

断面会引起更大的轮胎撞击噪声和发声机理更为复杂的轮胎花纹噪声。

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Pass-by Noise Test of Passenger Car Tire Based on Sliding Method

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Abstract: In order to study the influencing factors of passenger car tire noise, the sliding noise test was carried out on the tires with different brands and specifications using the same testing vehicle, and the rolling noise of tires with different speeds, tread patterns and tire sizes was measured and compared. The results showed that tire noise level was determined by the joint action of multiple parameters, and the tires with different sizes and patterns had unique tire noise characteristics. Tire rolling noise increased in direct proportion to vehicle speed, but singularities appeared under certain conditions. Tire patterns had complex effects on tire rolling noise. Different types of tread patterns had different weights on the influence. The rolling noise of the tire was almost proportional to the width of the tread section. With the same tread pattern and material, wider tread section would cause greater impact noise and more complex mechanism of tread pattern noise.

Key words: passenger car tire; pass-by noise; sliding method

一种快速实现轮胎花纹节距噪声预测的方法

中图分类号:TQ336.1 文献标志码:D

由哈尔滨工大泰铭科技有限公司申请的专利(公开号 CN 108614935A,公开日期 2018-10-02)“一种快速实现轮胎花纹节距噪声预测的方法”,涉及一种可快速实现轮胎花纹节距噪声预测

的方法,通过设置轮胎基本参数,确定花纹节距排列顺序,提取激励,生成激励分布图,对提取出来的激励作傅里叶转换,对傅里叶转换结果生成花纹节距噪声频谱图。本发明在满足轮胎花纹设计要求的基础上,可以快速实现在花纹节距噪声相对较低的情况下完成轮胎花纹节距排列。

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