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Study on Relationship between Vibration Noise and Grounding Parameters of Truck and Bus Radial Tire

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Abstract: Taking 275/70R22.5 truck and bus radial (TBR) tire as the research object, the relationship between vibration noise and grounding parameters with different design of belt structure and without changing the outer contour of the tire was obtained by simulation analysis. The results showed that, the tire vibration noise was reduced with appropriate increase of the tire contact area, and the tire vibration noise was increased with the increase of contact pressure. The change of the variation magnitude of contact pressure could cause the drastic change of the vibration noise, and the increase of radial stiffness could lead to the increase of the vibration noise. The vibration noise was relatively small when the tire hardness factor was small.

Key words: truck and bus radial tire; vibration noise; grounding parameter; finite element model; simulation analysis

TBC Brands扩大Power King轮胎系列

美国《现代轮胎经销商》(www.moderntiredealer.com) 2019年5月1日报道:

TBC Brands有限公司推出了一种用于装载机和铰接式卡车的工程机械子午线轮胎。Power King xERT-3HD (见图1) 是一款适用于E-3和L-3服务的超值轮胎。

xERT-3HD轮胎的自洁胎面可在越野条件下提供牵引力,使其成为市政和集合作业的理想选择。其宽且扁平的接地印痕与增大的花纹饱和度相结合,提高了轮胎的操纵稳定性和延长了胎面寿命。这些装载机轮胎拥有耐磨和抗切割胎面胶和厚基部胶。

TBC Brands商用轮胎部门高级副总裁Bill Dashiell说:“这款工程机械轮胎专为追求具有出色翻新性能、高质量胎体的长寿命原配轮胎经销商而设计。”



图1 Power King xERT-3HD轮胎

Power King xERT-3HD系列轮胎现可提供4种规格: 20.5R25, 23.5R25, 26.5R25和29.5R25。

Power King系列非公路轮胎具有5年工艺和材料担保,包括胎面磨损深度不超过10%时由于设计、工艺或材料方面的缺陷而无法使用的轮胎在前12个月内免费更换。在免费更换期外或胎面磨损深度超过10%的轮胎,可根据生产日期和安装后轮胎使用程度按比例补贴。

(吴淑华摘译 吴秀兰校)