

Title (en)
Electronic system for identifying the strokes of an internal combustion engine

Title (de)
Elektronisches System zur Hubidentifizierung eines Innenverbrennungsmotors

Title (fr)
Système électronique d'identification des cycles pour moteurs à combustion interne

Publication
EP 0684376 B1 19980812 (EN)

Application
EP 95107844 A 19950522

Priority
IT BO940239 A 19940523

Abstract (en)
[origin: EP0684376A1] Electronic system for identifying the strokes of a four-stroke internal combustion engine, having an output crankshaft coupled to an angular position sensor which generates a signal having an interval of 360 DEG of the crankshaft. The signal has at least one zero reference corresponding to a zero reference of the crankshaft. The system can detect (100) the zero reference and arbitrarily assign (11) the strokes of the engine (2) with respect to the zero reference by determining at least one specified angular relation between the zero reference and the angular position in which the upper dead centre of a first cylinder is reached. The system can monitor (131, 133) the torques generated by two cylinders of the engine to detect a stroke relationship between these torques and to recognize a timing displacement of 360 DEG in the arbitrarily assigned strokes. The system can also retime (137) the arbitrarily assigned strokes.

IPC 1-7
F02D 41/34; **F02D 41/06**

IPC 8 full level
F02D 41/34 (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP)
F02D 41/009 (2013.01); **F02B 2075/027** (2013.01)

Cited by
US5823166A; CN101952579A; FR2925593A1; EP0846852A1; US5758625A; WO2009083492A1; WO9902838A1; WO9641938A1

Designated contracting state (EPC)
DE ES FR GB SE

DOCDB simple family (publication)
EP 0684376 A1 19951129; **EP 0684376 B1 19980812**; DE 69503971 D1 19980917; DE 69503971 T2 19990114; ES 2121259 T3 19981116; IT BO940239 A0 19940523; IT BO940239 A1 19951123

DOCDB simple family (application)
EP 95107844 A 19950522; DE 69503971 T 19950522; ES 95107844 T 19950522; IT BO940239 A 19940523