

Title (en)
MAGNETIC PUMP FOR AN AUXILIARY ASSEMBLY OF A VEHICLE AND METHOD OF CONTROLLING A MAGNETIC PUMP FOR AN AUXILIARY ASSEMBLY

Title (de)
MAGNETPUMPE FÜR EIN HILFSAGGREGAT EINES FAHRZEUGS SOWIE VERFAHREN ZUR STEUERUNG EINER MAGNETPUMPE FÜR EIN HILFSAGGREGAT

Title (fr)
POMPE MAGNÉTIQUE POUR AGRÉGAT AUXILIAIRE DE VÉHICULE AUTOMOBILE ET PROCÉDÉ DE CONTRÔLE DE POMPE MAGNÉTIQUE POUR AGRÉGAT AUXILIAIRE

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Abstract (en)
[origin: WO2015067384A1] Magnet pumps are known for auxiliary assemblies in vehicles, comprising an inlet (26) and an outlet (30), an electromagnet (10), an axial piston (38, 64) which can be moved up and down in a cylinder (82), a first non-return valve (86) which is pre-tensioned against the axial piston (38, 64), and a second non-return valve (96) which is pre-tensioned against an outlet opening (92) of the cylinder (82). It is also known that an axial piston (38, 64) coupled to an armature (22) of an electromagnet (10) is moved up and down by alternately supplying a current to a coil (14) of the electromagnet (10) in a cylinder (82) for pumping a fluid from the inlet (26) to the outlet (30). Until now, additional valves had to be used in order to depressurize an area filled via the pump. According to the invention, this is prevented in that the axial piston (38, 64) is designed in two parts and has an axial through-bore (40, 83), the first axial piston part (38) being connected to the armature (22) and being liftable by the second axial piston part (64). When no current is supplied to the coil in the lifted state, the fluidic connection is established between the inlet (26) and the outlet (30) via a gap (67) between the two axial piston parts (38, 64).

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