Title (en)

Rotary hammer

Title (de)

Bohrhammer

Title (fr)

Marteau rotatif

Publication

EP 1048415 B1 20070801 (EN)

Application

EP 00303158 A 20000414

Priority

GB 9909987 A 19990430

Abstract (en)

[origin: EP1048415A2] A hammer that is capable or receiving a tool bit (30) for acting on a workpiece, and includes an air cushion hammering mechanism that comprises a cylinder (2), a piston (6) that can be caused to reciprocate within the cylinder, and an impact member (12) that is slidably located within the cylinder and can be caused to move in response to reciprocation of the piston by means of an air cushion between the piston and the impact member so that the impact member can strike the end of a bit (30) that is held in the hammer. The hammer includes a web (22) of flexible impervious material that extends from the impact member to prevent ingress of dust from the region of the bit to the cylinder. A hammer is also provided which includes an arrangement for arresting the impact member in its forward position, which comprises a resilient ring (52) that is located within the cylinder and extends around the impact member, the impact member (12) having an intermediate portion (100) of varying diameter so that, at a given position of the impact member in the cylinder, the intermediate portion (100) of the impact member touches the resilient ring (52) and a substantially closed chamber is formed within the cylinder (2) that extends around the resilient ring (52), further forward movement of the impact member reducing the volume of the chamber (70) and causing the resilient ring (52) to constrict the impact member. A hammer is also provided which includes a housing (1) and a tool holder (4) that can receive a tool bit (30) for acting on a workpiece, in which the bit (30) is retained in the tool holder by means of one or more locking elements (42) and the hammer includes one or more cushioning elements (34, 36) located between the tool holder (4) and the housing (1) so that impacts that are reflected by the workpiece back along the bit (30) are transmitted to the housing via the tool holder (4) and the cushioning element(s) (34, 36). <IMAGE>

IPC 8 full level

B25D 17/06 (2006.01); **B25D 11/04** (2006.01); **B25D 17/14** (2006.01); **B25D 17/24** (2006.01)

CPC (source: EP)

B25D 11/005 (2013.01); **B25D 17/06** (2013.01); B25D 2217/0023 (2013.01); B25D 2250/035 (2013.01); B25D 2250/191 (2013.01); B25D 2250/365 (2013.01)

Cited by

EP3231560A1; EP1166970A3; EP3009237A1; CN112223218A; EP1479485A1; CN103538032A; CN109070325A; US11072062B2; GB2384742A; GB2384742B; CN102039584A; CN105189048A; US7032683B2; US10058987B2; WO2016059032A1; WO03024671A3; WO2004060615A1; WO2017178461A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1048415 A2 20001102; **EP 1048415 A3 20020724**; **EP 1048415 B1 20070801**; AT E368552 T1 20070815; DE 60035732 D1 20070913; DE 60035732 T2 20080430; EP 1815947 A2 20070808; EP 1815947 A3 20130306; GB 9909987 D0 19990630; JP 2000326263 A 20001128

DOCDB simple family (application)

EP 00303158 A 20000414; AT 00303158 T 20000414; DE 60035732 T 20000414; EP 07105981 A 20000414; GB 9909987 A 19990430; JP 2000132903 A 20000427