

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 91570

Date of writing Report 12 DEC 1929 When handed in at Local Office 12 DEC 1929 Port of London  
 No. in Survey held at Bedford Date, First Survey 26 MARCH 1929 Last Survey 6 DECEMBER 1929  
 Reg. Book. Number of Visits

on the Single Screw vessel "YASUKUNI MARU" Tons Gross  
 Built at Nagasaki By whom built Mitsubishi Zosen Kaisha Yard No. 468 When built  
 Owners Nippon Yusen Kaisha Port belonging to  
 Oil Engines made at Bedford By whom made Messrs W.H. Allen & Co. Contract No. 14352 When made 1929  
 Generators made at Bedford By whom made Messrs W.H. Allen & Co. Contract No. 14353 When made 1929  
 No. of Sets 3 Engine Brake Horse Power 2025 TOTAL Nom. Horse Power as per Rule 578 Total Capacity of Generators 1350 Kilowatts.

IL ENGINES, &c.—Type of Engines Diesel (Burmester-Hain) 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 575 lbs/sq in Diameter of cylinders 410 mm Length of stroke 600 mm No. of cylinders 6 No. of cranks 6

Spdn of bearings, adjacent to the Crank, measured from inner edge to inner edge 506 mm Is there a bearing between each crank Yes

Revolutions per minute 250 Flywheel dia. 2220 mm Weight 6 Tons Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 227 mm Crank pin dia. 240 mm Crank Webs Mid. length breadth 360 mm Mid. length thickness 127 mm SOLID FORGED.

Flywheel Shaft, diameter as per Rule 29.5 mm Intermediate Shafts, diameter as fitted Thickness of cylinder liners 29.5 mm

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Mechanical Forced.

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

Cooling Water Pumps, No. 2-5 Driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One per engine

Air Compressors, No. One to each engine No. of stages 3 Diameters 340x304x70 mm Stroke 260 mm Driven by Crank on engine

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 (Disable plug)

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Ends accessible

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. One per engine Cubic capacity of each 90 litres Internal diameter 9 3/4" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 7/8" Working pressure by Rules 1026 lbs/sq in

Starting Air Receivers, No. One per engine Total cubic capacity 290 litres Internal diameter 400 mm thickness 16 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 7/8" Working pressure by Rules 1403 lbs/sq in

ELECTRIC GENERATORS:—Type Two bearing, drip proof.

Pressure of supply 225 volts. Load 2000 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. Level Compounding 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 Approved Feb. 16 1929 Receivers ✓ Separate Tanks ✓

SPARE GEAR

As per attached List. N/73792 1st. List 5.

The foregoing is a correct description,

W. H. ALLEN, SONS & CO., LTD.,

H. R. Kimber.

Manufacturer.



© 2018

Lloyd's Register Foundation



Dates of Survey while building { During progress of work in shops - - } March 20. May 24. June 21. Sep. 12. 19 Oct 9. 14. 19. 23. 28. 31 Nov. 11. 15. 20. 22. 25. 27. 29. 30. Dec. 3. 6. 1929.  
 { During erection on board vessel - - - }  
 { Total No. of visits } 21 partial = 8 full.

Dates of Examination of principal parts—Cylinders <sup>Oct. 14, 23, 28, 31</sup> Nov. 11, 15 <sup>30</sup> Dec. 6 Cover <sup>Sept. 12, 19</sup> Oct. 14, 19 Nov. 30 Pistons Nov. 11, 30. Piston rods ✓

Connecting rods *Each 26. May 24. June 21. Oct 28. Nov 30* Crank and Flywheel shaft *Oct. 23. Nov. 30.* Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark SEE BELOW.

Is this machinery duplicate of a previous case. Yes If so, state name of vessel. "Terukuni Maru."

*General Remarks.* (State quality of workmanship, opinions as to class, &c.)

Crank Shaft Identification Marks:-

Eng. II.

J.P.  
656  
LLOYDS  
NO 1973 R.W.F.  
27-6-29 R.W.F.

Eng. E.

TEST N° 880  
LLOYDS  
N° 157  
I.L.H.C. ~~22~~  
19-8-29

Eng. F.

LLOYDS  
R  
1547 X81  
30-8-29 103

This Machinery has been constructed under Special Survey in accordance with approved plans and Rule Requirements.  
The Workmanship and Materials, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.  
The three sets which are numbered 14352/D/E/F have been despatched to Nagasaki where they are to be installed on board and, in my opinion, will be eligible for inclusion in the Classification and record of 4-L.M.C. of the vessel.

The amount of Fee ... .. £ 57-16-0

Travelling Expenses (if any) £ 12-2-10 When received.

### Committee's Minute

TUE. 14 OCT 1930

*Assigned*

See F. E. Rpt

LR-FAF-TB13-64

*Charles M. Palmer.*  
Surveyor to Lloyd's Register of Shipping.

*Surveyor to Lloyd's Register of Shipping.*