

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No.

Date of writing Report 19 When handed in at Local Office 19 Port of Kobe
 No. in Survey held at Kobe and Nagasaki. Date, First Survey 27-5-33 Last Survey 10th Jan 1934
 Reg. Book. Number of Visits
 40259 on the Single Triple Quadruple Screw vessel "KOYEI MARU".
 Built at Nagasaki By whom built Mitsubishi Zam Kousha Ltd. Yard No. 550 When built 1933
 Owners Takachiho Shosen Kabushiki Kaisha. Port belonging to Kobe.
 Oil Engines made at Kobe By whom made Mitsubishi Zam Kousha Ltd. Contract No. 405 406 407 When made 1933
 Generators made at Nagasaki By whom made "Punkis" Contract No. When made
 No. of Sets 3 Engine Brake Horse Power 140 Nom. Horse Power as per Rule Total Capacity of Generators 270 Kilowatts.

L. ENGINES, &c.—Type of Engines Mitsubishi M.R.A.3 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 47 kg/cm² Diameter of cylinders 250 mm Length of stroke 380 mm No. of cylinders 3 No. of cranks 3
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 294 mm Is there a bearing between each crank yes
 Revolutions per minute 400 Flywheel dia. 1400 mm Weight 2155 kg. Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 155 mm Crank pin dia. 155 mm Crank Webs Mid. length breadth 226 mm Thickness parallel to axis shrunk
 as fitted 155 mm Mid. length thickness 85 mm Thickness around eye-hole
 Flywheel Shaft, diameter as per Rule 155 mm Intermediate Shafts, diameter as fitted Thickness of cylinder liners 24 mm
 Is there 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 Lagged Submarine
 Cooling Water Pumps, No. One, G.P. dia. 100 mm Stroke 38 mm Is the sea suction provided with an efficient strainer which can be cleared within the vessel Water Lohd (Kohman & Sons)
 Lubricating Oil Pumps, No. and size One, G.P. dia. 60 mm Stroke 38 mm
 Air Compressors, No. Two Sets No. of stages 3 Diameters 70. 270. 310 mm Stroke 180 mm Driven by Auxiliary Engines
 Sucking Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Manhole
 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
 Unless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
 Sucking Air Receivers, No. One Total cubic capacity 267 litres Internal diameter 21" thickness 5/8"
 Unless, lap welded or riveted longitudinal joint D. Riveted Material Steel Range of tensile strength 28-32 Working pressure by Rules 646 lb.

ELECTRIC GENERATORS:—Type Multiple
 Voltage of supply 225 volts. Load 400 Amperes. Direct or Alternating Current Direct
 Is the 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
 Do the generators, do they comply with the requirements regarding rating yes are they compound wound yes
 Do they over compound 5 per cent. yes, if not compound wound state distance between each generator
 Is there 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 28-7-32 Receivers 25-8-35 Separate Tanks

ARE GEAR

Checked on board, see separate list for particulars 405

The foregoing is a correct description,

Tokujo Inase, Manufacturer.

1933
 Dates of Survey while building { During progress of work in shops - - } May 27. 29. 30. 31. June 1. 9. 10. 14. 12. 17. 19. 29. 30 July 7. 10. 12. 13 Aug 23. 24. 25
 { During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders 28. 29. 30. / 6/33 Covers 1-17/6/33 Pistons 27. 29. 30. 31/5/33 Piston rods

Connecting rods 14/6/33 7/7/33 Crank and Flywheel shaft 10-7-33; 7-7-33 Intermediate shaft —

Crank and Flywheel shaft, Material Steel Identification Mark 402E1 406E1 40Y05 40Y03 43597 43597A 43602 7-7-33 10-7-33 7-7-33 10-7-33

Is this machinery duplicate of a previous case A.D.M. If so, state name of vessel M.S. "UYO MARU"

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 machines have been shipped to Nagasaki where it is intended to install them on board Ship N°550

Stamped as follows:-

N° 405	N° 406	N° 407
LLOYDS	LLOYDS	LLOYDS
N° 3653	N° 3654	N° 3655
A.D.M.R.	A.D.M.R.	A.D.M.R.
25-8-33	25-8-33	25-8-33

This machinery has been satisfactorily installed on board, tried under full load working conditions and found satisfactory.

Im. 7. 26—Transfer.
 (The Signatories are requested not to write on or below the space for Committee's Minute.)

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

Committee's Minute

Assigned

See J. E. Mackay

TUE. 20 FEB 1934

A. D. Morrison & *H. D. Buchanan*
 Surveyors to Lloyd's Register of Shipping.



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