

Title (en)

Device and method for forming a thickened head on the head ends of a metal rod element

Title (de)

Vorrichtung und Verfahren zur Bildung eines verdickten Kopfes an den Kopfstücken eines Metallstabelements

Title (fr)

Dispositif et procédé de formation de tête épaissie sur les extrémités d'un élément de tige métallique

Publication

EP 2446981 A3 20120718 (EN)

Application

EP 11186683 A 20111026

Priority

NL 2005580 A 20101026

Abstract (en)

[origin: EP2446981A2] A device for forming a thickened head (5) on a head end of a metal rod element (2) comprises a clamping device for clamping the metal rod element (2), whilst leaving an end portion having the head end free. The device comprises a deformation body (16) for plastically deforming the end portion of the metal rod element in order to form the thickened head, as well as a drive device for driving the deformation body. The drive device is provided with a drive unit (18) and a transmission element (21) drivably connected to the drive unit. The transmission element is pivotable about a pivot axis (22) and is provided with a cam track (23). The drive device comprises a lever arm (24), which at one end abuts against the cam track (23) of the transmission element and at an opposite end is provided with the deformation body (16). The lever arm (24) is hingeable about a hinge axis (27) running substantially parallel to the pivot axis (22).

IPC 8 full level

B21F 5/00 (2006.01); **B21F 45/00** (2006.01); **B65D 25/32** (2006.01)

CPC (source: EP)

B21F 1/004 (2013.01); **B21F 5/005** (2013.01); **B21F 45/004** (2013.01); **B25B 5/003** (2013.01)

Citation (search report)

- [A] EP 1002733 A1 20000524 - BRINK BV VAN DEN [NL]
- [A] CH 550635 A 19740628 - AIDA ENG LTD
- [A] DE 10027680 A1 20001214 - WENGENROTH VOLKER [DE]

Cited by

CN114406137A; CN113909405A

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)

EP 2446981 A2 20120502; **EP 2446981 A3 20120718**; **EP 2446981 B1 20190828**; EP 3608032 A1 20200212; NL 2005580 C2 20120427; NL 2008060 A 20120427; NL 2008060 C2 20121023

DOCDB simple family (application)

EP 11186683 A 20111026; EP 19193156 A 20111026; NL 2005580 A 20101026; NL 2008060 A 20111230