

5 结语

880×230 有内胎航空轮胎的结构设计科学、合理,符合产品设计要求。成品试验结果表明,880×230 有内胎航空轮胎的各项静态、动态性能均满足 GJB 683A—1998《军用航空轮胎规范》的要求,室外试飞未出现脱层、鼓泡、漏气、胎面掉块等故障,产品质量稳定、可靠,满足飞机的使用、维护要求。

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收稿日期:2014-03-26

Design of 880×230 Tube-type Aircraft Tire

QIN Qi-fu ,FU Yun-cui

(Shuguang Research and Design Institute of Rubber Industry,Guilin 541004,China)

Abstract: The design of 880×230 tube-type aircraft tire was described. In the structure design,the following parameters were taken:overall diameter 820 mm,cross-sectional width 192 mm,bead diameter at rim seat 465.6 mm,bead width at rim seat 151 mm,maximum width position of cross-section (H_1/H_2) 0.968 9,with the design of 3 longitudinal pattern grooves,pattern depth 4 mm,pattern width 5 mm,the inner tube with the design of circular section,and inner tube thickness 2.5 mm. In the construction design,the following processes were taken:12 layers of 1400dtex/2V₁ dipped nylon 66 cord for carcass ply,2 layers of 1400dtex/2V₂ dipped nylon 66 cord for an additional ply in which the cords were arranged in wide spacing,3 layers of 1400dtex/3V₁ dipped nylon 66 cord for breaker ply;using press rolling and tipping building machine to build tires,and using curing press to cure tires. It was confirmed by the tests of finished tires that,the inflated peripheral dimension,static mechanical properties and dynamic properties met the requirements of the relative design and standard.

Key words: aircraft tire;structure design;construction design

桂林橡机新型硫化机
提效节能成效显著

中图分类号:F27;TQ330.4⁺7 文献标志码:D

2014 年以来,桂林橡胶机械厂订单同比大幅增长,这得益于该厂一直致力于研制高效节能环保设备,努力打造绿色生产环境的企业理念,不断研制出新型硫化机,力求为客户量身定制,提效节能降耗深得市场欢迎,并取得显著成效。

新型硫化机主要在开合模效率提升、装卸胎效率和稳定性提高、硫化室保温、中心机构密封件寿命提高和管路模块化等方面有所创新。该厂针对硫化机从横梁运动的承载力、结构刚性和抗冲击性等方面进行了全面优化升级,使开合模速度明显提高,运动更加平稳可靠;通过三维仿真技术

的应用和反复模拟试验,新型硫化机装卸胎机械手达到了速度快、精度高、稳定性强等特点,机械手转进转出速度提高了 25%,且更加平稳可靠;在中心机构密封改进上选用新型密封材料,进行反复老化试验和实际使用验证,中心机构密封可靠性有了明显提高。

另外,在节能降耗方面,该厂还对新型液压硫化机硫化室的保温结构和材料进行了优化,防止了热量散失,降低了能耗;针对管路优化设计的改进,使其更加人性化、安全性和模块化,便于维修、拆装,并增加了美观性。新型硫化机达到了高效、节能、延长寿命,减少维护调整的目的。这些成果已吸引了众多国内外客户的关注和认可。

(桂林橡胶机械厂 李 丽)