

Title (en)  
Fluid driven percussion device

Title (de)  
Fluidbetriebenes Schlagwerk

Title (fr)  
Dispositif de percussion actionné par un fluide

Publication  
**EP 0933169 B1 20020612 (DE)**

Application  
**EP 99101293 A 19990125**

Priority  
DE 19804078 A 19980203

Abstract (en)  
[origin: EP0933169A2] The rammer has a sleeve-shaped working cylinder (2) in an outer housing (4). The impact piston (3) supports itself on the sleeve via several guide sections. The front guide section (2b) facing the tool, and further neighbouring sections up to the section (2a) for the larger piston face (A1), are integral parts of the sleeve. The outer sleeve face (2g) and the outer housing form pressure medium channels (12) for the return stroke of the impact piston. Each channel is of a length to extend from a front connection channel (14) with a return stroke chamber (2e) accommodating the smaller piston face (A2), via a rear connection channel (16). This is temporarily connected to a working stroke chamber (2d) accommodating the larger piston face.

IPC 1-7  
**B25D 9/14**

IPC 8 full level  
**B25D 9/14** (2006.01); **B25D 9/20** (2006.01)

CPC (source: EP)  
**B25D 9/20** (2013.01); **B25D 2209/005** (2013.01); **B25D 2250/375** (2013.01)

Cited by  
EP2394795A1; CN102275152A; EP1256419A1; EP2873489A1; US9592598B2; US8939229B2; US9151386B2; US9822802B2; US9555531B2; US10562166B2

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**EP 0933169 A2 19990804; EP 0933169 A3 20001115; EP 0933169 B1 20020612**; AT E218946 T1 20020615; DE 19804078 A1 19990805; DE 59901686 D1 20020718; ES 2177145 T3 20021201

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