

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8981.

Date of writing Report 19 When handed in at Local Office 19 Port of KOBE Received at London Office 15 APR 1935  
 No. in Survey held at Reg. Book. Single on the Triple Screw vessel "KONGO MARU" Date, First Survey 1st Aug. 1934 Last Survey 21st Feb. 1935  
 Number of Visits

Built at HARIMA By whom built HARIMA S. B. & ENG CO LTD Yard No. 205. When built  
 Owners KOKUSAI KISEN KABUSHIKI KAISHA Port belonging to  
 Oil Engines made at KOBE By whom made KOBE STEEL WORKS Contract No. 222 When made 1934  
 Generators made at KOBE By whom made KAWASAKI DOCKYARD CO. Contract No. 13685 When made 1934  
 No. of Sets 1 Engine Brake Horse Power 45 Nom. Horse Power as per Rule 12 Total Capacity of Generators 30 Kilowatts.

**OIL ENGINES, &c.**—Type of Engines HEAVY OIL, AIRLESS INJECTION or 4 stroke cycle 4 Single or double acting SINGLE  
 Maximum pressure in cylinders 45 KGS/CM<sup>2</sup> Diameter of cylinders 165 MM. Length of stroke 245 MM. No. of cylinders 3 No. of cranks 3  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 182 MM. Is there a bearing between each crank YES  
 Revolutions per minute 550 Flywheel dia. 900 MM. Weight 292 KGS. Means of ignition COMPRESSION Kind of fuel used HEAVY OIL  
 Crank Shaft, dia. of journals as per Rule 84 MM as fitted 100 MM. Crank pin dia. 100 MM. Crank Webs Mid. length breadth 145 MM Thickness parallel to axis shunt  
 Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness around eyehole as fitted  
 Thickness of cylinder liners 17.5 MM + 12.5 MM.  
 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  
 Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES  
 Lubricating Oil Pumps, No. and size 1 GEARED.  
 Air Compressors, No. 1 No. of stages 1 Diameters as fitted Stroke as fitted Driven by as fitted  
 Scavenging Air Pumps, No. 1 Diameter as fitted Stroke as fitted Driven by as fitted

**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. 1 Cubic capacity of each as fitted Internal diameter as fitted thickness as fitted  
 Seamless, lap welded or riveted longitudinal joint as fitted Material as fitted Range of tensile strength as fitted Working pressure by Rules as fitted  
 Starting Air Receivers, No. ONE Total cubic capacity 90 LITRES Internal diameter 300 MM. thickness 9.5 MM.  
 Seamless, lap welded or riveted longitudinal joint DR. LAP Material STEEL Range of tensile strength 44-50 KGS/MM<sup>2</sup> Working pressure by Rules 39.5 KGS/CM<sup>2</sup>

**ELECTRIC GENERATORS:**—Type Drift prof. self ventilating, Compound wound Gen.  
 Pressure of supply 225 volts. Load 133.5 Amperes. Direct or Alternating Current D.C.  
 If alternating current system, state frequency of periods per second as fitted  
 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 as fitted  
 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 2-12-32. Receivers 4-10-34 Separate Tanks as fitted  
**SPARE GEAR** 1 cylinder cover complete with valves, 3 sets of piston rings for one piston, 1 gudgeon pin bush, 1 crank-pin bearing with bolts & nuts, 1 fuel cam, 1 fuel valve complete, 1 roller for valve push rod & 1 roller for fuel pump push rod, 1 plunger for fuel pump (with bush), 1 suction & 1 delivery valve for fuel pump, 1 fuel filter element, 1 lub. oil filter element, 1 set of springs, 1 set of joints, 1 set of screws, studs & nuts for cylinder cover, 1 bottom end & 1 main bearing bush, 2 lengths of fuel pipes.

The foregoing is a correct description,

Manufacturer.

*J. Capalera*



1934  
 Dates of Survey while building { During progress of work in shops - - ) Aug. 16<sup>th</sup> Sept 26<sup>th</sup> Oct 5<sup>th</sup> + 25<sup>th</sup> Nov. 5<sup>th</sup> 17<sup>th</sup> 19<sup>th</sup> Dec. 5 + 13<sup>th</sup>  
 { During erection on board vessel - - - ) 1934 Aug. 1st. 16<sup>th</sup>. 1935 Feb. 21<sup>st</sup>.  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 26-9-34. Covers 25-10-34 Pistons 25-10-34 Piston rods ✓  
 Connecting rods 13-12-34 Crank and Flywheel shaft 13-12-34 Intermediate shaft ✓  
 Crank and Flywheel shaft, Material SM. STEEL Identification Mark E-5814 D. Intermediate shafts, Material ✓ Identification Marks ✓

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

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been constructed under Special Survey in accordance with the Rules + approved plans. The workmanship + materials are good. On completion this engine was fitted on board the vessel + tried under full working conditions with satisfactory results.

1m.7.20—Tribunler.  
 (The Surveiors are requested not to write on or below the space for Committee's Minute.)

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

*C. Macpherson & K. Chisholm*  
 Surveyor to Lloyd's Register of Shipping.

FRI. 26 APR 1935

FRI. 17 MAY 1935  
 FRI. 20 SEP 1935

Committee's Minute  
 Assigned

See J.E. Rpt. Koh. 8981



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