

Title (en)
INTERNAL COMBUSTION ENGINE

Title (de)
VERBRENNUNGSMOTOR

Title (fr)
MOTEUR À COMBUSTION INTERNE

Publication
EP 2175116 A4 20120208 (EN)

Application
EP 08827087 A 20080808

Priority
• JP 2008064304 W 20080808
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Abstract (en)
[origin: EP2175116A1] A heat-insulating thin layer formed on a wall surface, which faces the interior of a combustion chamber of the internal combustion engine, of a base material constituting the combustion chamber comprises a first heat-insulating material and a second heat-insulating material. The second heat-insulating material has a thermal conductivity not higher than that of the base material, and the first heat-insulating material has a thermal conductivity and a heat capacity per unit volume lower than those of the base material and also has a thermal conductivity and a heat capacity per unit volume lower than those of the second heat-insulating material. The first heat-insulating material having a low thermal conductivity and a low heat capacity per unit volume is mixed into the second heat-insulating material having high heat resistance and high strength. Thus, the first heat-insulating material can be protected against a high-temperature, high-pressure gas present in the combustion chamber.

IPC 8 full level
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CPC (source: EP)
F02B 77/02 (2013.01); **F02F 1/00** (2013.01); **F02F 1/18** (2013.01); **F02F 3/12** (2013.01); **F02F 3/14** (2013.01); **F02B 23/0672** (2013.01); **F02B 2023/0612** (2013.01); **F05C 2251/04** (2013.01); **F05C 2251/048** (2013.01)

Citation (search report)
• [X] GB 2307193 A 19970521 - DAIMLER BENZ AG [DE]
• [X] JP S60184950 A 19850920 - ISUZU MOTORS LTD
• [X] RU 2168039 C2 20010527 - OOO NAU, et al
• [I] EP 0783043 A1 19970709 - GEN ELECTRIC [US]
• [X] FR 2500002 A1 19820820 - CHEVRON RES [US]
• [X] JP S60182340 A 19850917 - ISUZU MOTORS LTD
• See references of WO 2009020206A1

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