

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10588

Date of writing Report 8 June 1938 When handed in at Local Office 8 June 1938 Port of Copenhagen.
 No. in Survey held at Copenhagen & Nakskov Date, First Survey 5th September 1936 Last Survey 3rd June 1938.
 Reg. Book. 38620. on the Single Screw vessel IMPERIAL. Number of Visits 43.
 Built at Nakskov By whom built N.S. Nakskov Skibsværft Yard No. 84 When built 1938
 Owners Compania Sud Americano de Vapores Port belonging to Valparaiso.
 Oil Engines made at Copenhagen By whom made Burmeister & Wain Contract No. 2720-21-22. When made 1938.
 Generators made at Odense By whom made Thomas B. Thrice Contract No. 228849-50-51. When made 1938.
 No. of Sets 3. Engine Brake Horse Power 375. Nom. Horse Power as per Rule Total Capacity of Generators 720. Kilowatts.

OIL ENGINES, &c.—Type of Engines fuel, trunk piston, solid injection 2 or 4 stroke cycle 2 Single or double acting single.
 Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 220 mm Length of stroke 370 mm No. of cylinders 6 No. of cranks 6.
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 294 mm. Is there a bearing between each crank yes.
 Revolutions per minute 400. Flywheel dia. 980 mm Weight 1310 kg. Means of ignition Compression Kind of fuel used fuel oil
 Crank Shaft, dia. of journals as per Rule 138 mm Crank pin dia. 180 mm Crank Webs Mid. length breadth 290 mm Thickness parallel to axis 102 mm
as fitted 180 mm Mid. length thickness 102 mm shrink Thickness around eyehole 72.5 mm.
 Flywheel Shaft, diameter as per Rule 138 mm Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 18 mm.
as fitted 180 mm as fitted
 Is a governor or other arrangement fitted to prevent racing of the engine when disclutched 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. Independent Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes.
 Lubricating Oil Pumps, No. and size 1 off - 9.2 l/min, gearwheel type, on each engine.
 Air Compressors, No. 1 off on each engine No. of stages 2. Diameters 1st = 280 mm - 2nd = 250 mm Stroke 190 mm Driven by Engine direct.
 Scavenging Air BLOWERS 1 off - 42.1 m³/min. Diameter on each engine Stroke Driven by chain from crankshaft.

AIR RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate 804.
 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 yes.
 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 ✓
 EMERGENCY Starting Air Receivers, No. One Total cubic capacity 250 litres Internal diameter 380 mm thickness 11.0 mm.
 Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. Steel Range of tensile strength 43.3 kg/cm² Working pressure by Rules 36.4 kg/cm².

ELECTRIC GENERATORS:—Type drip proof, ventilated.
 Pressure of supply 220 volts. Full Load Current 1090. Amperes. Direct or Alternating Current Direct.
 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 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.
 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 yes.

PLANS. Are approved plans forwarded herewith for Shafting yes. Receivers ✓ Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR supplied as per Rules requirements.

The foregoing is a correct description,

AKTIESELSKABET
 BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI

Manufacturer.



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Lloyd's Register
 Foundation

007762-007769-0272

Dates of Survey while building
 During progress of work in shops - 5/9 - 19/9 - 16/12 - 18/12 - 29/12/1936 - 2/1 - 29/1 - 19/2 - 12/3 - 8/4 - 16/4 - 21/4 - 27/4 - 12/5 - 26/5 - 27/5 - 1/6 - 3/6 - 10/6 - 11/6 - 12/6 - 16/6
 During erection on board vessel - 25/6 - 9/7 - 19/7 - 20/7 - 5/8 - 13/8 - 18/8 - 25/8 - 18/9 - 25/9 - 8/10 - 12/10/1937.
 Total No. of visits 43.

Dates of Examination of principal parts—Cylinders with 19/7-25/9 - 8/10/1937. Pistons 19/7-25/9 - 8/10/1937. Piston rods ✓

Connecting rods 5/9-19/9/1936 - 10/2/1937. Crank and Flywheel shafts 18/2/1936-2/1-25/6-9/7-20/7/1937. Intermediate shafts ✓

Crank and Flywheel shafts, Material S. M. Steel Identification Marks Lloyd's no 3709 Lloyd's no 3720 Lloyd's no 3725
 C.V. 25.6.37 C.V. 9.7.37. C.V. 20.7.37.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers No 804. Lloyd's Test 56 Hbm.
 W.P. 28. Hbm.
 C.V. 21.4.37.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel M.S. "Copiapo."

General Remarks (State quality of workmanship, opinions as to class, &c.)

The above engines and generators have been constructed under special survey and in accordance with the Society's Rules and the approved plans. The material has been tested and examined as required by the Rules and found satisfactory. The workmanship is of good description throughout. On completion the engines with generators were tested under full power working condition and found to be working satisfactorily.

W. H. V.

1m. 5. 37. - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

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

J. H. Langfield
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 24 JUN 1938
 Assigned See Lpn. 78 10588