Title (en)

Variable valve timing control device

Title (de)

Nockenwellenversteller

Title (fr)

Déphaseur d'arbre à cames

Publication

EP 1491728 B1 20100811 (EN)

Application

EP 04014612 A 20040622

Priority

JP 2003181475 A 20030625

Abstract (en)

[origin: EP1491728A2] A variable valve timing control device (1) includes a housing member (3), a rotor member (2) assembled to the housing member so as to be rotatable relative thereto and including vane portions (70) each forming an advanced angle chamber (R1) and a retarded angle chamber (R2) within the housing member (3), a stopper (33a,33b) formed on the convex portion for defining a relative rotation between the housing member (3) and the rotor member (2), a lock mechanism (22,88) for restricting the relative rotation by a lock member (80), and a fluid pressure circuit for controlling an operation oil to be supplied to or discharged from the advanced angle chamber (R1), the retarded angle chamber (R2), and the lock mechanism (22,80). When the relative rotation is restricted, the lock member (80) is in contact with an inner peripheral face of the receiving hole (22) on the advanced angle side and the retarded angle side between an opening portion (22a) and a bottom portion (22b) of the receiving hole (22). <IMAGE>

[origin: EP1491728A2] The device has a rotor component (2) assembled to a housing component (3). A stopper is formed on a convex portion to define a relative rotation between the components. A receiving hole (22) restricts the rotation by a lock plate (80). The plate is in contact with an inner peripheral face of the hole on advanced and retarded angle sides between opening and bottom portions (22a, 22d) of the hole when the rotation is restricted.

IPC 8 full level

F01L 1/344 (2006.01)

CPC (source: EP US)

F01L 1/3442 (2013.01 - EP US); F01L 2001/34453 (2013.01 - EP US); F01L 2001/34483 (2013.01 - EP US)

Cited by

EP2947286A4

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1491728 A2 20041229; **EP 1491728 A3 20051130**; **EP 1491728 B1 20100811**; DE 602004028552 D1 20100923; US 2005022763 A1 20050203

DOCDB simple family (application)

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