

Title (en)  
DEMOLITION HAMMER AND/OR HAMMER DRILL WITH A PERCUSSION DEVICE SUITABLE FOR FREELY STRIKING CLAMPED OBJECTS

Title (de)  
SCHLAG- UND/ODER BOHRHAMMER MIT EINER ZUM FREISCHLAGEN FESTGEKLEMMTER GEGENSTÄNDE GEEIGNETEN  
SCHLAGVORRICHTUNG

Title (fr)  
MARTEAU DE DEMOLITION ET/OU MARTEAU PERFORATEUR COMPRENANT UN DISPOSITIF DE PERCUSSION CONCU POUR LIBERER  
PAR PERCUSSION DES OBJETS BLOQUES

Publication  
**EP 1387739 A1 20040211 (DE)**

Application  
**EP 02750901 A 20020508**

Priority  
• DE 10123397 A 20010514  
• EP 0205108 W 20020508

Abstract (en)  
[origin: WO02092292A1] The invention relates to a demolition hammer and/or hammer drill comprising a percussion generating device having a percussion piston moving axially back and forth. In a main percussion mode, the percussion piston impinges upon a tool (18) which can move along a limited axial path straight into a main percussion direction. In a free percussion mode, said percussion piston indirectly impinges upon a percussion changing device (54), and by means thereof upon the tool (18), in a free percussion direction opposite to the main percussion direction. The impact surface of a tool shaft (16) and the impact surface of a free percussion ram (38) are placed opposite an impact surface of the percussion piston in such a way that the free percussion ram (38) is removed from the effective area of the percussion piston by a return spring (74) in the main percussion position. Under the effect of the return spring (74), said percussion ram is simultaneously supported on a gear member (64) of the percussion changing device (54), which projects with an extension (72) into the motion path of a stop surface (30) provided in the tool (18). The stop surface (30) reaches the extension (72) when it has moved away from the effective area of the percussion piston in an idle running state of the tool shaft (16). If said movement of the tool (18) is continued, the stop surface (30) impinges upon the gear member (64) against the effect of the return spring (74) and relocates the free percussion ram (38) in the effective area of the percussion piston by overcoming the spring force.

IPC 1-7  
**B25D 17/00**

IPC 8 full level  
**B25D 17/00** (2006.01); **B25D 17/08** (2006.01); **B25D 17/10** (2006.01); **B28D 1/26** (2006.01); **B28D 7/00** (2006.01)

CPC (source: EP US)  
**B25D 17/086** (2013.01 - EP US)

Designated contracting state (EPC)  
CH DE ES IT LI SE

DOCDB simple family (publication)  
**WO 02092292 A1 20021121**; DE 10123397 A1 20021128; DE 50201473 D1 20041209; EP 1387739 A1 20040211; EP 1387739 B1 20041103; ES 2227477 T3 20050401; JP 2004529783 A 20040930; JP 4243491 B2 20090325; US 2004108122 A1 20040610; US 6923269 B2 20050802

DOCDB simple family (application)  
**EP 0205108 W 20020508**; DE 10123397 A 20010514; DE 50201473 T 20020508; EP 02750901 A 20020508; ES 02750901 T 20020508; JP 2002589213 A 20020508; US 46937603 A 20030827