

Title (en)
Variable event timing mechanism

Title (de)
Variable Ventilsteuerungseinrichtung

Title (fr)
Distribution variable

Publication
EP 1179657 A1 20020213 (EN)

Application
EP 01000338 A 20010802

Priority
GB 0019325 A 20000808

Abstract (en)
A mechanism is disclosed for enabling the duration of a valve event in an internal combustion engine to be varied. The mechanism comprises a drive shaft 10 rotatable in synchronism with the engine crankshaft, a cam sleeve 12 rotatably mounted on the drive shaft 10 for opening and closing an engine valve and a drive member 14 coupled to the drive shaft 10 and the cam sleeve 12. The drive member 14 is mounted for rotation about an axis parallel to that of the drive shaft 10 and the axis of the drive member is variably offset from the drive shaft axis. The extent of the offset serves to vary the phase of the cam sleeve relative to the drive shaft cyclically, thereby superimposing a variable amplitude oscillation on the steady rotation of the cam sleeve by the drive shaft to vary the valve event duration. In the invention, the means for coupling the drive member 14 for rotation with the drive shaft 10 includes a pin 22 slidably received in a radial bore 20 in the drive shaft 10 and the end of the pin 20 projecting from the drive shaft 10 is pivotably mounted directly on the drive member 14. As an alternative to the provision of an intermediate drive member that can be moved to an eccentric position, the drive shaft may itself be moved to an eccentric position in relation to the axis of rotation of the cams. <IMAGE>

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F01L 1/356

IPC 8 full level
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Citation (search report)
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EP 1234955 A1 20020828; EP 1234955 B1 20061220; DE 60120852 D1 20060803; DE 60120852 T2 20070111; DE 60125321 D1 20070201; DE 60125321 T2 20070705; EP 1179657 A1 20020213; EP 1179657 B1 20060621; GB 0019325 D0 20000927; GB 2365508 A 20020220

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