

Title (en)

Internal combustion engine with variable compression ratio

Title (de)

Verbrennungsmotor mit variabler Verdichtung

Title (fr)

Moteur à combustion interne doté d'un taux de compression variable

Publication

EP 2006509 A2 20081224 (EN)

Application

EP 08251215 A 20080331

Priority

- US 93674107 P 20070622
- US 95835207 P 20070703
- US 349807 P 20071116
- US 1149408 A 20080125

Abstract (en)

A coupler, such as a piston pin, is pivotally coupled to a piston such that the piston can pivot about a first axis relative to the coupler. A connecting rod is coupled to the coupler for pivoting about a second axis. The relative positions of the first and second axes can be shifted by pivoting an eccentric portion of the coupler to thereby vary the compression ratio of a piston cylinder within which the piston slides. The coupler comprises a pivot member engager portion that is selectively shifted from first to second positions to vary the compression rates in response to shifting of a pivot member. The pivot member engager is shifted from first to second positions as the piston approaches the bottom dead center position. The pivot member and pivot member engager disengage from one another as the piston travels away from the bottom dead center position.

IPC 8 full level

F02B 75/04 (2006.01)

CPC (source: EP)

F02B 75/045 (2013.01)

Cited by

KR101510324B1; KR101510323B1; US8851030B2; WO2010108582A1

Designated contracting state (EPC)

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

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2006509 A2 20081224; WO 2009002379 A2 20081231; WO 2009002379 A3 20090226

DOCDB simple family (application)

EP 08251215 A 20080331; US 2008005883 W 20080508