

Title (en)  
INTERNAL COMBUSTION ENGINE

Title (de)  
VERBRENNUNGSMOTOR

Title (fr)  
MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2175116 B1 20190327 (EN)**

Application  
**EP 08827087 A 20080808**

Priority  
• JP 2008064304 W 20080808  
• JP 2007208037 A 20070809

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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Citation (examination)  
• CA 2352047 A1 20000316 - YOSHIDA TADASHI [JP]  
• GB 2086470 A 19820512 - CHEVRON RES

Cited by  
DE102012009029A1; CN103080386A; DE102018124938B4; EP2818677A4; CN107269412A; DE102014224830A1; DE102016100860B4; EP2436898A1; CN102444497A; DE102017221733A1; DE102014018694A1; US2018106212A1; US10539093B2; US2015300289A1; CN105017957A; US9617949B2; US8813734B2; US11300046B2; US8893693B2; US10718291B2; US9051876B2; US10393059B2; WO2012073101A3; WO2022042937A1; US9683480B2; DE102014224830B4; US10941299B2

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