

Title (en)  
Cylinder block structure for an internal combustion engine.

Title (de)  
Zylinderblockaufbau für eine Brennkraftmaschine.

Title (fr)  
Structure bloc-cylindre pour un moteur à combustion interne.

Publication  
**EP 0476706 A1 19920325 (EN)**

Application  
**EP 91116136 A 19910923**

Priority  

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- JP 40605990 A 19901225
- JP 41706490 A 19901229
- JP 41706590 A 19901229
- JP 41706690 A 19901229

Abstract (en)  
A skirt section of the cylinder block is shortened to the height of the rotational center (4a) of the crank shaft (4). To the bottom end of the skirt section (2b) is the lower cylinder block whose bottom (6) end is coupled to the oil pan (7). The inner space of the lower cylinder block section is divided by plural partition walls (9-12) extending transversely between the side walls of the lower cylinder block section (6). A bearing cap (20) supporting the crank shaft (4) has a boss section (20a) projecting transversely and a threaded hole is formed in the boss section. Further, the bottom end of the bearing cap (20) has a threaded hole (21) having an opening facing a side surface. The lower cylinder block section is further provided at its side wall with a hole through which the side portion of the bearing cap is connected to the side wall of the lower cylinder block section. The bottom end of the bearing cap (20) is connected to the side wall of the lower cylinder block (6) section. This arrangement for the bearing caps (20) improves rigidity for supporting the bearing caps, thereby permitting a decrease in the vibration of the engine. <IMAGE>

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IPC 8 full level  
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CPC (source: EP)  
**F02F 7/0007** (2013.01); **F02B 2075/027** (2013.01); **F02B 2075/1816** (2013.01)

Citation (search report)  

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- [Y] EP 0368478 A1 19900516 - HONDA MOTOR CO LTD [JP]
- [A] FR 2427474 A1 19791228 - RICARDO CONSULTING ENG [GB]
- [A] PATENT ABSTRACTS OF JAPAN, Vol. 14, No. 56 (M-929)[3999] 31 January 1990; & JP-A-01 280 667 (MITSUBISHI) 10 November 1989, Abstract.
- [A] PATENT ABSTRACTS OF JAPAN, Vol. 14, No. 407 (M-1019)[4350] 4 September 1990; & JP-A-02 157 462 (ISUZU), Abstract.

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