

增大。

由图8和9可见,剪切应力仅存在于轮胎的接地区域,而且受轮胎下沉量的影响很大。

3 结语

利用我们所研制的轮胎有限元分析软件对全钢丝子午线轮胎带束层中的应力进行详细分析。数据分析结果表明,轮胎与地面的接触对带束层中的应力的影响仅限于轮胎与地面的接触区域。在轮胎与地面接触的最低截面上,带束层端部的应力与胎冠中心的带束层应力的比率随着轮胎下沉量的增大而增大。

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FEA of stresses in radial tire belt

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Abstract: A software for the finite element analysis of tire structure was developed. The regular pattern of the stress change in the circumferential and lateral directions of all-steel radial tire belt was analysed using the software. The results showed that the effect of the tire-ground contact on the stress in the belt was within the limits of tire-ground contact area; in the lowest cross-section of tire-ground contact area, the ratio of the stress in the belt ends/ the stress in the belt centre increased as the tire deflection increased.

Keywords: radial tire; FEA; belt; stress

徐州海鹏扩产工程机械轮胎

中图分类号: U463.341⁺.5 文献标识码: D

徐州海鹏轮胎有限公司年产10万套工程机械轮胎一期技术改造项目——年产5万套项目正在加快建设步伐, 炼胶和压延生产线已进入安装阶段。

近年来, 该公司通过挖潜改造和技术开发,

生产出23.5-25, 20.5-25, 17.5-25, 19.5-24, 14.00-24, 13.00-24等多种规格的有内胎和无内胎工程机械轮胎, 并在轮胎结构和花纹上进行了新的探索, 使产品品种、质量和性能方面形成了自身的优势, 并已形成年产3万套的生产能力。

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