

RECEIVED

Rpt. 4c. 15 SEP 1949

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 2464

10 SEP 1949

Date of writing Report 15/9 1949 When handed in at Local Office 19 Port of Stockholm.

No. in Reg. Book. Survey held at Eskilstuna Date, First Survey 17.6. Last Survey 19.8. 1949.

Single on the Twin Triple Quadruple Screw vessel. Number of Visits 4 Tons Gross Net.

Built at Gothenburg By whom built AB Lindholmens Varv Yard No. 1011 When built.

Oil Engines made at Eskilstuna By whom made AB Bolinder-Munktell Engines 38200-2 Contract No. 38203-5 When made 1949.

Generators made at By whom made Contract No. When made.

No. of Sets 2 Engine Brake Horse Power 2 x 75 M.N. as per Rule 2 x 19 Total Capacity of Generators Kilowatts.

Is Set intended for essential services. Yes

OIL ENGINES, &c.—Type of Engines Hot bulb, trunk piston 2 or 4 stroke cycle 2 Single or double acting SA.

Maximum pressure in cylinders 21 kg/cm² Diameter of cylinders 180 mm Length of stroke 180 mm No. of cylinders 3 No. of cranks 3.

Mean indicated pressure 3.95 kg firing order in cylinders 1,3,2. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 720 mm.

Is there a bearing between each crank No Moment of inertia of flywheel (16 m² or Kg.-cm.²) Revolutions per minute 800.

Flywheel dia. 606 mm. Weight 128 kgs. Means of ignition Hot bulb Kind of fuel used Diesel oil.

Crank Shaft, dia. of journals as appd. & as fitted 85 mm. Crank pin dia. 120 mm. Crank Webs Mid. length breadth 180 mm Thickness parallel to axis.

Flywheel Shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. General armature, moment of inertia (16 m² or Kg.-cm.²).

Are means provided to prevent racing of the engine Yes Means of lubrication Autom. Kind of damper if fitted.

Are the cylinders fitted with safety valves Yes Are the silencers water cooled Yes.

Cooling Water Pumps, No. One to each engine. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

Lubricating Oil Pumps, No. and size Automatic lubricators.

Air Compressors, No. None. No. of stages Diameters Stroke Driven by.

Scavenging Air Pumps, No. Crankcase scavenging. Diameter Stroke Driven by.

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate Copies attach.

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

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces.

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

High Pressure Air Receivers, No. None 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 to each eng. Total cubic capacity 4 x 30 litres Internal diameter 220 mm. thickness 5 mm.

Seamless, lap welded or riveted longitudinal joint. Welded Material S.M. Steel Range of tensile strength 41/47 Kg Working pressure by Rules 15 Kg. per sq.cm.

ELECTRIC GENERATORS:—Type Pressure of supply volts. Full Load Current Amperes. Direct or Alternating Current.

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 below 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.

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.

PLANS.—Are approved plans forwarded herewith for Shafting 15.7.47. Receivers. Separate Tanks.

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

SPARE GEAR To be checked onboard.

The foregoing is a correct description,

Aktiebolaget Bolinder-Munktell Försäkringsvärdelningen

Manufacturer.

Signature of representative



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Lloyd's Register Foundation

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Dates of Survey while building
During progress of work in shops - - 17th June to 19th August, 1949.
During erection on board vessel - - -
Total No. of visits 4 in shop.

Dates of Examination of principal parts—Cylinders 17&21/6-49 Covers 17 & 21/6-49 Pistons 21/6-49 Piston rods -
Connecting rods 21/6-49 Crank shafts 21/6 & 12/8-49 Intermediate shafts -

Crank shaft Material S.M. Steel Tensile strength 82.8 & 74.5 kg/mm²
Elongation 23.0 & 26.0 % Identification Marks LLOYD'S 5257 HBS 21.6.49.
LLOYD'S 5254 HBS 12.8.49.
Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers Nos. 2017, 2028, 2029 & 2030.
LLOYD'S TEST 30 Kg.
WP 15 Kg.
OS 18.3.49.

Is this machinery duplicate of a previous case Yes If so, state name of vessel Lindholmens Yard No. 1010, Skm.Rpt.No. 7345.

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 workmanship and materials are good and tests sheets for the crankshafts are attached.

The engines have been examined under full power working conditions on the test bed and found in order with the exception that the permanent speed variation when the load was thrown suddenly off, exceeded the 6% permitted by the Rules.

It is therefore recommended that the class should be made subject to the governors being further tested after installation onboard.

The amount of Fee ... Kr. 160:--: When applied for 2/9 1949
Travelling Expenses (if any) Kr. 66:--: When received 19

W.B. Riggan
Surveyor to Lloyd's Register of Shipping.
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FRI. 10 MAR 1950

Committee's Minute
Assigned In minute see J.E. Riggan

5m. 1.4.49.—E. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)