

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 14634

3 - NOV 1939

Date of writing Report 19th Oct 1939 When handed in at Local Office 20th Oct 1939 Port of Gothenburg

No. in Survey held at Gothenburg Date, First Survey 21st March Last Survey 10th Oct 1939

SUPPL. 3.  
40560 on the Single Screw vessel

M/S PONTFIELD.

Built at Gothenburg By whom built Eriksbergs M.V.A.B. Yard No. 289 When built 1939

Owners Hunting & Son, Ltd. Port belonging to Newcastle

Oil Engines made at Gothenburg By whom made Eriksbergs M.V.A.B. ENGINE 228 Contract No. 227 When made 1939

Generators made at Västerås By whom made Allm. Sv. Elektriska AB GENERATOR 1071572 Contract No. 1071573 When made 1939

No. of Sets 2 Engine Brake Horse Power 140 & 125 Nom. Horse Power as per Rule 373 & 262 Total Capacity of Generators 100 & 82 Kilowatts.

OIL 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 3 & 2 No. of cranks 3 & 2

Span 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 & 400 Flywheel dia. 1200 mm Weight 1550 mm Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals approved 150 mm as fitted 150 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth ✓ Thickness parallel to axis 85 mm ✓

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thickness of cylinder liners 18 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. ✓ Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes ✓

Lubricating Oil Pumps, No. and size One on each set, 275 lit/hour, direct driven. ✓

Air Compressors, No. One on each set No. of stages 2 Diameters 250 and 280 mm Stroke 190 mm Driven by the aux. engine

Scavenging Air BLOWER Pumps, No. One on each set ✓ Diameter ✓ Stroke ✓ Driven by the aux. engine

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 ✓

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 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 sets 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 22-26 tons/in<sup>2</sup> Working pressure by Rules 40.63 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type Drip proof, DC, compound.

Pressure of supply 220 volts. Full Load Current 455 & 373 Amperes. Direct or Alternating Current Direct current ✓

If 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 ✓

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 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 Yes ✓

PLANS. Are approved plans forwarded herewith for Shafting No, 4.9.37. Receivers No, 7.8.37. & 4.9.37. Separate Tanks No, 31.5.38.

SPARE GEAR: as required by the Rules has been supplied. ✓

ADDITIONAL SPARE GEAR: Two cylinders complete with all valves.

One piston complete with gudgeon pin and piston rings.

Two impellers for scavenging air blowers.

The foregoing is a correct description.

Eriksbergs Møk. Verkstads Aktiebolag

Gunnar Engberg

*Staggelom*

Manufacturer.



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Dates of Survey while building } During progress of work in shops - - } 1939 March 21. April 5. 6. 13. 19. 28. May 11. June 3. 13. July 12. 19. Aug. 2.  
 } During erection on board vessel - - - } 1939 Aug. 14. Sept. 15. 20. 25. Oct. 3. 7. 10.  
 Total No. of visits 19

Dates of Examination of principal parts—Cylinders 6.4.39. Covers 6.4.39. Pistons 13.4.39. Piston rods ✓

Connecting rods 13.4.39. Crank and Flywheel shafts 21. 3. 39. Intermediate shafts ✓

Crank and Flywheel shafts, Material  $\frac{1}{2}$ M.-steel Identification Marks LLOYD'S 4593-4 F.S. 25.2.39.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers  
 Main (2 off) Nos 535-536 LLOYD'S TEST 40KG WP 25KG SR 26. 7. 39.  
 Aux. No 608 LLOYD'S TEST 80ATM WP 40 ATM V.S. 21. 6. 37.

Is this machinery duplicate of a previous case Yes If so, state name of vessel  $\frac{1}{2}$  Solör,  $\frac{1}{2}$  Trondheim.

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.  
 The shaftings as per forging reports attached.

1m.11.37.—Transfer. (MADE IN ENGLAND.)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

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

*A. Appelin*  
 Surveyor to Lloyd's Register of Shipping.

TUE. 14 NOV 1939

Committee's Minute  
 Assigned

See Job. 7.C. 12634

