

Title (en)

HYDROFORMING PRESS WITH OPEN DIE AND INTEGRATED DEEP-DRAWING

Title (de)

HYDROFORMPRESSE MIT OFFENER MATRIZE UND INTEGRIERTEM TIEFZIEHEN

Title (fr)

PRESSE D'HYDROFORMAGE À EMBOUTIR AVEC MATRICE OUVERTE ET DESSIN PROFOND INTÉGRÉ

Publication

EP 3222369 B1 20181024 (EN)

Application

EP 16382134 A 20160323

Priority

EP 16382134 A 20160323

Abstract (en)

[origin: EP3222369A1] A hydroforming press with open die and integrated deep-drawing, based on the principle of applying hydrostatic pressure for creating a permanent deformation on a sheet metal, which employs an open die that defines, in a plan view, the outer perimeter of the final part, and allows for a permanent bulging to be formed in the same, while making it possible to incorporate a deep-drawing process prior to the hydroforming process in order to integrate the tab parallel to the hydroforming direction. The open die is located on a horizontal plane inside the press and a plurality of hydraulic cylinders (6) operate on it, of which at least two of them also operate as actuator cylinders, in charge of lowering the die onto the part (1) to be shaped, while all of them come into operation, moving and pressing the female portion (3) of the die against the sheet metal (1) placed on the male portion (2) of the die, before applying the hydroforming hydraulic pressure, operating in the opposite direction, thereon.

IPC 8 full level

B21D 26/027 (2011.01); **B21D 26/021** (2011.01); **B21D 26/031** (2011.01); **B21D 37/02** (2006.01)

CPC (source: EP)

B21D 26/021 (2013.01); **B21D 26/027** (2013.01); **B21D 26/031** (2013.01); **B21D 37/02** (2013.01); **B30B 5/02** (2013.01); **B30B 15/0088** (2013.01)

Cited by

CN117483533A

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

DOCDB simple family (publication)

EP 3222369 A1 20170927; **EP 3222369 B1 20181024**; ES 2707796 T3 20190405

DOCDB simple family (application)

EP 16382134 A 20160323; ES 16382134 T 20160323