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# 汽车联合制动系统制动力分配的优化控制

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**摘要:**
在电涡流缓速器和汽车主制动器构成的联合制动系统中,设定了电涡流缓速器转子盘温度的限制条件,建立了联合制动系统制动力分配的优化模型,计算出制动力分配系数与道路坡度的变化曲线,拟合了两者间的指数函数关系。虚拟多坡度道路上制动过程的验证结果表明,随道路坡度变化的制动力分配系数能实现电涡流缓速器与主制动器的有机联合,使联合制动系统在长下坡道路上持续有效地工作,能充分发挥电涡流缓速器的辅助制动作用。

**关键词:**
汽车;联合制动系统;制动力分配;优化;电涡流缓速器

## Optimal Control of Braking Force Distribution of United Brake System of Automobile

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Abstract:
Suggesting the restricted conditions of eddy-current retarder rotor plate,an optimal model of the braking force distribution of an united braking system was put forward,and the variable curves of braking force distribution parameter and ramp gradient were calculated,and the fitting exponential function relation was carried out.
Testing with the braking process simulation calculations on a virtual multi-gradient ramp, the results show that the braking force distribution parameter,varying with ramp gradient,can integrate the eddy-current retarder and the primary brake,make the united brake system work continuously and effectively on a long downhill,and make full use of auxiliary braking effect of the eddy-current retarder.

Keywords: automobile;united brake system;braking force distribution;optimization;eddy-current retarderzz')" href="#"> automobile;united brake system;braking force distribution;optimization;eddy-current retarder

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