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(54) Anti-vibration arrangement

(57) 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.

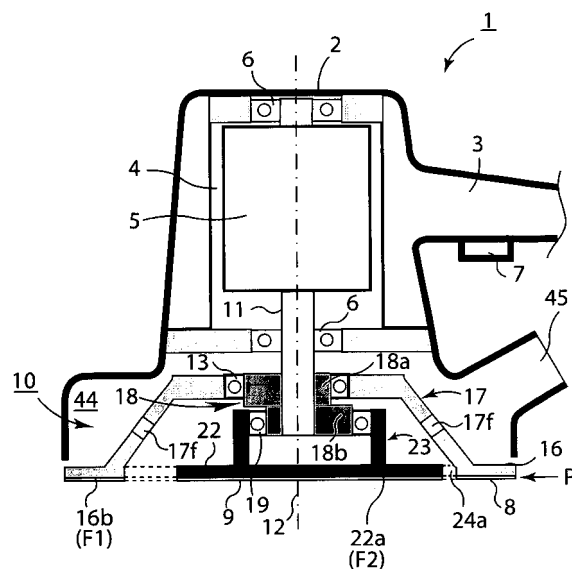


Fig.1

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EUROPEAN SEARCH REPORT

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EP 05 25 2417

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
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| The present search report has been drawn up for all claims | | | |
| Place of search The Hague | | Date of completion of the search 16 February 2006 | Examiner Garella, M |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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16-02-2006

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