

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12932

MAY 20 1940

pt. 4c.

Date of writing Report 14<sup>th</sup> April 40 When handed in at Local Office 19<sup>th</sup> April 40 Port of GOTHENBURG  
 No. in Survey held at GOTHENBURG Date, First Survey 25<sup>th</sup> August Last Survey 4<sup>th</sup> April 19 40  
 No. of opening in 41519 on the Single Screw vessel M/S VARDEFJELL Number of Visits 30

Built at GOTHENBURG By whom built ERIKSBERGS M.V. AB. Yard No. 292 When built 1940  
 Owners A/S FILEFJELL Port belonging to OSLO

Engines made at GOTHENBURG By whom made ERIKSBERGS M.V. AB. ENGINE Contract No. 235-236 When made 1940  
 Generators made at ODENSE By whom made THOMAS B THRIGE GENERATOR Contract No. 233319 When made 1940  
 GENERATOR Contract No. 233320

No. of Sets 2 Engine Brake Horse Power 2x150 Nom. Horse Power as per Rule 2x39.3 Total Capacity of Generators 2x100 Kilowatts.

**INTERNAL ENGINES, &c.**—Type of Engines Diesel oil engines, solid injection 2 or 4 stroke cycle 2 Single or double acting Single  
 Maximum pressure in cylinders 49 kg/cm<sup>2</sup> Diameter of cylinders 220 mm Length of stroke 370 mm No. of cylinders 2x3 No. of cranks 2x3  
 Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge 277 mm Is there a bearing between each crank Yes  
 Revolutions per minute 350 Flywheel dia. 1200 mm Weight 1550 kg Means of ignition Compression Kind of fuel used Diesel fuel oil  
 Crank Shaft, dia. of journals approved 150 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth 240 mm Thickness parallel to axis 85 mm  
 as fitted 150 mm Mid. length thickness 85 mm Thickness around eye-hole 67.5 mm  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 18 mm  
 as fitted on crankshaft  
 Is a governor or other arrangement fitted to prevent racing of the engine 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. One, 250 lit/min Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Lubricating Oil Pumps, No. and size One for each engine 275 lit/hour, direct driven  
 Air Compressors, No. One on each eng. No. of stages 2 Diameters 250 & 280 mm Stroke 190 mm Driven by Rec. engines  
 Exhausting Air Pumps, No. One on each engine Diameter ✓ Stroke ✓ Driven by " "

**AIR RECEIVERS:**—Have they been made under Survey Yes State No. of Report or Certificate ✓  
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes  
 Are 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 Yes

**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. One for both eng's** Total cubic capacity 180 litres Internal diameter 370 mm thickness 14 mm  
 Seamless, lap welded or riveted longitudinal joint lap welded Material Steel Range of tensile strength 37.5-41 kg/mm<sup>2</sup> Working pressure by Rules 40 kg/cm<sup>2</sup>

**ELECTRIC GENERATORS:**—Type Drift proof, compound  
 Pressure of supply 220 volts. Full Load Current 2x455 Amperes. Direct or Alternating Current Direct current  
 Is an alternating current system, state the periodicity ✓ Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off Yes  
 Are the generators, are they compounded as per rule Yes Is there an adjustable regulating resistance fitted in series with each generator Yes  
 Are all terminals accessible, clearly marked, and furnished with sockets Yes  
 Are they so spaced or 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

**PLANS.** Are approved plans forwarded herewith for Shafting No, 13.2.38. Receivers No, 28.10.38. Separate Tanks No, 27.7.39.  
 (If not, state date of approval)

**SHAFTING GEAR** as required by Rules has been supplied.

The foregoing is a correct description.

Eriksbergs Mek. Verkstads Aktieföretag  
Oslo

Manufacturer.

Dates of Survey while building  
 During progress of work in shops - - } 1939 Aug 26. Sept 25. Oct 3. 5. 31. Nov. 11. 15. 22. 24. Dec. 2. 6. 8. 9. 11. 1940 March 28  
 During erection on board vessel - - - } 1940 Jan. 18. Febr. 7. 12. 21. 22. 29. March 1. 11. 12. 18. 19. 29. April 1. 3. 7.  
 Total No. of visits 30

Dates of Examination of principal parts—Cylinders 31.10.39. Covers 31.10.39. Pistons 26.10.39. Piston rods ✓

Connecting rods 26.10.39. Crank and Flywheel shafts 25.9.39. Intermediate shafts ✓

Crank and Flywheel shafts, Material ✓ M-steel Identification Marks 91818 Lloyds L.S. 2781 & 2782 d.f. 3.5.39.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers  
 No 39 LLOYD'S TEST 80KG W.P. 40 KG SA 2.12.39.  
 Nos 553 & 554 LLOYD'S TEST 40 Kg W.P. 25 Kg 15.11.39. SA.

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 and fitted on board under my inspection and have been tested and found satisfactory. The workmanship is good and all the Rules requirements have been complied with. Shafting as per forging reports attached herewith.

Im.M.M.—Transfer. (MADE IN ENGLAND.)  
 (The Surveyors are requested not to write on or begin the space for Committee Minute.)

The amount of Fee ... £ : When applied for, 19  
 Travelling Expenses (if any) £ : : When received, 19

FRI 24 MAY 1940

Committee's Minute

Assigned

See fol. 76 12932

*J. Applein*  
 Surveyor to Lloyd's Register of Shipping.

Rpt. 13.  
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