

Title (en)  
ACTIVE VEHICLE WHEEL SUSPENSION HAVING A LINEAR MOTOR

Title (de)  
AKTIVE FAHRZEUG-RADAUFH NGUNG MIT EINEM LINEARMOTOR

Title (fr)  
SUSPENSION ACTIVE DE VEHICULE, A MOTEUR LINEAIRE

Publication  
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Application  
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Abstract (en)  
[origin: WO2004071793A1] The invention relates to an, in particular, active vehicle wheel suspension having an electric linear motor mounted between the vehicle structure and a wheel. Said electric motor operates as a permanently excited synchronous motor and its centrally arranged rotor (2) is formed from discoidal permanent magnets (3), which are magnetized in an axial direction and which are arranged one above the other in the direction of the longitudinal axis (9) of the linear motor, and is formed from spacer discs (4), which are located between said permanent magnets, whereas the stator (1), which is shorter than the rotor (2), has electric coils (Ui, Vi, Wi). These coils are arranged in a stack in the direction of the longitudinal axis (9) and are controlled in the manner of a three-phase operation. A second set (6') of three successive coils (W2, U1, V2) that are respectively assigned to a phase is connected to a first set (6) of three successive coils (W1, U2, V1) that are also respectively assigned to a phase. The direction of winding of each coil (W1, U2, V1) of the second set (6'), said coil being assigned to a phase, is opposite that of the coil (W2, U1, V2) of the first set (6), this coil being assigned to the same phase. The axial length of the individual coils (Ui, Vi, Wi) is essentially equal to the axial length of spacer discs (4) and is essentially equal to half the axial length of the permanent magnets (3).

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