

Design of 285/60R18 Passenger Car Radial Tire for SUV

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Abstract: The design of 285/60R18 passenger car radial tire for SUV was described. In the structure design, the following parameters were taken: overall diameter 795 mm, cross-sectional width 300 mm, width of running surface 220 mm, arc height of running surface 9.8 mm, bead diameter at rim seat 457.2 mm, bead width at rim seat 236 mm, maximum width position of cross section (H_1/H_2) 1.03, TR257 tread pattern with optimized pitch order, pattern depth 10 mm, groove/total ratio 34%, number of pattern pitch 59. In the construction design, the following processes were taken: three-formula and four-pieces layered tread, 2 layers of 1440dtex/2 DSP cord for carcass ply, 3×0.30 HT steel cord for belt, $\Phi 0.95$ mm copper-plated tempering bead wire, and using one-stage building machine to build tires and hydraulic double press to cure tires. The design was simulated by FEA. It was confirmed by the test of finished tires that, the inflated peripheral dimension, strength performance, bead unseating resistance, endurance performance, low air pressure performance and high speed performance met the requirements in design and national standard.

Key words: SUV; passenger car radial tire; structure design; construction design; FEA

新 Hercules Terra Trac R/S 轮胎推出

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美国《现代轮胎经销商》(www.moderntire-dealer.com)2013 年 4 月 17 日报道:

在 2012 专业设备市场协会 (SEMA) 展览会上预展的专用于恶劣条件、严苛的商业应用和全天候、全地形轮胎 Hercules Terra Trac R/S (如图 1 所示) 已向北美地区推出。



图 1 Hercules Terra Trac R/S 轮胎

用于轻载和运动型多用途乘用车型的 10 个规格产品具有 3 层胎面和/或 3 层胎侧结构, 高强度的结构可提供出色的抗刺扎和抗冲击性。这些

特性使其成为农业、建筑业和采矿业用载重汽车的理想轮胎, 也是越野旅行车的良好选择。

“Hercules Terra Trac R/S 轮胎是公路和越野使用的理想轮胎, 它异常坚固, 为极苛刻使用条件而生产。”Hercules 轮胎和橡胶公司营销副总裁 Joshua Simpson 说, “经销过我们 Terra Trac 系列产品的销售商会发现 Terra Trac R/S 是该系列产品的优异新品, 可以为他们的客户提供超常价值。”

Terra Trac R/S 轮胎具有以下特点:

- 即使在荷刻的条件下其宽接地印痕也可提供均匀磨损和稳定性;
- 强韧的胎面胶可提供坚固、多功能和全路面性能;
- 3 层胎侧结构可抵抗胎侧冲击;
- 低空胎肩可增大接触面, 提高抓着力。

“Terra Trac R/S 是轻型载重轮胎系列的完美新品, 它提供了真正的全地形使用性能以及满足农村和工地作业环境要求的强韧性能。可为经销商和消费者提供额外价值。”Joshua Simpson 说。

(吴淑华摘译 肖大玲校)