

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8711

Date of writing Report

When handed in at Local Office

Port of

Received at London Office

26 NOV 1934

No. in Survey held at
Reg. Book.

Date, First Survey

Last Survey

19

Number of Visits

82167 on the

Single

Type

Screw vessel

"NOTO MARU"

Tons

Gross 7184.51

Net 4317.76

Built at Nagasaki

By whom built Mitsubishi Jukogyo Kaisha

Yard No. 580

When built 1934

Owners Nippon Yusen Kabushiki Kaisha.

Port belonging to

Tokio.

Oil Engines made at Kobe Works

By whom made Mitsubishi Jukogyo Kaisha

Contract No. 463 When made 1934

Generators made at

By whom made Mitsubishi Denki Works

Contract No. When made

No. of Sets 1 Engine Brake Horse Power 32 Nom. Horse Power as per Rule Total Capacity of Generators 20 Kilowatts.

OIL ENGINES, &c.—Type of Engines MRW.2-Mitsubishi Vertical Pump Piston 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 55 Kg/cm² Diameter of cylinders 150 mm Length of stroke 230 mm No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 175 mm Is there a bearing between each crank yes

Revolutions per minute 650 Flywheel dia. 840 mm Weight 490 Kg. Means of ignition Airless injection Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 92 mm as fitted 92 mm Crank pin dia. 92 mm Crank Webs Mid. length breadth 136 mm Thickness parallel to axis shrunk Mid. length thickness 48 mm Thickness around eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 19 mm

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced feed.

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

Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes See Li. 14/12/34.

Lubricating Oil Pumps, No. and size 1 geared pump.

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 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. 1 Total cubic capacity 35 litre Internal diameter 190 mm thickness 7.5 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material steel Range of tensile strength 28-35 ton Working pressure by Rules 30 Kg/cm²

ELECTRIC GENERATORS:—Type 20 KW.

Pressure of supply 225 volts. Load 133 Amperes. Direct or Alternating Current DC.

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

Generators, do they comply with the requirements regarding rating are they compound wound

are they over compounded 5 per cent. , if not compound wound state distance between each generator.

Is an adjustable regulating resistance fitted in series with each shunt field Are all terminals accessible, clearly marked, and furnished with sockets

are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule

PLANS. Are approved plans forwarded herewith for Shafting 18-12-33 Receivers 30-11-33 Separate Tanks

(If not, state date of approval)

SHAFTING GEAR

The foregoing is a correct description,

T. Mase. Manufacturer.



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Foundation

010004-010011-0195

Dates of Survey while building { During progress of work in shops - - Jan-30, Feb-21, 24, March-29, April-9, May-28, 30 & 1934.
During erection on board vessel - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 19-4-34 16-4-34
30-5-34 Covers 30-5-34 Pistons 31-3-34 Piston rods ✓

Connecting rods 30-1, 21-2, 9-4-34
12-4-34 Crank and Flywheel shaft 30-1, 21-2, 24-2, 29-3-34 Intermediate shaft

Crank and Flywheel shaft, Material Forged steel Identification Mark LLOYD'S NO. 4606 KK 24-3-34 Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case If so, state name of vessel

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 generators: 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 Works, Mitsubishi Jukogyo Kabushiki Kaisha, where it is intended to install on board ship No. 580, now being built by them.

Stamped as follows:-

Mach no. 463.

LLOYD'S
NO. 66 R

KK. 30-5-34.

This machinery has been efficiently installed on board, & tried under full load, overload Governor & Air compressing tests & found satisfactory. After trial trip this machine with one air compressor was opened up, examined & all found in good order.

Note! This engine is used for pumping up the Aux. Starting air receiver, by using one cylinder - with fuel cut off - as an air compressor. When tried a pressure of 27.5 was obtained after running for a period of 40 minutes.

The amount of Fee ... ¥ 150.-

Travelling Expenses (if any) £

When applied for,
10th Aug. 1934

When received,
4-9-34

H. Buchanan
Thirigane
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 18 DEC 1934

See Vol 3E 1999



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