

Title (en)

PRESS-IN CONNECTING ELEMENT AND METHOD FOR ANCHORING PRESS-IN CONNECTING ELEMENTS IN A PERMANENTLY DEFORMABLE FLAT METAL MATERIAL OR COMPONENTS OR WORKPIECES PRODUCED THEREFROM

Title (de)

EINPRESS-VERBINDUNGSELEMENT UND VERFAHREN ZUM VERANKERN VON EINPRESS-VERBINDUNGSELEMENTEN IN EIN BLEIBEND VERFORMBARES METALLISCHES FLACHMATERIAL ODER DARAUS HERGESTELLTE BAUTEILE BZW. WERKSTÜCKE

Title (fr)

ÉLÉMENT DE RACCORDEMENT INSÉRABLE PAR PRESSAGE ET PROCÉDÉ D'ANCRAJE D'ÉLÉMENTS DE RACCORDEMENT INSÉRABLES PAR PRESSAGE DANS UN MATÉRIAU PLAT MÉTALLIQUE À DÉFORMATION PERMANENTE OU DANS DES COMPOSANTS ET/OU PIÈCES RÉALISÉS À PARTIR DE CELUI-CI

Publication

EP 3615265 A1 20200304 (DE)

Application

EP 18703979 A 20180207

Priority

- DE 102017108639 A 20170424
- EP 2018052991 W 20180207

Abstract (en)

[origin: CA3059642A1] The invention relates to a press-in connecting element (1) for inserting into a permanently deformable flat metal material (10) or a component or workpiece produced therefrom, by joining and pressing, comprising a head section (2) and a shaft section (3), which adjoins the head section along a longitudinal axis (LA) and which is set back relative to the head section (2). The shaft section (3) comprises at least a joining section (3.1), which directly adjoins the head section (2) and which has a lateral surface having knurling (RA), and a press-in section (3.2), which adjoins the joining section along the longitudinal axis (LA). Especially advantageously, the knurled joining section (3.1) has a first diameter (d1) and the press-in section (3.2) has a second diameter (d2) and the second diameter (d2) is less than the first diameter (d1), the second diameter (d2) corresponding approximately to the initial diameter (D) of the joining section (3.1) before the knurling (RA) is formed in the lateral surface or approximately to the first diameter (d1) minus half of the knurling depth (T).

IPC 8 full level

B23P 19/06 (2006.01); **F16B 33/00** (2006.01); **F16B 33/02** (2006.01); **F16B 37/06** (2006.01)

CPC (source: EP US)

B23P 19/064 (2013.01 - EP US); **F16B 33/002** (2013.01 - EP); **F16B 37/068** (2013.01 - EP US)

Citation (search report)

See references of WO 2018197066A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102017108639 A1 20181025; CA 3059642 A1 20181101; EP 3615265 A1 20200304; US 2020108475 A1 20200409; WO 2018197066 A1 20181101

DOCDB simple family (application)

DE 102017108639 A 20170424; CA 3059642 A 20180207; EP 18703979 A 20180207; EP 2018052991 W 20180207; US 201816605282 A 20180207