

Title (en)

METHOD FOR MACHINING AND SHAPING ROCKER ARM FRAME

Title (de)

VERFAHREN ZUR BEARBEITUNG UND FORMUNG EINES KIPPEBELRAHMENS

Title (fr)

PROCÉDÉ POUR USINER ET FAÇONNER UN CADRE DE CULBUTEUR

Publication

EP 3056295 A1 20160817 (EN)

Application

EP 13895218 A 20131231

Priority

- CN 201301467467 A 20131009
- CN 2013091167 W 20131231

Abstract (en)

The present invention pertains to the field of engine fittings manufacturing, and specifically relates to a method for machining and shaping a rocker arm frame. The rocker arm frame includes an integrally-molded soleplate and side walls, wherein one end of the soleplate has an H-shaped curved crown, the other end has a ball socket, a bottom of the ball socket is provided with a small oil hole, and the side walls are each provided with a pin shaft hole. The method of machining and shaping comprises the following steps: A. blanking of a rocker arm frame profile, wherein a plate-shaped workpiece of the rocker arm frame is punched out by using a punch; B. pre-bending, wherein the plate-shaped workpiece is pre-bent to form a W-shaped curved crown part; and C. applying lateral extrusion to the W-shaped curved crown part to form a primary product of a rocker arm frame having the required H-shaped curved crown. The method solves the problem of severe local thinning in the course of shaping the side walls of the curved crown, and eliminates an interspace between the two side walls so that the two side walls can tightly fit with each other.

IPC 8 full level

B21D 53/84 (2006.01); **B21K 1/20** (2006.01); **F01L 1/18** (2006.01)

CPC (source: EP)

B21D 53/84 (2013.01); **B21K 1/205** (2013.01); **F01L 1/185** (2013.01); **F01L 2301/00** (2020.05); **F01L 2303/00** (2020.05); **F01L 2305/00** (2020.05); **F01L 2810/02** (2013.01)

Cited by

CN114101431A; EP3460208B1

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 3056295 A1 20160817; **EP 3056295 A4 20160831**

DOCDB simple family (application)

EP 13895218 A 20131231