

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 105774.

Received at London Office

Date of writing Report

When handed in at Local Office

Port of KOBÉ

No. in Survey held at KOBÉ

Date, First Survey

Last Survey

19

Reg. Book.

Number of Visits

37122 on the ~~Triple~~ <sup>Single</sup> Screw vessel

M. V. ASAKA MARU

Tons { Gross 7378  
Net 4328

Built at NAGASAKI

By whom built MITSUBISHI JUKOGYO K.K.

Yard No. 687 When built 1937

Owners NIPPON YUSEN KAISHA

Port belonging to TOKIO

Oil Engines made at KOBÉ

By whom made Mitsubishi Jukogyo K.K. Kobe

Contract No. 777,778, 779 When made 1937

Generators made at NAGASAKI

By whom made MITSUBISHI DENKI

Contract No. 687 When made 1937

No. of Sets 3 Engine Brake Horse Power 330 Each Nom. Horse Power as per Rule 68 Each Total Capacity of Generators 660 Kilowatts.

OIL ENGINES, &amp;c.—Type of Engines 69 27.5/42 Vertical Trunk Piston 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 46 kg/cm<sup>2</sup> Diameter of cylinders 275 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 324 mm Is there a bearing between each crank Yes

Revolutions per minute 360 Flywheel dia. 1600 mm Weight 3180 kg Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, dia. of journals as per Rule 162.5 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 240 mm Mid. length thickness 93 mm Thickness parallel to axis Thickness around eyehole

Flywheel Shaft, diameter as per Rule 162.5 mm as fitted 170 mm Intermediate Shafts, diameter as per Rule Thickness of cylinder liners ? 26 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 Water cooled and lagged

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

Lubricating Oil Pumps, No. and size One, single acting 80 mm x 45 mm Driven by engine

Air Compressors, No. Two No. of stages 3 Diameters 80 mm 360/310 mm 360/80 mm Stroke 180 mm Driven by Two of these engines

Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 6309

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 Manhole

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 Total cubic capacity 400 Litres Internal diameter 522 mm thickness 1/2 ins.

Seamless, lap welded or riveted longitudinal joint D.R.D.B. Material Steel Range of tensile strength 44-50 kg/cm<sup>2</sup> Working pressure by Rules 30 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type DC Compound Wound

Pressure of supply 225 volts. Full Load Current 978 Amperes. Direct or Alternating Current DC

If alternating current system, state the periodicity Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off Yes

Generators, are they compounded as per rule Yes 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

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test and do the results comply with the requirements

If the generators are 100 kw. or over have they been built and tested under survey Yes

PLANS. Are approved plans forwarded herewith for Shafting 29/9/36 Receivers 29/9/36 Separate Tanks

SPARE GEAR

The foregoing is a correct description.

KOBÉ WORKS, MITSUBISHI JUKOGYO K.K.

M. Seki

Manufacturer.

Superintendent Engineer.

12.12.13



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Lloyd's Register

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Dates of Survey while building  
During progress of work in shops - - -  
During erection on board vessel - - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders 27/3/37, 30/3/37, 1/4/37. Covers 6/4/37, 7/4/37, 12/4/37. Pistons 12/4/37. Piston rods

Connecting rods 20/4/37. Crank and Flywheel shafts 29/3/37, 6/4/37, 5/5/37. Intermediate shafts

Crank and Flywheel shafts, Material Forged mild steel. Identification Marks F.I. 29/3/37 R, F.I. 6/4/37 R, F.I. 5/5/37 R.

Intermediate shafts, Material Identification Marks

Identification marks on Air Receivers LLOYD'S No. 6309 R. W.T.P. 3045/100. W.P. 3045/100. F.I. 29-5-37.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Always Arrmin Mann

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

These engines have been constructed under special survey in accordance with the Rules and approved plans.

The materials and workmanship are good.

Stamped as follows:-

E777  
LLOYD'S  
No. 136  
Y.H.R.  
17.6.37

E778  
LLOYD'S  
No. 137  
Y.H.R.  
17.6.37

E779  
LLOYD'S  
No. 138  
Y.H.R.  
17.6.37

The spare gear is in accordance with the requirement of the Rules.

This machinery has been efficiently installed on board & tried under full working & overload conditions with satisfactory results. Spare gear checked & found sufficient. After trials one engine with air compressor joined up, all parts examined & found good.

The amount of Fee ... £ 825  
Travelling Expenses (if any) £ 100  
When applied for, 2/5/37  
When received, 10/5/37

W. Buchanan & J. Hamada  
Surveyors to Lloyd's Register of Shipping.

Committee's Minute 11 FEB 1938

Assigned See Nag. 2324



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