

Title (en)
Variable cam timing system and method

Title (de)
Variable Ventilsteuerungseinrichtung und Verfahren

Title (fr)
Dispositif de calage de soupape variable et méthode

Publication
EP 1046793 A2 20001025 (EN)

Application
EP 00302306 A 20000322

Priority
US 29552599 A 19990421

Abstract (en)
An apparatus and method for supplying pressurised fluid to a variable cam timing phasing unit. A bearing is secured to the engine for rotatably supporting the cam shaft. The bearing has an inlet for pressurised fluid and a pair of outlets for the pressurised fluid. One of the outlets is associated with relatively advancing cam timing and the other of the outlets is associated with relatively retarding cam timing. A solenoid valve selectively routes pressurised fluid between the inlet and one of the outlets. <IMAGE>
A bearing secured to the engine supports the cam shaft. The bearing has an inlet and two outlets for pressurized fluid. One outlet is associated with the relatively advancing cam timing and the other is associated with the relatively retarding cam timing. A solenoid valve routes the fluid from the inlet to one of the outlets. The fluid is communicated by a bridge (177) which has holes and conduits. Pressurized fluid is received by a hole (190) from the engine (10). The hole communicates with a pair of ports (191,192) using a pair of solenoid valves (184,185) held by the bridge.

IPC 1-7
F01L 1/34; F01L 1/344

IPC 8 full level
F01L 1/34 (2006.01)

CPC (source: EP)
F01L 1/34 (2013.01); **F01L 2001/0476** (2013.01); **F01L 2001/34496** (2013.01)

Citation (applicant)
• US 5363817 A 19941115 - IKEDA HIROSHI [JP], et al
• US 5657725 A 19970819 - BUTTERFIELD ROGER P [US], et al
• US 5119691 A 19920609 - LICHTI THOMAS H [US], et al

Cited by
EP1316682A3; EP2400122A1; EP1333159A3; EP1057982A3; EP1375828A1; EP1640570A1; EP1081340A3; EP1865157A1; EP1422387A1; EP1340886A4; DE10118119A1; DE10118119C2; EP1249582A3; US7513232B2; EP1245803A1; US8220425B2; US6684836B2; US7104694B2; US7712289B2; US6505588B2; US6676389B2; US9797280B2; WO2006081789A1; WO2006085640A1; US7395802B2; US6860247B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1046793 A2 20001025; EP 1046793 A3 20020821

DOCDB simple family (application)
EP 00302306 A 20000322