

Title (en)  
Rotary percussive twist drill

Title (de)  
Drehschlag-Wendelbohrer

Title (fr)  
Perceuse rotative hélicoïdale à percussion

Publication  
**EP 0778390 A3 19980701 (DE)**

Application  
**EP 96810629 A 19960925**

Priority  
DE 19545646 A 19951207

Abstract (en)  
[origin: EP0778390A2] The drill has spirals to clear cuttings and a cutter plate (6) at the end of the shaft (10) with hard metal cutters (7). The faces (3) at the end of the shaft project axially beyond the sides (2). The drill has pin-shaped guides (11) near the end. Its longitudinal axis (L) is perpendicular to the shaft axis (A), and embedded into the shaft. The outer end face of the guide has a radial projection (r) beyond the side surface of the shaft. This is less than the radial projection (s) of the cutter plate. Several pins may be included, paired across diameters, in quadrants of the shaft.

IPC 1-7  
**E21B 10/44**

IPC 8 full level  
**E21B 10/36** (2006.01); **B25D 17/02** (2006.01); **E21B 10/44** (2006.01); **E21B 10/56** (2006.01); **E21B 10/58** (2006.01)

CPC (source: EP US)  
**E21B 10/445** (2013.01 - EP US); **E21B 10/58** (2013.01 - EP US)

Citation (search report)

- [A] EP 0226537 A2 19870624 - HILTI AG [LI]
- [A] DE 3740692 A1 19890406 - HAWERA PROBST KG HARTMETALL [DE]
- [A] DE 3825107 A1 19900125 - HILTI AG [LI]
- [A] EP 0452255 A2 19911016 - HILTI AG [LI]

Cited by  
FR2868353A1

Designated contracting state (EPC)  
CH DE DK FR GB IT LI SE

DOCDB simple family (publication)  
**EP 0778390 A2 19970611**; **EP 0778390 A3 19980701**; **EP 0778390 B1 20031001**; CN 1079045 C 20020213; CN 1159382 A 19970917; DE 19545646 A1 19970612; DE 59610747 D1 20031106; DK 0778390 T3 20040209; JP 3907756 B2 20070418; JP H09177466 A 19970708; US 5836408 A 19981117

DOCDB simple family (application)  
**EP 96810629 A 19960925**; CN 96121775 A 19961126; DE 19545646 A 19951207; DE 59610747 T 19960925; DK 96810629 T 19960925; JP 32869196 A 19961209; US 76218296 A 19961209