

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 8297

15 SEP 1933

Date of writing Report 5-8-33 19 When handed in at Local Office 15-8-33 19 Port of KobeNo. in Survey held at Tama Date, First Survey 7-7-32 Last Survey 1-8-33 19  
Reg. Book. Number of Visits 20on the Single motor "AZUMASAN MARU" Tons 7614  
Triple Screw vessel NetBuilt at Tama By whom built Inoue Iron Works Bureau Kureha Ltd. Yard No. 195 When built 1933Owners Inoue Iron Works Bureau Kureha Ltd. Port belonging to KobeOil Engines made at Tama By whom made Inoue Iron Works Bureau Kureha Ltd. Contract No. 195 When made 1933Generators made at Tokyo By whom made Shibaura Engineering Works Ltd. Contract No. 3208767 When made 1933No. of Sets 3 Engine Brake Horse Power 200 Nom. Horse Power as per Rule 3208767 Total Capacity of Generators 999 Kilowatts.OIL ENGINES, &c. Type of Engines Inoue B.W. Oil Injection 2 or 4 stroke cycle 2 Single or double acting SingleMaximum pressure in cylinders 45 kg/cm<sup>2</sup> Diameter of cylinders 220 mm Length of stroke 370 mm No. of cylinders 4 No. of cranks 4Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 284 mm Is there a bearing between each crank yesRevolutions per minute 320 Flywheel dia. 1200 mm Weight 1550 kg Means of ignition Compression Kind of fuel used Diesel oilCrank Shaft, dia. of journals as per Rule Crank pin dia. 150 mm Crank Webs Mid. length breadth 85 mm Thickness parallel to axis as fitted 118 mmFlywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 11 mm 3 12 mmIs a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forcedAre the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material laggedCooling Water Pumps, No. 1 Each 110 mm dia. x 96 mm stroke the sea suction provided with an efficient strainer which can be cleared within the vessel yesLubricating Oil Pumps, No. and size 1 Each Set - One Spare Gear Type 85 mm x 60 mmAir Compressors, No. 1 No. of stages 1 Diameters 309.7 mm Stroke 419.6 mm Driven by engine directScavenging Air Pumps, No. One Root Blower Diameter 309.7 mm Stroke 419.6 mm Driven by engine directAIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yesCan the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces brushIs there a drain arrangement fitted at the lowest part of each receiver yesHigh Pressure Air Receivers, No. 1 Cubic capacity of each 300 litres Internal diameter 400 mm thickness 13 mmSeamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28-32 ton Working pressure by Rules 25 kg/cm<sup>2</sup>Starting Air Receivers, No. One Air Bottle Total cubic capacity 300 litres Internal diameter 400 mm thickness 13 mmSeamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28-32 ton Working pressure by Rules 25 kg/cm<sup>2</sup>ELECTRIC GENERATORS:—Type Compound D.C. GeneratorPressure of supply 220 volts. Load 605 Amperes. Direct or Alternating Current DirectIf 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 yesGenerators, do they comply with the requirements regarding rating yes are they compound wound yesare 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 yesare 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 yesPLANS. Are approved plans forwarded herewith for Shafting 13-12-32 Receivers. Separate Tanks.

(If not, state date of approval)

SPARE GEAR

As Required by the Rules

The foregoing is a correct description,

J. U. Kas

Manufacturer.



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Lloyd's Register

Foundation

1932  
During progress of work in shops - July 7. Aug 4. Sept 2. Nov. 4. 9. 15. 21. Dec. 13. Jan 9. 16. 31. Feb. 14. 15. March 15. May 13. June 14  
During erection on board vessel - June 23. July 11 & 26. Aug 1  
Total No. of visits - 20

Dates of Examination of principal parts—Cylinders 21-11-32 Covers 21-11-32 Pistons 9-11-32 Piston rods -

Connecting rods 29-11-32 Crank and Flywheel shaft 22-3-33, 27-3-33 Intermediate shaft -

Crank and Flywheel shaft, Material Steel Identification Mark 22405 23336 ABC 19-11-32 H.A.G. 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, etc.)

The machinery herein described has been constructed under Special Survey in accordance with the Rules and approved plans, the materials and workmanship are good. On completion the machinery was satisfactorily installed in the vessel, coupled to the generator and tested under full working conditions and successful running and found to be efficient and reliable, in my opinion for classification.

The amount of Fee ... Yen 750.- When applied for, 2<sup>nd</sup> Aug. 1933  
Travelling Expenses (if any) £ See bill right When received, 26.10.1933

*A. J. Morrison*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 12 SEP 1933  
Assigned See F.C. Rpt.

FRI. 29 SEP 1933