

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 2535.

Received at London Office

21 JAN 1948

Date of writing Report 16th Jan. 1948. When handed in at Local Office 20th Jan. 1948. Port of Maharrö.

No. in Survey held at Reg. Book 37477. Single on the Triple Quadruple Screw vessel "TILIA GORTHON". Date, First Survey 30th May, 1947. Last Survey 15th Jan. 1948. Number of Visits 29.

Built at Maharrö. By whom built Kockums Mekan. V. A. Ö. Yard No. 285. When built 1948. Owners Rederi A. Ö. Sjölyfe. Port belonging to Helsingborg.

Oil Engines made at Maharrö. By whom made Kockums M. V. A. Ö. Contract No. ✓. When made 1948. Generators made at Västerås. By whom made Asea. Contract No. ✓. When made 1947.

No. of Sets 3 ✓. Engine Brake Horse Power 135 ✓. Nom. Horse Power as per Rule 33.75. Total Capacity of Generators 264 Kilowatts.

OIL ENGINES, &c.—Type of Engines M.A.N. 64 V. 33. 2 or 4 stroke cycle 4 ✓ Single or double acting Single.

Maximum pressure in cylinders 45 kg/cm². Diameter of cylinders 220 ✓. Length of stroke 330 ✓. No. of cylinders 4 ✓. No. of cranks 4 ✓.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 256 mm. ✓. Is there a bearing between each crank Yes ✓.

Revolutions per minute 450 ✓. Flywheel dia. 1380 mm. Weight 675 kgs. Means of ignition Diesel. Kind of fuel used Heavy oil.

T.V. gear for 450 (adjustment 9-10-46) approx. 130 mm. Crank Shaft, dia. of journals as fitted 130 mm. ✓. Crank pin dia. 130 mm. ✓. Crank Webs Mid. length breadth 240 mm. ✓. Thickness parallel to axis ✓. Mid. length thickness 61 mm. ✓. Thickness around eyehole ✓.

Flywheel Shaft, diameter as per Rule ✓. Intermediate Shafts, diameter as per Rule ✓. Thickness of cylinder liners 13.5-16 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 Lagged. ✓.

Cooling Water Pumps, No. 1. 25 m³/H. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes ✓.

Lubricating Oil Pumps, No. and size 1.9 m³/H. ✓.

Air Compressors, No. ✓. No. of stages ✓. Diameters ✓. Stroke ✓. Driven by ✓.

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

AIR RECEIVERS:—Have they been made under Survey Yes ✓. State No. of Report or Certificate 159 & 160.

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 Manhole. ✓.

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 by Rules ✓.

Starting Air Receivers, No. 2 ✓. Total cubic capacity 6.8 m³. ✓. Internal diameter 1200 mm. ✓. thickness 21 mm. ✓.

Seamless, lap welded or riveted longitudinal joint Riveted ✓. Material S.M. Steel. Range of tensile strength 45.5-47.5 kg/mm². Working pressure by Rules 32.2.

ELECTRIC GENERATORS:—Type Open.

Pressure of supply 230 volts. Full Load Current 383 Amperes. Direct or Alternating Current Direct. ✓.

If alternating current system, state the periodicity ✓. 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 Yes ✓. Is an adjustable regulating resistance fitted in series with each shunt field Yes ✓.

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes ✓. Are all terminals accessible, clearly marked, and furnished with sockets 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 Yes ✓. 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 ✓.

PLANS. Are approved plans forwarded herewith for Shafting 27.2.1945. Receivers 13.2.1945. Separate Tanks 28.5.1946.

SPARE GEAR as per Rule supplied. ✓

Additional spare gear supplied:- 1 cylinder cover. 1 cylinder liner. 1 piston with gudgeon pins. 1 connecting rod. 1 fuel pump.

The foregoing is a correct description,

KOCKUMS MEKANISKA VERKSTÄDE ÄHTERÖLÅG

E. Lundquist, Manufacturer.



© 2021 Lloyd's Register Foundation 01444-01505-0203

Dates of Survey while building

From 30th May to 28th Sept. 1947.
 " 10th Nov. 1947 to 15th Jan. 1948.
 Total No. of visits 29.

Dates of Examination of principal parts—Cylinders 305.315.316.1946 Covers 245.379.1946 Pistons 218.1946 Piston rods ✓

Connecting rods 14/12.1946.27.1947 Crank and Flywheel shafts ✓ Intermediate shafts ✓

Crank and Flywheel shafts, Material S. M. Steel Identification Marks No. 238 US 21.12.45. 2924/25 BG. 9.11.45. LLOYD'S.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers Nos. 159 & 160. Lloyd's Test 44 kg. cm². W.P. 30 kg. cm². AB: 18.9.47.

Is this machinery duplicate of a previous case *yes*. If so, state name of vessel *M/S "O. O. Östergren", F. & Rpt. 2401.*

General Remarks (State quality of workmanship, opinions as to class, &c.) *Please see report of main engine!*

Torsionals appd 14/2/45

101,438.—Transfer. (MADE AND PRINTED IN ENGLAND)

(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... *Rs. 300.-* When applied for, 20-1-1948.
 Travelling Expenses (if any) £ : : When received, 19.....

A. Banning
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 12 MAR 1948*

Assigned for audit see *J. E. Rpt.*



© 2021

Lloyd's Register Foundation