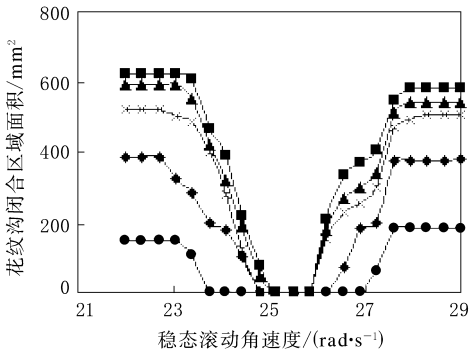

侧倾角/(°):■—0;▲—3;×—6;◆—9;●—12。

图 8　不同侧倾角下花纹沟闭合区域面积与稳态滚动角速度的关系

逐渐减小,接地应力最大值逐渐增大。

(2)侧倾自由滚动工况下,没有花纹沟闭合;侧倾最大制动、驱动工况下,接地区内部分连通沟闭合,主花纹沟不闭合;侧倾角较小时,闭合发生在中部连通沟,侧倾角较大时,闭合发生在外侧连通沟。

(3)滚动轮胎在从制动到驱动过程中,花纹沟闭合区域面积先减小后增大,并且随着侧倾角的增大,花纹沟闭合区域面积的最大值逐渐减小。

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Finite Element Analysis of Ground Contact Characteristics and Camber Angle of Rolling Radial Tire with Complex Tread Pattern

YANG Shou-bin, SHU Chang-dong, SHU Yong-ping

(Donghua University, Shanghai　201620, China)

Abstract: A three-dimensional finite element model of all steel radial truck tire 12.00R20 with complex tread pattern was established by using circumferential conformal mapping method. The tire rolling states with different camber angles were simulated under standard pressure and load by using ABAQUS finite element analysis software. The influence of camber angle on the contact area and contact pressure was investigated. In addition, the influence of different rolling states on the closed area of pattern groove was also studied by defining self contact surface, and the results showed that this method was feasible and effective.

Key words: radial tire; tread pattern; camber; contact pressure; finite element analysis

三元乙丙橡胶护套电力软电缆

中图分类号:TQ336.4+2　　**文献标志码**:D

由上海南大集团有限公司申请的专利(公开号　CN 202258522U,公开日期　2012-05-30)“三元乙丙橡胶护套电力软电缆”,涉及的三元乙丙橡胶(EPDM)护套电力软电缆的缆芯为由 6 种软导体丝绞合而成的导体,导体外依次包覆由聚丙烯带绕包成型的屏蔽层以及 EPDM 绝缘层,绝缘层外包 EPDM 外护套。该电缆选用 EPDM 作外护套材料,使得电缆具有耐油、耐溶剂、耐浸渍漆和耐磨等优异性能,能够在拖拽和油污等特殊环境下使用;选用软导体使得电缆具有较小的弯曲半径,满足电力软电缆使用时多弯曲的特殊要求;使用 EPDM 绝缘层,保证了导体连续运行最高温度 90 ℃的要求,可延长电缆的使用寿命。

(本刊编辑部　马　晓)