英语学习

英语翻译技巧(35)

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5.1 Beads

The bead coils are a combination of multi-strand copper-coated high-tensile steel wires. They have the function of providing rigid, practically inextensible units, which retain the inflated tyre on the rim under all conditions of loading[1].

The appropriate number of wires, formed into a flat layer and uniformly separated, are coated with rubber compound by means of a T-head extruder[2]. The layer of wires is coiled to form a ring, and the free wire ends are taped or stapled. The wire treatment and use of fast-curing compound ensure good bonding and a regular bead shape in the finished product. For some purposes, the bead coil is covered with a light cross-woven rubberised textile to contain the wires and preclude any possibility of looseness in service[3].

5.2 Bead Apex

The bead apex is a fibrous or rubber compound strip located on the top face of the bead; its primary function is to pack out the area of the structure immediately above the bead coil and so provide a steady gradation of thickness between the latter and the sidewall zone, the thickness of which is only that of the casing plies and sidewall rubber[4].

This component has been eliminated from many of the conventional passenger car tyres with small bead coils, there being sufficient compound and compound flow during moulding to fill the void adequately[5]. It has to be retained, however, in the radial ply tyres, in which high sidewall deflections occur, and in large tyres of multi-bead construction. The stress-carrying zone in the low wall region has to be spread to avoid rim chafing or structural break-up.

The component, which is generally triangular in shape with a finely tapered upper edge, is formed either on a profile calender

or, preferably, by extruding from a multi-head die. Application and consolidation of the base of the apex to the outer circumference of the bead is a semi-automatic machine operation[6]. The bead is gripped and revolved while the apex is fed forward manually to be located centrally and consolidated by means of angled pressure rollers.

生 词

bead coil	胎圈钢丝圈
copper-coated	镀铜的
rim	轮辋
T-head extruder	T形机头挤出机
tape	用胶带固定
staple	用卡钉固定
cross-woven textile	交织布
bead apex	胎圈三角胶条
fibrous	纤维的,织物的
pack out	填充
casing ply	胎体帘布
deflection	变形
break-up	破裂
tapered	斜的,渐缩的
grip	夹紧,夹持
pressure roller	压辊

译 文

5.1 胎圈

胎圈钢丝圈是由多根高强度的镀铜钢丝合并而成的。其作用是作为刚性、实际上不能伸展的部件,使充气后的轮胎在任何受力条件下都保持在轮辋上①。

用T形机头挤出机将胶料涂覆到一平层根数适宜间隔均匀的钢丝上②。将该钢丝层卷成环形,钢丝自由端用胶布粘牢或用卡钉固定。通过对钢丝进行处理和使用快速硫化胶料可保证成品中胎圈粘合良好、形状规整。在某些场合,钢丝圈上还裹上一薄层挂胶的交织布,以箍紧钢丝,防止其在使用中松开③。

5.2 胎圈三角胶条

胎圈三角胶条是位于胎圈顶面上含纤维或不含纤维的胶条,其主要作用是填充钢丝圈上方结构区域的空隙,使得胎圈与胎侧之间的厚度过渡平缓。所谓胎侧厚度不过是胎体帘布和胎侧胶的厚度④。

许多使用小钢丝圈的普通轿车轮胎,有足够的胶料通过模压硫化过程中流动填满空隙,因此已不用三角填充胶条⑤。但是胎侧变形大的子午线轮胎以及多胎圈结构的大型轮胎仍必须保留这一部件。下胎侧承受应力的区域必须扩大,以避免被轮辋擦伤或结构破裂。

这一部件一般是上边为精细斜边的三角形,可用压型压延机压延,但最好用多口型挤出机挤出。用半自动成型机将三角胶条的基部贴合并固定到胎圈的外圆周上⑥。在用手工喂入、定中心并用带角度的压辊滚压三角胶条的过程中,钢丝圈被夹紧旋转。

注:①此句直译为"它们有提供刚性、实际上不能伸展的部件的作用",因为钢丝圈本身就是这样一种部件,所以"providing"不能译出,而译成文中的句子;"loading"在此处译作"受力"比"负荷"好。

②"formed into flat layer and uniformly separated"为并列的过去分词短语作定语,修饰前面的"wires"。

③此句中"light"意为"薄的";"contain"意为"箍紧"。

④"a fibrous or rubber compound strip"="a fibrous rubber compound strip or a rubber compound strip",即"含纤维(补强的)胶条或胶条(无纤维补强)";"to pack out……"和"so provide"为并列不定式短句作表语;"the latter"指"bead coil"。

⑤"there being……the void adequately"为分词独立结构。

⑥此句中“application”为“贴合”、“上”；“consolidation”为“固定”、“压实”。

英译汉常见错误实例

White and Black Vulcanizates do not age in the same way.

误：白色和炭黑硫化胶以同样方式不老化。

正：白色和炭黑硫化胶的老化方式不同。

注：此句为部分否定句型。