

Title (en)  
PRESSING MACHINE AND PRESS FORMING METHOD

Title (de)  
PRESSMASCHINE UND PRESSFORMVERFAHREN

Title (fr)  
MACHINE DE PRESSAGE ET PROCÉDÉ DE FORMAGE PAR PRESSE

Publication  
**EP 3738690 A1 20201118 (EN)**

Application  
**EP 20167031 A 20200331**

Priority  
JP 2019093994 A 20190517

Abstract (en)  
Provided is a pressing machine and a press forming method in which sliding contact marks are hardly to be formed on a workpiece. A pressing machine (10) of the present disclosure includes a punch (20), which is in a state of being inserted into a cylindrical workpiece (90), enters a forming hole (50) of a die (41) to strip off or draw a cylindrical wall (91) of the workpiece (90) between the outer surface of the punch (20) and the inner surface of the forming hole (50). The pressing machine (10) includes a stripper (30) configured to come into contact with the workpiece (90) to retain the workpiece (90) within the forming hole (50) wherein the punch (20) moves toward the top dead center, and a knockout pin (55) configured to push the workpiece (90) out of the forming hole (50) after the punch (20) has come out of the workpiece (90).

IPC 8 full level  
**B21D 45/06** (2006.01); **B21D 22/21** (2006.01)

CPC (source: CN EP KR)  
**B21D 22/20** (2013.01 - CN); **B21D 22/206** (2013.01 - KR); **B21D 43/05** (2013.01 - KR); **B21D 45/04** (2013.01 - CN); **B21D 45/06** (2013.01 - KR); **B21D 45/065** (2013.01 - EP); **B21D 22/21** (2013.01 - EP)

Citation (applicant)  
JP 2016182640 A 20161020 - ASAHI- SEIKI MFG CO LTD

Citation (search report)

- [X] EP 0284321 A2 19880928 - ALLIED PROD CORP [US]
- [XI] EP 3434388 A1 20190130 - MATEC CO LTD [JP]
- [X] JP 4702843 B2 20110615
- [X] JP 2001276943 A 20011009 - ASAHI SEIKI MFG
- [XDI] JP 2016182640 A 20161020 - ASAHI- SEIKI MFG CO LTD
- [XA] JP 2018065187 A 20180426 - ASAHI SEIKI MFG
- [IA] JP 2001150043 A 20010605 - ASAHI SEIKI MFG
- [I] KR 101590589 B1 20160201 - ASAHI SEIKI MFG [JP]
- [IA] JP 2004255431 A 20040916 - ASAHI SEIKI MFG

Cited by  
EP4252932A1

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)  
**EP 3738690 A1 20201118**; **EP 3738690 B1 20220323**; CN 111229967 A 20200605; CN 111229967 B 20210601; JP 2020189296 A 20201126; JP 6593947 B1 20191023; KR 102462242 B1 20221103; KR 20200132783 A 20201125

DOCDB simple family (application)  
**EP 20167031 A 20200331**; CN 202010087620 A 20200211; JP 2019093994 A 20190517; KR 20200123515 A 20200924