

Title (en)

Combustion chamber and valve operating mechanism for multi-valve engine.

Title (de)

Brennkammer und Ventilsteuervorrichtung für Mehrventil-Brennkraftmaschine.

Title (fr)

Chambre de combustion et dispositif de commande de soupapes pour moteur multisoupape.

Publication

EP 0422277 A1 19910417 (EN)

Application

EP 89119004 A 19891012

Priority

EP 89119004 A 19891012

Abstract (en)

A number of embodiments of multiple valve internal combustion engines embodying a single camshaft (55) for operating all of the multiple valves. The cylinder head is configured in such a way that it is reinforced across the center of the cylinder head by a bridging member (86) and this bridging member (86) can form a bearing surface (57) for a center lobe of the camshaft. The camshaft is offset toward one side of the cylinder head and operates the valves through a plurality of rocker arms. In some embodiment, the rocker arms are journaled on a cam cover (59) upon rocker arm shafts (67, 73) formed with reliefs (88, 89) aligned with openings in the cam cover for passing components such as a spark plug (16) or a fastener (87) for securing the cam cover to the cylinder head (34). Both single and multiple cylinder embodiments are disclosed.

IPC 1-7

F01L 1/04; **F01L 1/26**; **F02F 1/24**; **F02F 1/42**

IPC 8 full level

F01L 1/053 (2006.01); **F01L 1/26** (2006.01); **F02F 1/24** (2006.01); **F02F 1/42** (2006.01); **F02B 1/04** (2006.01); **F02B 61/00** (2006.01)

CPC (source: EP)

F01L 1/053 (2013.01); **F01L 1/265** (2013.01); **F02F 1/242** (2013.01); **F02F 1/4221** (2013.01); **F02B 1/04** (2013.01); **F02B 61/00** (2013.01); **F02B 2275/20** (2013.01); **F02F 2001/245** (2013.01)

Citation (search report)

- [X] US 4624222 A 19861125 - YOSHIKAWA MASAOKI [JP]
- [X] GB 2193998 A 19880224 - HONDA MOTOR CO LTD
- [A] EP 0144179 B1 19880210
- [A] EP 0187287 A2 19860716 - MAZDA MOTOR [JP]

Cited by

DE19745715A1; CN102251871A; EP1460238A3; EP1046804A1; DE4323073A1; DE19833199A1; DE19833199B4; US6209506B1; EP0433728B1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0422277 A1 19910417; **EP 0422277 B1 19940309**; DE 68913740 D1 19940414; DE 68913740 T2 19940623

DOCDB simple family (application)

EP 89119004 A 19891012; DE 68913740 T 19891012