

Title (en)
Drilling apparatus

Title (de)
Bohrgerät

Title (fr)
Appareil de forage

Publication
EP 0884446 A3 20001004 (DE)

Application
EP 98110794 A 19980612

Priority
DE 19725052 A 19970613

Abstract (en)
[origin: EP0884446A2] The drilling unit to make or widen (horizontal) boreholes, or to lay e.g. pipelines in the ground comprises a casing (1) containing a reciprocating piston (6, 9), a nozzle (17) for a pulsing cutting, lubrication, flushing and/or steering fluid, with a pressure chamber (16) located within the casing and connected to the nozzle. Also claimed is the corresponding method of making or widening subsurface boreholes using a fluid as indicated above.

IPC 1-7
E21B 4/14; **E21B 7/18**; **E21B 7/06**; **E21B 7/20**; **E21B 7/26**

IPC 8 full level
E21B 1/12 (2006.01); **E21B 1/26** (2006.01); **E21B 4/14** (2006.01); **E21B 7/18** (2006.01); **E21B 7/20** (2006.01); **E21B 7/26** (2006.01)

CPC (source: EP US)
E21B 4/145 (2013.01 - EP US); **E21B 7/065** (2013.01 - EP US); **E21B 7/18** (2013.01 - EP US); **E21B 7/206** (2013.01 - EP US)

Citation (search report)

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- [X] US 3712543 A 19730123 - CLIPP A, et al
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CN102619469A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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EP 0884446 A2 19981216; **EP 0884446 A3 20001004**; **EP 0884446 B1 20080319**; DE 19725052 A1 19981224; DE 19725052 C2 19991028; US 6138775 A 20001031

DOCDB simple family (application)
EP 98110794 A 19980612; DE 19725052 A 19970613; US 9622998 A 19980611