

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 565

Received at London Office 28 MAR 1952

Writing Report 7th March 1952 When handed in at Local Office 7th March 1952 Port of KIEL
 Survey held at KIEL Date, First Survey 25th October Last Survey 15th December 1951
 Number of Visits 7
 on the ~~Deck~~ ~~Quartermast~~ Screw vessel 4 Mast-Barque "PAMIR" Tons Gross 2796 Net 2522
 Hamburg By whom built Blohm & Voss Yard No. When built 1905
 Reedererei Schlieven, Lübeck Port belonging to Lübeck
 Lines made at Kiel By whom made Bohn & Kähler Engine No. 14103 When made 1951
 Gensets made at Hamburg By whom made AEG Generator No. 563736 When made 1951
 Sets one B.H.P. of each Set 28 M.N. as per Rule Capacity of each Generator 15 Kilowatts.
 Intended for essential services no

ENGINES, &c.—Type of Engines Heavy Oil — Type KR 10 Z 3 or 4 stroke cycle 4 Single or double acting S.A.
 Mean pressure in cylinders 55 kg/cm² Diameter of cylinders 140 mm Length of stroke 190 mm No. of cylinders 2 No. of cranks 2
 Indicated pressure 6.9 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 185
 Distance between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) -- Revolutions per minute 750
 Crank pin dia. 85 mm Weight 360 kg Means of ignition compression Kind of fuel used Diesel
 Shaft, dia. of journals as per Rule -- Crank pin dia. 85 mm Crank Webs Mid. length breadth 105 mm Thickness parallel to axis --
 All-built as fitted 85 mm Mid. length thickness 44 mm Thickness round eye-hole --

Shaft, diameter as per Rule -- Generator armature, moment of inertia (16 m² or Kg.-cm.²) --
 Means provided to prevent racing of the engine yes Means of lubrication forced manifolds Kind of damper if fitted --
 Cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes
 Water Pumps, No. and how driven one-1060 l/hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 Lube Oil Pumps, No. and size one (gear type) 500 l/hr.
 Compressors, No. -- No. of stages -- Diameters -- Stroke -- Driven by --
 Suctioning Air Pumps or Blowers, No. -- How driven --

RECEIVERS:—Have they been made under Survey Germanischer Lloyd State No. of Report or Certificate --
 Details of safety devices Safety valve fitted to each of the air receiver.
 Internal surfaces of the receivers be examined and cleaned yes
 Drain arrangement fitted at the lowest part of each receiver yes
 Pressure Air Receivers, No. -- Cubic capacity of each -- Internal diameter -- thickness --
 Lap welded or riveted longitudinal joint -- Material -- Range of tensile strength -- Working pressure --
 Air Receivers, No. 7 Total cubic capacity 6 each of 0.32 m³ 1 of 0.1 m³ Internal diameter 420 mm+318 mm thickness 16mm+7.25mm
 Lap welded or riveted longitudinal joint seamless Material S.M. steel Range of tensile strength 60.5kg/mm² Working pressure 106 and 52kg/cm²

GENERIC GENERATORS:—Type AW 84 Makers: A.E.G., Hamburg
 Voltage of supply 230 volts Full Load Current 65 A Amperes Direct or Alternating Current Direct
 Rating current system, state the periodicity -- Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes
 Terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced
 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
 Generators are 100 kw. or over have they been built and tested under survey --
 driven machinery other than generator --
 Are approved plans forwarded herewith for Shafting no Receivers -- Separate Tanks --
 (If not, state date of approval)
 Vibration characteristics if applicable been approved no Armature shaft Drawing No. --
 Spare gear required by the Rules been supplied yes

The foregoing is a correct description,
 Manufacturer.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - 25/10., 14/11., 10., 12., 13., 14., 15/12, 1951
 Total No. of visits 7

Dates of Examination of principal parts—Cylinders -- Covers -- Pistons -- Piston rods --
 Connecting rods -- Crank and Flywheel shafts -- Intermediate shafts --

Crank shaft Material S.M. steel Tensile strength
 Elongation Identification Marks Best.No. 4161 BRK 10 Z, OEW 431673
 88 A.G.L. 7 51
 Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers 6 21422 H, Nos. 10001, 10003, 10004, 10005, 10006, 10007, 11 51, PD 60 at, 30 at. Inh. 320 l. and 1 aux. air receiver: CH.No. 329585, 8 51, Inh. 10 PD 60 at., BDR 40 at.

Identification marks on cylinder block: Germanischer Lloyd, 15271 K, 10 51, 5 atu, 9 51
 " " " " covers: 5/75 atü. 9 51.

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.) This generator set has been built and fully tested under the survey of Germanischer Lloyd.

The engine has now been opened out and examined internally, one cylinder cover tested hydraulically with satisfactory results. The workmanship and the materials appear good. The generator set has been satisfactorily installed on board the vessel and subsequently examined under working conditions and found in good order.

This generator set is eligible, in my opinion, to be classed with the notation LMC 12,51, with the distinguishing mark *.

The amount of Fee ... £ see Rpt. 8 (Mr. 565) When applied for 19
 Travelling Expenses (if any) £ -- : : When received 19

E. Chamber
 Surveyor to Lloyd's Register of Shipping

Committee's Minute TUES. 1 " 1952

Assigned *See Rpt. 565*

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