

Title (en)  
PHASE RECOGNITION DEVICE

Title (de)  
EINRICHTUNG ZUR PHASENERKENNUNG

Title (fr)  
DISPOSITIF DE RECONNAISSANCE DE PHASE

Publication  
**EP 1045967 B1 20040114 (DE)**

Application  
**EP 99948671 A 19990723**

Priority  
• DE 9902267 W 19990723  
• DE 19844910 A 19980930

Abstract (en)  
[origin: DE19844910A1] Disclosed is a phase recognition device for an internal combustion engine, whereby only one crankshaft signal sensor is provided and the phase signal is obtained by predeterminable suppression of injections for specific cylinders and simultaneous analysis of engine speed. If the engine speed characteristic is adjusted as expected during several suppressed injections for the same cylinder, it is assumed that synchronization is correct. If this condition is not met, synchronization is incorrect by 360 DEG KW, whereby said synchronization is modified.

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

IPC 8 full level  
**F02D 17/02** (2006.01); **F02D 41/06** (2006.01); **F02D 41/34** (2006.01); **F02D 45/00** (2006.01); **F02P 7/067** (2006.01); **G01R 25/08** (2006.01)

CPC (source: EP KR)  
**F02D 41/009** (2013.01 - EP); **F02D 41/06** (2013.01 - KR); **F02P 7/0675** (2013.01 - EP); **F02D 41/0097** (2013.01 - EP);  
**F02D 2041/0092** (2013.01 - EP)

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**DE 19844910 A1 20000406**; BR 9909572 A 20001219; DE 59908304 D1 20040219; EP 1045967 A1 20001025; EP 1045967 B1 20040114; JP 2002525494 A 20020813; KR 100624352 B1 20060918; KR 20010032397 A 20010416; RU 2230210 C2 20040610; WO 0019077 A1 20000406

DOCDB simple family (application)  
**DE 19844910 A 19980930**; BR 9909572 A 19990930; DE 59908304 T 19990723; DE 9902267 W 19990723; EP 99948671 A 19990723; JP 2000572499 A 19990723; KR 20007005637 A 20000524; RU 2000117465 A 19990723