

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10608A

Received at London Office APR 19 1937

Date of writing Report 19 When handed in at Local Office 19 Port of Kobe  
No. in Survey held at Reg. Book. 37151 on the <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel SAZUMARUMARU Tons { Gross 6646 Net 5651  
Date, First Survey 2-9-1937 Last Survey 19 Number of Visits

Built at Nagasaki By whom built Mitsubishi Jukogyo K.K. Yard No. 700. When built 1938  
Owners Nippon Yusen K.K. Port belonging to Tokyo  
Oil Engines made at Kobe By whom made Mitsubishi Jukogyo K.K. Kobe Contract No. When made 1934  
Generators made at Nagasaki By whom made Mitsub shi Denki K.K. Contract No. When made 1937  
No. of Sets 1 Engine Brake Horse Power 45 Nom. Horse Power as per Rule 10 Total Capacity of Generators 30 Kilowatts.

OIL ENGINES, &c.—Type of Engines H.R.W. 3 V.T.P. 2 or 4 stroke cycle 4 Single or double acting Single  
Maximum pressure in cylinders 55 Kgs/cm<sup>2</sup> Diameter of cylinders 150 m/m Length of stroke 230 m/m No. of cylinders 3 No. of cranks 3  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank  
Revolutions per minute 650 Flywheel dia. 340 m.m Weight 564 Kgs Means of ignition Airless Kind of fuel used Heavy Oil  
Crank Shaft, dia. of journals as per Rule 85 as fitted 82 92 Crank pin dia. 92 Crank Webs Mid. length breadth 136 Thickness parallel to axis  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 14 m/m  
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  
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
Lubricating Oil Pumps, No. and size one gear type  
Air Compressors, No. None No. of stages Diameters Stroke Driven by  
Scavenging Air Pumps, No. Diameter Stroke Driven by

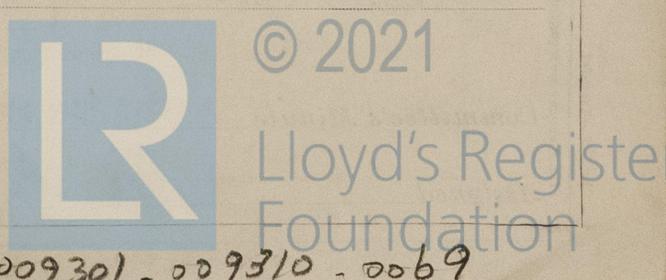
AIR RECEIVERS:—Have they been made under Survey YES State No. of Report or Certificate No. 6043  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES  
Can the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces Hole at Top  
Is there a drain arrangement fitted at the lowest part of each receiver Internal drain pipe  
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 35 Litres Internal diameter 120 m/m thickness 7.5 m/m  
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 44-55 Kgs/cm<sup>2</sup> Working pressure by Rules 30 Kgs/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type  
Pressure of supply volts. Full Load Current Amperes. Direct or Alternating Current Direct  
If alternating current system, state the periodicity Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off YES  
Generators, are they compounded as per rule YES is an adjustable regulating resistance fitted in series with each shunt field 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  
If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test and do the results comply with the requirements  
If the generators are 100 kw. or over have they been built and tested under survey

PLANS. Are approved plans forwarded herewith for Shafting 18/1/37 Receivers 18/1/37 Separate Tanks

SPARE GEAR  
sufficient, see builders list forwarded under separate cover

The foregoing is a correct description,  
KOBE WORKS, MITSUBISHI JUKOGYO KAISHA  
M. Sekai Manufacturer.  
Superintendent Engineer.



009301 - 009310 - 0069

1937  
 Dates of Survey { During progress of work in shops - - } Sep 27, 11, 13, 14, 22, 24, 28. Oct 6, 9, 11, 19, 25, 29, 30 Nov. 1, 2, 4, 5, 6, 10, 16, 20, 25, 26, 27.  
 { During erection on board vessel - - - }  
 while building {  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 24-9-37 Covers 18-9-37 Pistons 4-7-37 Piston rods ✓  
 Connecting rods 1-11-37 Crank and Flywheel shafts 1-11-37 Intermediate shafts ✓  
 Crank and Flywheel shafts, Material Forged m. LD STEEL Identification Marks 788E-1 Lloyd's No 6803 F.I.R.  
 Intermediate shafts, Material Identification Marks ✓  
 Identification marks on Air Receivers MT 150 Lloyd's No 6043 R.S.S 8-3-37

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

General Remarks (State quality of workmanship, opinions as to class, &c.)

This engine has been constructed under Special Survey in accordance with the Rules and approved plans.  
 The materials and workmanship are good.  
 Stamped as follows:—

E. NO 801  
 LLOYD'S  
 NO 146  
 Y.H.R.  
 27-11-37

The Spear gear is in accordance with the requirement of the Rules.

This machinery has been efficiently installed on board and tried under full working and overload conditions with satisfactory results.

This machine tried using one cylinder as an air compressor charging auxiliary starting air tank and found satisfactory.

Hand compressor tried charging small air bottle and found satisfactory.

10,637.—Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 150<sup>00</sup> Kobe : When applied for, 210 7697  
 Travelling Expenses (if any) £ : When received, 31 3 19 30

Manada & Fe. Ilenka.  
 Surveyors to Lloyd's Register of Shipping.

Committee's Minute TUE. 26 APR 1938  
 Assigned See Vol 76 2376

