Title (en)

NON-SYNCHRONOUS BELT DRIVEN CAMSHAFT PHASE SHIFT DEVICE

Title (de)

NICHT-SYNCHRONE, RIEMENGETRIEBENE KURBELWELLENVERSTELLVORRICHTUNG

Title (fr)

DISPOSITIF DE DÉPHASAGE NON SYNCHRONE D'ARBRE À CAMES ENTRAÎNÉ PAR COURROIE

Publication

EP 2222940 A1 20100901 (EN)

Application

EP 08837604 A 20081009

Priority

- US 2008079274 W 20081009
- US 97856807 P 20071009

Abstract (en)

[origin: US2010218738A1] A non-synchronous camshaft phasing device 46 for use with an internal combustion engine E. The internal combustion engine E includes an engine control unit ECU, a camshaft 42 and a crankshaft 12. The non-synchronous phasing device 46 is located between the crankshaft 12 and the camshaft 42 for controlling a phase shift angle between the camshaft 42 and the crankshaft 12. The phasing device 46 comprises an input shaft 36 coupled to the crankshaft 12 via a non-synchronous belt 40. The phasing device 46 also comprises an output shaft 42 coupled to the camshaft 44; a planetary gear train 48 co-axially aligned around and coupled with the input shaft 36 and the output shaft 42; and an motor 50 coupled to the planetary gear train 48 by a carrier 56. A controller operatively connects to the engine control unit ECU, wherein the controller is configured to receive engine operating signals generated by the engine control unit ECU and to receive signals from position sensors 51 coupled to the input shaft 36 and to the output shaft 42. In response to the signals, the controller generates and sends a torque command signal to the motor 50 to command the motor 50 to control the planetary gear train 48 through the carrier 56 to adjust the phase shift angle between the camshaft and the crankshaft 12.

IPC 8 full level

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CPC (source: EP US)

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