

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 19475.

Date of writing Report 2nd Dec. 1952. When handed in at Local Office 12th Dec. 1952. Port of Gothenburg Received at London Office Gothenburg

No. in Survey held at Gothenburg Date, First Survey 27th April, 1952 Last Survey 28th Nov. 1952. Number of Visits 26.

10803 on the ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ Screw vessel Motor Tanker "K A R E N M A E R S K" Tons Gross 11756
Net 6852

Built at Gothenburg By whom built Eriksbergs Mek. Verkstads Aktiebolag, Yard No. 429 When built 1952.

Owners A/S D/S Svendborg & D/S af 1912 A/S Port belonging to Copenhagen

Engines made at Gothenburg By whom made Eriksbergs Mek. Verkstads AB Engine No. 567-568 When made 1952.

Generators made at Västerås By whom made A. S. E. A. Generator No. 2953556-57 When made 1952.

Number of Sets 2 B.H.P. of each Set 250 M.N. as per Rule 125 New MN 100 Capacity of each Generator 165 Kilowatts.

Set intended for essential services Yes.

OIL ENGINES, &c.—Type of Engines Heavy oil, trunk type 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 60 kgs/cm². Diameter of cylinders 245 mm. Length of stroke 400 mm. No. of cylinders 5 No. of cranks 5

Mean indicated pressure 6.8 kgs/cm². 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 1135 Revolutions per minute 450

Flywheel dia. 1350 mm. Weight 1050 Kgs. Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, ~~XXXXXX~~ ~~XXXXXX~~ dia. of journals 170 mm. Crank pin dia. 170 mm. Crank Webs shrunk Mid. length breadth --- Thickness parallel to axis 90 mm.

Flywheel Shaft, diameter --- as per Rule --- Generator armature, moment of inertia 232 Kgm². Mid. length thickness --- Thickness round eye-hole ---

Are 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

Cooling Water Pumps, No. and how driven 2x250 l/min. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 x 90 l/min for each set.

Auxiliary 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 Yes Receiver State No. of 4417.

State full details of safety devices Fusible plug

Are 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 ---

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

Starting Air Receivers, No. One Total cubic capacity 250 litres Internal diameter 405 mm. thickness 15 mm.

Seamless, lap welded or riveted longitudinal joint El. welded Material S.M. Steel Range of tensile strength 42.5 kg/mm². Working pressure 40Kg/cm².

ELECTRIC GENERATORS:—Type Drip proof compound

Pressure of supply 220 volts. Full Load Current 750 Amperes. Direct or Alternating Current Direct

Is an 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 terminals 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 Only generators.

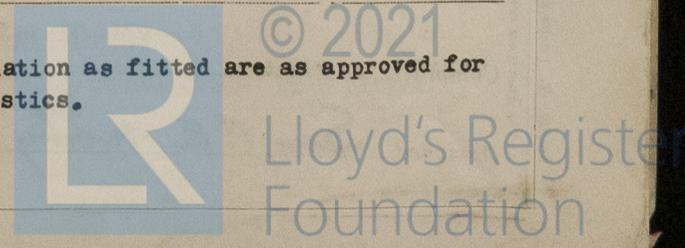
Plans.—Are approved plans forwarded herewith for Shafting London 19.12.1951 Receivers 11.2.52 Separate Tanks 2.9.52

Have Torsional Vibration characteristics if applicable been approved 6.2.52. Armature shaft Drawing No. 52624

Are the spare gear required by the Rules been supplied Yes

The foregoing is a correct description, and particulars of the installation as fitted are as approved for torsional vibration characteristics.

Eriksbergs Mek. Verkstads A.B. Manufacturer.
Arne Juvén



Dates of Survey while building

During progress of work in shops - - During erection on board vessel - - - Total No. of visits.	27.4.1952 - 24.10.1952.
	29.10.1952 - 28.11.1952.
	27.

Dates of Examination of principal parts—Cylinders 24.10.52. Covers --- Pistons 14.10.52. Piston rods ---
 Connecting rods 21.8.1952 Crank and Flywheel shafts 15.5.1952 Intermediate shafts ---

Crank shaft

Material Elongation	S.M. Steel	Tensile strength Identification Marks	47.4 - 55.9 Kg.cm ²
	32 - 30 % on 50 mm.		Lloyd's No. 3656-57. S.J. 15.5.52.

Flywheel shaft, Material --- Identification Marks ---

Identification marks on Air Receivers.

No. 4417
LLOYD'S TEST 80 Kg.
WP 40 Kg.
SW 7.5.51.

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.)

These auxiliary engines have been built under special survey in accordance with the Rules and approved plans. The material and workmanship are good and certificates in respect of crank shafts and air receiver are attached.

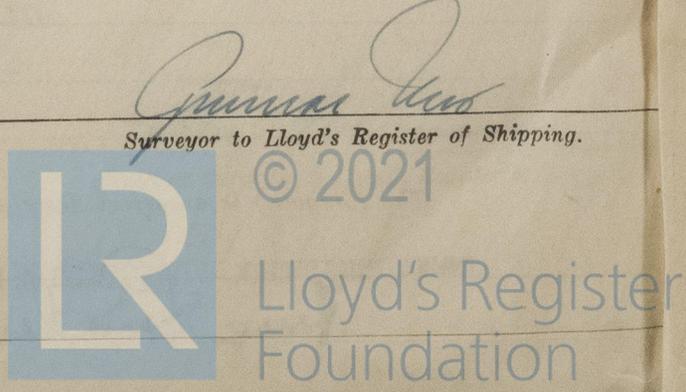
The Torsional vibration characteristics of the shafting installation are approved as per The Secretary's letter dated 16th July, 1951, initialed "E".

The machinery has been securely fitted in the vessel under my inspection and to my satisfaction, tested under full power conditions and found in order.

The amount of Fee ... £r. 480:00 { When applied for 12th Dec. 19 52.
 Travelling Expenses (if any) £ --- { When received --- 19 ---

FRI 9 JAN 1953

Committee's Minute
 Assigned See F.E. nishy. rpt.



30.1.51.—F. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)