

Title (en)

PERCUSSIVE DRILL BIT, DRILLING SYSTEM COMPRISING SUCH A DRILL BIT AND METHOD OF DRILLING A BORE HOLE

Title (de)

SCHLAGBOHRER, BOHRSYSTEM MIT EINEM SOLCHEN BOHRER UND VERFAHREN ZUM BOHREN EINES BOHRLOCHS

Title (fr)

TREPAN A PERCUSSION, SYSTEME DE FORAGE COMPRENANT CE TREPAN ET PROCEDE DE FORAGE D'UN TROU DE FORAGE

Publication

EP 1627130 B1 20061129 (EN)

Application

EP 04741645 A 20040525

Priority

- EP 2004050912 W 20040525
- EP 03076614 A 20030526
- EP 04741645 A 20040525

Abstract (en)

[origin: WO2004104362A1] A percussion drill bit for drilling into a subterranean earth formation, the drill bit having a central longitudinal axis and being operable by applying axial percussive motion along the axis and rotary motion about the axis, the drill bit comprising: a plurality of blades (61, 62, 63) protruding from the drill bit; a plurality of flow channels (71, 72,73) stretching along the drill bit in a substantially radial direction whereby the successive flow channels are formed between two adjacent blades; shear cutters (9) which are provided in a row on or close to the leading edge of at least one of said blades with respect to the direction of rotary motion trailingly adjacent to the flow channel that is associated with it, for running a fluid through and thereby removing cutting debris accumulating in front of the row of shear cutters; and in addition to these shear cutters; axial cutters (10, 11) which are located, with respect to the direction of rotary motion, in a trailing position with respect to said row of shear cutters and its associated flow channel.

IPC 8 full level

E21B 10/36 (2006.01); **E21B 10/38** (2006.01); **E21B 10/56** (2006.01)

CPC (source: EP)

E21B 10/38 (2013.01); **E21B 10/56** (2013.01)

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004104362 A1 20041202; AR 044551 A1 20050921; AT E347019 T1 20061215; BR PI0410536 A 20060620; CA 2526249 A1 20041202; CN 100458097 C 20090204; CN 1795318 A 20060628; CO 5630007 A2 20060428; DE 602004003493 D1 20070111; DE 602004003493 T2 20070920; EG 23869 A 20071126; EP 1627130 A1 20060222; EP 1627130 B1 20061129; NO 20056154 L 20060217; RU 2005140560 A 20060710; RU 2332553 C2 20080827

DOCDB simple family (application)

EP 2004050912 W 20040525; AR P040101787 A 20040524; AT 04741645 T 20040525; BR PI0410536 A 20040525; CA 2526249 A 20040525; CN 200480014428 A 20040525; CO 05118914 A 20051123; DE 602004003493 T 20040525; EG NA2005000752 A 20051122; EP 04741645 A 20040525; NO 20056154 A 20051223; RU 2005140560 A 20040525