

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 6794.

Date of writing Report 28.2 1948 When handed in at Local Office 19 Port of Stockholm  
 Received at London Office 4 - MAR 1948  
 No. in Survey held at Västervik Date, First Survey 15.10.47 Last Survey 12.2 1948  
 on the ~~Triple~~ ~~Quadruple~~ Screw vessel m.s. "TURÖY" ex "Ironbound" Number of Visits 9  
 Tons { Gross 502 Net 304  
 Built at - By whom built - Yard No. MMS-44 When built -  
 Owners Messrs. L. Myreböe A/S (L. Myreböe, Mgr.) Port belonging to Bergen, Norway  
 Oil Engines made at Manchester By whom made L. Gardner & Sons, Ltd. Engine Contract No. - When made -  
 Generators made at London By whom made The English Electric Co. Ltd. Gen. Contract No. 5M3460/4 When made 1941  
 No. of Sets One Engine Brake Horse Power 80 M.N. as per Rule 20 Total Capacity of Generator 54 Kilowatts.  
 Set intended for essential services. Yes

**OIL ENGINES, &c.**—Type of Engines Heavy Oil Trunk Piston 2 or 4 stroke cycle 4 Single or double acting Single  
 Maximum pressure in cylinders (x) Diameter of cylinders 107.7 m/m Length of stroke 164 m/m No. of cylinders 6 No. of cranks 6  
 Mean indicated pressure (x) Firing order in cylinders 1-4-2-6-3-5 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 112 m/m  
 Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) - Revolutions per minute (x)  
 Flywheel dia. 555 m/m Weight (x) Means of ignition Compr. air Kind of fuel used Diesel oil  
 Crank Shaft, dia. of journals as per Rule - as fitted 82.5 m/m Crank pin dia. 73 m/m Crank Webs Mid. length breadth (x) 110 shrunk Thickness parallel to axis -  
 Mid. length thickness (x) 25 Thickness round eye-hole -  
 Flywheel Shaft, diameter as per Rule - as fitted 82.5 m/m Intermediate Shafts, diameter as per Rule - as fitted 50.8 m/m General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) -  
 Are means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted -  
 Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged  
 Cooling Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Lubricating Oil Pumps, No. and size One gearwheel pump.  
 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 Engine started electrically State No. of Report or Certificate -  
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule -  
 Can the internal surfaces of the receivers be examined - 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. - 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. - Total cubic capacity - Internal diameter - thickness -  
 Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -

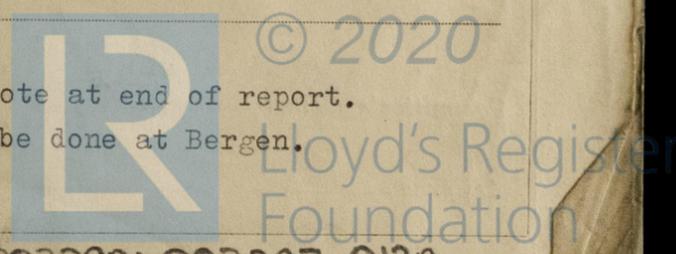
**ELECTRIC GENERATORS:**—Type Size CAM 132, compound.  
 Pressure of supply 220 volts. Full Load Current 245 Amperes. Direct or Alternating Current Direct current  
 Is an alternating current system, state the periodicity - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown and off No (x) Generators, are they compounded as per Rule (x) 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 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 (x) and do the results comply with the requirements -  
 Do the generators are 100 kw. or over have they been built and tested under survey -  
 Are there any shafts of driven machinery other than generator -

**ANS.**—Are approved plans forwarded herewith for Shafting - Receivers - Separate Tanks -  
 (If not, state date of approval)  
 Are Torsional Vibration characteristics if applicable been approved - Armature shaft Drawing No. -  
 (state date of approval)  
**ARE GEAR** Not complete. To be checked at Bergen.

The foregoing is a correct description,

Manufacturer.

(x) See note at end of report.  
(xx) Will be done at Bergen.



003290-003297-0128

Dates of Survey while building { During progress of work in shops - - )  
 { During erection on board vessel - - ) 1947:- 15 & 30/10, 5 & 14/11, 12 & 30/12. 1948:- 10, 11 & 12/2.  
 Total No. of visits 9

Dates of Examination of principal parts—Cylinders 14.11.47 Covers 14.11.47 Pistons 14.11.47 Piston rods -

Connecting rods 14.11.47 Crank and Flywheel shafts 14.11.47 Intermediate shafts -

Crank shaft { Material Steel Tensile strength -  
 { Elongation - Identification Marks CC 12160 LLOYD'S A.F. D.F. 2265  
 25/4/44.

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.)

This auxiliary engine which was not built under Special Survey has been installed under my supervision, opened up, examined and the cooling spaces hydraulically tested. The following remain to complete the survey and it is stated this will be done at Bergen to which port the vessel has proceeded. The Bergen Surveyor has been advised:-

The spare parts to be completed as per Rules and checked, the governor to be tested.

The length and breadth of the crank webs to be noted. (Our notes of these particulars have unfortunately been lost.)

**NOTE:-**

It has not been possible to obtain the following particulars:-

- Date of build of engine and generator.
- Max. pressure in cylinders.
- Mean indicated pressure.
- Revolutions per minute.
- Weight of flywheel.
- Whether the generator is compound as per Rules.
- No test certificate for the generator available.

The amount of Fee ... Kr. 80:-- : { When applied for 28.2 19 48.  
 Travelling Expenses (if any) Kr. 20:-- : { When received 19

*J.M. Lajer*  
 Surveyor to Lloyd's Register of Shipping.

WED 9 JUN 1948  
 Committee's Minute A.B. WESTERVIKS VARF

Assigned *See minute on je hull-11*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ON OR BELOW THE SPACE FOR COMMITTEE MINUTE.

