

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 0684377 A1 19951129 (EN)**

Application  
**EP 95107845 A 19950522**

Priority  
IT BO940238 A 19940523

Abstract (en)  
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 angular reference of the crankshaft. The system can detect (100) the zero reference and arbitrarily assign (110) 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 (133) the torque generated by the engine to detect a timing displacement of 360 DEG in the arbitrarily assigned strokes and retime (135) these strokes as a result.

IPC 1-7  
**F02D 41/34; G01M 15/00**

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)

Citation (applicant)  
FR 9111273 A 19910912

Citation (search report)  
• [X] EP 0576334 A1 19931229 - RENAULT [FR]  
• [A] US 4870587 A 19890926 - KUMAGAI CHIAKI [JP]  
• [A] DE 4229773 A1 19940310 - BOSCH GMBH ROBERT [DE]

Cited by  
FR2754852A1; WO9817904A1; WO0019077A1

Designated contracting state (EPC)  
DE ES FR GB SE

DOCDB simple family (publication)  
**EP 0684377 A1 19951129**; IT BO940238 A0 19940523; IT BO940238 A1 19951123

DOCDB simple family (application)  
**EP 95107845 A 19950522**; IT BO940238 A 19940523