

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 169

Date of writing Report 3. 5. 1937 When handed in at Local Office 5. 5. 1937 Port of Düsseldorf.
 No. in Survey held at ~~XXXXXXXXXX~~ Oberursel Date, First Survey 26. 2. 1937. Last Survey 22. 4. 1937.
 Reg. Book. Single on the Twin Triple Quadruple Screw vessel "Joseph Flint" Tons { Gross Net
 Number of Visits 4

Built at Leith By whom built Hy. Robb, (Ld.) (Incorporating Ramage & Ferguson (Ld.) Yard No. 243 When built 1937
 Owners United Africa Co. Ld. Port belonging to 432574/75 for 243
 Oil Engines made at Oberursel By whom made Humboldt-Deutzmotoren AG. Contract Nos. and 438985/86 When made 1937
 Generators made at By whom made Contract No. When made
 No. of Sets Engine Brake Horse Power 2 x 30 Nom. Horse Power as per Rule 2 x 8.6 Total Capacity of Generators Kilowatts.

IL ENGINES, &c.—Type of Engines Heavy Oil Engines A 2 M 317 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 50 kgs/cm² Diameter of cylinders 120 mm Length of stroke 170 mm No. of cylinders 2 No. of cranks 2
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 412 mm, from centre to centre of ball bearing Is there a bearing between each crank no
 Revolutions per minute 1350 Flywheel dia. 550 mm Weight 210 kgs. Means of ignition dir. inject Kind of fuel used gas oil on test bed
 Crank Shaft, dia. of journals as per Rule 75 mm Crank pin dia. 85 mm Mid. length breadth 120 mm Thickness parallel to axis 61 mm shrunk
 as fitted Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 22 mm
 as fitted 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
 Cooling Water Pumps, No. 1, cog wheel type Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Lubricating Oil Pumps, No. and size 1, 220 lts/h.
 Air Compressors, No. No. of stages Diameters Stroke Driven by
 Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
 Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces
 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 by Rules
 Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type
 Pressure of supply volts. Full Load Current Amperes. Direct or Alternating 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
 Generators, are they compounded as per rule is an adjustable regulating resistance fitted in series with each shunt field
 Are all terminals accessible, clearly marked, and furnished with sockets
 are they so spaced or 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 and do the results comply with the requirements
 If the generators are 100 kw. or over have they been built and tested under survey

PLANS. Are approved plans forwarded herewith for Shafting yes, 217 005 A Receivers Separate Tanks
 (If not, state date of approval) 8.5.35.
 SPARE GEAR as required by the Rules

The foregoing is a correct description,
 Humboldt-Deutzmotoren

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - } 26.2.37., 1.3.37., 3.3.37., 22.4.37.
 { During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders 22.4.37. Liners: 22.4.37. Covers 22.4. 37. Pistons 22.4.37. Piston rods

Connecting rods 26.2.37., 22.4.37. Crank and Flywheel shaft 1.3.37, 3.3.37, 22.4.37. Intermediate shaft

Crank and Flywheel shafts, Material Chrome molybdenium Identification Mark 152 H.B. Connecting rods: 170 H.B.

Intermediate shafts, Material Identification Marks
 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.)

These two auxiliary engines have been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plan and the instructions thereto.

The material used in the constructed was found to be good and the workmanship satisfactory. The auxiliary engines have been tested on Maker's test bed in the presence of the undersigned under full load and 10 % overload during 8 hours and were found working satisfactorily during these trials. After trials all working parts of these engines have been opened out for examination and were found in good condition.

The main engine for the same vessel will also be constructed at the works of Messrs. Humboldt-Deutzmotoren A.G., Köln-Deutz.

A copy of this report has been forward to the Leith Surveyors.

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

[Signature]
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned

FRI 1 OCT 1937

See Lth JE 19419



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