

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 7410.

Received at London Office 27 JUL 1931

Date of writing Report 19 When handed in at Local Office 19 Port of Kobe

No. in Survey held at Yama Date, First Survey 8 Nov. 1930 Last Survey 29 June 1931

Reg. Book. "SANSEI MARU" Number of Visits 17

on the ~~Twin~~ <sup>Single</sup> Screw vessel Tons { Gross 3234.31 Net 1820.48

Built at Yama By whom built Mitsui Bussan Kaisha Yard No. 185 When built 1931

Owners Daiken Kisen Kaisha Yama Port belonging to Daiken

Oil Engines made at Yama By whom made Mitsui Bussan Kaisha Contract No. 34,35,36 When made 1931

Generators made at Tsurumi, Yokohama By whom made Shibaura Seisaku-sho Contract No. 3041294, 3041295, 3041298 When made 1931

No. of Sets 3 Engine Brake Horse Power 100 Nom. Horse Power as per Rule 29 Total Capacity of Generators 180 Kilowatts.

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

Maximum pressure in cylinders 36 kg/cm<sup>2</sup> Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 22 No. of cranks 22

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 352 mm Is there a bearing between each crank yes

Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2650 kg Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule approved as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 225 dia circle Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule 335 mm Intermediate Shafts, diameter as fitted 30 mm Thickness of cylinder liners 30 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 yes

Cooling Water Pumps, No. 1 for each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Lubricating Oil Pumps, No. and size 1 geared pump for engine P.C. dia. 55 mm

Air Compressors, No. 1 for engine No. of stages 2 Diameters 280 & 320 mm Stroke 170 mm Driven by General 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 man 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. 2 (40 main & 1 aux. pump) Total cubic capacity 3800 ft<sup>3</sup> Internal diameter 4'-1 1/2" thickness 3/4"

Seamless, lap welded or riveted longitudinal joint T.R.L. Material M. Steel Range of tensile strength 26-28 tons Working pressure by Rules 517 lb/sq. in.

ELECTRIC GENERATORS:—Type Multipole Compound wound

Pressure of supply 220 volts. Load 273 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 20-8-30 Receivers Separate Tanks

SPARE GEAR As per Rules. checked & found satisfactory.

Spare Air Receiver, one in number. Capacity 250 litres

Internal dia 400 mm. Thickness 13 mm.

Seamless. Steel, W.P. 30 kg/cm<sup>2</sup>.

Stamped: No 2989 B.

LLOYD'S TEST

60 KGS.

W.P. 30 KGS.

Y.J. R 13-3-31

The foregoing is a correct description.

Manufacturer.



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Lloyd's Register

W1282-0131



Dates of Survey while building { During progress of work in shops - 1930. Nov. 8, 14, Dec 20; 1931 Jan 12, 20. Feb. had 20, 20.  
During erection on board vessel - Ap. 3, 18. May 2, 14, 18, 20. June 17, 24, 29, 30  
Total No. of visits 17.

Dates of Examination of principal parts - Cylinders 2-5-31 Covers 2-5-31 Pistons 2-5-31 Piston rods ✓

Connecting rods 14-11-30 Crank and Flywheel shaft 20-12-30 Intermediate shaft ✓

Crank and Flywheel shafts, Material *Import Steel* Identification Mark *LLOYD'S No. 2929 ADM. 20-12-30*

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *Santo haen*

General Remarks (State quality of workmanship, opinions as to class, etc.)

*has 3 Generators:*

LLOYD'S TEST  
No 184 R  
J.F.N. 5-2-31

LLOYD'S TEST  
No 185 R  
J.F.N. 5-2-31

LLOYD'S TEST  
No 249 R  
J.F.N. 17-2-31

The machinery herein described has been constructed under Special Survey in accordance with the approved plans & Rules; the materials & workmanship are good, and on completion the machinery has been efficiently installed in the vessel, coupled to the generators & tested under full working and parallel running conditions & found to be efficient, & suitable, in my opinion, for classification.

1m, 9, 28 - Transfer.  
(The Surveyors are requested not to write on or below the space for Committee Minute.)

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

*S. Siquing*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 131 JUL 1931*  
Assigned *La F. B. Rpt*