

Title (en)

CAM PHASE ACTUATOR CONTROL SYSTEMS AND METHODS

Title (de)

SYSTEM UND VERFAHREN ZUR STEUERUNG EINES NOCKENWELLENVERSTELLERS

Title (fr)

DISPOSITIF ET MÉTHODE DE COMMANDE D'UN DÉPHASEUR D'ARBRE À CAMES

Publication

EP 4134526 A1 20230215 (EN)

Application

EP 22190119 A 20220812

Priority

US 202163232495 P 20210812

Abstract (en)

The systems and methods described herein provide an approach for cam phase angle control where an axial or rotational position of an actuator of a cam phaser has a direct relationship to the phase angle of the cam shaft, allowing for accurate cam phasing without the need for cam shaft or crank shaft position sensors. Providing phase angle adjustability without the need for crank shaft or cam shaft position sensors enables control of phase angle solely by sensing the axial or rotational position of the actuator of the cam phaser.

IPC 8 full level

F01L 1/344 (2006.01); **F01L 1/352** (2006.01); **F01L 13/00** (2006.01)

CPC (source: EP US)

F01L 1/344 (2013.01 - US); **F01L 1/34403** (2013.01 - EP); **F01L 1/352** (2013.01 - EP); **F01L 1/34406** (2013.01 - US); **F01L 1/352** (2013.01 - US); **F01L 2009/2169** (2021.01 - US); **F01L 2013/111** (2013.01 - EP US); **F01L 2013/113** (2013.01 - EP US); **F01L 2201/00** (2013.01 - EP US); **F01L 2800/09** (2013.01 - US); **F01L 2800/11** (2013.01 - US); **F01L 2800/14** (2013.01 - US); **F01L 2820/041** (2013.01 - EP US); **F01L 2820/042** (2013.01 - EP US)

Citation (applicant)

- US 10072537 B2 20180911 - SCHMITT AUSTIN [US], et al
- US 2020031346 A1 20200130 - LIPOT NORBERT [DE], et al

Citation (search report)

- [X] US 2016186618 A1 20160630 - SIMPSON ROGER [US]
- [X] US 2010236523 A1 20100923 - SARUWATARI MASAYUKI [JP], et al
- [A] US 2008172160 A1 20080717 - JIANG ZHENYU [US], et al

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

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DOCDB simple family (application)

EP 22190119 A 20220812; CN 202210965565 A 20220812; JP 2022128810 A 20220812; US 202217885414 A 20220810