

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1142

15 JAN 1953

Date of writing Report 22-11-1952 When handed in at Local Office 2 JAN 1953 Received at London Office Kobe
 No. in Survey held at Tamano, Japan Date, First Survey 1st April, 1952 Last Survey 17th Nov. 1952
 g. Book. Single on the Twin Screw vessel. Motor Tanker "OTOWASAN MARU" Number of Visits 26
Quadruple
 Built at Tamano, Japan By whom built Mitsui Shipbuilding Engineering Co., Ltd. Yard No. 569 When built Nov. 1952
 Owners Mitsui Senpaku K. K. Port belonging to Tokyo
 Engines made at Tamano, Japan By whom made Mitsui Shipbuilding Engineering Co., Ltd. Contract No. 451.452 When made Nov. 1952
 Generators made at Osaka, Japan By whom made Kurosaki Mfg. Co., Ltd. Contract No. 25223 When made JUN. 1952
 dia. of Sets 2 Engine Brake Horse Power 90 X 2 M.N. as per Rule 22.5 X 2 = 45 Total Capacity of Generators 60 X 2 = 120 Kilowatts.
 Set intended for essential services yes

IL ENGINES, &c.—Type of Engines B & W 320 MTH 30 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 205 mm Length of stroke 300 mm No. of cylinders 3 No. of cranks 3
 Indicated pressure 6.7 kg/cm² Firing order in cylinders 1-3-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 269 mm
 there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 3675000 Revolutions per minute 540
 Flywheel dia. 1250 mm Weight 1540 kg Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 118.23 mm Crank pin dia. 125 mm Crank Webs Mid. length breadth 260 mm Thickness parallel to axis 74 mm
 as fitted 135 mm Mid. length thickness 69 mm Thickness round eyehole 60 mm
 Flywheel Shaft, diameter as per Rule — Intermediate Shafts, diameter as per Rule — General armature, moment of inertia (16 m² or Kg.-cm.²) 115000

Means provided to prevent racing of the engine when declutched yes Means of lubrication Forced Kind of damper if fitted —
 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. 2 - 6 M³/H Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 Lubricating Oil Pumps, No. and size 1 - Gear pump per each engine Particulars of gear: Breadth 56 mm, Module 5, No. of teeth 14, RPM 540
 Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 Sucking Air Pumps, No. — Diameter — Stroke — Driven by —

AIR RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate AR 11824
 Each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Have the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces 1 mud 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. 1 Total cubic capacity 0.1 cubic meter Internal diameter 420 mm thickness 11 mm
 Seamless, lap welded or riveted longitudinal joint welded Material O.H. steel Range of tensile strength 30-34 kg/cm² Working pressure by Rules 3.7 kg/cm²

ELECTRIC GENERATORS:—Type Semi-enclosed Drip Proof Self Ventilated
 Voltage of supply 110 volts. Full Load Current 545 Amperes. Direct or Alternating Current D.C.
 Alternating current system, state the periodicity — Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 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
 shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes
 Are the generators under 100 kw. full load rating, have the makers supplied certificates of test yes and do the results comply with the requirements yes
 Are the generators 100 kw. or over have they been built and tested under survey —
 Details of driven machinery other than generator —

ANS.—Are approved plans forwarded herewith for Shafting 11-6-1952 Receivers 11-9-1952 Separate Tanks —
 (If not, state date of approval)
 Have Torsional Vibration characteristics if applicable been approved — Armature shaft Drawing No. 3D-3607
 (state date of approval)

ARE GEAR 3 Exhaust valves, 3 Inlet valves, 1 starting air valve, 4 Fuel valves, 1 Safety valve,
 9 sets piston rings, 1 set Crank pin bearings, 2 Gudgeon pin bushes, 2 Fuel pumps, 6 sets fuel pipes,
 1 cylinder, 1 piston, 2 Indicator valves, 1 set main bearings, 1 Fuel pump body with plunger.

MITSUI SHIPBUILDING & ENGINEERING CO., LTD.
 The foregoing is a correct description of the works.

S. Tamaki Manufacturer.
 Senior Managing Director.



© 2021

Lloyd's Register Foundation

011896-011904-0032

Dates of Survey while building { During progress of work in shops - - 1952-APR. 1, 4, 16, 26, MAY 9, 27, JUN 2, 10, 13, 21, 23, 27, JUL 7, 11, 18, 26, AUG 18, 23, 29 (SEP. 4, 9). During erection on board vessel - - 1952 - OCT. 31, NOV. 12, 17. Total No. of visits 26

Dates of Examination of principal parts—Cylinders 26-7-52 Covers - Pistons 26-7-52 Piston rods -

Connecting rods 18-7-52 Crank and Flywheel shafts 18-7-52 Intermediate shafts -

Crank shaft { Material ARM Electric Furnace Steel Tensile strength 29.7~30.1 T/0" 29.6~29.8 28.8~31.4" 28.9~32.9 ENG. NO. 451 452 JOURNAL 451 452 Identification Marks M-CK328 M-CK328 MHB MHB Elongation 33~35% 33~35% 31~35% 31~35%

Flywheel shaft, Material - Identification Marks - Identification marks on Air Receivers NO. AR 407 LLOYD'S TEST W.P. 41 KG/cm² W.P. 25 KG/cm² MHB 9-9-52.

Is this machinery duplicate of a previous case yes If so, state name of vessel M.T. "GERD MAERBK"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The Generators of this vessel have been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

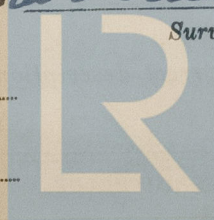
The workmanship and materials are sound and good. The Generators have been examined under working conditions during deck and comprehensive sea trials and found satisfactory.

The amount of Fee ... £ 36000 When applied for 2. JAN. 1953 Travelling Expenses (if any) £ : : When received 19

Committee's Minute TUES. 27 JAN 1953

Assigned See Rpt. 46.

L. P. Williams Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation