

Title (en)
Safety device for multi-function handtool

Title (de)
Sicherheitsmodul für multifunktionale Handwerkzeugmaschine

Title (fr)
Dispositif de sécurité pour outil portatif multifonctionnel

Publication
EP 1391271 A3 20080716 (DE)

Application
EP 03102526 A 20030813

Priority
DE 10237898 A 20020819

Abstract (en)
[origin: EP1391271A2] The tool drive (7) may impart rotational and reciprocating movements to the tool. An electric motor (6) drives the tool through a clutch (8). An ATC (ANTI-TORQUE CONTROL) module (1) has a rotation sensor (3) and an axial movement sensor (4) connected to a microcontroller (2). The two sensors are connected to identical circuits containing integrators (9) and multipliers (10) connected to adders (11) and comparators (12a,b) fed with threshold signals (13a,b) and sending signals (14a,b) to an AND circuit (15). This sends a control signal (5) to the clutch to release it.

IPC 8 full level
B25D 16/00 (2006.01); **B25D 17/00** (2006.01); **B25D 17/10** (2006.01); **B25F 5/00** (2006.01)

CPC (source: EP US)
B25D 16/00 (2013.01 - EP US); **B25F 5/00** (2013.01 - EP US)

Citation (search report)

- [YD] DE 19942156 A1 20010308 - HILTI AG [LI]
- [Y] WO 8806508 A2 19880907 - BOSCH GMBH ROBERT [DE]
- [AD] DE 19628945 A1 19970507 - BOSCH GMBH ROBERT [DE]
- [A] US 3464503 A 19690902 - HOUCK FREDERICK D

Cited by
US10160049B2; US10589413B2; US11192232B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)
AL LT LV MK

DOCDB simple family (publication)
EP 1391271 A2 20040225; EP 1391271 A3 20080716; EP 1391271 B1 20110119; DE 10237898 B3 20040318; DE 50313420 D1 20110303; JP 2004074404 A 20040311; JP 2004202675 A 20040722; JP 4362050 B2 20091111; US 2004104034 A1 20040603; US 6843140 B2 20050118

DOCDB simple family (application)
EP 03102526 A 20030813; DE 10237898 A 20020819; DE 50313420 T 20030813; JP 2003294113 A 20030818; JP 2003295031 A 20030819; US 64323103 A 20030818