

Title (en)  
EXHAUST GAS RECIRCULATION VALVE AND METHOD OF COOLING

Title (de)  
ABGASRÜCKFÜHRUNGSVENTIL UND KÜHLVERFAHREN DAFÜR

Title (fr)  
SOUPAPE DE RECIRCULATION DES GAZ D'ÉCHAPPEMENT ET PROCÉDÉ DE REFOIDISSEMENT

Publication  
**EP 2422069 A4 20131016 (EN)**

Application  
**EP 10767639 A 20100420**

Priority  

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Abstract (en)  
[origin: WO2010123899A1] An exhaust gas recirculation valve has a cast metal body having at least one cooling circuit that is cast in to the cast metal body. The cooling circuit includes a coolant inlet, a coolant outlet, and passage between the inlet and the outlet. Another device has a cast metal body, and electronics cooling circuit cast into the metal body, and a valve cooling circuit cast into the metal body. The electronics cooling circuit cools at least one of a circuit board and a motor. The valve cooling circuit cools at least one of a valve shaft and a gear train. A method of manufacturing an exhaust gas recirculation valve includes providing a mold having a cast pattern comprising at least one cooling circuit in the mold. The cooling circuit includes a coolant inlet, a coolant outlet, and a coolant passage between the inlet and outlet. The method further involves introducing molten metal or alloy to the mold, and cooling the molten metal or alloy, to form a cast metal device having the pattern of the mold including the cooling circuit.

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Citation (search report)  

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- [XA] EP 0908615 A2 19990414 - VOLKSWAGEN AG [DE]
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- [Y] US 5372176 A 19941213 - BROWN PETER W [US], et al
- See references of WO 2010123899A1

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