

3 结论

以315/80R22.5全钢载重子午线轮胎为例,研究0°带束层钢丝帘布的密度、宽度和强度对轮胎耐久性能的影响,得到如下结论。

(1)当0°带束层钢丝帘布的强度相同时,减小帘布密度、增大宽度,有利于提高轮胎的耐久性能,并降低轮胎成本。

(2)当0°带束层钢丝帘布宽度相同时,适当增大钢丝帘布的强度可以提高轮胎的耐久性能,但当帘布密度变大时,增大强度反而会影响轮胎的耐久性能,因此可以选择密度稍小的0°带束层钢丝帘布,既能保证轮胎的性能,还可以降低轮胎的成本。

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Influence of 0° Belt Steel Cord on Durability of Truck and Bus Radial Tire

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Abstract: Taking 315/80R22.5 truck and bus radial tire as an example, the influence of the density, width and strength of 0° belt steel cord on tire durability was studied. The results showed that when the strength of 0° belt steel cord was the same, reducing the density of the steel cord and increasing the width was beneficial to improve the durability and reduce the cost of the tire. When the width of 0° belt steel cord was the same, appropriately increasing the strength of the steel cord could improve the tire durability; however when the density of the steel cord became large, increasing the strength would affect the tire durability. Therefore, selection of the 0° belt steel cord with slightly smaller density could not only ensure the durability of the tire, but also reduce the cost of the tire.

Key words: truck and bus radial tire; steel cord; 0° belt; width; density; strength; durability

在磨损滚筒模拟路面上驱动轮胎的方法

由米其林集团总公司申请的专利(公布号CN 1112534235A,公布日期 2021-03-19)“在磨损滚筒模拟路面上驱动轮胎的方法”,涉及测试在滚筒模拟路面上滚动的轮胎磨损的方法,步骤如下:利用车辆的结构数据和动力学平衡模型,确定车辆重心处的速度和加速度,以及施加至给定车轴的角度与方向性力之间的关系,连续记录在预

定路线上行驶的车辆的速度和加速度,将属于同一车轴的两个轮胎布置在滚筒模拟路面上,并且依据记录的速度和加速度的值,始终将外倾角、负载和纵向力的值应用于车轴的每个车轮。测量每个车轮经受的横向力值,并改变偏移角,使得由轮胎偏移产生的横向力总和始终等于施加至车轴中心的横向力。

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