

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8786.

Received at London Office - 5 NOV 1934

Date of writing Report 19-10-1934 When handed in at Local Office 19 Port of **KOBE**
No. in Survey held at **Kobe** Date, First Survey **3-10-33** Last Survey **14-9-1934**
Reg. Book. Number of Visits **56**

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel **M/Y "KIYOSUMI MARU"** Tons { Gross **6992** Net **3829**
Built at **KOBE** By whom built **Kawasaki Dockyard** Yard No. **583** When built **1934**
Owners **KOKUSAI KISEN KABUSHIKI KAISHA** Port belonging to **TOKIO**
Oil Engines made at **Kobe** By whom made **Kobe Works, M.B. J.K.** Contract No. **475** When made **1934**
Generators made at **Nagasaki** By whom made **Nag. Works, M.B. Denki K.** Contract No. **476** When made **1934**
No. of Sets **3** Engine Brake Horse Power **290** Nom. Horse Power as per Rule Total Capacity of Generators **540** Kilowatts.

OIL ENGINES, &c.—Type of Engines **MRB6 Vertical Trunk piston** 2 or 4 stroke cycle **4** Single or double acting **Single**
Maximum pressure in cylinders **46 Kg/cm²** Diameter of cylinders **275 mm** Length of stroke **420 mm** No. of cylinders **6** No. of cranks **6**
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **320 mm** Is there a bearing between each crank **yes**
Revolutions per minute **300** Flywheel dia. **1700 mm** Weight **3100 Kg.** Means of ignition **Compression** Kind of fuel used **Heavy diesel oil**
Crank Shaft, dia. of journals ^{as per Rule **As Approved**} **170 mm** Crank pin dia. **170 mm** Crank Webs Mid. length breadth **240 mm** Thickness parallel to axis **shrunk**
Flywheel Shaft, diameter ^{as per Rule **As Approved**} **170 mm** Intermediate Shafts, diameter ^{as per Rule} Thickness of cylinder liners **26 mm**
Is a governor or other arrangement fitted to prevent racing of the engine when declutched **yes** Means of lubrication **Forced lubrication**
Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **lagged silencers water cooled**
Cooling Water Pumps, No. **One** - cyl. dia. **110.5 mm** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**
Lubricating Oil Pumps, No. and size **One set** - cyl. dia. **80 mm**, stroke **45 mm**, i.p.m. **300**
Air Compressors, No. **Two** No. of stages **Three** Diameters **HP 70 mm, MP 310-270 mm, LP 310-70 mm** Stroke **180 mm** Driven by **One - Diesel engine One - Motor**
Scavenging Air Pumps, No. **Two** Diameter **180 mm** Stroke **180 mm** Driven by **Motor**

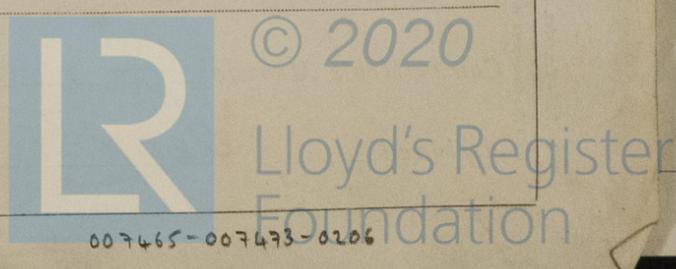
AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**
Can the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **Hand hole**
Is there a drain arrangement fitted at the lowest part of each receiver **yes**
High Pressure Air Receivers, No. **One** Cubic capacity of each **550 litre** Internal diameter **2'-5"** thickness **5/8"**
Seamless, lap welded or riveted longitudinal joint **T.R.B.** Material **Steel** Range of tensile strength **28-35 ton/in²** Working pressure by Rules **30 Kg/cm²**
Starting Air Receivers, No. **One** Total cubic capacity **550 litre** Internal diameter **2'-5"** thickness **5/8"**
Seamless, lap welded or riveted longitudinal joint **T.R.B.** Material **Steel** Range of tensile strength **28-35 ton/in²** Working pressure by Rules **30 Kg/cm²**

