

Title (en)  
PHASE VARYING DEVICE OF ENGINE

Title (de)  
PHASENVERSCHIEBUNGSVORRICHTUNG FÜR MOTOR

Title (fr)  
DISPOSITIF DE VARIATION DE PHASE DE MOTEUR

Publication  
**EP 1832719 A4 20101013 (EN)**

Application  
**EP 05768419 A 20050802**

Priority  
• JP 2005014071 W 20050802  
• JP 2004254659 A 20040901

Abstract (en)  
[origin: EP1832719A1] [PROBLEMS] To prevent generation of heat by friction in a phase varying device of the engine of an automobile. [MEANS FOR SOLVING PROBLEMS] The phase varying device of an engine comprises an outer casing section (10) having a sprocket (12) for transmitting rotation of the crankshaft of the engine, an inner casing section (20) capable of rotating relatively to the outer casing section and coupled with a cam shaft (2) for opening/closing the intake valve or the exhaust valve of the engine, and an intermediate member (30) meshing with the outer casing section and the inner casing section through a helical spindle, wherein relative rotation is generated between the outer casing section and the inner casing section by moving the intermediate member in the axial direction thus varying the open/close timing of the intake valve or the exhaust valve. The phase varying device of an engine is further provided with an electromagnetic control means (40a) having a permanent-magnet rotary drum (44) being screwed on the intermediate member, and an electromagnetic clutch (42) for braking or accelerating the rotary drum.

IPC 8 full level  
**F01L 1/34** (2006.01)

CPC (source: EP KR US)  
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Citation (search report)  
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• [IY] US 2003226534 A1 20031211 - WATANABE MASAHIKO [JP], et al  
• See references of WO 2006025173A1

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**EP 1832719 A1 20070912; EP 1832719 A4 20101013**; CN 1993538 A 20070704; JP WO2006025173 A1 20080508; KR 20070047284 A 20070504; US 2009260590 A1 20091022; WO 2006025173 A1 20060309

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**EP 05768419 A 20050802**; CN 200580025954 A 20050802; JP 2005014071 W 20050802; JP 2006531469 A 20050802; KR 20077001161 A 20070117; US 57338605 A 20050802