

16 NOV 1953

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1693

Received at London Office _____
 Date of writing Report 19 _____ When handed in at Local Office 19 _____ Port of KOBE
 No. in Survey held at OSAKA & Kobe Date, First Survey 1-9-52 Last Survey 10-8-1953
 Reg. Book. _____ Number of Visits 11
 on the Single Twin Triple Quadruple Screw vessel S.S. "MEITAI MARU" Tons { Gross 12,982.28
 Net 9,558.53
 Built at Kobe, Japan By whom built Kawasaki Dockyard Co., Ltd. Yard No. 923 When built 8-53
 Owners. Meiji Kaiun Co., Ltd. Port belonging to Kobe
 Oil Engines made at OSAKA, Japan By whom made Daihatsu Kogyo K.K. Engine No. 425005 When made May, 1953
 Generators made at Kobe, Japan By whom made Kawasaki Dockyard Co., Ltd. Generator No. 67766 When made April, 1953
 No. of Sets 1 B.H.P. of each Set 160 ✓ M.N. of each Set as per Rule 32 Capacity of each Generator 100 Kilowatts
 Is Set intended for essential services No, emergency use.

OIL ENGINES, &c.—Type of Engines Solid injection, Daihatsu "4PS-25A" 3 or 4 stroke cycle 4 ✓ Single or double acting Single ✓
 Maximum pressure in cylinders 55 kg/cm² ✓ Diameter of cylinders 250 mm ✓ Length of stroke 320 mm ✓ No. of cylinders 4 ✓ No. of cranks 4
 Mean indicated pressure 6.37 kg/cm² ✓ Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 320 mm ✓
 Is there a bearing between each crank Yes { Moment of inertia of flywheel (Kg.-cm.²) 9x10⁶ Revolutions per minute 450 ✓
 Flywheel dia. 1100 mm Weight 1400 kg Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, Solid forged dia. of journals as per Rule 140.67 as fitted 180 mm Crank pin dia. 160 mm Crank Webs Mid. length breadth 220 mm Thickness parallel to axis —
 Mid. length thickness 80 mm Thickness round eyeballs —
 Flywheel Shaft, diameter as per Rule — Generator armature, moment of inertia (Kg.-cm.²) 3.8 x 10⁶

Are means provided to prevent racing of the engine Yes ✓ Means of lubrication Forced ✓ Kind of damper if fitted Not fitted
 Are the cylinders fitted with safety valves Yes ✓ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled
 Cooling Water Pumps, No. and how driven 1 x Engine geared Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size 1 x 2.1 ton/h gear pump, engine geared
 Air Compressors, No. 1 No. of stages 2 Diameters 60 mm & 28 mm Stroke 55 mm Driven by 2HP Kelosene engine
 Scavenging Air Pumps or Blowers, No. — How driven —

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate AR 485
 (other than main engines) Safety valve fitted
 State full details of safety devices
 Can the internal surfaces of the receivers be examined and cleaned Yes
 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 —
 Starting Air Receivers, No. 1 Total cubic capacity 500 litre Internal diameter 588 mm thickness Head 19 mm
 Seamless, lap welded or riveted longitudinal joint Fusion Weld Material Boiler plate Range of tensile strength 29.7-31.4 Working pressure 30 kg/cm²
 T/sq.in.

ELECTRIC GENERATORS:—Type Semi enclosed - drip-proof Direct Current
 Pressure of supply 230 volts. Full Load Current 435 Amperes. Direct or Alternating Current
 If alternating current system, state the periodicity — Has the Automatic Governor been tested and found as per Rule when full 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 Yes 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
 Details of driven machinery other than generator Generator only
 PLANS.—Are approved plans forwarded herewith for Shafting 17-1-53 Receivers 14-7-52 Separate Tanks 27-11-52
 (If not, state date of approval) 17-1-53 Armature shaft Drawing No. M-31298
 Have Torsional Vibration characteristics if applicable been approved (State date of approval and name of previous duplicate case, if any)
 Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

Keiji Wada

Manufacturer.



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Lloyd's Register
Foundation

012377-012385-0366

Dates of Survey while building { During progress of work in shops - - 1952: Sept., 1, 30 Nov., 13, Dec. 13, 1953: Feb. 21, May 25 6 Visits
During erection on board vessel - - 1953: June 19 July 8, 15, 30 Aug., 10
Total No. of visits 11

Dates of Examination of principal parts—Cylinders 13-11-1952 Covers 13-12-1952 Pistons 25-5-53 Piston rods -

Connecting rods 1-9-52 Crank and Flywheel shafts 30-9-52 Intermediate shafts -

Crank shaft { Material Forged Steel Tensile strength 54.6 kg/cm²
Elongation 26% Identification Marks KW-CK-123 SM

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers No. AR 485 LLOYD'S TEST W.T.P. 48.5 kg W.P. 30kg KT LR 8-4-53

Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "ALLIANCE" S.S. "SAKURA"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Emergency Oil Engine has been constructed under Special Survey in accordance with the Rules, Approved Plans and Secretary's letters. The Materials and workmanship are sound, good and free from defect. The Emergency Oil Engine has been examined under working condition during shop and comprehensive sea trials and found satisfactory.

The amount of Fee ... £ 29,000

When applied for 1-8 1953

Travelling Expenses (if any) £ :

When received 19

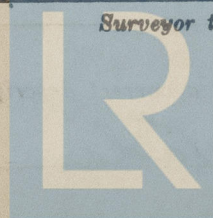
Committee's Minute

FRIDAY - 4 DEC 1953

Assigned

See minute on hull p. rft

Surveyor to Lloyd's Register of Shipping.



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