

Publication

EP 0137957 A1 19850424 (DE)

Application

EP 84109726 A 19840816

Priority

DE 3333335 A 19830915

Abstract (en)

[origin: US4621514A] To form a commutator segmental ring, an intermediate stage commutator ring (4) is formed from a flat strip (1) of commutator material which is bent into essentially cylindrical tubular shape to form a blank (2) having a gap or crack (3) adjacent the ends of the strip. The commutator ring, upon forming of the commutator, is severed into commutator segments. The gap or crack of the blank is aligned with a ridge or rib in a forming punch press to form a groove within the essentially cylindrical tubular blank (2) so that, when the intermediate stage commutator ring (4) is made, a cylindrical portion (5) already dimensioned for the intermediate segmental ring and a flange portion (6) are made, with a groove in alignment with the gap or crack obtained during cold-flowing of the metal in the press by the guidance afforded by the rib or ridge in the gap or crack of the cylindrical tubular blank. Preferably, the ridge or rib, defining the groove, extends in a plane which passes through the axis of the cylindrical portion (5) of the intermediate commutator ring (4) and extends radially therefrom through the center line of the groove. The apparatus includes multiple concentric punch, stamp and die elements to permit cold-flowing of the cylindrical tubular blank upon compression of the commutator metal which, typically, is copper.

Abstract (de)

Es wird ein Verfahren zum Herstellen einer Zwischenstufe für einen Kommutatorsegmentring vorgeschlagen durch Umformen eines aus einem geraden Werkstoffstück gebogenen ringförmigen Rohlings (2), dessen Enden eine Stoßfuge (3) einschließen. Zum Umformen in die Zwischenstufe (4) aus hohlzylindrischem Schaft (5) mit einem Flansch (6) an einem Ende ist das Umformwerkzeug mit den Werkstofffluß lenkenden Mitteln (26) versehen, welche mindestens am Schaft (5) eine Nut (24) ausbilden, in der der aus der Stoßfuge (3) gebildete gerade Spalt parallel zur Längsachse der Zwischenstufe in einer sich radial durch die Längsachse erstreckenden Ebene verläuft.

IPC 1-7

B21K 21/02

IPC 8 full level

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CPC (source: EP US)

B21K 21/00 (2013.01 - EP US); **B21K 23/04** (2013.01 - EP US); **H01R 43/06** (2013.01 - EP US); **Y10T 29/49011** (2015.01 - EP US)

Citation (search report)

- EP 0085388 A1 19830810 - MOTOMAK [DE]
- SU 1041023 A3 19830907 - KOLEKTOR P O [YU]
- GB 1376547 A 19741204 - RENAULT, et al

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CN106734594A; FR2585521A1

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EP 84109726 A 19840816; DE 3333335 A 19830915; DE 3465029 T 19840816; JP 19278084 A 19840917; US 65034884 A 19840913