

1934

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# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5415

Received at London Office 25 JAN 1935

Date of writing Report 17<sup>th</sup> December 1934 When handed in at Local Office 18/12/ 1934 Port of Yokohama  
Date, First Survey 6<sup>th</sup> Sept 1934 Last Survey 10<sup>th</sup> December 1934  
Number of Visits 20

No. in Survey held at Yokohama  
eg. Book. 11734 on the <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel M/V "NARUTO MARIU"  
Tons { Gross 714 2  
Net 424 6

Built at Yokohama By whom built Yokohama Dock Co Ltd Yard No. 222 When built 1934-12

Owners Nippon Yusen K. Port belonging to Tokio.

Oil Engines made at Yokohama By whom made Yokohama Dock Co Contract No. 5152 When made 1934

Generators made at Tokio By whom made Meidensha Contract No. When made 1934

No. of Sets 1 Engine Brake Horse Power 30 Nom. Horse Power as per Rule 9.25 Total Capacity of Generators 20 Kilowatts.

OIL ENGINES, &c. Type of Engines 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 60 Kg/cm<sup>2</sup> Diameter of cylinders 150 mm Length of stroke 200 mm No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 159 mm Is there a bearing between each crank Yes

Revolutions per minute 600 Flywheel dia. 700 mm Weight 448 Kg. Means of ignition Autless Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule app<sup>d</sup> Kobe. 105 mm Crank pin dia. 95 mm Crank Webs Mid. length breadth 205 mm dia. Thickness parallel to axis shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 11 mm

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 lagged

Cooling Water Pumps, No. 1 Rotary Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size One - 577 litres/hour.

Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging 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.

Can the internal surfaces of the receivers be 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

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. one frame as for the 3 Generator Sets Total cubic capacity 14.126 cub ft. Internal diameter 500 mm thickness 13 mm

Seamless, lap welded or riveted longitudinal joint S.R.D.B.S. Material Steel Range of tensile strength 44/55 Kg/mm<sup>2</sup> Working pressure by Rules 32.9 Kg

ELECTRIC GENERATORS:—Type Multipole 20 K.W.

Pressure of supply 225 volts. Load 89. Amperes. Direct or Alternating Current direct

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 1/10/34. Receivers 1/5/33 Separate Tanks 13/10/33

SPARE GEAR as per Rules

The foregoing is a correct description,

S. Tsumakawa

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - 6, 19, 20/9 5, 6, 12, 23, 24, 25, 26, 31/10 1, 8, 22, 30/11 1, 4, 5/12  
During erection on board vessel - - - 7, 10/12.  
Total No. of visits 20.

Dates of Examination of principal parts—Cylinders 5, 26/10. Covers 23, 24, 25, 26/10 1/11 7, 10/12 Pistons 26/10 Piston rods ✓

Connecting rods 6, 19, 20/9 23/10. Crank and Flywheel shaft 6, 12, 26, 31/10 8, 22/11 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark R N 1067 G. H. M. 22/11/34 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. This machine is intended to be used for lighting purposes in harbours only.

The Auxiliary machinery has been built and fitted on board the Vessel under Special Survey in accordance with the Rules and approved plans. Material and Workmanship good. The machinery was examined running on Shop Trials and afterwards under full working conditions on board with satisfactory results.

The machinery of this Vessel is eligible in my opinion to have the record of + L. M. C. 12. 34 in the Register Book.

Im. 7, 28—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 1 : : When applied for, 19.  
Travelling Expenses (if any) £ 1 : : When received, 19.

G. H. Macdonald.  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute 29 JAN 1935

Assigned See other 38 - 3Ka 5215 -



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