

参考文献:

- [1] 蔡福海,高顺德,王欣.全地面起重机发展现状及其关键技术探讨[J].工程机械与维修,2006(9):66-70.
- [2] 厉超,李庆瀛.全地面起重机关键技术探析[J].南方农机,2018,303(11):248-253.
- [3] 薛源.26.5-25 20PR R-1工程机械轮胎的设计[J].轮胎工业,2021,41(5):292-294.
- [4] 燕山.载重子午线轮胎有限元分析与实验研究[D].青岛:青岛科技大学,2013.
- [5] 孙熙林.轮胎花纹排水性的有限元仿真及结构优化[D].青岛:青岛科技大学,2019.
- [6] 陶森望,宋健,徐丹丹,等.基于自定义特征的子午线轮胎结构参数化系统的设计[J].橡胶工业,2021,68(7):483-490.
- [7] 张小江.全地面起重机转向性能仿真和试验研究[D].长春:吉林大学,2011.

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Development of 385/95R25 Off-The-Road Radial Tire for All Terrain Crane

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Abstract: The development of the 385/95R25 off-the-road radial tire for all terrain crane was described. In the structure design, the following parameters were taken: overall diameter 1 363 mm, cross-sectional width 385 mm, width of running surface 310 mm, arc height of running surface 11 mm, bead diameter at rim seat 630 mm, bead width at rim seat 280 mm, maximum width position of cross-section (H_1/H_2) 0.97, using 4 longitudinal grooves for tread with block patterns for the center of the crown, pattern depth 22 mm, block/total ratio 66.2%, number of pattern pitches 54. In the construction design, the following processes were taken: the tread was composed of tread compound and base compound, 3 + 9 + 15 × 0.22 + 0.15NT steel cord for all 3 layers of belts, and 3 + 9 + 15 × 0.22 + 0.15NT steel cord for the carcass, using one stage building machine to build tires and single mold steamer type vulcanizing press to cure tires. The test results of the finished tire showed that, the inflated peripheral dimension met the requirements of the national standard, and the durability met the requirements of the enterprise standards.

Key words: all terrain crane; off-the-road radial tire; structure design; construction design; durability

一种废弃轮胎压缩打包设备

由山东玲珑轮胎股份有限公司和山东玲珑橡胶科技有限公司申请的专利(公布号 CN 113859619A, 公布日期 2021-12-31)“一种废弃轮胎压缩打包设备”, 涉及的废弃轮胎压缩打包设备包括压缩箱和压缩机构, 压缩箱的顶端固定安装有压缩机构, 内部设有压缩腔, 两侧皆设有与压缩腔连通的开口, 每个开口处均设有若干个等间距分布的防护杆; 压缩腔的腔底开设有若干道第一打包槽, 腔口处固定安装有若干导向机构, 若干导向机构同向一侧装配有收纳机构; 压缩箱的外侧壁固定安装有退料机构。本发明采用单根打包钢条的环绕打包结构, 代替了传统两根打包钢条相接的打包结构, 节约了打包钢带接头, 缩短了打包时间, 提高了打包效率和打包安全性。

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一种轮胎胎面分层缠绕方法

由赛轮(东营)轮胎股份有限公司申请的专利(公布号 CN 113927932B, 公布日期 2022-03-04)“一种轮胎胎面分层缠绕方法”, 涉及一种轮胎胎面分层缠绕方法, 属于轮胎加工技术领域。该方法根据胎面断面形状最高点的厚度以及每层胶条的预设厚度, 确定分层缠绕的层数; 沿着胎面的底层, 在胎肩与胎面的中垂线之间取点作为分层缠绕的起始位; 确定胎面断面轮廓线上厚度变化的关键点及每个分层的分层线; 胶条自起始位并依据分层线进行各分层缠绕。本发明能够保证胶条在两侧胎肩缠绕层数相同, 提高两侧胎肩厚度均一性, 同时, 胶条堆叠后无波浪起伏和过渡不良现象, 胶条实际缠绕效果与设计标准吻合度高, 从而提高了轮胎后续硫化效果。

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