

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8656

Received at London Office 23 JUL 1934

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

Place in Survey held at KOBE Date, First Survey 9-2-34 Last Survey 2-6-1934

Number of Visits 6

9. on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel MOTOR VESSEL TOR MARU Tons { Gross 10052 Net 9038

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 HANSHIN IRON WORKS LTD. Contract No. When made 1934

Generators made at KOBE By whom made KAWASAKI DOCKYARD CO. Contract No. When made 1934

diameter of Sets 1. Engine Brake Horse Power 40 Nom. Horse Power as per Rule 12 Total Capacity of Generators 20 Kilowatts.

ENGINES, &c.—Type of Engines SOLID INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 63 kg/cm² Diameter of cylinders 150 mm Length of stroke 270 mm No. of cylinders 2 No. of cranks 2

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 192 mm Is there a bearing between each crank YES

Revolutions per minute 450 Flywheel dia. 1000 mm Weight 494 kg Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

Crank Shaft, dia. of journals as per Rule 100 mm Crank pin dia. 100 mm Crank Webs Mid. length breadth 140 mm Thickness parallel to axis - shrunk Mid. length thickness 55 mm Thickness around eyehole -

Flywheel Shaft, diameter as per Rule 110 mm Intermediate Shafts, diameter as per Rule - Thickness of cylinder liners 15 mm

Is there 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. ROTARY ROTOR DIA 40MM. LENGTH 24MM. CASING DIA 48MM

Air Compressors, No. 1 No. of stages 2 Diameters 106, 120 mm Stroke 180 mm Driven by OIL ENGINE

S scavenging Air Pumps, No. 1. ROTARY Diameter CASING 300MM. ROTOR 225mm Stroke LENGTH 250mm Driven by CRANKSHAFT

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. Cubic capacity of each Internal diameter thickness

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

Working Air Receivers, No. 1 Total cubic capacity 95 LITRE Internal diameter 330 thickness

Seamless, lap welded or riveted longitudinal joint LAP JOINT Material STEEL Range of tensile strength 28-32 Working pressure by Rules 35 kg/cm²

ELECTRIC GENERATORS:—Type D.C. COMPOUND

Pressure of supply 225 volts Load 89 Amperes Direct or Alternating Current DIRECT

Is the 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 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

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

APPROVED PLANS. Are approved plans forwarded herewith for Shafting Receivers Separate Tanks

ARE GEAR 1. CYLINDER COVER COMPLETE WITH VALVES 1. SET NUTS & BOLTS FOR PYL COVER ETC.

1. SET PISTON RINGS 1. FUEL PIPE PUMP TO VALVE

1. CRANK PIN BRASSES COMPLETE

1. GUDGEON PIN BUSH

2. MAIN BEARING BRASSES COMPLETE

1. FUEL CAM COMPLETE

1. SET SUCTION & DELIVERY FUEL PUMP VALVES

1. SET COOLING WATER PUMP VALVES

1. SET SPRINGS

The foregoing is a correct description,

Signature of Managing Director

Manufacturer.



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Dates of Survey while building
 During progress of work in shops - - FEB/34 2. 26. 28. MAR/34. 12.
 During erection on board vessel - - - MAY/34. 16. JUN/34. 2.
 Total No. of visits 6.

Dates of Examination of principal parts—Cylinders Covers Pistons Piston rods
 Connecting rods Crank and Flywheel shaft Intermediate shaft
 Crank and Flywheel shaft, Material Identification Mark 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.)

This hand starting emergency generator has been examined under working conditions, and found satisfactory

1m, 7, 28—Transfer. (The Surveyors 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.....

A. E. Munro
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 31 JUL 1934

Assigned See other J.E. Mph. Vol. 8656



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