

英语翻译技巧(37)

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5.5 Tread Bracing Components (Breakers or Belts) for Radial or Belted Bias Tyres^①

Tread bracing components raise the modulus of the tread area, thereby maintaining the inflated tyre tread profile and reducing tread pattern movement as it contacts the road.

The method of strip cutting the rubbered textile is identical with that used for cutting plies, but, in this case, the travelling beam on the bias cutting machine is adjustable for angles of 15°—25°.

The method of converting the single-layer low-angle cut strips into the form of the final belt varies^②. The most widely used construction, for radial ply tyres, employs four layers, made from folded strips, adjacent layers being of opposite bias angle^③. The method of assembly is shown in Fig. 10. 4. In practice the two strips are slightly offset to achieve a graduated step-down in thickness at the belt edges, thereby reducing stress concentration and minimising the development of looseness in service^④.

5.6 Insulation Components (Undertread, Breaker Cushion Insulations)

These insulation components are calendered strips of rubber compound usually of 1 mm gauge or less. They are located in positions within the structure where additional insulation is required between components to prevent chafing. The compounds are similar

to those used for coating the carcass plies.

5.7 Tread

The tread is the wearing surface of the tyre. It is applied in the raw state as an extruded slab of rubber compound. In cross-section it is substantially rectangular across the centre portion, tapering down to very fine edges^⑤. The thickness must be calculated to accommodate the pattern fragmentation in the tyre mould and to allow an adequate residual thickness beneath the pattern grooves. The tread width is such that the tapered edges extend to a position slightly above the maximum flex zone in the upper sidewall region.

The extruding operation is continuous, and the extrudate is either batched as a continuous length into a band dispenser, for subsequent cutting to length at the tyre building machine, or pre-cut into individual lengths and stored on flat metal trays in multi-leaf stillages^⑥. The former method is preferred; length variation of pre-cut treads often occurs as in-built stresses in the compound are released.

生 词

tread bracing component	带束层
belted bias tyres	带束斜交轮胎
tread profile	胎面轮廓
tread pattern	胎面花纹
rubbered textile	挂胶织物
travelling beam	导向横梁
bias cutting machine	斜裁裁断机

assembly	成型
offset	错开的, 错位的
insulating component	隔离胶
chafe	磨损
coating	覆胶, 擦胶
taper down	减薄
fragmentation	破碎作用
band dispenser	供胎面架
tray	托板
multi-leaf stillages	百叶车
in-built	内部的

译 文

5.5 子午线轮胎或带束斜交轮胎带束层^①

带束层提高了胎面部位的定伸应力,从而使轮胎充气后能保持胎面轮廓形状不变,并减少通过接地部位时花纹块的移动。

挂胶织物裁成带束层帘布条的方法和胎体帘布相同,但裁带束层帘布条时斜裁裁断机上导向横梁的角度在 15°—25°之间调节。

可采用不同方法把单层小角度裁断的帘布条制成最终带束层^②。子午线轮胎中最常用的结构是将 4 层帘布叠合在一起,其相邻两层角度相反。成型方法如图 10.4 所示。实践中,两层帘布之间要稍有级差,以便带束层边部厚度逐渐降低,从而减少了使用中的应力集中,并使脱层发生率降至最低^④。

5.6 隔离胶(胎面底层和缓冲层之间的隔离胶)

隔离胶是一般厚度为 1mm 或 1mm 以下的压延胶片。它们位于部件之间需加隔离层防止磨损的结构中。胶料和胎体帘布覆胶差不多。

5.7 胎面

胎面是轮胎的磨损面。成型时用的生胎面是挤出厚胶片。从断面上看,胎面中部基本上是个长方形,而两边逐渐减至很薄^⑤。为了承受轮胎模型花纹的破碎作用并使轮胎花纹沟下面还有适当的剩余厚度,胎面厚度必须

经过计算。胎面宽要使斜边延伸到稍高于上胎侧领域中屈挠最大的部位。

挤出作业是连续的,挤出的胎面或是分批连续地卷入供胎面架,留待以后在轮胎成型机上切成所需长度,或预先切成一条条所需长度的胎面存放在百叶车的金属平托板上^⑥。第一种方法较优,因为随着胶料内部应力的减弱,预切割胎面的长度常常发生变化。

注: ①“belted bias tyre”为带束斜交轮胎,是 60—70 年代美国为抗衡欧洲子午线轮胎,而又不废除大量斜交轮胎生产设备设计的过渡产品。其胎体帘布层仍为斜交结构,而用子午线轮胎的带束层代替了斜交轮胎的缓冲层。后经证实其质量不敌子午线轮胎而被淘汰。

②“varies”是谓语动词,此句直译为“把单层小角度裁断的帘布条制成最终带束层的方法是不同的”,不如改译为“可采用不同方法……”;“low angle”在此应译为“小角度”,而不能译作“低角度”。

③“adjacent layers being of opposite bias angle”为分词独立结构。

④此句中“offset”为形容词,意为“错开的”,实际上就是“有级差”。

⑤“in cross-section”译成“从断面上看”,比“在断面上”要通顺得多。

⑥此句中“batched”、“pre-cut”和“stored”为并列的被动语态谓语句。

英译汉常见错误实例

Compounds having higher pressures in the curing mold. Because of this tendency, the rubber was postulated to penetrate more thoroughly into the tire cord, giving better mechanical and physical bonding because of the better contact.

误: 胶料有较高的门尼粘度,在硫化模中展现更高的压力。由于这种趋势,橡胶更多地渗透到帘线中,因为接触较好,得到更好的