Title (en)

Pneumatic impact mechanism

Title (de)

Pneumatisches Schlagwerk

Title (fr)

Méchanisme d'impact pneumatique

Publication

EP 2213422 B1 20111005 (DE)

Application

EP 09100088 A 20090130

Priority

EP 09100088 A 20090130

Abstract (en)

[origin: EP2213422A1] The mechanism (5) has a pneumatic chamber (19) formed between exciter and flying pistons (12,13). A drive moves the exciter piston such that the flying piston is excited to periodic movement between a hammer surface (27) and the exciter piston. A preset equation relating a mass of the flying piston, a cross-sectional surface and a maximum length (L) of the chamber, a stroke of the exciter piston, a collision factor, ambient pressure and isentropic coefficient of the gas in the chamber is fulfilled, when the mechanism exhibits a preset hammer frequency during a hammer operation.

IPC 8 full level

B25D 11/12 (2006.01); **B25D 17/06** (2006.01)

CPC (source: EP US)

B25D 11/125 (2013.01 - EP US); **B25D 17/06** (2013.01 - EP US); B25D 2250/065 (2013.01 - EP US)

Cited by

EP2894008A1; DE102014200393A1

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 TR

DOCDB simple family (publication)

EP 2213422 A1 20100804; **EP 2213422 B1 20111005**; AT E527083 T1 20111015; ES 2372448 T3 20120119; JP 2010173065 A 20100812; JP 5551461 B2 20140716; US 2010193211 A1 20100805; US 8955615 B2 20150217

DOCDB simple family (application)

EP 09100088 A 20090130; AT 09100088 T 20090130; ES 09100088 T 20090130; JP 2010018566 A 20100129; US 69707510 A 20100129