

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 7009.

Received at London Office

28 JUL 1930

Date of writing Report 1-7-1930 When handed in at Local Office 2-7-1930 Port of KOBE

No. in Survey held at KOBE Date, First Survey 20th AUG 1929 Last Survey 1st JULY 1930
Reg. Book.

Number of Visits 30

on the ^{Single} Twin ^{Triple} Screw vessel (MITSUBISHI, NAGASAKI, YARD N^o 473)Tons { Gross
Net

Built at NAGASAKI By whom built MITSUBISHI ZOSEN KAISHA LTD Yard No. 473 When built 1930

Owners OSAKA SHOSEN KAISHA LTD Port belonging to OSAKA

Oil Engines made at KOBE By whom made MITSUBISHI ZOSEN KAISHA LTD Contract No. 95-96-97 When made 1930

Generators made at NAGASAKI By whom made " " " Contract No. When made 1930

No. of Sets 3 Engine Brake Horse Power 390 Nom. Horse Power as per Rule 81 Total Capacity of Generators 750 Kilowatts.

OIL ENGINES, &c. Type of Engines MITSUBISHI VICKERS 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 30 Kg./cm² Diameter of cylinders 300 mm Length of stroke 450 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 355 mm Is there a bearing between each crank YES

Revolutions per minute 340 Flywheel dia. 1700 mm Weight 3455 Kg. Means of ignition COMPRESSION Kind of fuel used DIESEL OIL 1-P. ABOVE 150° F

Crank Shaft, dia. of journals as per Rule 177 mm as fitted 185 mm Crank pin dia. 185 mm Mid. length breadth 270 mm Crank Webs Mid. length thickness 98 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 30 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 & lagged with non-conducting material YES

Cooling Water Pumps, No. 1 @ 110 mm x 45 mm GEAR DRIVEN Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 @ 110 mm x 45 mm GEAR DRIVEN

Air Compressors, No. 2 No. of stages 3 Diameters 75 mm x 295 mm x 340 mm Stroke 180 mm Driven by E. MOTOR

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

AIR RECEIVERS: - Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

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

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

Starting Air Receivers, No. ONE Total cubic capacity ABT. 267 LITRES Internal diameter 21" thickness .625"

Seamless, lap welded or riveted longitudinal joint D.R.B.S. Material O.H. STEEL Range of tensile strength 28-35 TONS Working pressure by Rules 645 LBS

ELECTRIC GENERATORS: - Type MITSUBISHI COMPOUND WOUND

Pressure of supply 225 volts. Load 1160 Amperes. Direct or Alternating Current DIRECT

If 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

Generators, do they comply with the requirements regarding rating YES: TESTED AT NAGASAKI 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

PLANS. Are approved plans forwarded herewith for Shafting 25th APRIL 1929 Receivers 3rd JUNE 1929 Separate Tanks

SPARE GEAR

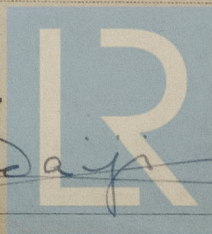
SEE SEPARATE LIST WHICH WILL BE FORWARDED LATER

The foregoing is a correct description.

KOBE SHIPYARD & ENGINE WORKS, M. Z. K., LTD.,

Manufacturer.

General Manager.



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Lloyd's Register Foundation

007825-007833-090

1929
 During progress of work in shops - -
 Dates of Survey while building
 During erection on board vessel - -
 Total No. of visits 80

1930
 AUG: 20. SEPT: 4-24. OCT: 9-26. NOV: 20. DEC: 3-20-21. JAN: 10-13-25. FEB: 13-24-25-26. MARCH: 3-6-7-13-19-22-24-25-26-27
 APRIL: 1-4-5-7-9-10-12-14-15-16-17-19-21-22-23-24-25-26. MAY: 1-2-3-6-7-8-9-10-15-17-19-20-21-22-23-24-26-27-28-29-30
 JUNE: 5-11-12-13-18-20-21-23-25-26. JULY: 1

Dates of Examination of principal parts—Cylinders 27-2-30 23-3-30 24-3-30 Covers 28-3-30 1-7-24-4-30 1-5-30 Pistons 18-19-20-25-29/3/30 2-5-7-9/5/30 Piston rods ✓

Connecting rods 10-25/1/30 12-4-30 Crank and Flywheel shaft ✓ Intermediate shaft ✓

Crank and Flywheel shafts, Material O.H. STEEL Identification Mark LLOYD'S JL 5920 23-8-29 LLOYD'S JL 2414 MK. 6-9-29 LLOYD'S JL 3059 3-9-29

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case YES If so, state name of vessel HAG: YARD N° 471 KOBÉ REP N° 6941

General Remarks (State quality of workmanship, opinions as to class, &c. The crank shafts of these engines were

supplied by Messrs Krupp, Essen, Germany in finished condition.

These engines have been constructed under special survey in accordance with the Rules & approved plans. The materials have been tested, found efficient, & the workmanship throughout is good. They have been tested under full load, & overload working conditions, connected to their generators, run in parallel test, & the efficiency of the governors tried, & all found satisfactory. After trials all engines were opened up, cleaned & examined & found good.

These machines are eligible in my opinion for the record of L.M.C. in the Register Book.

They have now been shipped to Nagasaki where it is intended to install them on vessel N° 473, & have been stamped as follows

ENG N° 95
 LLOYD'S N° 2536
 H.D.B. R.
 24-6-30

ENG N° 96
 LLOYD'S N° 2537
 H.D.B. R.
 24-6-30

ENG N° 97
 LLOYD'S N° 2538
 H.D.B. R.
 24-6-30

Mark on Generator. LLOYD'S N° 310 R. K.K. 1-5-30

LLOYD'S N° 310 R. K.K. 28-4-30

LLOYD'S N° 310 R. K.K. 2-5-30

The amount of Fee ... ¥ 975:00
 Travelling Expenses (if any) ¥ 80:00

When applied for, 1/7/1930
 When received, 19...

H.D. Buchanan
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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