

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 6236

NOV 26 1937

Date of writing Report 28/10/37

When handed in at Local Office YOKOHAMA

28/10/37 Port of

Received at London Office

YOKOHAMA

No. in Survey held at Reg. Book.

Date, First Survey 6-10-36

Last Survey 24-9-

1937.

Number of Visits 20.

on the ^{Single}
~~Double~~
~~Triple~~
~~Quadruple~~

Screw vessel "YUKAGIR"

Tons { Gross 1435
Net 860

Built at

YOKOHAMA

By whom built

Mitsubishi Jukogyo K.K.
Yokohama Dock,

Yard No. 264

When built 1937.

Owners

Union of Soviet Socialist Republics.

Port belonging to

Murmansk

Oil Engines made at

YOKOHAMA

By whom made

Mitsubishi Jukogyo K.K.
Yokohama Dock,

Contract No.

When made 1937.

Generators made at

Nagasaki

By whom made

Mitsubishi Denki K.K.

Contract No.

When made 1937.

No. of Sets

Two

Engine Brake Horse Power

41

Nom. Horse Power as per Rule

x

Total Capacity of Generators

54

Kilowatts.

OIL ENGINES, &c.

Type of Engines

Yokohama Airless Diesel

engine

2 or 4 stroke cycle

4

Single or double acting

Single

Maximum pressure in cylinders

60

Diameter of cylinders

150 mm

Length of stroke

200 mm

No. of cylinders

3

No. of cranks

3

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

167 mm

Is there a bearing between each crank

Yes.

Revolutions per minute

600

Flywheel dia.

700 mm

Weight

448 Kg.

Means of ignition

solid

Kind of fuel used

Grude oil.

Crank Shaft, dia. of journals

as per Rule

as fitted

105 mm

Crank pin dia.

95 mm

Crank Webs

Mid. length breadth

205 mm

Thickness parallel to axis

x

Flywheel Shaft, diameter

as per Rule

as fitted

x

Intermediate Shafts, diameter

as per Rule

as fitted

x

Thickness of cylinder liners

11 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

Yes, lagged

Cooling Water Pumps, No.

One

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Lubricating Oil Pumps, No. and size

One 0.52 T/H gear pump.

Air Compressors, No.

Two

No. of stages

Two

Diameters

HP 60mm LP 145mm

Stroke

100mm

Driven by Diesel engine

Scavenging Air Pumps, No.

x

Diameter

x

Stroke

x

Driven by

x

AIR RECEIVERS:—

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

Yes

Can the internal surfaces of the receivers be examined

Yes

What means are provided for cleaning their inner surfaces

x

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

Yes

High Pressure Air Receivers, No.

x

Cubic capacity of each

x

Internal diameter

x

thickness

x

Seamless, lap welded or riveted longitudinal joint

x

Material

x

Range of tensile strength

550mm

Working pressure by Rules

x

Starting Air Receivers, No.

2

Riveted &

Total cubic capacity

535 Litres

Internal diameter

190mm

thickness

14mm

Seamless, lap welded or riveted longitudinal joint

welded

Material

steel

Range of tensile strength

44-55 Kg/mm2

Working pressure by Rules

30Kg/cm2

ELECTRIC GENERATORS:—

Type 4 poles, compound wound, open drip proof & marine type.

Pressure of supply

110

volts.

Full Load Current

191

245

Amperes.

Direct or Alternating Current

direct

If alternating current system, state the periodicity

x

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

Tested

and do the results comply with the requirements

Yes

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

x

LANS.

Are approved plans forwarded herewith for Shafting

15/4/37.Kobe.

Receivers

x

Separate Tanks

x

SPARE GEAR

Please see List of Spare gear attached to main engine Report.

The foregoing is a correct description.

H. Hattori

Manufacturer.



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Lloyd's Register
Foundation

0106 31 0106 39 0219

Dates of Survey while building
 During progress of work in shops - - -
 During erection on board vessel - - -
 Total No. of visits

Oct. 6 & 24, Nov. 17, 1936. Jan. 8 & 13. Feb. 6 & 15, Mar. 9, 10, 17, 18 & 29.
 Apr. 2 & 8, May 25. June 1. July, 8 & 29. 1937.
 Sept. 16 & 24.
 20.

Dates of Examination of principal parts—Cylinders 8-4-37 Covers 1-6-37 Pistons 26-6-37 Piston rods X
 Connecting rods 25-5-37 Crank and Flywheel shaft 25-5-37 Intermediate shaft X

Crank and Flywheel shafts, Material Steel Identification Mark LR 1863
 Intermediate shafts, Material X Identification Marks K.K. 25-5-37

Is this machinery duplicate of a previous case Yes If so, state name of vessel "T 9" & "T 21"

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

These auxiliary engines have been built under Special Survey in accordance with the Rules & Approved Plan. Materials & Workmanship good.

On completion of fitting onboard the engines tried under full working condition with satisfactory results.

These auxiliary engines together with the main engines of this vessel are eligible in our opinion to be classed L M C - 10-37.

1m. 2. 36.—Transfer.
 (The Surveyors are requested not to write on or below, the space for Committee Minute.)

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

J. Micholas & J. R. Higgins
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 7 DEC 1937
 See Ma. 96 6236



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