

Title (en)
HYDRAULIC BEARING AND MOTOR VEHICLE WITH SUCH A HYDRAULIC BEARING

Title (de)
HYDROLAGER SOWIE KRAFTFAHRZEUG MIT EINEM DERARTIGEN HYDROLAGER

Title (fr)
PALIER HYDRAULIQUE ET VÉHICULE AUTOMOBILE ÉQUIPÉ D'UN TEL PALIER HYDRAULIQUE

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Abstract (en)
[origin: WO2015197215A1] The invention relates to a hydraulic bearing (2) with a support spring (36), a working chamber (4) which is at least partly surrounded by the support spring (36) and which is filled with a hydraulic fluid, a control membrane (12) which is designed to change a working chamber volume of the working chamber (4), and an electromagnetic actuator (16) for deflecting the control membrane (12), wherein the actuator (16) comprises a stator (18) and an armature (20) which can be moved in the longitudinal direction L of the stator (18); the armature (20) is mechanically connected to the control membrane (12); the stator (18) has a stator conductive element (26) made of a ferromagnetic material; the stator conductive element (26) has an upper stator collar (32) which extends in the transverse direction Q of the stator (18) and a lower stator collar (28) which extends in the transverse direction Q of the stator (18); the armature (20) has an armature conductive element (72) made of a ferromagnetic material; the armature conductive element (72) has an upper armature collar (58) which extends in the transverse direction Q of the stator (18) and a lower armature collar (54) which extends in the transverse direction Q of the stator (18); the upper stator collar (32) and the upper armature collar (58) face each other; and the lower stator collar (28) and the lower armature collar (54) face each other. The control membrane (12) is designed for a maximum deflection a in the deflection direction of the control membrane, and the mutually facing upper and/or lower collars (32, 58 or 28, 54) partly overlap over an overlap length u in the longitudinal direction L of the stator (18) such that a ratio of the overlap length u to the maximum deflection a lies between 0.1 and 1.5. The invention further relates to a motor vehicle with a corresponding hydraulic bearing (2).

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