

车辆工程

液压鹅颈挂车转弯建模与轨迹动态仿真研究

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摘要:

液压鹅颈挂车是装运大件产品的新型运输车辆,为确保大件产品公路运输的安全,针对液压鹅颈挂车运输过程中弯道通过能力差的问题,在分析液压鹅颈挂车的装载静态结构属性和车组动态转弯过程的基础上,构建了液压鹅颈挂车的转弯模型,提出了关键物理量坐标的迭代算法并实现了液压鹅颈挂车弯道轨迹的动态模拟仿真,为其在运输过程中顺利通过复杂弯道提供了工程指导。

关键词:

液压鹅颈挂车 大件运输 公路运输 动态仿真

Modeling and Dynamic Simulation of Hydraulic Gooseneck Trailer's Track on Crooked Road

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Abstract:

To ensure the transportation safety of OS/OW products,the problem of the poor passing capability of hydraulic gooseneck trailer in turning should be solved. After analysis of the hydraulic gooseneck trailer's static structure and dynamic turning characteristics, we deduced an iterative formula of the model's key points coordinates.Based on that, the computer codes were wrote to actualize the dynamic computer simulation of the hydraulic gooseneck trailer's turning process, which can provide guidance for the hydraulic gooseneck trailer to pass the crooked road smoothly during transport process.

Keywords: hydraulic gooseneck trailer;OS/OW transportation;highway transportation;dynamic simulation zz')" href="#"> hydraulic gooseneck trailer;OS/OW transportation;highway transportation;dynamic simulation

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