

英语学习

英语翻译技巧(40)

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6 TYRE BUILDING

6.1 The Building Drum

Throughout the conventional diagonal ply and belted bias tyre ranges, including passenger car, truck and earthmover tyres, the tyre building drum in general use is a plain segmental open-ended metal drum which is mounted on a driven shaft^①. The internal mechanism is designed so that the segments can be collapsed radially to permit the removal of the completed tyre carcass. The ends of the drum are flanged to suit the bead configuration of the tyre to be built^②. In all cases, the drum overall diameter exceeds the nominal tyre bead diameter. This difference, known as the drum crown height, varies from 25 mm for single bead tyres to 300 mm for large truck and earthmover tyres^③. Furthermore, in the latter cases, the flange profile has an appropriate undercut to achieve a balanced ply-to-ply tensioning in the finished product. The raw tyre can be completed on the building drum and is transformed from the cylindrical to a toroidal shape during the mould closing operation, the circumferential stretch

being of the order of 60%^④.

The fact that the tread bracing components or 'belt' of radial ply tyres form a relatively inextensible unit and must be fitted at a diameter within 5% of its final diameter in the moulded tyre, means that for this type the partly built casing has to be inflated into a toroidal shape^⑤. Radial ply tyres necessitated, therefore, new complex and costly machinery incorporating inflatable textile-reinforced diaphragms, overlying a skeletal metal drum shell, to shape the carcass plies and other foundation components up to the diameter for belt fitting. It will be understood that, to achieve this, the shoulders of the drum move inwardly in a controlled manner so that the correct tension is maintained in the carcass plies.

Because it can still be accommodated on standard tyre building machinery, the belted bias tyre has come into being.

生 词

segmental
driven shaft
segment

组合式, 折叠式
主轴
机头瓦块

collapse	折叠收缩
flanged	凸起的,有凸缘
drum crown height	鼓肩高度
under cut	下切(部分)
cylindrical	筒形
toroidal	环形
tread bracing component	带束层
diaphragm	硫化胶囊
skeletal	骨架的

译 文

6 轮胎成型

6.1 成型机头

各种品种规格的普通斜交轮胎和带束斜交轮胎,其中包括轿车轮胎、载重轮胎和运土机轮胎,一般用的轮胎成型机头是折叠式开口平金属鼓,该金属鼓安装在主轴上^①。内部机构设计得使机头瓦块可辐向折叠收缩,以便取下成型好的外胎。鼓的两端是凸出的,以便和要成型的轮胎胎圈构形相匹配^②。在所有情况下,鼓的外径都超过胎圈的公称直径,其差值为鼓肩高度的两倍,其范围在单胎圈轮胎的 25mm 到大型载重轮胎和运土机轮胎的 300mm 之间^③。此外,在后两种情况下,鼓肩下部要适当切去一部分,以使成品胎中各层帘布受力平衡。胎坯可在成型机头上制成筒形,然后在硫化模型闭合过程中周向伸张约 60%,从而由筒形变成环形^④。

子午线轮胎带束层形成了相对不可伸张的部件,其成型时的直径不得小于成品轮胎最终直径的 5%^⑤。这意味着这种轮胎在成型部分完成时就必须充气膨胀成环形。因此,子午线轮胎需要用复杂、价格昂贵的新式成型机,该成型机上有用织物增强的充气膨胀胶囊,胶囊上覆盖金属骨架外壳,以便定型胎体和其它基本部件,使其直径适于贴合带束层。显然,欲达此目的,鼓肩需以受控方式向里移动,以便胎体帘布层保持适宜的张力。

由于仍然可采用普通轮胎成型机,带束

斜交轮胎便应运而生。

注:①“Throughout …… earthmover tyres”为状语;“plain segmental open-ended”是“metal drum”的定语,“segmental”原意是“分节段的”,此处意为“可折叠的”。

②此句中“to be built”为不定式短语作后置定语修饰前面的“tyre”。

③从“In all cases ……”到“earthmover tyres”两句关系密切,采用了合译法;第二句中“known as the drum crown height”为过去分词短语作后置定语修饰“This difference”,而“drum crown height”指的是鼓肩高度,因为在一个机头外径中包含两个鼓肩高度,故将“This difference, known as the drum crown height”译作“其差值为鼓肩高度的两倍”。

④“the circumferential stretch being of the order of 60%”为分词独立结构,表明在模型闭合过程中胎坯由筒形变成环形的伴随状况;此句是按成型工艺过程灵活意译的范例。

⑤“The fact that”引出的是同位语从句,“means”是谓语动词,后面“that”引出的是宾语从句。



国内消息

一项小改革为企业节约资金百余万元

银川中策(长城)橡胶有限公司硫化车间最近在公司设备处、机修车间的协助下,整改硫化机机械手安全防滑装置,为公司节约整改经费百余万元。

以前该公司硫化车间多次发生机械链条断裂、安全装置失灵现象,这一直是公司的安全隐患,较长时间未得到彻底解决。如果将机械链条升降装置改为液压(水缸)式,加工精度要求高,周期长,工作效率低,使用中速度慢,不稳定,最主要的是加工成本高,改造一台硫化机需加工经费 3 万多元,要改造