液压双流转向机构实现转向期间自动无级降速的策略

Strategy of auto-stepless deceleration of the tracked vehicles using split path transmisson steering mechanism during steering

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中文摘要：

该文论述了履带车辆液压双功率流机械差动传动装置转向期间车辆实现自动无级降速的方法，对其优越性进行了分析。介绍了实现转向期间自动无级降速的控制原理及由仿真得到的理论数据。结果认为通过该装置可以在同一转向角速度的条件下减小转向半径，降低消耗的总功率。并且在任意车速下都可以实现原地转向，且操作方式与轮式车辆相同，转向时不切断动力，可充分利用整机附着重量，行走系统仍可输出发动机的全功率，提高作业机动性。

英文摘要：

A kind of the hydro-mechanical split path transmission device for auto-stepless deceleration of the tracked vehicles during steering was introduced and its advantages were analyzed. The control theory of the auto-stepless reducing velocity and the theoretical data gained from the simulation method were introduced. It is believed that the new controlling device presented in this paper can increase steering radius under the same steering yawing rate and reduce the total dissipative power. Above all, it can complete spin turn at any vehicle velocity, and its controlling method is the same with wheel vehicles. Taking good advantage of the whole machine weight when it turns, there is no power cutting off, the traveling system can still output the total power of the engine to improve the operation flexibility.

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