

Title (en)
Process for manufacturing a cylinder crankcase

Title (de)
Verfahren zur Herstellung eines Zylinderkurbelgehäuses

Title (fr)
Procédé de fabrication d'un bloc moteur

Publication
EP 2738377 A3 20180117 (DE)

Application
EP 13193129 A 20131115

Priority
DE 102012111521 A 20121128

Abstract (en)
[origin: EP2738377A2] Producing cylinder crankcase (10) comprising wet- and hanging bushes (16), comprises closing a casting mold, introducing at least one steel sleeve into the casting mold for forming at least one cylinder chamber (14), filling the casting mold with a molten metal, extending the steel sleeve after solidification of the melt, opening the mold, removing the cylinder crankcase from the casting mold, and inserting a wet hanging bush into the respective cylinder chambers. The sidewalls bounding the cylinder chamber, before inserting the bushes, are mechanically processed. Producing cylinder crankcase (10) comprising wet- and hanging bushes (16), comprises (a) closing a casting mold, (b) introducing at least one steel sleeve into the casting mold for forming at least one cylinder chamber (14), (c) filling the casting mold with a molten metal, (d) extending the steel sleeve after solidification of the melt, (e) opening the mold, (f) removing the cylinder crankcase from the casting mold, and (g) inserting a wet hanging bush into the respective cylinder chambers formed by the steel sleeve. The sidewalls bounding the cylinder chamber, before inserting the bushes, are mechanically processed, in which a first section of larger diameter is produced between a second axial section of smaller diameter and a third axial section of smaller diameter, which are formed by the steel sleeve.

IPC 8 full level
F02F 1/16 (2006.01)

CPC (source: EP)
B22C 9/06 (2013.01); **B22C 9/101** (2013.01); **B22D 19/0009** (2013.01); **F02F 1/16** (2013.01)

Citation (search report)

- [I] JP S61255246 A 19861112 - ISUZU MOTORS LTD
- [A] DE 102005018200 A1 20061102 - HONSEL GMBH & CO KG [DE]
- [A] DE 2532133 A1 19770203 - KLOECKNER HUMBOLDT DEUTZ AG
- [A] JP S6094230 A 19850527 - TOYOTA MOTOR CO LTD
- [A] JP H1052738 A 19980224 - SUZUKI MOTOR CO

Cited by
US10871123B2; US11219941B2; WO2020094330A1

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 2738377 A2 20140604; EP 2738377 A3 20180117; EP 2738377 B1 20210428; DE 102012111521 A1 20140528

DOCDB simple family (application)
EP 13193129 A 20131115; DE 102012111521 A 20121128