

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

Kobe: 2853

No.

28 JUN 1955

Received at London Office

Kobe, YOKOHAMA

Date of writing Report 19 When handed in at Local Office JUN 20 1955 Port of Kobe
No. in Survey held at Kobe & Date, First Survey 10th February 55 Last Survey 4th May, 1955 (Kobe)
Reg. Book. "Nisshun Maru" Number of Visits 22 - Kobe.
Single on the Twin Triple Screw vessel Tons Gross Net
Built at Shimizu By whom built Nippon Steel Tube Co., Ltd. Yard No. 120 When built
Owners Port belonging to
Oil Engines made at Kobe By whom made Hanshin Diesel Works Ltd. Engine No. 5G-2804 1955 4mo.
Generators made at Kawasaki By whom made Fuji Denki Seizo K.K. Generator No. 214662A 214663A When made
No. of Sets 2 B.H.P. of each Set 100 each M.N. of each Set as per Rule 20 Capacity of each Generator 80 KVA Kilowatts
Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines 5G, Trunk piston solid injection Type 4 of 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 58kg/cm² Diameter of cylinders 170mm Length of stroke 220mm No. of cylinders 5 No. of cranks 5
Mean indicated pressure 6.26 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 200mm
Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 3420000 kg/cm² 720
Flywheel dia. 1,000mm Weight 493 kgs Means of ignition Solid Kind of fuel used Heavy Oil
Crank Shaft, Solid forged dia. of journals 97 as per Rule 130 Crank pin dia. 105 Crank Webs Mid. length breadth 170 Thickness parallel to axis
Mid. length thickness 50 shrunk Thickness round eye hole
Flywheel Shaft, diameter as per Rule Generator armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine Yes Means of lubrication Forced Lubrication 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 x dynamo engine driven centrifugal pumps for Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Lubricating Oil Pumps, No. and size 1 x dynamo engine driven gear type each, capacity 1142 liters/hr. each.

Air Compressors, No. No. of stages Diameters Stroke Driven by
Scavenging Air Pumps or Blowers, No. How driven

AIR RECEIVERS:—Have they been made under Survey State No. of Report or Certificate
(other than main engines)
State full details of safety devices
Can the internal surfaces of the receivers be examined and cleaned

Is there a drain arrangement fitted at the lowest part of each receiver
Typhone use
High Pressure Air Receivers, No. 1 Cubic capacity of each 120 liters Internal diameter 340mm thickness 8mm
Seamless, lap welded or riveted longitudinal joint butt E.W. Material Steel plate Range of tensile strength 44kg/mm² Working pressure 9kg/cm²
Starting Air Receivers, No. 1 Total cubic capacity 120 litres Internal diameter 340mm thickness 10mm
Seamless, lap welded or riveted longitudinal joint butt E.W. Material Steel Plate Range of tensile strength 44.6kg/mm² Working pressure 30kg/cm²

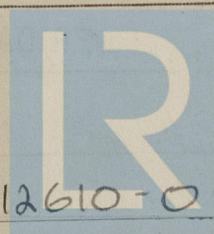
ELECTRIC GENERATORS:—Type Semi Enclosed.
Pressure of supply 450 volts. Full Load Current 103 Amperes. Direct or Alternating Current Alternating
If alternating current system, state the periodicity 60 cycles Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown 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 No

PLANS.—Are approved plans forwarded herewith for Shafting approved 24-2-55 Receivers 24-2-1955 Separate Tanks
(If not, state date of approval) Armature shaft Drawing No. MA 31644
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. 5 Exhaust Valves, 3 air inlet valves, 2 starting valves,
5 Fuel valves, cyl. safety valves, sets of piston ring, connecting rod bearing; 2 bottom end bearing
and 5 gudgeon pin bush, 2 Fuel pumps, 5 Fuel pipe, 1 cyl. liner, 1 cyl. cover, 1 piston, 1 connecting
rod, 1 set of coupling bolt, 3 sets of piston rings, for two sets.

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register
Foundation

012610-012612-0104

Dates of Survey while building
During progress of work in shops - - 1955: Feb. 10,14,19,24,26 Mar. 2,4,9,15,22,23,24,25,26,28,29,31 Apr.9,13,14,18 May 4.
During erection on board vessel - - Apr. 9,13,14,18 May 4
Total No. of visits 22.(Kobe)

Dates of Examination of principal parts - Cylinders 26-3-55 Covers 24-3-55 25-3-55 Pistons 23-3-55 Piston rods -

Connecting rods 22-3-55 Crank and Flywheel shafts 23-3-55 Intermediate shafts -

Material Forged Steel Tensile strength 36.6 ton/in² (5G-2804) 33.7 " (5G-2805)

Crank shaft Elongation 28.1% 29.1% Identification Marks C.NO.3L631A LLOYD'S KOB YK 23-3-55 LR C.NO.4L221A LLOYD'S KOB YK 23-3-55 LR

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers. Starting use: AR619 LLOYD'S TEST KOB KWT 2616 WP 30KG, WTP 48.5KG MK LR 25-4-55 Typhone use: No.AR618 LLOYD'S TEST KOB WP 9KG, WTP 17KG KT LR 27-4-55

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.)

These Generator sets have been constructed under the supervision of the Society's Surveyors in accordance with the Rules, Approved Plans and Secretary's letters.

The workmanship and materials are sound and good.

These generator sets have been examined under full working condition in the shop trials and found satisfactory, and worthy to be classed to the Society with the Notation of \pm LMC with date when satisfactorily installed on board the ship.

Committee's Minute

The amount of Fee ... £ : : Kobz £40,000
Travelling Expenses (if any) £ : : Kobz
When applied for MAY 20 1955
When received 19

Assigned See Rpt. 4C
FRIDAY 30 SEP 1955

Surveyor to Lloyd's Register of Shipping