ELECTRIC GENERATORS:—Type **Multipole LL type 180 KW. COMPOUND WOUND.**
Pressure of supply **225** volts. Load **800** Amperes. Direct or Alternating Current **D.C.**
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 **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 **✓**
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 **19-10-33** Receivers **19-10-33** Separate Tanks **✓**
(If not, state date of approval)

- SPARE GEAR CYLINDER COVER COMPLETE 2 SETS.**
- CYLINDER LINER. 2 SETS.
 - SUCTION VALVES. 3 SETS.
 - EXHAUST VALVES. 12 SETS.
 - FUEL VALVES. 6 SETS.
 - MAIN BEARINGS. 2 SETS.
 - CRANK PIN BRASSES & BOLTS. 2 SETS.
 - GUDGEON PIN BRASSES. 2 SETS.
 - COUPLING BOLTS & NUTS. 6 SETS.
 - FUEL PIPES & NUTS & BOLTS ASSORTED.

The foregoing is a correct description,
KOBE WORKS, MITSUBISHI JUKOGYO KABUSHIKI KAISHA Manufacturer.
[Signature] Superintendent Engineer.



Dates of Survey while building
 During progress of work in shops - 1933 - Oct-3, 26, Nov-4, 11, 24, 28, 30, Dec-1, 5, 7, 11, 13, 14, 15, 16, 20, 23, 27, 28, 1934 - Jan-12, 15, 18
 During erection on board vessel - 19 Feb-2, 3, 17, 24, March-14, 20, April-6, May-11, 18, 21, 24, 26, 28, 31, June-4, 13, 15, 16, 22, 23, 25, 28, 29, 30.
 Total No. of visits July-2, 5, 6, 7, Aug-15, 31, Sept-4, 12, 14.

Dates of Examination of principal parts - Cylinders 28-11-33, 28-28-5-34, 6-7-34
 Covers 11-18-5-34, 21-29-6-34, 6-7-34
 Pistons 6-7-34
 Piston rods ✓
 Connecting rods 15-1-34, 2-2-34, 20-3-34, 6-7-34
 Crank and Flywheel shaft 6-7-34
 Intermediate shaft ✓
 Crank and Flywheel shaft, Material Mild Steel Identification Mark R No. 940 24-3-34, 945 28-3-34, 953 13-3-34
 Intermediate shafts, Material ✓ Identification Marks ✓
 Is this machinery duplicate of a previous case Yes If so, state name of vessel Uraga Dockyard 386.

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The Machinery herein described has been constructed under Special Survey in accordance with the Rules and approved plans. The materials and workmanship are good. The machinery has been tried on the test bed under full load, overload and governor tests when connected to their generator: parallel running tests were also carried out and all found satisfactory and eligible in my opinion for classification.
 The machineries have been shipped to Kawasaki Dockyard where it is intended to install them on board ship no. 583.

Stamped as follows:
 Mach. no. 475 Mach. no. 476 Mach. no. 477
 LLOYD'S LLOYD'S LLOYD'S
 No. 67 R No. 68 R No. 69 R
 KK 6-7-34 KK 6-7-34 KK 6-7-34

These generators were afterwards efficiently installed in the vessel, and tried under full working conditions with satisfactory results, and are eligible in our opinion to have the record of "ELECTRIC LIGHT."

Im. 7, 23 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Fee ... Yen 975.00 ✓
 Travelling Expenses (if any) £ : :
 When applied for, 25 Aug 1934
 When received, 4/12/34

T. Ishigami
 Surveyors to Lloyd's Register of Shipping.

A. E. Munro

Committee's Minute FRI. 9 NOV 1934
 Assigned See other Vol. J.C. 8786



Rpt. 13.
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