

Title (en)

Device for changing the timing of gas exchange valves of an internal combustion engine, especially a rotary piston phasing device for changing the angle of a camshaft relative to a crank shaft

Title (de)

Vorrichtung zum Verändern der Steuerzeiten von Gaswechselventilen einer Brennkraftmaschine, insbesondere Rotationskolben-Verstelleinrichtung zur Drehwinkelverstellung einer Nockenwelle gegenüber einer Kurbelwelle

Title (fr)

Dispositif pour déphaser les soupapes d'échange de gaz d'un moteur à combustion interne, notamment déphaseur à piston rotatif pour déphaser un arbre à cames relativement au vilebrequin

Publication

**EP 1302630 A3 20031126 (DE)**

Application

**EP 02020920 A 20020919**

Priority

DE 10150856 A 20011015

Abstract (en)

[origin: EP1302630A2] The device (1) which is fixed at the drive end of a cam shaft in the cylinder head of the engine includes a separate locking element (14) mechanically coupling the flywheel (3) to the drive wheel (2). The locking element is formed as a locking pin which is uniformly cylindrical over its entire length and is mounted in an axial bore (17) in the wheel hub (10) of the flywheel whose longitudinal axis has the smallest possible distance from the longitudinal centre axis of the device. <??>The holder (16) for the locking element in one of the side walls of the drive wheel has a square contour with all round larger contour.

IPC 1-7

**F01L 1/344**

IPC 8 full level

**F01L 1/34** (2006.01); **F01L 1/344** (2006.01)

CPC (source: EP US)

**F01L 1/3442** (2013.01 - EP US); **F01L 2001/34436** (2013.01 - EP US); **F01L 2001/34469** (2013.01 - EP US)

Citation (search report)

- [XA] DE 19929393 A1 20001228 - SCHAEFFLER WAEHLZLAGER OHG [DE]
- [AP] US 2001054405 A1 20011227 - MIYASAKA HIDEYOKI [JP]
- [AP] US 2002078913 A1 20020627 - FUKUHARA KATSUYUKI [JP], et al

Cited by

CN106460580A; EP1589196A3; EP1607590A3; US2023279789A1; US11994043B2; US10294832B2; US8047170B2; WO2015140267A1; WO2014154176A1; WO2008006685A1

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