

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 København Date, First Survey 3rd July Last Survey 30th August 1951
 Reg. Book. 10085 on the Twin Triple Screw vessel Th. Adler Lvanholm Number of Visits 7
 Built at Elsinør By whom built Helsingør Skibverft - Maskinbyggeri Card No. 304 When built 1951
 Owners. Det Danske Hvalkompani Port belonging to Copenhagen
 Oil Engines made at København By whom made. Motofabrikken Bueh Engine No. 8003 When made 1951
 Generators made at Berlin By whom made. Elektromotoren Werk Kien 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 injection 2 s.v. 100 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) 1240 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 as per Rule dia. of journals 60 mm Crank pin dia. 60 mm Crank Webs Mid. length breadth 165 mm Thickness parallel to axis
 { Semi-built as fitted 60 mm Mid. length thickness 36 mm shrunk Thickness round eye-hole
 { All-built
 Flywheel Shaft, diameter as per Rule Generator armature, moment of inertia (16 m² or Kg.-cm.²)
 as fitted
 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. Yes 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
 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
 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
 shielded that they cannot be accidentally earthed, short circuited, or touched. Are the lubricating arrangements of the generators as per Rule.
 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.
 If the generators are 100 kw. or over have they been built and tested under survey.
 Details of driven machinery other than generator.

PLANS.—Are approved plans forwarded herewith for Shafting 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,

MOTOREFABRIKEN BUEH

Manufacturer.



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003092-003099-0061

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 50mm 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 engine 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 Rules and the workmanship is good. On completion the engine was tested under full power working condition in the shop and found satisfactory.

3m. 51.-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £100.00
 Travelling Expenses (if any) £49.00

When applied for 13/10 1951.
 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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