

Title (en)
METHOD FOR GRINDING THE MAIN AND ROD BEARINGS OF A CRANKSHAFT THROUGH OUT-OF-ROUND GRINDING AND DEVICE FOR CARRYING OUT THE METHOD

Title (de)
VERFAHREN ZUM SCHLEIFEN DER HAUPT- UND HUBLAGER EINER KURBELWELLE DURCH AUßENRUNDSCHLEIFEN UND VORRICHTUNG ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)
PROCÉDÉ POUR RECTIFIER LES PALIERS PRINCIPAUX ET LES PALIERS MOBILES D'UN VILEBREQUIN PAR RECTIFICATION CYLINDRIQUE EXTÉRIEURE, ET DISPOSITIF POUR LA MISE EN UVRE DU PROCÉDÉ

Publication
EP 2234757 A1 20101006 (DE)

Application
EP 09705005 A 20090113

Priority
• EP 2009050321 W 20090113
• DE 102008007175 A 20080201

Abstract (en)
[origin: WO2009095299A1] In the cylindrical grinding of the main and rod bearings of crankshafts, the rod bearings are ground prior to the main bearings. The advantage of this is that the deformations that unavoidably occur, mainly during grinding of the rod bearings due to the removal of ground material are taken into account and compensated for again during grinding of the main bearings. The rod bearings are ground through CNC-control in the pin-chasing grinding method, and the crankshaft is held in a rotating axis in the process, said axis defined by two bearing points in the longitudinal extension of the crankshaft main bearing which are only machined. Deviations in said actual rotating axis from the determining geometric longitudinal axis of the crankshaft are taken into account in the pin-chasing grinding method by the computer of the grinding machine. The finished ground rod bearings then have an exact relation to the main bearings, which would have been ground strictly according to the determining geometric longitudinal axis of the crankshaft.

IPC 8 full level
B24B 5/42 (2006.01); **B24B 49/00** (2012.01)

CPC (source: EP KR US)
B24B 5/42 (2013.01 - EP KR US); **B24B 49/00** (2013.01 - EP KR US)

Citation (search report)
See references of WO 2009095299A1

Citation (third parties)
Third party :
GB 2317130 A 19980318 - WESTERN ATLAS UK LTD [GB], et al

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 MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
WO 2009095299 A1 20090806; CN 101687301 A 20100331; CN 101687301 B 20110831; DE 102008007175 A1 20091008; DE 102008007175 B4 20100602; EP 2234757 A1 20101006; EP 2234757 B1 20130410; ES 2409385 T3 20130626; JP 2011510826 A 20110407; JP 5473006 B2 20140416; KR 101487467 B1 20150128; KR 20100102522 A 20100924; RU 2010136695 A 20120310; RU 2480320 C2 20130427; US 2011003534 A1 20110106; US 8506357 B2 20130813

DOCDB simple family (application)
EP 2009050321 W 20090113; CN 200980000497 A 20090113; DE 102008007175 A 20080201; EP 09705005 A 20090113; ES 09705005 T 20090113; JP 2010544655 A 20090113; KR 20097024529 A 20090113; RU 2010136695 A 20090113; US 86537009 A 20090113