

Title (en)

Pneumatic striking mechanism and control method

Title (de)

Pneumatisches Schlagwerk und Steuerungsverfahren

Title (fr)

Mécanisme de percussion pneumatique et procédé de commande

Publication

**EP 2213421 B1 20170621 (DE)**

Application

**EP 09179000 A 20091214**

Priority

DE 102009008189 A 20090130

Abstract (en)

[origin: EP2213421A1] The mechanism (5) has a pneumatic space (19) between a free piston (13) and an exciter piston (12). A drive e.g. electric motor, periodically moves the exciter piston with a stroke along an impact axis (8). The free piston is excited to a periodic movement between an impact surface (27) and a minimal approximation to the exciter piston. The stroke is selected based on a maximal length (L) of the pneumatic space, such that the periodic movement of the free piston comprises speed equal to zero at a path between the impact surface and the minimal approximation. An independent claim is also included for a method for controlling a pneumatic hammer mechanism.

IPC 8 full level

**B25D 11/00** (2006.01); **B25D 11/12** (2006.01)

CPC (source: EP US)

**B25D 11/005** (2013.01 - EP US); **B25D 11/125** (2013.01 - EP US); **B25D 2250/245** (2013.01 - EP US)

Citation (opposition)

Opponent : Black & Decker Inc.

HERBERT RIEDERER: "Untersuchungen zur Dynamik elektropneumatischer Bohrhämmer (Dissertation)", 1985, XP055477046

Cited by

CN104608098A

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2213421 A1 20100804**; **EP 2213421 B1 20170621**; DE 102009008189 A1 20100805; US 2010224380 A1 20100909; US 9132541 B2 20150915

DOCDB simple family (application)

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