

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS. No. 16192A.

Received at London Office AUG. 18 1937

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

No. in Survey held at Kobe Date, First Survey Last Survey 19... Reg. Book. Number of Visits

on the Single Twin Triple Quadruple Screw vessel *Koyu Maru* Tons { Gross Net

Built at By whom built Yard No. 672 When built Port belonging to

Oil Engines made at Kobe By whom made Mitsubishi Jukogyo K. Kobe Contract No. 747,748,749 When made 1937

Generators made at By whom made Contract No. When made

No. of Sets 3 Engine Brake Horse Power Each 140 Nom. Horse Power as per Rule 27 Total Capacity of Generators 270 Kilowatts.

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

Maximum pressure in cylinders 47 kg/cm² Diameter of cylinders 250 m.m. Length of stroke 380 m.m. No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 290 m.m. Is there a bearing between each crank Yes

Revolutions per minute 360 Flywheel dia. 1,400 m.m. Weight 2155 kg Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 138 m.m. as fitted 155 m.m. Crank pin dia. 155 m.m. Crank Webs Mid. length breadth 226 m.m. Thickness parallel to axis shrunk Mid. length thickness 83 m.m. Thickness around eyehole

Flywheel Shaft, diameter as per Rule 138 m.m. as fitted 155 m.m. Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 24 m.m.

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 & 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 60 m.m. x 38 m.m. driven by engine 2 of these engines

Air Compressors, No. 2 No. of stages 3 Diameters 70, 310/270, 310/70 m.m. Stroke 180 m.m. Driven by driven air compressor

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

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 267 Litres Internal diameter 21" thickness 0.625"

Seamless, lap welded or riveted longitudinal joint D.R.D.B. Material Steel Range of tensile strength 28-35 T/mch² Working pressure by Rules 45 kg/cm²

ELECTRIC GENERATORS: Type

Pressure of supply volts. Load Amperes. Direct or Alternating Current

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 7/7/36 Receivers 7/7/36 Separate Tanks

SPARE GEAR

The foregoing is a correct description. KOBE WORKS, NITSOBISHI JUKOGYO MANUFACTURER. M. Seki Superintendent Engineer.



Dates of Survey while building
 During progress of work in shops - - } 1936 Sep. 30, Oct. 3, 7, 20, Nov. 28, Dec. 12, 24, 26. 1937 Jan. 8, 19, 20, 21, 22, 26, 28, 29, 30 Feb. 1, 8, 10, 12, 13, 16, 17, 19, 23, 24, 25, 26, 27, March. 1, 2.
 During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders 23/12/36, 19/1/37, 26/1/37 Covers 22/1/37, 29/1/37, 18/2/37 Pistons 20/1/37, 22/1/37, 30/1/37 Piston rods

Connecting rods 30-1-37 Crank and Flywheel shaft 1-12-36 Intermediate shaft

Crank and Flywheel shafts, Material Forged mild steel Identification Mark F.I.R LLOYD'S NO. 5692

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.)

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:-

M.N. 747	M.N. 748	M.N. 749
LLOYD'S No. 126	LLOYD'S No. 127	LLOYD'S No. 128
1-3-37 R	1-3-37 R	1-3-37 R

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

The amount of Fee ... £600 :
 Travelling Expenses (if any) £300 :
 When applied for, 19...
 When received, paid at Kobe 19...

J. Hamada
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned
 TUE. 24 AUG 1937
 Sec. Nav. J.E. 2262

