

Title (en)

Light-metal cylinder head for a valve-controlled internal-combustion engine.

Title (de)

Leichtmetallzylinderkopf für eine ventilsteuerte Brennkraftmaschine.

Title (fr)

Culasse en métal léger d'un moteur à combustion interne à distribution par soupapes.

Publication

EP 0047835 A1 19820324 (DE)

Application

EP 81105588 A 19810716

Priority

DE 3034591 A 19800913

Abstract (en)

[origin: US4426963A] A light metal cylinder head for a valve-controlled internal combustion engine. The cylinder head is provided with at least one insert introduced into that bottom portion of the cylinder head located between the valves, and also has a bore, in that portion of the cylinder head bottom which faces the combustion chamber, for an injection nozzle or a straight channel and/or for an ignition aid, whereby at least the bottom region located between the valves, including the bore region, is coated with a crack-precluding oxide layer. In addition, that portion of the insert which comes into contact with the oxide layer is coated with a material which is resistant to the method of producing the oxide layer.

Abstract (de)

Ein Leichtmetallzylinderkopf (1) mit einer Oxidbeschichtung zum Schutz des Bodenbereichs (5) gegen Wärmespannungen und einer Bohrung (10) im Ventilsteg für Einspritzdüse, Starthilfe oder Schußkanal hat im Bereich zwischen den Ventilöffnungen (2, 3) eingegossene Stahlblecheinlagen (6, 7), die zum Schutz bei der Oxidierung des Brennraumbodens ihrerseits mit Aluminium oder Keramik beschichtet sind.

IPC 1-7

F02F 1/38; **F02B 77/02**

IPC 8 full level

F02B 77/02 (2006.01); **F02F 1/38** (2006.01); **F02B 3/06** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP US)

F02B 77/02 (2013.01 - EP US); **F02F 1/38** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US); **F02F 2001/008** (2013.01 - EP US); **F02F 2001/245** (2013.01 - EP US); **F02F 2001/248** (2013.01 - EP US); **F05C 2201/021** (2013.01 - EP US); **F05C 2203/08** (2013.01 - EP US)

Citation (search report)

- DE 2904940 A1 19800821 - KLOECKNER HUMBOLDT DEUTZ AG
- DE 2847249 A1 19800612 - MASCHF AUGSBURG NUERNBERG AG
- DE 2433698 A1 19750528 - TOYOTA MOTOR CO LTD
- DE 969934 C 19580731 - MESSERSCHMITT BOELKOW BLOHM

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