

st. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8857

mm.

ate of writing Report

19

When handed in at Local Office

19

Port of

KOBE.

Received at London Office

21 JAN 1935

No. in Survey held at

Reg. Book.

9.

Date, First Survey

31. 7. 34.

Last Survey

4. 12. 1934.

Number of Visits

7.

of opening

on the

Single

Triple

Quadruple

Screw vessel

MOTOR VESSEL.

" KYOKUTO MARU."

Tons

Gross

10052.

Net

5821.

Built at

KOBE.

By whom built

KANASAKI DOCKYARD CO.

Yard No.

584.

When built

1934.

Owners

IINO SHOJI KABUSHIKI KAISHA.

Port belonging to

NAKAMAIZURU.

Oil Engines made at

KOBE.

By whom made

HANSHIN IRON WORKS LTD.

Contract No.

✓.

When made

1934.

diameter

Generators made at

KOBE.

By whom made

KANASAKI DOCKYARD CO.

Contract No.

13445

When made

1934.

No. of Sets

1.

Engine Brake Horse Power

40.

Nom. Horse Power as per Rule

12.

Total Capacity of Generators

20.

Kilowatts.

IL ENGINES, &c.—Type of Engines

SOLID INJECTION.

2 or 4 stroke cycle

2.

Single or double acting

SINGLE.

Maximum pressure in cylinders

63 kg/cm².

Diameter of cylinders

150 mm.

Length of stroke

270 mm.

No. of cylinders

2.

No. of cranks

2.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

192 mm.

Is there a bearing between each crank

YES.

Revolutions per minute

450.

Flywheel dia.

1000 mm.

Weight

494 kg.

Means of ignition

COMPRESSION.

Kind of fuel used

HEAVY OIL.

as per Rule

as fitted

Crank Shaft, dia. of journals

100 mm.

as per Rule

as fitted

Crank pin dia.

100 mm.

Crank Webs

Mid. length breadth

140 mm.

Mid. length thickness

55 mm.

Thickness parallel to axis

shrunk

Thickness around eyehole

as per Rule

as fitted

Flywheel Shaft, diameter

110 mm.

as per Rule

as fitted

Intermediate Shafts, diameter

✓.

Thickness of cylinder liners

15 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

YES

Means of lubrication

FORCED.

Are the cylinders fitted with safety valves

YES.

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

WATER COOLED.

Cooling Water Pumps, No.

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. ROTARY.

ROTOR DIA 40 mm.

LENGTH 24 mm.

CASING DIA. 48 mm.

Air Compressors, No.

1.

No. of stages

2.

Diameters

106. 120 mm.

Stroke

180 mm.

Driven by

OIL ENGINE.

Scavenging Air Pumps, No.

1. ROTARY.

CASING. 300 mm.

LENGTH. 225 mm.

Stroke

250 mm.

Driven by

CRANKSHAFT.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

✓.

Can the internal surfaces of the receivers be examined

✓.

What means are provided for cleaning their inner surfaces

✓.

Is there a drain arrangement fitted at the lowest part of each receiver

✓.

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.

✓.

Total cubic capacity

✓.

Internal diameter

✓.

thickness

✓.

Seamless, lap welded or riveted longitudinal joint

✓.

Material

✓.

Range of tensile strength

✓.

Working pressure by Rules

✓.

ELECTRIC GENERATORS:—Type

DIRECT CURRENT COMPOUND.

Pressure of supply

225.

volts.

Load

89.

Amperes.

Direct or Alternating Current

DIRECT.

If alternating current system, state frequency of periods per second

✓.

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

YES.

Generators, do they comply with the requirements regarding rating

YES.

are they compound wound

YES.

are they over compounded 5 per cent.

YES.

, if not compound wound state distance between each generator

✓.

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

YES.

Are the lubricating arrangements of the generators as per Rule

YES.

PLANS.

Are approved plans forwarded herewith for Shafting

Receivers

Separate Tanks

(If not, state date of approval)

SPARE GEAR

1. CYLINDER COVER COMPLETE WITH VALVES.

1. SET. SPRINGS.

1. SET PISTON RINGS.

1. SET. NUTS & BOLTS ASSORTED.

1. SET CRANK PIN BRASSES COMPLETE.

1. FUEL PIPE. (PUMP TO VALVE).

1. GUDGEON PIN BUSH.

2. SETS MAIN BEARING BRASSES COMPLETE.

1. FUEL CAM COMPLETE.

1. SET SUCTION & DELIVERY FUEL PUMP VALVES.

1. SET. COOLING WATER PUMP VALVES.

The foregoing is a correct description,

Toshitiko Ono

Kawasaki

Manufacturer.

Dock yard.

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Lloyd's Register

Foundation

010309 - 010318 - 0121

Dates of Survey while building { During progress of work in shops - - 31.7.34. 12.9.34. 1.10.34. 15.10.34. 21.11.34. During erection on board vessel - - - 28.11.34. 4.12.34. Total No. of visits 7.

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Piston rods ✓ Connecting rods ✓ Crank and Flywheel shaft ✓ Intermediate shaft ✓ Crank and Flywheel shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case YES. If so, state name of vessel "TOR MARU."

General Remarks (State quality of workmanship, opinions as to class, &c.)

This emergency generator has been examined under working conditions, and found satisfactory.

(NOTE: Compressor and generator only constructed under Special Survey; engine constructed under Japanese Government inspection as in the case of "TOR MARU".)

1m.7.28—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ / : When applied for, 19. Travelling Expenses (if any) £ / : When received, 19.

W. E. Munro. Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 25 JAN 1935 Assigned See Kob. J.E. 8857