Title (en)

Clamping device for holding the sanding sheet on an orbital sander

Title (de)

Spannvorrichtung an einem Schwingschleifer zum Halten des Schleifmittelblattes

Title (fr)

Dispositif de serrage pour fixer la feuille abrasive sur une ponceuse orbitale

Publication

EP 1211022 A3 20040121 (DE)

Application

EP 01127816 A 20011122

Priority

DE 10058610 A 20001125

Abstract (en)

[origin: EP1211022A2] The clamping device (5) includes a clamp lever (5) with a cam-type raised contour having a saddle region extending the length of the lever rotation axle, the saddle region. A spring acting upon a first flank of this saddle region exerts a torque force on the lever in the clamp rotary direction. The saddle region has a dead point where the spring can exert no torque force on the lever. The spring can also act upon a second flank on the opposite side of the saddle region of the first flank, exerting a torque force on the lever in the opposite direction to the clamp rotary direction. The clamping device comprises a clamp lever rotatable about an axle extending parallel to the rear side (7) of the sanding plate (2). The side of the lever facing the narrow side (4) of the sanding plate defines a clamping surface or edge which urges the edge region of the sanding sheet against the rear side of the sanding plate. A spring keeps the lever in the clamping position. A hand-operated actuator is used to swing the lever into an open position where its clamping surface or edge is raised above the rear side of the sanding plate. An Independent claim is also included for a clamping device including a clamp lever with a cam-type raised contour having a saddle region extending the length of the lever rotation axle, the saddle region having two flanks. The rotation axle is elastically bendable and by bending it towards the rear side of the sanding plate it acts as a spring. In the clamping position the lever has its clamping surface against the rear side of the sanding plate and its first flank against a counter-bearing on the rear side of the sanding plate, so that a torque is generated in the clamp rotary direction. In the open position the lever is supported against this counter-bearing only via its second flank.

IPC 1-7

B24B 23/04

IPC 8 full level

B24B 23/04 (2006.01)

CPC (source: EP)

B24B 23/046 (2013.01)

Citation (search report)

- [X] US 2242545 A 19410520 - RANDOLPH CHALMERS H
- [A] DE 19800044 A1 19980903 - BOSCH GMBH ROBERT [DE]
- [DA] DE 2832424 A1 19800214 - LICENTIA GMBH
- [DA] DE 3921613 A1 19900104 - HITACHI KOKI KK [JP]
- [DA] DE 2511392 A1 19760930 - BOSCH GMBH ROBERT
- [DA] US 2918761 A 19591229 - EARL HOWARD E, et al
- [DA] US 2914889 A 19591201 - MOSBACHER BRUCE H
- [DA] US 4030254 A 19770621 - MARCANTONIO LIVIO F
- [DA] US 2712206 A 19550705 - CHAMPAYNE ROY J
- [DA] DE 4037266 A1 19920527 - BOSCH GMBH ROBERT [DE]

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1211022 A2 20020605; **EP 1211022 A3 20040121**; **EP 1211022 B1 20050608**; **EP 1211022 B8 20050810**; AT E297290 T1 20050615; DE 10058610 A1 20020606; DE 10058610 B4 20051208; DE 50106441 D1 20050714; ES 2241734 T3 20051101

DOCDB simple family (application)

EP 01127816 A 20011122; AT 01127816 T 20011122; DE 10058610 A 20001125; DE 50106441 T 20011122; ES 01127816 T 20011122