

Title (en)  
Anti-vibration arrangement

Title (de)  
Antiruckelvorrichtung

Title (fr)  
Dispositif anti-vibration

Publication  
**EP 1586416 B1 20140611 (EN)**

Application  
**EP 05252417 A 20050418**

Priority  
IT VI20040090 A 20040416

Abstract (en)  
[origin: EP1586416A2] The present invention relates to an anti-vibration arrangement (10) for a power sander (1) which comprises a housing (2), a motor (4) arranged in the housing (2), a rotary drive shaft (11), a first outer or ring-shaped pad surface (16) for attaching a first sanding paper (8) and a second inner or circular pad surface (22) for attaching a second sanding paper (9). The anti-vibration arrangement (10) serves to transfer energy from the motor (4) to the pads (16, 22) with out-of-phase motions to dynamically compensate for inertial and friction forces. For this purpose, twin cams (18a, 18b) are fixed on the rotary drive shaft (11). The cams (18a, 18b) rotate the central axes (15, 21) of the pads (16, 22) about the rotary drive shaft axis (12) with a phase differential of typically 180°. Vibration which would otherwise be transmitted to the rotary drive shaft (11) and from there to the operator of the machine (1) are drastically reduced irrespective of whether or not the operator increases the applied force (1) in order to increase the sanding depth or to speed up the sanding operation.

IPC 8 full level  
**B24B 23/03** (2006.01); **B24B 41/00** (2006.01)

CPC (source: EP)  
**B24B 23/03** (2013.01); **B24B 41/007** (2013.01)

Cited by  
CN107225477A; EP4230346A4; CN102430981A; CN114851024A; IT202100006359A1; EP3023197A1; WO2019043293A1; EP3676051A4; US11638977B2; WO2022195493A1

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 1586416 A2 20051019; EP 1586416 A3 20060412; EP 1586416 B1 20140611**; CN 100503164 C 20090624; CN 1748939 A 20060322; IT VI20040090 A1 20040716

DOCDB simple family (application)  
**EP 05252417 A 20050418**; CN 200510067539 A 20050415; IT VI20040090 A 20040416