

Title (en)

DIES FOR SHAPING CONTAINERS AND METHODS FOR MAKING SAME

Title (de)

MATRIZEN ZUR FORMUNG VON BEHÄLTERN UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

MATRICES DESTINÉES À LA MISE EN FORME DE RÉCIPIENTS ET LEURS PROCÉDÉS DE FABRICATION

Publication

EP 2814628 A1 20141224 (EN)

Application

EP 13707508 A 20130215

Priority

- US 201261600373 P 20120217
- US 2013026439 W 20130215

Abstract (en)

[origin: WO2013123396A1] A method of manufacturing a die (10) for shaping metal containers comprises providing an expansion die (10) for manufacturing metal containers and peening at least a portion of the work surface (12) of the expansion die. Another method of manufacturing a die (30) for shaping metal containers comprises providing a die (30) for narrowing a diameter of metal containers and peening at least a portion of the work surface (32) of the die.

IPC 8 full level

B21D 37/20 (2006.01); **B21D 41/00** (2006.01); **B24B 39/00** (2006.01); **B24C 1/10** (2006.01); **C21D 7/06** (2006.01)

CPC (source: EP US)

B21D 22/28 (2013.01 - US); **B21D 37/20** (2013.01 - EP US); **B21D 41/00** (2013.01 - EP US); **B24C 1/10** (2013.01 - EP US); **C21D 7/06** (2013.01 - EP US)

Citation (search report)

See references of WO 2013123396A1

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)

WO 2013123396 A1 20130822; AR 090082 A1 20141015; AU 2013202226 A1 20130905; BR 112014020239 A2 20170620; BR 112014020239 A8 20170711; CA 2864123 A1 20130822; CL 2014002124 A1 20150320; CN 103317014 A 20130925; CN 203470642 U 20140312; EA 201491538 A1 20141230; EP 2814628 A1 20141224; GT 201400176 A 20150525; JP 2015508711 A 20150323; KR 20140125869 A 20141029; MX 2014009808 A 20140925; US 2013291612 A1 20131107; ZA 201405982 B 20170531

DOCDB simple family (application)

US 2013026439 W 20130215; AR P130100496 A 20130218; AU 2013202226 A 20130215; BR 112014020239 A 20130215; CA 2864123 A 20130215; CL 2014002124 A 20140812; CN 201310165426 A 20130217; CN 201320241750 U 20130217; EA 201491538 A 20130215; EP 13707508 A 20130215; GT 201400176 A 20140814; JP 2014557830 A 20130215; KR 20147025828 A 20130215; MX 2014009808 A 20130215; US 201313768818 A 20130215; ZA 201405982 A 20140814