

Title (en)

DOWNHOLE TOOL BEARING SYSTEM CONTAINING DIAMOND ENHANCED MATERIALS

Title (de)

DIAMANTVERSTÄRKTE MATERIALIEN ENTHALTENDES BOHRLOCHWERKZEUGLAGERSYSTEM

Title (fr)

SYSTÈME DE PALIER D'OUTIL DE FOND DE TROU CONTENANT DES MATÉRIAUX AMÉLIORÉS AU DIAMANT

Publication

EP 2257686 A2 20101208 (EN)

Application

EP 09712067 A 20090217

Priority

- US 2009034271 W 20090217
- US 2971908 P 20080219

Abstract (en)

[origin: US2009205873A1] Downhole tool bearings are provided with diamond enhanced materials. The diamond enhanced materials comprise diamond grains in a matrix of tungsten or silicon carbide. A brazed diamond grit or diamond particles coated with a reactive braze may be utilized for bearing applications. Bearing rings formed at least in part with diamond enhanced material are installed on at least one of the bearing pin journal, the nose and the cone cavity. The bearing rings may be continuous rings or partial rings and attached to the journal pin or cone cavity. These may include thrust bearings, rollers, roller race, balls and ball races made of diamond enhanced material. These bearing surfaces also are formed at least in part with diamond enhanced material and attached to portions of the journal or cone bearing surfaces.

IPC 8 full level

E21B 10/48 (2006.01); **E21B 10/02** (2006.01)

CPC (source: EP US)

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See references of WO 2009105420A2

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