKREW GEAR. 1 SET.
 - CYLINDER COVERS COMPLETE. 3 SETS.
 - PISTON RINGS. 21 SETS.
 - CYLINDER COVER STUDS & NUTS. 1 SET.
 - PISTON COMPLETE WITH GUDGEON & RINGS. 4 SETS.
 - CRANK PIN BEARING BOLTS & NUTS. 2.
 - MAIN BEARING BOLTS & NUTS. 4.
 - CYLINDER RELIEF VALVES. 4 SETS.
 - FUEL VALVES. 8 SETS.
 - INLET VALVES. 4 SETS.
 - EXHAUST VALVES. 4 SETS.
 - AIR COMPRESSOR PISTON RINGS 1st 2nd 3rd STAGES. 1 SET.
 - AIR COMPRESSOR SUCTION VALVES. 1st 2nd 3rd STAGES. 2 SETS.
 - AIR COMPRESSOR DELIVERY VALVES. 1st 2nd 3rd STAGES. 2 SETS.
 - FUEL PUMP. 3 SETS.

The foregoing is a correct description,
T. Okano Chief Engineer Kawasaki Dock-
 yard Co. Manufacturer.



