

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13621

Date of writing Report 26th Sept. 1951 When handed in at Local Office _____ 19____ Port of Copenhagen Received at London Office 10 NOV 1951

No. in Survey held at Malundborg Date, First Survey 3rd July Last Survey 30th August 1951 Number of Visits 7

Reg. Book. 10085 on the Single Screw vessel Tk. Adler Svanholm Tons Gross 3040
Triple Net 1598

Built at Ehrnön By whom built Helsingör Skibsverft - Marholm Card No. 304 When built 1951

Owners Det Danske Hulselskab Port belonging to Copenhagen

Oil Engines made at Malundborg By whom made Motofabrikken Bueh Engine No. 8003 When made 1951

Generators made at Berlin By whom made Elektromotoren Werk Kienzle Generator No. 8059 When made 1951

No. of Sets 1 B.H.P. of each Set 16 M.N. as per Rule 4 Capacity of each Generator 10 Kilowatts.

Is Set intended for essential services _____

OIL ENGINES, &c.—Type of Engines Heavy oil trunk piston solid injectors or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 100 mm Length of stroke 130 mm No. of cylinders 2 No. of cranks 2

Mean indicated pressure 7.3 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 120 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 124 Revolutions per minute 1200

Flywheel dia. 460 mm Weight 97 kg. Means of ignition compression Kind of fuel used Heavy oil

Crank Shaft, Solid forged dia. of journals 60 mm Crank pin dia. 60 mm Crank Webs Mid. length breadth 165 mm Thickness parallel to axis
Semi-built All-built as per Rule as fitted 60 mm Mid. length thickness 36 mm shrunk Thickness round eye-hole

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

Are means provided to prevent racing of the engine yes Means of lubrication forced Kind of damper if fitted ✓

Are the cylinders fitted with safety valves ✓ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

Cooling Water Pumps, No. and how driven 1 direct 0.65 hp Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size 1 off 0.3 tons/hour

Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —

Scavenging Air Pumps or Blowers, No. — How driven —

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

(other than main engines)

State full details of safety devices _____

Can the internal surfaces of the receivers be examined and cleaned _____

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 _____

Starting Air Receivers, No. _____ Total cubic capacity _____ Internal diameter _____ thickness _____

Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____

ELECTRIC GENERATORS:—Type E. S. 250 Kaiser Berlin

Pressure of supply 220 volts. Full Load Current 45 Amperes. Direct or Alternating Current Direct

For 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 yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field _____

Are all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced _____

Are the terminals shielded that they cannot be accidentally earthed, short circuited, or touched _____ Are the lubricating arrangements of the generators as per Rule —

Do 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 _____

Do the generators are 100 kw. or over have they been built and tested under survey _____

State details of driven machinery other than generator _____

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

(If not, state date of approval)

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

(State date of approval and name of previous duplicate case, if any)

Is the spare gear required by the Rules been supplied yes

The foregoing is a correct description,
MOTOFABRIKEN BUEH
 AKTIESELSKAB
 Manufacturer.

27.11.51

Dates of Survey while building
 During progress of work in shops - - 3/7 51 - 30/8 51
 During erection on board vessel - - - 25/8 - 4/9 - 14/9 - 18/9 - 21/9 1951
 Total No. of visits 7

Dates of Examination of principal parts—Cylinders 30/8 51 Covers 30/8 51 Pistons 3/8 51 Piston rods
 Connecting rods 30/8 51 Crank and Flywheel shafts 30/8 51 Intermediate shafts

Crank shaft Material Chrome - Nickel - Steel Tensile strength 76.0 to 80.0 kg/cm²
 Elongation 25 to 26% on 50% Identification Marks Lloyd's No 2837 J.L. 30-11

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case. If so, state name of vessel.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The above oil engines have been built under special survey in accordance with plans approved and the requirements contained in the secretary's letter of 25th September 1950. The material used have been tested as required by the Ruler and the workmanship is good. On completion the engine was tested under full power working condition in the shop and found satisfactory.

3m.451.-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £s. : 100.00
 Travelling Expenses (if any) £s. : 49.00
 When applied for 19/10 19 51.
 When received 19

W. L. Hansen.
 Surveyor to Lloyd's Register of Shipping.

FRI. 30 NOV 1951

Committee's Minute

Assigned *Su F.E. moly. rpt.*



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