

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1528

28 AUG 1953

Received at London Office

7. MAY 1953

Port of

Kobe

Writing Report 10-4-1953

When handed in at Local Office

Date, First Survey

21-5-1952

Last Survey

3-4-1953

in Survey held at

Tamano, Japan

Number of Visits

34

on the

Single

Twin

Triple

Quadruple

Screw vessel

M.V. "ASASHIO MARU"

Tons

Gross 752.402

Net 418.498

at

Tamano, Japan

By whom built

Mitsui Shipbuilding &amp; Engineering Co., Ltd. Yard No. 575

When built

April 53

Engines

Nakamura Steam Ship Co., Ltd.

Port belonging to

Kobe

Engines made at

Tamano, Japan

By whom made

Mitsui S.B. &amp; E. Co., Ltd.

Engine No.

479480.42

When made

April 53

Generators made at

Yokohama, Japan

By whom made

Fuji Electric MFG Co., Ltd.

Generator No.

31842A

31843A

31844A

When made

April 53

of Sets

3

B.H.P. of each Set

270

M.N. of each Set as per Rule

67.5

Capacity of each Generator

180

Kilowatts

intended for essential services

yes

ENGINES, &amp;c.—Type of Engines

B &amp; W 525 MTH 40

2 or 4 stroke cycle

2A

Single or double acting

Single

Maximum pressure in cylinders

55 kg/cm<sup>2</sup>

Diameter of cylinders

245 mm

Length of stroke

400 mm

No. of cylinders

5

No. of cranks

5

Indicated pressure

7.5 kg/cm<sup>2</sup>

Span of bearings (i.e., distance between inner edges of bearings in way of a crank)

315 mm

Is there a bearing between each crank

yes

Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)

8292.500

Revolutions per minute

450

Flywheel dia.

1350 mm

Weight

3030 Kgo

Means of ignition

Compression

Kind of fuel used

Diesel oil

Crank Shaft, dia.

Solid forged

Semi-built

All-built

dia. of journals

as per Rule 15.1.12 mm

as fitted 170 mm

Crank pin dia

170 mm

Crank Webs

Mid. length breadth 290 mm

Thickness parallel to axis 90 mm

Mid. length thickness 20 mm

shrink

Thickness round eyelets 22.5 mm

Flywheel Shaft, diameter

as per Rule

Generator armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)

895000

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

Lagged

Driving Water Pumps, No. and how driven

2, Electric motor

Lubricating Oil Pumps, No. and size

1, Gear pump per each engine; Particulars of gear

Compressors, No.

—

No. of stages

—

Diameters

How driven

—

Sucking Air Pumps or Blowers, No.

—

State No. of Report or Certificate

AR-14159

RECEIVERS:—Have they been made under Survey

yes

Give full details of safety devices

1 Spring loaded safety valve.

Were 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

—

Unless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Working Air Receivers, No.

1

Total cubic capacity

0.1 m<sup>3</sup>

Internal diameter

420 mm

thickness

11 mm

Unless, lap welded or riveted longitudinal joint

Welded

Material

O.H. Steel

Range of tensile strength

26~29 kg/cm<sup>2</sup>

Working pressure

25 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type

Self ventilated, Semi-enclosed, Drip proof type

Voltage of supply

225 volts

Full Load Current

800 A

Amperes

Direct or Alternating Current

Direct

Is the 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

Are the generators shielded that they cannot be accidentally earthed, short circuited, or touched

yes

Are the lubricating arrangements of the generators as per Rule

yes

Do the generators are under 100 kw. full load rating, have the makers supplied certificates of test

—

and do the results comply with the requirements

Do the generators are 100 kw. or over have they been built and tested under survey

yes

Details of driven machinery other than generator

None

PLANS.—Are approved plans forwarded herewith for Shafting

12-1-53

Receivers

2-11-52

Separate Tanks

4-2-53

Have Torsional Vibration characteristics if applicable been approved

12-1-53

Armature shaft Drawing No.

3D-3638

Is the spare gear required by the Rules been supplied

5 Exhaust valves, 5 air inlet valves, 2 Starting air valves,

5 Fuel valves, 3 Safety valves, 6 sets piston rings, 1 set crank pin bearings, 1 Gudgeon pin

bush, 2 Fuel pumps complete, 3 sets Fuel pipes, 1 Cylinder, 1 Piston, 4 Indicator valves,

2 sets main bearings.

The foregoing is a correct description,  
MITSUI SHIPBUILDING & ENGINEERING CO., LTD., TAMANO WORKS.

Manufacturer.

S. Tanaka

Senior Managing Director.

013728 - 013734 - 0159



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Foundation



Dates of Survey while building  
During progress of work in shops - - 1952-MAY. 21. 30. JUN. 20. 27. JUL. 8. 22. AUG. 12. 21. 29. SEP. 4. 9. 12. 19. 29. OCT. 15. 22.  
NOV. 17. 21. 25. 28 DEC. 2. 5. 6. 13. 16. 19. 21. 23. 29  
During erection on board vessel - - 1953-JAN. 31 FEB. 7  
1953-MAR. 24 APR. 2. 3  
Total No. of visits 34

Dates of Examination of principal parts-Cylinders 19-12-52 Covers - Pistons 23-12-52 Piston rods -

Connecting rods 2-12-52 Crank and Flywheel shafts 5-12-52 Intermediate shafts -

Journal O.H. Steel  
Material Arm Electric Furnace Steel  
ENg. No. 479 480 481  
Elongation Journal 31~34% 31~34% 33~35%  
Arm 29~34 29~35 31~35%  
Tensile strength  
Identification Marks M-CK 338 M-CK 339  
MHR 5-12-52 MHR 5-12-52

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers No. AR 459 LLOYD'S TEST W.T.P 41 kg/cm<sup>2</sup> W.P 25 kg/cm<sup>2</sup> MHR 7-2-52

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

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

The Electric Generator sets of this vessel have been constructed under Special Survey in accordance with the Rules, approved plans and Secretan's letters.

Materials and the workmanship are sound and good.

The Electric generator sets have been examined during deck and comprehensive sea trials and found satisfactory.

The amount of Fee ... £ 1,230.00

When applied for 13. AUG 1953

Travelling Expenses (if any) £ :

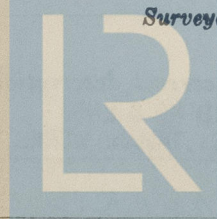
When received 19

Committee's Minute TUESDAY 22 SEP 1953

Assigned

See Rpt. 46

L. H. Williams & Co. Surveyors to Lloyd's Register of Shipping.



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