

PORT Aux.
REPORT ON OIL ENGINE ~~ELECTRIC GENERATOR SETS~~

No. 171

Received at London Office

13 MAY 1937

Date of writing Report 3. 5. 1937. When handed in at Local Office 5. 5. 1937. Port of D ü s s e l d o r f
To. in Survey held at Oberursel. Date, First Survey 1. 3. 1937. Last Survey 22. 4. 1937.
By. Book. Number of Visits 5
Single on the Twin Motor Triple Screw vessel "Joseph Flint"
Quadruple
Built at Leith By whom built Hy. Robb (Ld.) (Incorporating Ramage & Ferguson (Ld.). Card No. 242 When built 1937.
Owners United Africa Co. Ld. Port belonging to
Oil Engines made at Oberursel By whom made Humboldt-Deutzmotoren A.G. Contract No. 426034 When made 1937.
Generators made at By whom made Contract No. 426035 When made
No. of Sets Engine Brake Horse Power 3 x 15 Nom. Horse Power as per Rule 3 x 4.3 Total Capacity of Generators Kilowatts.

IL ENGINES, &c.—Type of Engines Heavy Oil Engines A 1 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 1 No. of cranks 1
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 146 mm, from centre to centre ball bearing Is there a bearing between each crank
Revolutions per minute 1350 Flywheel dia. 550 mm Weight 210 kgs. Means of ignition air inject. Kind of fuel used gas oil on test bed
Crank Shaft, dia. of journals as per Rule 65 mm as fitted Crank pin dia. 85 mm Mid. length breadth 120 mm Mid. length thickness 37 mm Thickness parallel to axis Thickness around eyehole
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 22 mm
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 type Are the exhaust pipes and silencers water cooled or lagged with non-conducting material
Cooling Water Pumps, No. 1, cog wheel/pump Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Lubricating Oil Pumps, No. and size 1, 150 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, 206 527 A Receivers. Separate Tanks
(If not, state date of approval) 4.5.34.
SPARE GEAR as required by the Rules

The foregoing is a correct description.

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.



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Lloyd's Register

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Dates of Survey while building { During progress of work in shops - - 1.3.37., 3.3.37., 13.3.37., 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. April 37. Pistons 22.4.37. Piston rods

Connecting rods 13.3., 1.4., 22.4.37. Crank and Flywheel shaft 1.3., 3.3., 22.4.37. Intermediate shaft

Crank and Flywheel shafts, Material Chrome-Molybdenum Identification Mark 162 H.B. Connecting rods: 170

Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case no If so, state name of vessel

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

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

The material used in the construction was found to be good and the workmanship satisfactory. The three engines have been tested on Maker's test bed in the presence of the undersigned under full load and overload during several hours and were found working satisfactorily during these trials.

After the trials the auxiliary engines have been opened out for inspection and all parts were found in order.

The main engines 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 forwarded to the Leith Surveyors.

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

Committee's Minute

Assigned

FRI 1 OCT 1937

See Lth JE 19419

Surveyor to Lloyd's Register of Shipping.



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