

Title (en)  
MACHINE-TYPE DEVICE FOR RAISING MACHINE PUNCHES OF THE TYPE USING ADIABATIC ENERGY CHANGE

Title (de)  
MASCHINENARTIGE VORRICHTUNG ZUR ERHÖHUNG VON MASCHINENSTANZERN ANHAND VON ADIABATISCHEM ENERGIEWECHSEL

Title (fr)  
DISPOSITIF DE RELEVAGE DE POINCON POUR MACHINE DU TYPE MACHINE UTILISANT LA TRANSFORMATION DE L'ENERGIE ADIABATIQUE

Publication  
**EP 1919640 B1 20090819 (FR)**

Application  
**EP 06794530 A 20060804**

Priority  
• FR 2006050789 W 20060804  
• FR 0552631 A 20050831

Abstract (en)  
[origin: FR2889977A1] The die lifter for an adiabatic energy conversion machine with a working table (20), die support, die and lifting cylinders, has the working table and die guide block (24) designed to provide for the positioning and movement of in-line lifting pushers (23, 30) operated by power cylinders (21) located beneath the working table, with each upper pusher (30) sliding in the guide block and lifting the die in certain operating stages.

IPC 8 full level  
**B21D 37/14** (2006.01); **B21D 37/10** (2006.01)

CPC (source: EP US)  
**B21D 28/00** (2013.01 - EP US); **B21D 28/16** (2013.01 - EP US); **B21D 37/10** (2013.01 - EP US); **B21D 37/14** (2013.01 - EP US); **Y10T 83/943** (2015.04 - EP US)

Cited by  
FR3051378A1; FR3021564A1; FR3021566A1; WO2015185851A1; WO2015185854A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**FR 2889977 A1 20070302; FR 2889977 B1 20071102**; AT E439925 T1 20090915; CN 101282798 A 20081008; CN 101282798 B 20111012; DE 602006008633 D1 20091001; EP 1919640 A1 20080514; EP 1919640 B1 20090819; ES 2331895 T3 20100119; JP 2009505841 A 20090212; US 2008245206 A1 20081009; WO 2007026091 A1 20070308

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