

Title (en)
FORGING DIE APPARATUS FOR STEERING RACKS

Title (de)
GESENKVORRICHTUNG FÜR LENKGESTELLE

Title (fr)
MATRICE DE FORGEAGE POUR CRÉMAILLÈRES

Publication
EP 2464476 A1 20120620 (EN)

Application
EP 10807774 A 20100728

Priority
• AU 2009903747 A 20090812
• AU 2010000948 W 20100728

Abstract (en)
[origin: WO2011017736A1] A die apparatus for forging a steering rack from a bar. The die apparatus comprises a first and a second bolster movable towards each other, and at least one gripper adapted to grip the bar as the rack is forged. The gripper comprises first and second gripper halves carried by, and movable relative to, the first and second bolsters respectively. A gripper bias means biases the gripper halves towards each other. As the bolsters move towards each other to forge the rack, the first gripper half abuts against the first bolster, and the second gripper half abuts the second bolster.

IPC 8 full level
B21J 7/18 (2006.01); **B21J 7/14** (2006.01); **B21J 13/02** (2006.01); **B21K 1/30** (2006.01); **B21K 1/76** (2006.01); **B62D 3/12** (2006.01)

CPC (source: EP KR US)
B21J 5/00 (2013.01 - EP US); **B21J 5/008** (2013.01 - EP US); **B21J 7/14** (2013.01 - KR); **B21J 7/18** (2013.01 - KR);
B21J 13/02 (2013.01 - EP KR US); **B21K 1/76** (2013.01 - KR); **B21K 1/767** (2013.01 - EP US); **B62D 3/126** (2013.01 - EP US)

Citation (search report)
See references of WO 2011017736A1

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 SE SI SK SM TR

DOCDB simple family (publication)
WO 2011017736 A1 20110217; AU 2010282199 A1 20120419; CN 102481618 A 20120530; EP 2464476 A1 20120620;
JP 2013501621 A 20130117; KR 20120083283 A 20120725; US 2012137747 A1 20120607

DOCDB simple family (application)
AU 2010000948 W 20100728; AU 2010282199 A 20100728; CN 201080035682 A 20100728; EP 10807774 A 20100728;
JP 2012524050 A 20100728; KR 20127003996 A 20100728; US 201013389886 A 20100728