

Title (en)  
FIXED CUTTER DRILL BIT HAVING CUTTER ORIENTING SYSTEM

Title (de)  
FESTER SCHNEIDBOHRMEISSEL MIT SCHNEIDERAUSRICHTUNGSSYSTEM

Title (fr)  
TRÉPAN À MOLETTES FIXES AYANT UN SYSTÈME D'ORIENTATION DE COUPE

Publication  
**EP 3447234 A1 20190227 (EN)**

Application  
**EP 18189839 A 20180821**

Priority  
US 201762548627 P 20170822

Abstract (en)  
A bit (1) for drilling a wellbore includes: a shank (12) having a coupling formed at an upper end thereof; a body (2) mounted to a lower end of the shank; and a cutting face forming a lower end of the bit. The cutting face includes: a blade (9) protruding from the body; a cutter (15) including: a substrate (17) mounted in a pocket (4) formed in the blade (9); and a cutting table (16) made from a superhard material, mounted to the substrate, and having a non-planar working face with a cutting feature (19); and a cutter orienting system including: a keyway (3w) formed in the substrate and angularly located opposite from the cutting feature; and a key (3k) formed in or mounted to the pocket and engaged with the keyway.

IPC 8 full level  
**E21B 10/573** (2006.01); **E21B 10/42** (2006.01)

CPC (source: EP US)  
**E21B 10/42** (2013.01 - EP US); **E21B 10/573** (2013.01 - EP)

Citation (applicant)  

- US 4654947 A 19870407 - DAVIS KENNETH [US]
- US 5285859 A 19940215 - TIBBITTS GORDON A [US]
- US 7070011 B2 20060704 - SHERWOOD JR WILLIAM H [US], et al
- US 8011456 B2 20110906 - SHERWOOD JR WILLIAM H [US]
- US 8132633 B2 20120313 - CUIILLIER DE MAINDREVILLE BRUNO [FR], et al
- US 9481033 B2 20161101 - HEUSER WILLIAM H [TH]
- US 2017058615 A1 20170302 - LIANG ZHAO [US], et al

Citation (search report)  

- [XDYI] US 8011456 B2 20110906 - SHERWOOD JR WILLIAM H [US]
- [YD] US 2017058615 A1 20170302 - LIANG ZHAO [US], et al

Citation (examination)  
US 8132633 B2 20120313 - CUIILLIER DE MAINDREVILLE BRUNO [FR], et al

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3447234 A1 20190227**; CA 3004127 A1 20190222; RU 2018123510 A 20191230

DOCDB simple family (application)  
**EP 18189839 A 20180821**; CA 3004127 A 20180507; RU 2018123510 A 20180628