

Title (en)

NO-WATERWAY OR SINGLE WATERWAY DRILL BITS AND SYSTEMS AND METHODS FOR USING SAME

Title (de)

BOHRMEISSEL OHNE WASSERWEG ODER MIT EINZELWASSERWEG SOWIE SYSTEME UND VERFAHREN ZUR VERWENDUNG DAVON

Title (fr)

TRÉPANS SANS GOUTTIÈRE OU À GOUTTIÈRE UNIQUE ET LEURS SYSTÈMES ET PROCÉDÉS D'UTILISATION

Publication

**EP 3090118 A4 20170705 (EN)**

Application

**EP 14876565 A 20141230**

Priority

- US 201361921847 P 20131230
- US 2014072683 W 20141230

Abstract (en)

[origin: US2015184465A1] A drill bit for forming a hole in a formation. The drill bit has a shank and an annular crown that cooperate to define an interior space that receives water or other drilling fluid. The annular crown defines inner channels spaced circumferentially about an inner surface of the crown and outer channels spaced circumferentially about an outer surface of the crown. The annular crown can completely circumferentially enclose the interior space of the drill bit, or the annular crown can be provided with a single waterway extending between the inner and outer surfaces of the crown.

IPC 8 full level

**E21B 10/02** (2006.01); **E21B 10/42** (2006.01); **E21B 10/60** (2006.01); **E21B 10/61** (2006.01)

CPC (source: EP US)

**E21B 10/02** (2013.01 - EP US); **E21B 10/60** (2013.01 - EP US); **E21B 10/605** (2013.01 - EP US); **E21B 10/61** (2013.01 - EP US)

Citation (search report)

- [X] US 2010089660 A1 20100415 - PEARCE CODY A [US], et al
- [X] WO 2011037948 A2 20110331 - LONGYEAR TM INC [US], et al
- [A] US 2007246266 A1 20071025 - LARBO GORAN [SE]
- [A] US 2013313026 A1 20131128 - PEARCE CODY A [US], et al
- [A] US D647115 S 20111018 - PEARCE CODY A [US], et al
- See references of WO 2015103213A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**US 2015184465 A1 20150702**; AU 2014373896 A1 20160804; BR 112016015209 A2 20170808; CA 2934945 A1 20150709; CL 2016001668 A1 20170210; CN 105874144 A 20160817; EP 3090118 A1 20161109; EP 3090118 A4 20170705; PE 20160972 A1 20161006; US 2018313160 A1 20181101; WO 2015103213 A1 20150709

DOCDB simple family (application)

**US 201414585716 A 20141230**; AU 2014373896 A 20141230; BR 112016015209 A 20141230; CA 2934945 A 20141230; CL 2016001668 A 20160629; CN 201480071762 A 20141230; EP 14876565 A 20141230; PE 2016000966 A 20141230; US 2014072683 W 20141230; US 201815965243 A 20180427