

Title (en)

DEVICE FOR THE COMPRESSED CONNECTION OF ELECTRIC CONDUCTORS USING ULTRASONIC ENERGY

Title (de)

VORRICHTUNG ZUM VERDICHTENDEN VERBINDEN ELEKTRISCHER LEITER MIT ULTRASCHALLENERGIE

Title (fr)

DISPOSITIF POUR LE RACCORDEMENT PAR COMPRESSION DE CONDUCTEURS ELECTRIQUES A L'AIDE D'ENERGIE ULTRASONS

Publication

**EP 1472041 A1 20041103 (DE)**

Application

**EP 02796726 A 20021223**

Priority

- DE 10204961 A 20020206
- EP 0214729 W 20021223

Abstract (en)

[origin: WO03066270A1] The invention relates to a device for the compressed connection of electric conductors, in particular in the form of stranded wires. Said device comprises a sonotrode (1) that generates acoustic oscillations, at least one counter-electrode (2) that is allocated to the sonotrode (1) and can be displaced in relation to the latter, in addition to a compression chamber (4) that is designed to receive the conductor. According to the invention, the cross-section, which lies approximately perpendicular to the longitudinal axis of the conductors to be connected, of the compression chamber (4) is only delimited during the compression of the connection by the internal limiting surfaces (6) of the sonotrode (1) and the counter electrode (2, 3) and said internal limiting surfaces (6) form, during compression, a triangular cross-section that lies approximately perpendicular to the longitudinal axis of the conductors to be connected. The counter-electrode (2, 3) has two counter-electrode parts (2, 3) that can be displaced towards one another, thus forming the triangular cross-section together with the internal limiting surfaces (6) of the sonotrode (1).

IPC 1-7

**B23K 20/10**; **H01R 43/02**

IPC 8 full level

**B23K 20/10** (2006.01); **H01R 43/02** (2006.01)

CPC (source: EP)

**B23K 20/10** (2013.01); **H01R 43/0207** (2013.01); **B23K 2101/32** (2018.07); **H01R 43/0263** (2013.01)

Citation (search report)

See references of WO 03066270A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

**WO 03066270 A1 20030814**; AU 2002361209 A1 20030902; DE 10204961 B9 20040909; DE 10204961 C1 20031016; DE 10296429 D2 20050512; EP 1472041 A1 20041103

DOCDB simple family (application)

**EP 0214729 W 20021223**; AU 2002361209 A 20021223; DE 10204961 A 20020206; DE 10296429 T 20021223; EP 02796726 A 20021223