

Title (en)  
ROLLER CONE BIT BEARING, AND BEARING MATERIALS

Title (de)  
ROLLENBOHRMEISSELLAGER UND LAGERMATERIALIEN

Title (fr)  
PALIER DE TRÉPAN À CÔNES À ROULEMENT ET MATÉRIAUX POUR PALIER

Publication  
**EP 2176498 A2 20100421 (EN)**

Application  
**EP 08781770 A 20080714**

Priority  
• US 2008069925 W 20080714  
• US 94975607 P 20070713

Abstract (en)  
[origin: US2009014217A1] A journal bearing element for use in forming a roller cone bit coupled to a bearing shaft to prevent circumferential sliding. Also included are material compositions of the journal bearing element. A journal bearing element is fixed in place relative to a head section and comprised of dense high purity powdered metal alloys with uniform micro-structure. A preferred material is comprised of a metal made of a carbon content of about 2.3% by weight, chromium of about 14% by weight, vanadium of about 9% by weight, and molybdenum at about 1% by weight.

IPC 8 full level  
**E21B 10/22** (2006.01)

CPC (source: EP US)  
**E21B 10/22** (2013.01 - EP US); **F16C 33/121** (2013.01 - EP US); **F16C 2204/60** (2013.01 - EP); **F16C 2204/70** (2013.01 - EP); **F16C 2352/00** (2013.01 - EP US)

Citation (search report)  
See references of WO 2009012196A2

Citation (examination)  
• US 2858151 A 19581028 - SEARING ELMER G  
• US 2901300 A 19590825 - BURR MYRTICE C

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA MK RS

DOCDB simple family (publication)  
**US 2009014217 A1 20090115**; EP 2176498 A2 20100421; WO 2009012196 A2 20090122; WO 2009012196 A3 20090305; WO 2009012196 A4 20090430

DOCDB simple family (application)  
**US 17236408 A 20080714**; EP 08781770 A 20080714; US 2008069925 W 20080714