

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 3525

Received at London Office 14 MAY 1956

Date of writing Report 19 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Osaka & Innoshima Date, First Survey 20th July, 1955 Last Survey 23rd Feb 1956

Reg. Book. Number of Visits 7

on the Single ^{Steam} Triple ^{Screw} vessel "ALEXANDRA I"

Tons { Gross 29,926.20 Net 13,523.53

Built at Innoshima By whom built Hitachi Shipbuilding & Eng., Co., Ltd. Yard No. 3752 When built 2 mo 1956

Owners Liberian Transocean Navigation Corporation Port belonging to Monrovia

Oil Engines made at Osaka, Japan By whom made Daihatsu Kogyo K.K. Engine No. 618135 When made 1955 10mo.

Generators made at Tokyo By whom made Hitachi Seisakusho Generator No. 12892-1 When made 1955 9mo.

No. of Sets 1 B.H.P. of each Set 210 M.N. of each Set as per Rule 42 Capacity of each Generator 100 Kilowatts (125 KVA)

Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines 6 PSH-18 CEF 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 55 kgs/cm² Diameter of cylinders 180mm Length of stroke 240mm No. of cylinders 6 No. of cranks 6

Mean indicated pressure 5.16 kgs/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 233mm

Is there a bearing between each crank Yes { Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1292000kg.-cm² 78.4kg.-cm² Revolutions per minute 1,000

Flywheel dia. 720mm Weight 233kgs Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, { Solid forged as per Rule 104.42mm dia. of journals 140mm Crank pin dia 120mm Crank Webs Mid. length breadth 196mm Thickness parallel to axis -

as fitted 140mm Mid. length thickness 60mm shrunk Thickness round eyehole -

Flywheel Shaft, diameter as per Rule - Generator armature, moment of inertia (16 m² or Kg.-cm.²) 526000 kg.-cm²

Are means provided to prevent racing of the engine Yes, governor Means of lubrication forced lubrication Kind of damper if fitted none fitted

Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers ~~XXXXXX~~ lagged with non-conducting material Yes

Cooling Water Pumps, No. and how driven 1 set driven by own diesel eng. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 set, gear pump:- No. of teeth 10, modules 4, thickness 60mm, Capacity 2600 l/h.

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

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

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

ELECTRIC GENERATORS:—Type Enclosed, self ventilating type

Pressure of supply 450 volts Full Load Current 160 Amperes Direct or Alternating Current A.C.

If alternating current system, state the periodicity 50 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 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched 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

Details of driven machinery other than generator No

PLANS:—Are approved plans forwarded herewith for Shafting App. date 23-6-55 Receivers Separate Tanks

(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved App. date 14-10-55 Armature shaft Drawing No. HD-203-577

(State date of approval and name of previous duplicate case, if any)

Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

S. Akamatsu, Director Yard-Manager Hitachi Shipbuilding & Engr., Co., Ltd., Innoshima Shipyard.

Manufacturer.



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Dates of Survey while building { During progress of work in shops - } 1955:- July 20, Sept., 8, 9, Oct. 24 visit No. 4
{ During erection on board vessel - } 1956:- Feb. 11, 21, 23
Total No. of visits 7

Dates of Examination of principal parts—Cylinders 8-9-55 Covers 8-9-55 Pistons - Piston rods -

Connecting rods 8-9-55 & 9-9-55 Crank and Flywheel shafts 8-9-55 Intermediate shafts -

Crank shaft { Material Forged steel Tensile strength 58.5 kg/mm²
{ Elongation 26% Identification Mark K-CK482
KT LR
8-9-55

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers -

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.)

The Generator set of this vessel has been constructed under Special Survey in accordance with the Rules, approved Plans and Secretary's letters.

The materials and workmanship are sound and good.

The generator set has been examined under full working condition during shop and comprehensive sea trials and found satisfactory.

C.E.R.D.

The amount of Fee... **K O B E** 25,000

When applied for 26/10 19 55

Travelling Expenses (if any) **K O B E** 1,500

When received 19

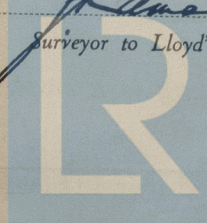
Committee's Minute

TUESDAY 12 JUN 1956

Assigned

See Rpt. 4 a.

M. L. L. L.
H. L. L. L.
Surveyor to Lloyd's Register of Shipping.



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Foundation