

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5350

Received at London Office 4 OCT 1934

Date of writing Report 1st September 1934 When handed in at Local Office 1/9/34 Port of Yokohama

Date, First Survey 8th March 1933 Last Survey 27th August 1934 Number of Visits 97

in Survey held at Yokohama

654 on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel M/V "NAGARA MARU" Tons { Gross 7142 Net 4246

uilt at Yokohama By whom built Yokohama Dock Co Ltd Yard No. 220 When built 1934-8

Owners Nippon Yusen K. K. Port belonging to Tokio

il Engines made at Yokohama By whom made Yokohama Dock Co Ltd Contract No. 1429 When made 1934

enerators made at Nagasaki By whom made Mitsubishi Denki K. K. Contract No. 14211 When made 1934

o. of Sets 3 Engine Brake Horse Power 375 Nom. Horse Power as per Rule 73 Total Capacity of Generators 750 Kilowatts.

ENGINES, &c.—Type of Engines Yokohama M. A. N. 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 45 Kg/cm² Diameter of cylinders 285 mm Length of stroke 420 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 350 mm Is there a bearing between each crank Yes

Revolutions per minute 375 Flywheel dia. 1700 mm Weight 2400 Kg. Means of ignition Circless Kind of fuel used Heavy oil

as per Rule 166.5 mm Crank pin dia. 170 mm Mid. length breadth 280 mm Thickness parallel to axis Solid

Crank Shaft, dia. of journals 170 mm Crank Webs 85 mm Mid. length thickness 85 mm Thickness around eyehole

as per Rule 166.5 mm Flywheel Shaft, diameter 180 mm Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 20 mm

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced engine manifold water cooled

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

33. Cooling Water Pumps, No. 2 (2 extra pumps as for Main Engines) Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size One for each engine 3980 litres/hour

Air Compressors, No. Two No. of stages three HP 105% MP 360-305% L.P. 360-105% Stroke 250 Driven by Cum. Diesel Engine No. 14210

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 for the 3 sets Total cubic capacity 14.126 cu 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/cm² Working pressure by Rules 32.9 Kg/cm²

ELECTRIC GENERATORS:—Type Multipole 250 K.W.

Pressure of supply 225 volts Load 1,110 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 22/4/33 Receivers 1/5/33 Separate Tanks 13/10/33

(If not, state date of approval)

SHAFTING GEAR as per Rules

The foregoing is a correct description,

S. Tsunematsu

Manufacturer.



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Lloyd's Register
Foundation

009570 - 009579 - 0011

8, 24, 27, 30/3 4, 5, 7, 10, 11, 26/4 1, 2, 3, 5, 6, 8, 10, 17, 24, 27/5 9, 10, 13/6 6, 7, 10, 13, 15, 25/7 2, 29/8 1/9 11, 24, 29/11 4, 6, 9, 18, 19, 27/12 /193
 Dates of Survey while building { During progress of work in shops - - 10, 11, 12, 13, 17, 18, 19, 25, 30, 31/1, 1, 9, 24/2 1, 2, 6, 8, 10, 12, 20, 29/3 5, 6, 9, 12, 28, 30/4 7, 8, 11, 22, 24, 25/5 /1934
 During erection on board vessel - - 31/5 4, 7, 8, 12, 13, 19, 21, 26, 30/6 2, 4, 9, 16, 21, 24, 31/7 3, 8, 11, 13, 24, 27/8 /1934
 Total No. of visits 97

Dates of Examination of principal parts—Cylinders 27/3/33 To 18/12/33 Covers 5/5/33 To 15/7/33 Pistons 11/1/34 Piston rods ✓

Connecting rods 8/3/33 To 9/2/34 Crank and Flywheel shaft 31/1/34 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark 8 N: 10054 M.B. 24.7.33 } Crank shaft
 8 N: 14980 K.H. 1.8.33 }
 8 N: 1728 F.S. 7.8.33 } Intermediate shafts, Material ✓ Identification Marks ✓
 8 N: 3733 T.K. 13.12.33 } Flywheel shaft

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. 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. 8. 34 in the Register Book.

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

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

Committee's Minute FRI. 12 OCT 1934
 Assigned See other JKA. J.E. R.