

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 93864

Received at London Office

17.5.29 24 APR 1930

Reporting Report 15th May 1929 When handed in at Local Office 17th May 1929 Port of London

Survey held at Bedford

Date, First Survey 9th November 1928 Last Survey 26th April 1929

Number of Visits 24

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel

Motor Ship "HEIYO MARU"

Tons ^{Gross} 9815.69
Net

at Osaka

By whom built Osaka Iron Works

Yard No. 1127 When built ✓

ers Nippon Yusen Kaisha

Port belonging to ✓

Engines made at Bedford

By whom made Messrs. W.H. Allen & Sons Ltd

Contract No. 12623 When made 1929

rators made at Bedford

By whom made Messrs. W.H. Allen & Sons Ltd

Contract No. 12626 When made 1929

of Sets 3 Engine Brake Horse Power 462 each 1386 total Nom. Horse Power as per Rule 340 total Total Capacity of Generators 924 Kilowatts.

ENGINES, &c. Type of Engines Diesel (Burmester & Main) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 500 lb Diameter of cylinders 350 mm Length of stroke 470 mm No. of cylinders 6 No. of cranks 6

of bearings, adjacent to the Crank, measured from inner edge to inner edge 420 mm Is there a bearing between each crank yes

Revolutions per minute 300 Flywheel dia. 1800 mm Weight 9162 lb Means of ignition Compression Kind of fuel used Diesel.

Crank Shaft, dia. of journals as per Rule 140 mm as fitted 210 mm Crank pin dia. 210 mm Crank Webs Mid. length breadth 310 mm Thickness parallel to axis shrunk Solid forged
Mid. length thickness 105 mm Thickness around eye hole

Main Shaft, diameter as per Rule Crank shaft Intermediate Shafts, diameter as per Rule ✓ Thickness of cylinder liners 28 mm.

Governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Mechanical forced, engine driven.

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material ✓

Water Pumps, No. 2 Centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size One per engine, driven off engine

Compressors, No. 3 (1 to each set) No. of stages 3 Diameters 292, 260, 57 Stroke 214 mm Driven by Crank on shaft

Suctioning Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

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

Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces portable and

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

Pressure Air Receivers, No. 3 (1 to each set) Cubic capacity of each 90 litres Internal diameter 9 3/4" thickness 3/8"

Seamless Material steel Range of tensile strength 29-33 tons Working pressure by Rules 1026 lbs

Suctioning Air Receivers, No. 3 Total cubic capacity 450 litres Internal diameter 12" thickness 1/2"

Seamless Material steel Range of tensile strength 29-33 tons Working pressure by Rules 1168 lbs

ELECTRIC GENERATORS: Type Open type, multiple with interpoles.

Voltage of supply 225 volts Load 1370 Amperes Direct or Alternating Current Direct

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. No, if not compound wound state distance between each generator ✓

Are 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

Are approved plans forwarded herewith for Shafting appd 27.6.29 Receivers ✓ Separate Tanks ✓

(If not, state date of approval)

Messrs RE GEAR

As per drawing K/73791 herewith.

The foregoing is a correct description,

W.H. Allen & Sons Ltd

Manufacturer.



© 2020

Lloyd's Register
Foundation

004311-009720-0128

10869 During progress of work in shops - 1928 Nov 9, 16. 1929 Jan 17, 20, 26, 30 Feb 4, 8, 15, 22, 26. March 1, 8, 4c.
 of Survey while building During erection on board vessel - March 19, 28 April 8, 15, 16, 17, 18, 19, 22, 26.
 Total No. of visits 24

Dates of Examination of principal parts—Cylinders Jan 17, 26, 30 Feb 4, 8, 15, 22. Covers Jan 17, 20, 26, 30 Feb 4, 8 Mar 1 Pistons Mar 8 Piston rods -

Connecting rods Nov 9, 16, 1928 Crank and Flywheel shaft Mar 8 Intermediate shaft

Crank and Flywheel shaft, Material Steel Identification Mark See below Intermediate shafts, Material & Identification Marks

Is this machinery duplicate of a previous case? No If so, state name of vessel M.V. "KARAMEA"

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

Crank shafts:- Identification Marks:-

Eng. A
 398
 R.W.F.
 Lloyd's
 1156
 R.W.F.
 28-12-28
 1646

Eng. B. 419
 Lloyd's
 1234
 18.1.29 R.W.F.
 R.W.F.
 1646
 2

Eng. C. 481
 Lloyd's
 1301
 5.2.29
 R.W.F.
 1646
 3.

This machinery has been constructed under special survey accordance with the approved plans and Rule requirements.

The workmanship & materials, so far as can be seen, are good, & satisfactory bench trials have been carried out under survey.

The three sets which are numbered 12623/A/B/C have despatched to Japan where they are to be installed, and, in opinion, will be eligible for inclusion in the classification record of + LMC of the vessel.

The machinery has now been installed in the vessel under special survey, in accordance with the requirements of the Rules, and on completion was tested under full working conditions and found to be efficient.

A. H. Garnett

A. Morris

The amount of Fee ... £ 39 : 12 :
 Travelling Expenses (if any) £ 15 : 8 :
 When applied for, 19...
 When received, 19...

L. H. F. Young (for self & A. A. Chalmers)
 Surveyor to Lloyd's Register of Shipping.

WED. 8 APR 1930

TUE. 20 APR 1930

TUE. 13 MAY 1930

FRI. 17 APR 1930

TUE. 28 OCT 1930

Committee's Minute

Assigned

See Kob. J.E. 6879

© 2020

Lloyd's Register Foundation