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## Design on 385/55R22. 5 Wide Base Truck and Bus Radial Tire with Low Rolling Resistance and Low Noise

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**Abstract:** The design on 385/55R22. 5 wide base truck and bus radial tire with low rolling resistance and low noise was described. In the structure design, the following parameters were taken: overall diameter 994 mm, width of cross-section 390 mm, width of running surface 320 mm, arc height of running surface 9 mm, bead diameter at rim seat 569. 5 mm, bead width at rim seat 390 mm, maximum width position of cross-section ( $H_1/H_2$ ) 0. 96, five longitudinal grooves as the main tread pattern, pattern depth 14. 5 mm, number of pattern pitches 45, and block/total ratio 74%. In the construction design, the following processes were taken: three belts and two 0° belts for belt ply,  $3 \times 0. 20 + 6 \times 0. 35$  HT steel cord for 1° and 2° belts,  $5 \times 0. 35$  HE steel cord for 3° belt,  $3 \times 7 \times 0. 20$  HE steel cord for 0° belt, and  $3 + 9 \times 0. 22 + 0. 15$  HT steel cord for carcass ply. New materials such as SSBR, silica dispersant and silica activator were used in the tread compound. A three drum building machine was used to build tire and steamer type double mold press was used to cure tire. It was confirmed by the tests of the finished tire that, the inflated peripheral dimension, strength, endurance, rolling resistance and noise met the requirements of corresponding standards.

**Key words:** wide base truck and bus radial tire; low rolling resistance; low noise; structure design; construction design

### 自修补轮胎的制备方法

由江苏通用科技股份有限公司申请的专利(公开号 CN 109732958A, 公开日期 2019-05-10)“自修补轮胎的制备方法”, 涉及的制备方法为: 首先通过成型机制备胎坯, 得到不带自修补胶层的轮坯, 随后将内层胶片与自修补胶层导开并在贴合鼓上组合, 随后套上胎坯并定位, 胀鼓使组合胶层与胎坯贴合, 对带自修补胶层的轮坯进行硫化, 即制得带自修补胶层的轮胎。本发明制备的自修补轮胎能够确保轮胎在使用期限内保持自修补功能, 软体自修补胶不脱层和不结团, 不影响轮胎的均匀性。本发明通过贴合鼓即可实现自修补胶层和胎坯的组合, 工艺简单方便, 适于工业化应用。

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### 一种轮胎缺陷智能检测系统

由朝阳浪马轮胎有限责任公司申请的专利(公开号 CN 109738452A, 公开日期 2019-05-10)“一种轮胎缺陷智能检测系统”, 包括监控窗口、缺陷列表区、缺陷分类区和缺陷位置。监控窗口与缺陷分类统计饼图、数据统计区、时间轴统计区、复检列表区、检测数据列表区、标签核对区、轮胎识别监控系统 and 检测结果详情查看窗口之间均为电性连接, 且缺陷列表区、缺陷分类区和缺陷位置与检测结果详情查看窗口之间均为电性连接。该检测系统利用卷积神经网络和深度学习解决轮胎X光检测图像识别问题, 解决了传统模式识别生产现场适应性差的问题, 完全替代人工检测, 改进了神经网络结构, 大幅提高提取特征的多样性。

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