

Title (en)

Actuating device for relative angular position changing between a shaft and a driving wheel, in particular for a camshaft in an internal combustion engine

Title (de)

Verstelleinrichtung für eine Einrichtung zur relativen Drehlagenveränderung einer Welle zu einem Antriebsrad, insbesondere einer Nockenwelle einer Brennkraftmaschine

Title (fr)

Dispositif d'actionnement pour modifier la position angulaire relative d'un arbre et d'une poulie d'entraînement, en particulier pour un arbre à cames de moteur à combustion interne

Publication

**EP 1331367 A3 20081119 (DE)**

Application

**EP 03009907 A 19990414**

Priority

- DE 19823619 A 19980527
- EP 99917979 A 19990414

Abstract (en)

[origin: DE19823619A1] The inventive device for changing the relative rotational position of a shaft to the drive wheel has an adjustment device with two counter-acting pressure chambers, which are impinged upon by a hydraulic pump. In order to achieve an evenly regulated adjustment procedure and to reliably fix the position, the pressure chamber that is connected to the hydraulic pump is impinged upon by pressure at the beginning of the adjustment movement before the opposite pressure chamber attached to the hydraulic tank is relieved.

IPC 8 full level

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

CPC (source: EP KR US)

**F01L 1/344** (2013.01 - EP KR US); **F01L 1/3442** (2013.01 - EP US); **F01L 2001/34426** (2013.01 - EP US); **Y10T 74/2102** (2015.01 - EP US)

Citation (search report)

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DE202010006605U1; DE102010013777A1

Designated contracting state (EPC)

DE ES FR GB IT SE

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**DE 19823619 A1 19991202**; CN 1100197 C 20030129; CN 1266473 A 20000913; DE 59906295 D1 20030821; EP 1025343 A1 20000809; EP 1025343 B1 20030716; EP 1331367 A2 20030730; EP 1331367 A3 20081119; EP 1331367 B1 20160928; ES 2204124 T3 20040416; JP 2002516947 A 20020611; KR 100530825 B1 20051124; KR 20010022275 A 20010315; US 6209497 B1 20010403; WO 9961759 A1 19991202

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**DE 19823619 A 19980527**; CN 99800616 A 19990414; DE 59906295 T 19990414; EP 03009907 A 19990414; EP 9902505 W 19990414; EP 99917979 A 19990414; ES 99917979 T 19990414; JP 2000551127 A 19990414; KR 20007000849 A 20000126; US 46344700 A 20000404