

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 3177

Received at London Office 11 JAN 1956

Writing Report 19 When handed in at Local Office DEC 30 1955 Port of K O B E

Survey held at Tamano Date, First Survey 8th Feb., 1955 Last Survey 2nd Sept., 19 55. Number of Visits 29

on the ~~Deck~~ ^{Single} ~~Type~~ ^{Screw vessel} M.V. "MEIKEI MARU" Tons { Gross 7613.59 Net 4285.30

Tamano, Japan By whom built Mitsui Shipbuilding & Eng., Co., Ltd. Yard No. 599 When built Sept. 1955

Meiji Kaiun K.K. Port belonging to Kobe

made at Tamano, Japan By whom made Mitsui Shipbuilding & Eng., Co., Ltd. Engine No. 563,564 When made Sept. 1955

made at Tamano, Japan By whom made Mitsui Shipbuilding & Eng., Co., Ltd. Generator No. 7020,7021 When made Sept. 1955

ts 2 B.H.P. of each Set 216 x 2 M.N. of each Set as per Rule 43.2 x 2 Capacity of each Generator 145x2 Kilowatts

ided for essential services Yes

GINES, &c.—Type of Engines Mitsui B. & W. D.E. 425 MTH 40 2 or 4 stroke cycle 4 Single or double acting Single

pressure in cylinders 55 kg/cm² Diameter of cylinders 245mm Length of stroke 400mm No. of cylinders 4 No. of cranks 4

ated 7.2kg/cm² Timing order in cylinders 1-2-3-4 Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 315mm

bearing between each crank Yes { Moment of inertia of flywheel ~~16,000~~ Kg.-cm.² 21,300,000 Revolutions per minute 450

a. 1350mm Weight 3030kgs Means of ignition compression Kind of fuel used Diesel oil

raft, { Solid forged as per Rule 148.48mm Crank pin dia 170mm Crank Webs Mid. length breadth 290mm Thickness parallel to axis 90mm

{ Semi-built dia. of journals 170 mm as fitted Mid. length thickness 90mm shrunk Thickness round eye hole 82.5mm

{ All-built

Shaft, diameter as per Rule - Generator armature, moment of inertia (~~16,000~~ Kg.-cm.²) 554,000

provided to prevent racing of the engine Yes Means of lubrication forced Kind of damper if fitted -

nders fitted with safety valves Yes Are the exhaust pipes and silencers ~~not~~ lagged with non-conducting material Yes

Water Pumps, No. and how driven 1-10m³/h x 18m Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

ng Oil Pumps, No. and size 1 - gear pump per each engine, Particulars of gear breadth 75mm module 6 No. of teeth 15, 450 r.p.m. Capacity 5.8m³/h.

ressors, No. - No. of stages - Diameters - Stroke - Driven by -

g Air Pumps or Blowers, No. - How driven -

CEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate AR-23894

details of safety devices 1 - 12mmspring loaded escape valve and 1 - 10mm fusible plug.

rnal surfaces of the receivers be examined and cleaned Yes What means are provided for cleaning their inner surfaces: Mud hole

rain arrangement fitted at the lowest part of each receiver Yes

ssure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -

Air Receivers, No. 1 Total cubic capacity 0.1 M³ Internal diameter 1718mm 420 thickness 25mm

welded or riveted longitudinal joint Welding Material O.H.Steel Range of tensile strength 45.4-50 kg/cm² Working pressure kg/cm²

RIC GENERATORS:—Type 3 Phase A.C. self-ventilated drip proof open type.

f supply 445 volts. Full Load Current 219 Amperes. Direct or Alternating Current Alternating current

current system, state the periodicity 60 Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

Yes Generators, are they compounded as per Rule Yes is an adjustable regulating resistance fitted in series with each shunt field Yes

inals accessible, clearly marked, and furnished with sockets Yes Are they so spaced

at they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

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

rs are 100 kw. or over have they been built and tested under survey Yes

en machinery other than generator 110 V 5 KW Exciters Machine No.7025, 7026

Are approved plans forwarded herewith for Shafting 12-5-1955 Kobe Receivers 11-4-1955 Kobe Separate Tanks 4-4-1955 Kobe

(If not, state date of approval)

d Vibration characteristics if applicable been approved 19-7-1955 Armature shaft Drawing No. 3D-5719

(State date of approval and name of previous duplicate case, if any)

gear required by the Rules been supplied

Exhaust valves, 3 air inlet valves, 2 starting air valves, 1 set and 2 Fuel valves for one

1 Relief valve, 1 crank pin bearing, 1 gudgeon pin bush, 1 Fuel pump, 5 sets Fuel pipes for

inder, 1 piston, 1 cylinder, 2 Indicator valves.

MITSUI SHIPBUILDING & ENGINEERING CO., LTD., TAMANO WORKS.

The foregoing is a correct description.

Asano for S. Tanaka, Senior Managing Director, Manufacturer.



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005029-005037-0026

Dates of Survey while building { During progress of work in shops-- } 1955: Feb. 8, 22, Mar. 4, 11, 15, Apr., 1, 7, 19, 22, 27, May 6, 10, 13, 17, 21, 24, June 3, 7, 11, 14, 16, 18, 22, July 4, 8, 12, 23, Aug., 2
{ During erection on board vessel---- } 1955: Sept. 2
Total No. of visits 29

Dates of Examination of principal parts—Cylinders 21-5-55 Covers - Pistons 3-6-55 Piston rods -
Connecting rods 3-6-55 Crank ~~and pistons~~ Eng. No. 563 No. 564 Intermediate shafts -
Arm: Electric furnace Steel 3-6-55 7-6-55 Eng. No. 563
Journal: Open Hearth Steel Tensile strength Arm: ✓ 47.7-48.9 kg/mm² / 48.1-49.0
Crank shaft { Material Eng. No. 563 564
Elongation Arm: 32-36% 30-32% Journal: ✓ 46.7-50.1 " ✓ 46.5-51.1
Journal: 32-36% 28-35% Identification Marks Eng. No. 563 564
Flywheel shaft, Material - M-CK 382 JN LR M-CK 383 JN LR
Identification marks on Air Receivers No. AR 292 LLOYD'S TEST KOB W.T.P. 41 kg/cm² W.P. 25 kg/cm² JN LR 3-6-55
630

Is this machinery duplicate of a previous case No If so, state name of vessel -

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

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

The workmanship and materials are sound and good.

The Electric generators have been examined under working condition during shop and comprehensive sea trial and found satisfactory.

C.E.R.D.

The amount of Fee ... ¥ 70,000

When applied for DEC. 30, 1955

Travelling Expenses (if any) ¥ See Rpt. 1

When received 19

FRIDAY 10 FEB 1956

Committee's Minute

Assigned

See Rpt. 4 B.

Surveyor to Lloyd's Register of Shipping.
Lloyd's Register Foundation