

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 6863.

Date of writing Report 20 FEBRUARY 1930 When handed in at Local Office 7th MARCH 1930 Port of KOBE
 Received at London Office 22 APR 1930
 No. in Survey held at KOBE Date, First Survey 4th JULY 1929 Last Survey 3 MARCH 1930
 Reg. Book. Number of Visits 80

on the Single Twin Triple Quadruple Screw vessel (MITSUBISHI YARD, NAGASAKI N^o 471) Tons { Gross ✓
 Net ✓

Built at NAGASAKI By whom built MITSUBISHI ZOSSEN KAISHA LTD Yard No. 471 When built 1930

Owners OSAKA SHOSSEN KAISHA Port belonging to OSAKA

Oil Engines made at KOBE By whom made MITSUBISHI ZOSSEN KAISHA LTD Contract No. 879091 When made 1930

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

No. of Sets 3 Engine Brake Horse Power 390 EACH Nom. Horse Power as per Rule 81 Total Capacity of Generators 780 Kilowatts.

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

Maximum pressure in cylinders 50 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 F.P. ABOVE 150° F.

Crank Shaft, dia. of journals as per Rule 177 mm Crank pin dia. 185 mm Crank Webs Mid. length breadth 270 mm Thickness parallel to axis ✓
as fitted 185 mm Mid. length thickness 98 mm Thickness around eye hole ✓

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 30 mm
as fitted as fitted

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 YES W. COOLED

Cooling Water Pumps, No. 1 @ 110 mm x 45 mm GEAR DRIVE 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. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

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

IR 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 ✓ 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 ABOUT 267 LITRE Internal diameter 21" thickness .625"

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

ELECTRIC GENERATORS:—Type MITSUBISHI COMPOUND WOUND

Pressure of supply 225 volts. Load 1160 PER MACH. 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.

LANDS. Are approved plans forwarded herewith for Shaffling 25th APRIL 1929 Receivers 3rd JUNE 1929 Separate Tanks ✓
 (If not, state date of approval)

PAIRE GEAR

SEE SEPARATE LIST.

The foregoing is a correct description.

KOBE WORKS, MITSUBISHI ZOSSEN KAISHA, LTD.

Manufacturer.

General Manager.



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Foundation

009869-009878-0122

Dates of Survey while building { During progress of work in shops - 1929. JULY, 4-5-22. AUG: 17, 19, 20, 27, 28, 31. SEPT: 2, 4-5, 11, 16, 17, 19, 24, 25, 28, 30. OCT: 1, 8, 9, 10, 18, 20, 25, 28, 31. NOV: 1, 2, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30. DEC: 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 24, 26. JAN: 1930
 { During erection on board vessel - 8-9-10-20-21-30. FEB: 18, 19, 22. MAR: 3.
 Total No. of visits 80

Dates of Examination of principal parts—Cylinders 9/10, 6/11, 7/12. Covers 24/9, 25/9, 1-2-6-25-27, 13-14, 28/8, 14/12, 13/11. Pistons 9/11, 14/11, 11/11. Piston rods ✓

Connecting rods 5/6/29 25/10/29. Crank and Flywheel shaft 30/7/29 9/8/29. Intermediate shaft ✓

Crank and Flywheel shaft, Material O.H. STEEL Identification Mark 153449 153450 3883 J.L. Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case No If so, state name of vessel ✓

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 tried under full load & overload working conditions, connected to their generators, & run in parallel tests, also the efficiency of the governors was tested, & the whole found satisfactory.

This machinery is 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° 471 & have been stamped as follows.

ENG: N° 89
 LLOYD'S
 N° 2406 R
 H.D.B. 19-2-30 SS

ENG: N° 90
 LLOYD'S N°
 2407 R
 H.D.B. 19-2-30 SS

ENG: N° 91
 LLOYD'S
 N° 2408 R
 H.D.B. 19-2-30 SS

Mark on Crank shafts,

LLOYD'S
 V.S. 3449
 30-7-29

LLOYD'S
 V.S. 3450
 30-7-29

LLOYD'S
 N° 3883 J.L.
 9-8-1929

Mark on Generators,

LLOYD'S
 N° 253
 GA. 22-1-30

LLOYD'S
 N° 255A
 GA. 27-1-30

LLOYD'S
 N° 255B
 GA. 28-1-30

Copies of connecting rod certificates N° 2168, 2203-2223 forwarded herewith.

The amount of Fee ...

£ 975⁰⁰

When applied for,

Travelling Expenses (if any)

£ 90⁰⁰

When received,

For W. Kimber & Self.

H.D. Buchanan.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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