

表1 成品轮胎物理性能检测结果

项 目	实测值	GB/T 2891—2014
胎面胶性能		
邵尔A型硬度/度	68	55~75
拉伸强度/MPa		≥14.0
上层胶	20.3	
下层胶	21.1	
拉断伸长率/%		≥380
上层胶	606	
下层胶	614	
阿克隆磨耗量/cm ³	0.27	≤0.4
粘合强度/(kN·m ⁻¹)		
胎面-胎体帘布层	11.3	≥7.0
胎体帘布层间	9.6	≥5.5
胎体帘布层-胎侧	11.8	≥5.5

品轮胎物理性能达到了相关标准要求。

28×9—15 14PR叉车轮胎批量生产过程中工艺稳定、外观质量良好。产品自2016年投入市场以来,反馈良好,为公司创造了较好的经济效益和社会效益。

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Design on 28×9—15 14PR Forklift Tire

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Abstract: The design on 28×9—15 14PR forklift tire was introduced. In the structure design, the following parameters were taken: overall diameter 690 mm, cross-sectional width 228 mm, width of running surface 210 mm, arc height of running surface 0, bead diameter at rim seat 387 mm, bead width at rim seat 178 mm, maximum width position of cross-section (H_1/H_2) 0.942 3, tread pattern depth 18 mm, total number of pitches 24, and block/total ratio 77%. In the construction design, the following processes were taken: two formula and three piece structure for tread, 4 layers of 1400dtex/3V₁ and 2 layers of 1400dtex/3V₂ dipped nylon 6 for carcass, 2 layers of 930dtex/2V₃ dipped nylon 6 for breaker, using flat core building machine to build tires and bladder curing press to cure tires. It was confirmed by the finished tire test that the inflated peripheral dimension and physical properties met the requirements of the design and national standards.

Key words: forklift tire; structure design; construction design

轮胎胎面橡胶材料接触印迹内全域变形 在线测试装置及测试方法

由吉林大学申请的专利(公开号 CN 108956300A, 公开日期 2018-12-07)“轮胎胎面橡胶材料接触印迹内全域变形在线测试装置及测试方法”, 涉及的轮胎胎面橡胶材料接触印迹内全域变形在线测试装置由支撑平台、直线加载调节机构、旋转加载调节机构、自适应夹紧机构和视觉检测系统组成, 直线加载调节机构和视觉检测系统按照一定的位置关系固定连接在支撑平台上;

直线加载调节机构与旋转加载调节机构固定连接, 自适应夹紧机构与压力传感器固定连接, 压力传感器与扭矩传感器固定连接。该装置能够完全模拟轮胎各种工况下胎面橡胶材料在接触印迹内受力变形, 通过非接触视觉测量方法, 解决了现有轮胎胎面橡胶材料接触印迹内单点接触测量方式难于实现和测试结果误差大及不能获取接触印迹内胎面橡胶材料全域变形特性的问题, 具有结构简洁、易于控制及调节的特点。

(本刊编辑部 马 晓)