

Title (en)
Valve timing control apparatus for internal combustion engine

Title (de)
Nockenwellenverstellvorrichtung für eine Brennkraftmaschine

Title (fr)
Déphaseur d'arbre à cames pour moteur à combustion interne

Publication
EP 1672187 A1 20060621 (EN)

Application
EP 05026370 A 20051202

Priority
JP 2004361972 A 20041214

Abstract (en)
A valve timing control apparatus includes a driving side rotational member (2) synchronously rotated with a crankshaft, a driven side rotational member (1) provided coaxially with the driving side rotational member and synchronously rotated with a camshaft (3), a fluid pressure chamber (40) being separated into an advanced angle chamber (43) and a retarded angle chamber (42), a phase control apparatus (9, 71, 76)-controlling an operation fluid to be supplied to and discharged from one of, or both of the advanced angle chamber and the retarded angle chamber, for displacing a relative rotational phase between the driving side rotational member and the driven side rotational member within a range from a most advanced angle phase to a most retarded angle phase, a locking mechanism (6) restraining the relative rotational phase at a lock phase between the most advanced angle phase and the most retarded angle phase.

IPC 8 full level
F01L 1/344 (2006.01)

CPC (source: EP US)
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F01L 2001/34463 (2013.01 - EP US); **F01L 2001/34466** (2013.01 - EP US); **F01L 2001/34473** (2013.01 - EP US);
F01L 2001/34476 (2013.01 - EP US); **F01L 2001/34483** (2013.01 - EP US)

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