

Title (en)

Camshaft drive with a camshaft and a camshaft hub

Title (de)

Nockenwellentrieb mit einer Nockenwelle mit einem Nockenwelleneinsatz

Title (fr)

Entraînement d'arbre à cames avec arbre à cames et insert d'arbre à cames

Publication

EP 2322769 B1 20130724 (DE)

Application

EP 10189470 A 20101029

Priority

DE 102009052841 A 20091113

Abstract (en)

[origin: EP2322769A1] The insert (9) has a pressure accumulator (20) loaded by spring force, where the insert is fixedly connected with a rotor (6) of a rotary motor adjuster (1). The pressure accumulator is arranged in a camshaft (5). A hydraulic part (2) of a valve (3) is radially arranged within the rotor and aligned to the pressure accumulator. The pressure accumulator is separated from the hydraulic part by a separation wall (30), where an end of a helical compression spring (31) is indirectly supported at the wall. Another end of the spring is supported at a valve piston (33).

IPC 8 full level

F01L 1/047 (2006.01); **F01L 1/344** (2006.01)

CPC (source: EP US)

F01L 1/047 (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F01L 2001/0475** (2013.01 - EP US); **F01L 2001/34433** (2013.01 - EP US); **F01L 2001/34446** (2013.01 - EP US)

Citation (examination)

- DE 102005048732 A1 20070419 - SCHAEFFLER KG [DE]
- DE 19654926 A1 19971120 - DAIMLER BENZ AG [DE]
- DE 19955507 A1 20010607 - DAIMLER CHRYSLER AG [DE]

Cited by

EP3489474A1; EP3023607A4; US10352206B2; WO2016141929A1; US10704430B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2322769 A1 20110518; EP 2322769 B1 20130724; CN 102061953 A 20110518; CN 102061953 B 20130320; DE 102009052841 A1 20110519; US 2011114047 A1 20110519

DOCDB simple family (application)

EP 10189470 A 20101029; CN 201010534880 A 20101108; DE 102009052841 A 20091113; US 94434110 A 20101111