

Title (en)
CYLINDER HEAD FOR INTERNAL COMBUSTION ENGINES AND METHOD FOR PRODUCING SAME

Title (de)
ZYLINDERKOPF FÜR VERBRENNUNGSMOTOREN UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
CULASSE POUR MOTEURS A COMBUSTION INTERNE ET SON PROCEDE DE PRODUCTION

Publication
EP 1086300 B1 20011128 (DE)

Application
EP 99919247 A 19990416

Priority
• DE 19826286 A 19980612
• EP 9902576 W 19990416

Abstract (en)
[origin: DE19826286A1] The invention relates to a cylinder head for internal combustion engines, comprising one or more passages for mounting camshafts and bearing axles for rocker arms which preferably also actuate a pump-nozzle unit. The cylinder head has the following structure: at least one camshaft is mounted in the cylinder head in divided bearings having screwed on bearing bridges; next to and above the camshaft bearings seats are arranged at the level of the bearing bridges for bearing axles of rocker arms driven by the adjacent camshafts; the bearing axles are held tightly against the bearing bridge by means of screws projecting through them. The aim of the invention is to provide a way of deflecting the tensile forces from the cylinder head which occur at the level of the bearing axle of the rocker arms and are transmitted by their fixing screws. This is achieved by the following characteristics: next to the camshaft bearing (3) a tightening screw (5) with a longer cylindrical head (6) is arranged which is supported by the cylinder head (1) and extends as far as the cylinder block and engages same; the longer cylindrical head (6) has an internal profile (7) and, behind it, an inner thread (8) which is adjusted to the core cross-section of the internal profile (7); the screws (9) projecting through the bearing axles (4) are screwed into the inner thread (8) of the head (6) of the tightening screws (5).

IPC 1-7
F01L 1/053; **F02F 1/38**; **F02M 57/02**

IPC 8 full level
F01L 1/04 (2006.01); **F01L 1/053** (2006.01); **F02F 1/00** (2006.01); **F02F 1/24** (2006.01); **F02F 1/38** (2006.01); **F02M 57/02** (2006.01); **F16B 35/00** (2006.01)

CPC (source: EP)
F01L 1/0532 (2013.01); **F02F 1/38** (2013.01); **F02M 57/023** (2013.01)

Cited by
EP2341221A1; WO2011076959A1

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
DE 19826286 A1 19991216; CN 1088146 C 20020724; CN 1304476 A 20010718; DE 59900479 D1 20020110; EP 1086300 A1 20010328; EP 1086300 B1 20011128; JP 2002518623 A 20020625; WO 9966176 A1 19991223

DOCDB simple family (application)
DE 19826286 A 19980612; CN 99807032 A 19990416; DE 59900479 T 19990416; EP 9902576 W 19990416; EP 99919247 A 19990416; JP 2000554967 A 19990416