

Title (en)
Tool with ultrasound adaptor

Title (de)
Werkzeuggerät mit Ultraschalladapter

Title (fr)
Outil avec adapteur ultrason

Publication
EP 1157752 A3 20040526 (DE)

Application
EP 01810469 A 20010514

Priority
DE 10025352 A 20000523

Abstract (en)
[origin: EP1157752A2] The device has an ultrasonic adapter with a capacitive electroacoustic converter (4) connected to an ultrasonic frequency generator (8) for generating ultrasonic waves for a tool (2). The capacitive electroacoustic converter is connected to the secondary winding (5) of a transformer (6) and the ultrasonic frequency converter is connected to the primary winding (7).

IPC 1-7
B06B 1/06; B06B 3/00; B28D 1/04; B23B 37/00; H01L 41/04; H01L 41/09

IPC 8 full level
B23B 37/00 (2006.01); **B06B 1/06** (2006.01); **B06B 3/00** (2006.01); **B24B 1/04** (2006.01); **B28D 1/04** (2006.01); **G10K 11/02** (2006.01); **H02N 2/00** (2006.01); **H02N 2/16** (2006.01); **H10N 30/20** (2023.01); **H10N 30/80** (2023.01)

CPC (source: EP US)
B06B 3/00 (2013.01 - EP US); **B28D 1/041** (2013.01 - EP US); **G10K 11/02** (2013.01 - EP US)

Citation (search report)

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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 1157752 A2 20011128; **EP 1157752 A3 20040526**; **EP 1157752 B1 20080319**; CN 1219602 C 20050921; CN 1324713 A 20011205; DE 10025352 A1 20011206; DE 10025352 B4 20070920; DE 50113742 D1 20080430; JP 2002028808 A 20020129; JP 4917215 B2 20120418; US 2003001456 A1 20030102; US 6731047 B2 20040504

DOCDB simple family (application)
EP 01810469 A 20010514; CN 01119003 A 20010515; DE 10025352 A 20000523; DE 50113742 T 20010514; JP 2001153739 A 20010523; US 85987201 A 20010517