Pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS. No. 8647.

Received at London Office 14 SEP 1934 (O.N.A. No 5343)

Date of writing Report 12th August 1934 When handed in at Local Office 13/8/ 1934 Port of Yokohama (Kobe)

No. in Reg. Book. Survey held at Kobe & Yokohama Date, First Survey 26th October 1933 Last Survey 28th July 1934 Number of Visits 19

40264 on the ~~Single~~ ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel M.V. "KANO MARU" Tons Gross 6940 Net 3785

Built at Uraga By whom built Uraga Dockyard Yard No. 386 When built 1934-8

Owners K.K.K. Port belonging to Tokio

Oil Engines made at Kobe By whom made Mitsubishi Jukogyo K. Kobe Contract No. 470 When made 1934

Generators made at Nagasaki By whom made Mitsubishi Denki K. Nagasaki Contract No. When made

No. of Sets One Engine Brake Horse Power 50 Nom. Horse Power as per Rule Total Capacity of Generators 30 Kilowatts.

OIL ENGINES, &c.—Type of Engines M.R.W.3. Vertical trunk piston 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 55 Kg/cm² Diameter of cylinders 150 m/m Length of stroke 230 m/m No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 175 m/m ✓ Is there a bearing between each crank Yes

Revolutions per minute 700 Flywheel dia. 840 m/m Weight 494 Kg. Means of ignition Compression Kind of fuel used Heavy diesel oil

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

Flywheel Shaft, diameter as per Rule ..... as fitted 92 m/m ✓ **Intermediate Shafts**, diameter as per Rule ..... as fitted ..... Thickness of cylinder liners 14 m/m

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

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

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

Lubricating Oil Pumps, No. and size One - Geared pump.

Air Compressors, No. One No. of stages 2 Diameters HP 48 m/m LP 140 m/m Stroke 130 m/m Driven by Auxiliary 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

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. Two Total cubic capacity 120 litre 35 litre ✓ Internal diameter 15" 190 m/m ✓ thickness 7/16" ✓ 7.5 m/m

Seamless, lap welded or riveted longitudinal joint D.R. Seamless Material Steel ✓ Range of tensile strength 28-35 T/□" Working pressure by Rules 30 Kg/cm²

ELECTRIC GENERATORS:—Type Multipole 30 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 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 11-11-33 (If not, state date of approval) Receivers 24-10-33. Separate Tanks ✓

SPARE GEAR Spare Gear, as per Spare Gear list received from Nagasaki Surveyors, checked on board and found in order (See separate list with Nagasaki Dpt No 1976 dated 26/6/34)

The foregoing is a correct description,

T. Mase. Manufacturer.

W184-0142

Dates of Survey while building — During progress of work in shops: 1933 - Oct 26. Nov. 4. 22. 28. 30, Dec. 7. 20. 27. 1934 Jan 27. 29. Feb 22 26. March 28.

During erection on board vessel: 12/2 7/3 28/5, 15/6 28/7/1934

Total No. of visits: 19

Dates of Examination of principal parts—Cylinders 27-12-33 Covers 20-12-33 Pistons 22-11-33 Piston rods 26-10, 4. 30-11-33.

Connecting rods 2-2-34 Crank and Flywheel shaft 28-11. 7-12-33 27. 29-1-34 Intermediate shaft ✓

Crank and Flywheel shaft, Material Forged Steel Identification Mark R. No. 3887 KK 29-1-34 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.)

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 its generator and all proved satisfactory and eligible in my opinion for classification.

The machinery has been shipped to Uraga Dockyard where it is intended to install it on board Ship No. 386.

Stamped as follow:-

Mach No. 470
LLOYDS
No. 62 R
KK 28-3-34

This Emergency generating set has been fitted on board this Vessel in accordance with the Rules. On completion of fitting out, all tried under full working conditions with satisfactory results

G. H. Macdonald Yokohama.

The amount of Fee ... ... £ : : When applied for, ...19....

Travelling Expenses (if any) £ : : When received, ...19....

K. Kobigami

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 2 OCT 1934

Assigned See Yka TE 5343

1m.7.36—Transfer.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)