RESEARCH ON THE INFLUENCE OF HEAVY TRUCK VIBRATION ON HIGHWAY ROAD SURFACE

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TÓM TẮT:

In recent years, heavy vehicles running on the national highways increase in not only the number of vehicles but also vehicle load. Moreover, the moving also causes a fast deterioration to the highway road surface. Therefore, throughly evaluating the effects of dynamic wheel loads on road surfaces is important meaning to improve friendly of roads. Vibration model of a class of the heavy vehicle is proposed in this paper. The impact factor of dynamic tire load is used to evaluate the influence of a class of the heavy truck vibration on highway road surface. Matlab/Simulink is used to simulate the vehicle vibration and calculate the impact factor. The effects of different structural parameters and different speeds of vehicle on road surface are analyzed. The study results give the road-friendly limit of corresponding dynamic parameters for a class of the heavy truck.