

Title (en)
Hand tool.

Title (de)
Handgerät.

Title (fr)
Outil à main.

Publication
EP 0297041 A2 19881228 (DE)

Application
EP 88810405 A 19880614

Priority
DE 3720512 A 19870620

Abstract (en)
[origin: JPS6416383A] PURPOSE: To shorten the length of a hand tool by composing a contact sensing device of arm type rotatable levers with axes intersecting a tool axis, and constituting each lever in such a way that one arm of the lever collides with a control element and that the other arm is put in linkage action with a sensor. CONSTITUTION: An anvil 3 transmits impact force transmitted from an impact piston 4, to a tool 5. An insert shaft 5a of the tool 5 is inserted in a guide hole 1a, and the free end of the insert shaft 5a is protruded into a differential area of the anvil 3. Balls 21, 23 are opposedly pushed into long and narrow recesses 5d, 5f formed at the side face of the tool 5. This push-in is performed by compression springs 31, 32 acting upon lever arms 25b, 26b on the far side from the balls 21, 22. The rotation of these lever arms 25b, 26b causes the opposite direction rotation of the other arms 25a, 26a integral with the arms 25b, 26b, that is, the arms 25b, 26b on the far side from the balls 21, 22 are rotated outward so as to enter slit-like through openings 17g, 17h.

Abstract (de)
Das Handgerät erlaubt das automatische Umschalten auf unterschiedliche Betriebsarten. An den einzusetzenden Werkzeugen (5) sind unterschiedlicher Konturen vorgesehen, die durch Kugeln (21, 22, 23, 24) abgetastet und über Schwenkhebel (25, 26, 27, 28) zur Erzeugung von Schaltsignalen für das Einleiten eines Schaltvorganges genutzt werden.

IPC 1-7
B25F 3/00; **B25F 5/00**

IPC 8 full level
B25D 17/08 (2006.01); **B25F 3/00** (2006.01); **B25F 5/00** (2006.01)

CPC (source: EP US)
B25D 17/088 (2013.01 - EP US); **B25F 3/00** (2013.01 - EP US); **B25D 2217/0034** (2013.01 - EP US); **B25D 2217/0038** (2013.01 - EP US); **B25D 2217/0042** (2013.01 - EP US); **B25D 2217/0065** (2013.01 - EP US); **Y10T 408/165** (2015.01 - EP US)

Cited by
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Designated contracting state (EPC)
AT BE CH DE ES FR GB IT LI NL SE

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EP 0297041 A2 19881228; **EP 0297041 A3 19890503**; **EP 0297041 B1 19910522**; AT E63712 T1 19910615; AU 1811288 A 19881222; AU 593449 B2 19900208; CA 1285834 C 19910709; DE 3720512 A1 19881229; DE 3862898 D1 19910627; DK 335088 A 19881221; DK 335088 D0 19880617; ES 2022706 B3 19911201; FI 882826 A0 19880614; FI 882826 A 19881221; JP S6416383 A 19890119; MX 168864 B 19930611; US 4830549 A 19890516; ZA 884316 B 19890329

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