

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 7356

Y.K.A. NO. 4786

Received at London Office

NOV 1931

of writing Report 20-5-1931 When handed in at Local Office 20-5-1931 Port of Kobe.

in Survey held at Kobe & Yokohama Date, First Survey Last Survey 19

Book. on the <sup>Single</sup> ~~Double~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel M.V. "KATSURAGI MARU"

Tons { Gross 5841 Net 3485

built at Uraga By whom built Uraga Dockyard Co. Yard No. 374. When built 1931.

owners Kokuasai Kisen Kaisha Port belonging to Hashidate

Engines made at Yama. By whom made Mitui Bussan Kaisha Contract No. 15.16.17 When made 4-31

Generators made at Shibaura Tokyo By whom made Shibaura Seisakusho Ltd Contract No. 3040445 3040446 3040447 When made 8-30

of Sets 3 Engine Brake Horse Power 210 Nom. Horse Power as per Rule 46.9 Total Capacity of Generators 40.5 Kilowatts.

ENGINES, &c.—Type of Engines Mitui-Burmeister 428-MTHK-45 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 4 No. of cranks 4

Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 358 mm Is there a bearing between each crank Yes

Revolutions per minute 300 Flywheel dia. 1540 mm Weight 5000 Kgs Means of ignition Compression Kind of fuel used Heavy Diesel Oil

Crank Shaft, dia. of journals as per Rule 166 mm as fitted 180 mm Crank pin dia. 180 mm Mid. length breadth 415 mm Crank Webs Mid. length thickness 95 mm shrunk Thickness parallel to axis Thickness around eyehole

Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 24 mm at top

Governor or other arrangement fitted to prevent racing of the engine when de-clutched Yes Means of lubrication Enclosed forced lubrication

Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Drinking Water Pumps, No. One on each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One on each engine, gear pump P.C.D. = 216 mm and 108 mm

Compressors, No. One on each engine No. of stages 2 Diameters 280 mm / 320 mm Stroke 210 mm Driven by Each Diesel Engine

Sucking Air Pumps, No. Diameter Stroke Driven by

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

Are the internal surfaces of the receivers examined Yes What means are provided for cleaning their inner surfaces By hand hole

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

Material Range of tensile strength Working pressure by Rules

Drinking Air Receivers, No. 1 Total cubic capacity 300 litre Internal diameter 450 mm thickness 13 mm

Material steel Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Three-Compound Wound, direct current, 135 kW Generators

Pressure of supply 220 volts. Load 614 Amperes. Direct or Alternating Current Direct current

Alternating current system, state frequency of periods per second

Is 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

Are approved plans forwarded herewith for Shafting 29-5-30 Receivers Separate Tanks

FREE GEAR As per the Rules, checked and found satisfactory.

The foregoing is a correct description,

Manufacturer.



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007658-007667-0283

Dates of Survey while building  
 During progress of work in shops - 1930. Apr. 28. 30. May 12. 20. 22. June 30. July 4. 8. 10. 15. 22. Aug. 6. 12. 19. Sept. 22. 26. Oct. 6. 14. 23. 24. 28.  
 During erection on board vessel - 31. Nov. 5. 21. 25. Dec. 3. 4. 10. 11. 20. 22; 1931. Jan. 30. Feb. 16. 19. Mar. 2-7.  
 Total No. of visits 36.

Dates of Examination of principal parts—Cylinders 20-10-30 to 28-10-30 Covers Same as cyl. Pistons 15-7-30 Piston rods

Connecting rods 4-7-30 to 22-9-30 Crank and Flywheel shaft 13-9-30 (Kobe) to 24-10-30 (Yama) Intermediate shaft ✓

Crank and Flywheel shaft, Material Forged Steel Identification Mark See below 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.)

Identification marks on crank shafts:-  
 LLOYD'S No. 2836 R S.D.M. 13-9-30  
 No. 2852 " " 30-9-30  
 No. 2865 " " 10-10-30

Marks on Generators:-

LLOYD'S No. 233 R 25-8-30 J. F. N.	LLOYD'S No. 234 R 25-8-30 J. F. N.	LLOYD'S No. 235 R 29-8-30 J. F. N.
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The machinery herein described has been constructed under special survey in accordance with the Rules and approved plans; the material and workmanship are good and on completion the machinery has been coupled with generators and tested under full working and parallel running conditions, and found to be efficient and eligible, in my opinion, to have record of L.M.C. with date - when the survey has been completed.

The machinery is being forwarded to Uraga for installation in the vessel No. 374 Uraga Dockyard Co. Ltd.

A copy of the report is being forwarded to Yokohama Surveyors.

This machinery has been fitted onboard the vessel at Uraga under special survey in accordance with the Rules. On completion of installing, all tried under full working condition with satisfactory results.

This machinery together with the main engines etc, is eligible in my opinion to be classed L.M.C. 10-31, in the Register Book.

H. D. Buchanan & self.

K. Kishigawa  
 Surveyor to Lloyd's Register of Shipping.

The amount of Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 19.....  
 When received, 19.....

Committee's Minute FRI, 13 NOV 1931

Assigned Sec. F. G. Rep.

1m, 7, 26—Transfer.  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

