

Title (en)
Rotary percussive twist drill

Title (de)
Drehschlag-Wendelbohrer

Title (fr)
Perceuse rotative hélicoïdale à percussion

Publication
EP 0778391 B1 20030820 (DE)

Application
EP 96810657 A 19961002

Priority
DE 19545648 A 19951207

Abstract (en)
[origin: EP0778391A2] The rotary percussion drill has the spiral fluting for cuttings, and a cutter plate at the end of the shaft. This is broadly X-shaped and fixed into the shaft with axial and radial projection. Additional cutters (11) are mounted peripherally in the cutter plate (6), with axial and/or radial projection. With respect to the direction of rotation, the angle between the additional cutters and the trailing cutter plate (6) is less than 90 degrees and each additional cutter (11) a preceding main clearing groove (4,5). Additional clearing grooves are provided, which trail the additional cutters. The radial projections of the cutter plate amount to at least 50 per cent of that of auxiliary cutters.

IPC 1-7
E21B 10/58; **E21B 10/44**

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

Cited by
EP1083294A1; AT13738U1; EP1083293A1; EP1083295A1; US6431295B1; US6405813B1; US7258180B2; US6450273B1

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

DOCDB simple family (publication)
EP 0778391 A2 19970611; **EP 0778391 A3 19980701**; **EP 0778391 B1 20030820**; CN 1075431 C 20011128; CN 1154900 A 19970723; DE 19545648 A1 19970612; DE 59610671 D1 20030925; DK 0778391 T3 20031215; JP 3819500 B2 20060906; JP H09177465 A 19970708; US 5836410 A 19981117

DOCDB simple family (application)
EP 96810657 A 19961002; CN 96121810 A 19961125; DE 19545648 A 19951207; DE 59610671 T 19961002; DK 96810657 T 19961002; JP 32697796 A 19961206; US 76217396 A 19961209