

Title (en)

METHOD FOR THE PRODUCTION OF A THREE-LAYER METAL CORD OF THE TYPE THAT IS RUBBERISED IN SITU

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES DREISCHICHTIGEN IN-SITU-GUMMIERTEN METALLSEILS

Title (fr)

PROCÉDÉ DE FABRICATION D'UN CÂBLE MÉTALLIQUE À TROIS COUCHES DU TYPE GOMMÉ IN SITU

Publication

EP 2572029 B1 20150318 (FR)

Application

EP 11718388 A 20110506

Priority

- FR 1053901 A 20100520
- EP 2011057342 W 20110506

Abstract (en)

[origin: WO2011144471A1] The invention relates to a method for producing a metal cord having three concentric layers (C1, C2, C3), of construction M+N+P, of the type that is "rubberised in situ", i.e. rubberised from the interior during the production thereof, using rubber or a rubber composition, said cord comprising: a first layer or core (C1) of diameter d_c formed by M strand(s) of diameter d_1 , around which core N strands of diameter d_2 are wound together in the form of a helix with a pitch p_2 to form a second layer (C2). In addition, P strands of diameter d_3 are wound together around this second layer in the form of a helix with a pitch p_3 to form a third layer (C3). The method includes the following steps: a step in which the N strands of the second layer (C2) are assembled around the core (C1), so as to form an intermediate cord or "core strand" of construction M+N at a point known as the "assembly point"; a step in which the core and/or the core strand is/are coated with the aforementioned rubber or rubber composition upstream and/or downstream of the assembly point, by means of passage through at least one extrusion head; and a step in which the P strands of the third layer (C3) are assembled around the core strand (M+N) in order to form the cable of construction M+N+P thus rubberised from the interior. The invention is characterised in that the rubber is a melt-extruded unsaturated thermoplastic elastomer, preferably a thermoplastic styrene (TPS) type elastomer, such as an SBS, SBBS, SIS or SBIS block copolymer.

IPC 8 full level

D07B 1/06 (2006.01)

CPC (source: EP US)

D02G 3/12 (2013.01 - US); **D02G 3/48** (2013.01 - US); **D07B 1/0633** (2013.01 - EP US); **D07B 7/145** (2013.01 - EP US); **D07B 1/0626** (2013.01 - EP US); **D07B 1/0646** (2013.01 - EP US); **D07B 1/0653** (2013.01 - EP US); **D07B 2201/2011** (2013.01 - EP US); **D07B 2201/2028** (2013.01 - EP US); **D07B 2201/2037** (2013.01 - EP US); **D07B 2201/2046** (2013.01 - EP US); **D07B 2201/2048** (2013.01 - EP US); **D07B 2201/2059** (2013.01 - EP US); **D07B 2201/2082** (2013.01 - EP US); **D07B 2205/2003** (2013.01 - EP US); **D07B 2205/2082** (2013.01 - EP US); **D07B 2207/205** (2013.01 - EP US); **D07B 2207/4072** (2013.01 - EP US); **D07B 2401/208** (2013.01 - EP US); **D07B 2501/2046** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2011144471 A1 20111124; CN 102892947 A 20130123; CN 102892947 B 20150311; EP 2572029 A1 20130327; EP 2572029 B1 20150318; FR 2962454 A1 20120113; FR 2962454 B1 20120921; JP 2013530318 A 20130725; JP 5800341 B2 20151028; US 2013232936 A1 20130912; US 9010079 B2 20150421

DOCDB simple family (application)

EP 2011057342 W 20110506; CN 201180024675 A 20110506; EP 11718388 A 20110506; FR 1053901 A 20100520; JP 2013510558 A 20110506; US 201113699299 A 20110506