

Title (en)
FAIL-SAFE BRAKING SYSTEM

Title (de)
AUSFALLSICHERES BREMSSYSTEM

Title (fr)
SYSTÈME DE FREINAGE À SÉCURITÉ INTÉGRÉE

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Application
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Abstract (en)
[origin: WO2022214521A1] The invention relates to a braking system, comprising: - at least two wheel brake cylinders (RZ1-4), which are part of respective separate wheel circuits (RK1-4); - at least one pressure supply (DV), which is used at least for the pressure build-up (Pauf) in the wheel brake cylinders (RZ1-4); - at least one reservoir (VB); - at least one electronic open-loop and closed-loop control device (ECU); - switching valves (SV2K1-4); wherein each wheel brake cylinder (RZ1-4) is connected, by means of an associated hydraulic connecting line, to a switching valve (SV2K1-4), which is used to disconnect and connect the hydraulic connection between the associated wheel brake cylinder (RZ1-4) and at least one additional hydraulic main line, by means of which the switching valve ((SV2K1-4) can be or is connected at least to the pressure supply (DV), at least the hydraulic connecting line and the wheel brake cylinder (RZ1-4) connected thereto being part of a wheel circuit (RK1-4). The braking system is characterized in that, in the case of at least one, more particularly all, of the switching valves (SV2K1-4), the electric drive or individual components thereof is/are redundantly implemented and/or the switching valve (SV2K1-4) has a force auxiliary device (EM2, 9), which applies, by means of its own magnetic field, a force (FM2) to a valve actuator or valve tappet (7), and/or the switching valve (SV2K1-4) has a restoring spring, which applies a force to the valve actuator or the valve tappet (7), said force preventing the corking of the switching valve (SV2K1-4), more particularly in one of two flow directions, and/or the braking system has at least one isolation valve (KTV, DV/TV), by means of which at least two wheel circuits (RK1-4) or brake circuits (I, II) can be disconnected from or connected to each other.

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