

Title (en)

Method of making very fine-grained copper pieces from continuously cast blanks.

Title (de)

Verfahren zum Herstellen sehr feinkörniger Kupferteile aus Stranggussrohlingen.

Title (fr)

Procédé d'obtention de pièces en cuivre et de structure très fine, à partir d'un lopin issu de coulée continue.

Publication

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Application

EP 90400775 A 19900321

Priority

FR 8903751 A 19890322

Abstract (en)

[origin: US5039355A] The process according to the invention makes it possible to form parts from copper of high purity and fine structure. Beginning with a billet (1) made by continuous casting, it includes the following main phases: a kneading of the billet (1, 4) comprising upsetting and drawing cycles; cutting of the billet into blanks (8) each intended to form one finished part; an operation of die forging (9, 12) at ambient temperature; and a recrystallization heat treatment to obtain a grain size of the copper of less than 40 micrometers. The invention is applicable to the production of internal liners for shaped charges.

Abstract (fr)

Le procédé selon l'invention permet de former des pièces en cuivre de haute pureté et de structure fine. Il comprend, à partir d'un lopin (1) issu de coulée continue, les phases principales suivantes : - un malaxage du lopin (1, 4) constitué de cycles de refoulement et d'étirage ; - un tronçonnage du lopin en ébauches (8) destinées à former chacune une pièce finie ; - un formage en matrice (9, 12) à température ambiante ; et - un traitement thermique de recristallisation pour obtenir une taille de grain du cuivre inférieure à 40 micromètres. Application à la fabrication des revêtements internes des charges creuses.

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IPC 8 full level

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Citation (search report)

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