

Title (en)  
Tool in sheet metal working machine

Title (de)  
Werkzeug in ein Blechbearbeitungsmaschine

Title (fr)  
Outil dans une machine à travailler la tôle

Publication  
**EP 1321200 A3 20031022 (EN)**

Application  
**EP 02028321 A 20021217**

Priority  
IT PR20010093 A 20011221

Abstract (en)  
[origin: EP1321200A2] A tool of a machine for working sheet metal comprises an operative portion (1a) destined to operate on the sheet metal, and a securing portion or spigot (1b) destined to be coupled to the machine in removable fashion, and is characterised in that the spigot (1b) has at least a ferromagnetic projecting element (3) which defines an abutment surface inclined relative to the axis of the spigot, shaped in such a way as to be coupled with a magnet (5) associated to the machine. The inclination of said surface is such that the magnet exerts an attraction force with a horizontal component and a vertical component. <IMAGE>

IPC 1-7  
**B21D 5/02**

IPC 8 full level  
**B21D 5/02** (2006.01)

CPC (source: EP)  
**B21D 5/0209** (2013.01)

Citation (search report)

- [A] FR 2791590 A1 20001006 - BRISARD MICHEL [FR]
- [A] US 3782166 A 19740101 - WHISTLER L, et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12 25 December 1997 (1997-12-25)

Cited by  
US11383284B2; US10792716B2; US10953453B2; US11235370B2; WO2018049056A1; WO2019090317A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)  
**EP 1321200 A2 20030625; EP 1321200 A3 20031022; EP 1321200 B1 20080326**; AT E390219 T1 20080415; DE 60225777 D1 20080508; DE 60225777 T2 20090625; ES 2304414 T3 20081016; IT PR20010093 A1 20030621

DOCDB simple family (application)  
**EP 02028321 A 20021217**; AT 02028321 T 20021217; DE 60225777 T 20021217; ES 02028321 T 20021217; IT PR20010093 A 20011221