

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Kode 2157

No. 1458-B

Date of writing Report 30th June 1954 When handed in at Local Office Kobe JUN 12 1954 Received at London Office 3-AUG-1954
 No. in Survey held at TAMASHIMA Port of Kobe YOKOHAMA
 Reg. Book. Kode 3-9-53 Date, First Survey 5-5-54 Last Survey 28-6-1954
 (YOKOHAMA) Number of Visits 18 Kode-16
 on the Single Screw vessel M.V. "TAMON MARU" Tons { Gross 7713.61
Triple Quadruple Net 4425.92
 Built at YOKOSUKA By whom built THE URAQA DOCK CO., LTD. Yard No. 655 When built 6-54
 Owners HACHIUMA KISEN K.K. Port belonging to NISHINOMIYA
 Oil Engines made at TAMASHIMA JAPAN By whom made URAGA TAMASHIMA DIESEL KOGYO K.K. Engine No. 256 257 When made 30-MAR-54
 Generators made at KOBE By whom made MITSUBISHI ELECTRIC Co., Ltd. KOBE Generator No. 15339 15340 When made 22-FEB-54
23-FEB-54
 No. of Sets 2 B.H.P. of each Set 36.5 M.N. of each Set as per Rule 73 x 2 Capacity of each Generator 240 Kilowatts
 Is Set intended for essential services YES

OIL ENGINES, &c.—Type of Engines 4SCSA 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 55 kg/cm² Diameter of cylinders 290 mm Length of stroke 360 mm No. of cylinders 6 No. of cranks 6
 Mean indicated pressure 6.4 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 340 mm
 Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 2345 kg-m Revolutions per minute 450
 Flywheel dia. 1500 mm Weight 1560 kg Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, { Solid forged dia. of journals as per Rule 113.3 mm Mid. length breadth 78.5 mm Thickness parallel to axis -
 { Semi-built dia. of journals as fitted 200 mm Crank pin dia. 185 mm Crank Webs Mid. length thickness 92 mm Thickness round eye hole -
 { All-built dia. of journals as fitted 200 mm Mid. length thickness 92 mm Thickness round eye hole -
 Flywheel Shaft, diameter as per Rule - Generator armature, moment of inertia (16 m² or Kg.-cm.²) 1000 kg-m

Are means provided to prevent racing of the engine 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. and how driven 1 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 type of pitch circle dia 6775 mm width 90 mm Module 6 r.p.m. 1008
 Air Compressors, No. 1 No. of stages 2 Diameters 310/340 mm Stroke 180 mm Driven by Main dynamic engine
 Scavenging Air Pumps or Blowers, No. - How driven -

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate YAR 27, 28
 (other than main engines)
 State full details of safety devices A safety valve as per Rule which can be isolated, is fitted each receiver
 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. 2 Total cubic capacity 400 l x 1 Internal diameter 700 mm thickness 8 mm
100 l x 1 shell 45.6 end 43.5 Working pressure 30 kg/cm²
 Seamless, lap welded or riveted longitudinal joint welded Material O.H. Steel Range of tensile strength 45.6 Working pressure 20

ELECTRIC GENERATORS:—Type horizontal drip proof closed type
 Pressure of supply 225 volts. Full Load Current 770 Amperes. Direct or Alternating Current A.C.
 If alternating current system, state the periodicity 60 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 - is an adjustable regulating resistance fitted in series with each shunt field -
 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
 Details of driven machinery other than generator 1 Air compressor

PLANS.—Are approved plans forwarded herewith for Shafting 22-4-54 (Kobe) Receivers 24-11-54 (Kobe) Separate Tanks 8-2-54 (Kobe)
 (If not, state date of approval)
 Have Torsional Vibration characteristics if applicable been approved 3-6-54 (LONDON) Armature shaft Drawing No. A 244448
 (State date of approval and name of previous duplicate case, if any)
 Has the spare gear required by the Rules been supplied 1 set of coupling bolts and nuts for crank shaft 2 Cylinder liners
1 piston complete with gudgeon pin and rings 4 set of oil scraper rings for one piston 1 set of cam shaft driving wheels
1 set of cam shaft bearing brasses with bolts and nuts 1 set of cam rollers with pin for one cylinder
2 fuel pump cams 1 exhaust valve cam 6 fuel pipes with nipples from fuel pump to fuel valve

The foregoing is a correct description,

Uruga Tamashima Diesel Kagyo K.K.

Manufacturer.

S. Kane Ko

Lloyd's Register
Foundation

Dates of Survey while building
During progress of work in shops - 1950 SEP 3, 9, OCT 13, 17, NOV 27, DEC 4, 29
During erection on board vessel - 1954 JAN 13, 27, FEB 3, 11, 19, 24, MAR 3, 9, 30, APR 12, 14, 19, 21, 27, 30, MAY 10
Total No. of visits 16 (KOBE) 18 (YOKOHAMA)

Dates of Examination of principal parts - Cylinders 27-1-54 2-2-54 Covers 19-2-54 9-3-54 Pistons 11-2-54 24-2-54 Piston rods -

Connecting rods 19-2-54 24-2-54 9-3-54 Crank and Flywheel shafts 18-2-54, 24-2-54 Intermediate shafts -

Crank shaft Material O.H. steel ENG NO. 256 (T) 56.5 kg/mm² (B) 53.3 kg/mm² Tensile strength
Elongation (T) 27% (B) 31% Identification Marks LR NO. K-CK 342 LR NO. K-CK 350

Flywheel shaft, Material 400² 100²
Identification marks on Air Receivers NO. YAR 27 NO. YAR 28
LLOYD'S TEST YKA LLOYD'S TEST YKA
48.5 KG 33.5 KG
WP 30 KG WP 20 KG
HT 10-5-54 HT 17-4-54

Is this machinery duplicate of a previous case yes If so, state name of vessel M.V. "EISHIN MARU" 813C

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

The electric generator sets have been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters. Materials and the workmanship are sound and good. The electric generator sets have been examined under full working condition in the shop and found satisfactory. The electric generator sets have been satisfactorily installed in the vessel and tested under working condition. It is submitted that the electric generator sets are eligible to be classed with this Society with the notation of + LMC 6, 54.

4m, 554-T. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee KOB... ¥106,000

Travelling Expenses (if any) £ See 46

FRIDAY 10 SEP 1954

Committee's Minute

Assigned

See Rpt. 46

KOB
When applied for JUN 12 1954 19
When received 19

Surveyor to Lloyd's Register of Shipping.



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