

Title (en)  
TOOL-HOLDER HEAD, TRANSPORT CARRIAGE AND METHOD FOR MOUNTING AND REMOVING A TOOL FOR A UNIT FOR MODIFYING A FLAT MATERIAL

Title (de)  
WERKZEUGHALTERKOPF, TRANSPORTWAGEN UND VERFAHREN ZUR MONTAGE UND ENTFERNUNG EINES WERKZEUGS FÜR EINE EINHEIT ZUR MODIFIZIERUNG EINES FLACHMATERIALS

Title (fr)  
TÊTE PORTE-OUTIL, CHARIOT DE TRANSPORT ET PROCÉDÉS DE MONTAGE ET DE DÉMONTAGE D'OUTIL POUR GROUPE DE TRANSFORMATION D'UN SUPPORT PLAN

Publication  
**EP 3227101 A1 20171011 (FR)**

Application  
**EP 15808109 A 20151126**

Priority  
• EP 14020102 A 20141204  
• EP 2015025090 W 20151126

Abstract (en)  
[origin: WO2016087050A1] A tool-holder head for a transport carriage for rotary tools of a unit for modifying a flat material comprises an upper holder (29) and a lower holder (30) that are arranged one above the other and are intended to receive a front end of an upper rotary tool (10) and a front end of a lower rotary tool (11), respectively.

IPC 8 full level  
**B31F 1/07** (2006.01)

CPC (source: CN EP KR US)  
**B31B 50/146** (2017.07 - KR); **B31B 50/16** (2017.07 - KR); **B31B 50/25** (2017.07 - KR); **B31B 50/256** (2017.07 - KR); **B31B 50/88** (2017.07 - KR); **B31F 1/07** (2013.01 - CN EP KR US); **B31F 2201/0753** (2013.01 - CN EP KR US); **B31F 2201/0776** (2013.01 - CN EP KR US)

Citation (search report)  
See references of WO 2016087050A1

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 2016087050 A1 20160609**; CN 107107524 A 20170829; CN 107107524 B 20190528; EP 3227101 A1 20171011; EP 3227101 B1 20220921; ES 2928976 T3 20221123; JP 2018506436 A 20180308; JP 6421244 B2 20181107; KR 102551427 B1 20230704; KR 20170086085 A 20170725; US 10696003 B2 20200630; US 2018290417 A1 20181011

DOCDB simple family (application)  
**EP 2015025090 W 20151126**; CN 201580071181 A 20151126; EP 15808109 A 20151126; ES 15808109 T 20151126; JP 2017529023 A 20151126; KR 20177016871 A 20151126; US 201515531521 A 20151126