

Title (en)

VALVE OPENING/CLOSING TIMING CONTROL DEVICE

Title (de)

VORRICHTUNG ZUR STEUERUNG DER VENTILÖFFNUNGS-/SCHLIESSZEIT

Title (fr)

DISPOSITIF DE COMMANDE DU CALAGE D'OUVERTURE/FERMETURE DE SOUPAPES

Publication

EP 3032050 B1 20190116 (EN)

Application

EP 14835416 A 20140625

Priority

- JP 2013165408 A 20130808
- JP 2014066855 W 20140625

Abstract (en)

[origin: EP3032050A1] A valve opening and closing timing control device being promptly movable to an intermediate lock phase includes a vane selectively moving a relative rotational phase of a driven-side rotary member to a driving-side rotary member between a retarded direction and an advance direction, the retarded direction where a volume within a retard chamber increases by an inflow of a fluid, the advance direction where a volume within an advance chamber increases by the inflow of the fluid, an intermediate lock mechanism being switchable between a lock state and an unlock state, the lock state where the relative rotational phase is locked at an intermediate locked phase by a fitting of a lock member that is provided at the driving-side rotary member into a recess that is provided at the driven-side rotary member, the unlocked state where the relative rotational phase is unlocked by a retraction of the lock member from the recess, and a phase control portion performing a control of a supply of the fluid to the retard chamber and a discharge of the fluid from the advance chamber, or a control of a discharge of the fluid from the retard chamber and a supply of the fluid to the advance chamber, in order for the lock member to reach the intermediate locked phase by reducing a travelling speed of the relative rotational phase from a reference phase to the intermediate locked phase to be slower than the travelling speed of the relative rotational phase to the reference phase when the intermediate lock mechanism is switched from the unlock state to the lock state.

IPC 8 full level

F01L 1/344 (2006.01)

CPC (source: EP US)

F01L 1/3442 (2013.01 - EP US); **F01L 1/0532** (2013.01 - EP US); **F01L 2001/3443** (2013.01 - EP US); **F01L 2001/34463** (2013.01 - EP US); **F01L 2001/34466** (2013.01 - EP US); **F01L 2001/34473** (2013.01 - EP US); **F01L 2001/34483** (2013.01 - EP US); **F01L 2250/02** (2013.01 - EP US); **F01L 2800/00** (2013.01 - EP US)

Cited by

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DOCDB simple family (publication)

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