

Title (en)  
Ignition system for a combustion engine

Title (de)  
Zündsystem für eine Verbrennungskraftmaschine

Title (fr)  
Système d'allumage pour un moteur à combustion

Publication  
**EP 0415240 B1 19961211 (DE)**

Application  
**EP 90116018 A 19900822**

Priority  
DE 3928726 A 19890830

Abstract (en)  
[origin: JPH03149351A] PURPOSE: To permit ignition in a short time and adjustment of combustion duration by connecting an energy return diode in parallel with the capacitor of a primary circuit, and controlling the primary circuit by use of a control and adjustment device sized to operate in current-controlled shutoff operation and in current-carrying operation. CONSTITUTION: A primary vibrating circuit has a control and adjustment circuit 2 having a trigger input end 4, a trigger output end 6, a power conductor 8, and the primary circuit winding P1 of an ignition coil. A vibrating circuit capacitor C1 is in series with the primary circuit winding P1 and an energy recycling diode D1 is in parallel therewith. A transistor TR1 is connected to the capacitor C1 and the diode D1 at its drain side and to earth at its source side via a current limiting resistance R1, and a connection 10 connects the transistor TR1 to the resistance R1 and the control and adjustment circuit 2 on the source side. On the secondary side, a secondary winding is located in series with the winding and a discharge capacity CW.

IPC 1-7  
**F02P 3/01**; **F02P 9/00**; **F02P 7/073**; **F02P 15/12**

IPC 8 full level  
**F02P 3/00** (2006.01); **F02P 3/01** (2006.01); **F02P 3/045** (2006.01); **F02P 7/073** (2006.01); **F02P 7/077** (2006.01); **F02P 9/00** (2006.01); **F02P 15/00** (2006.01); **F02P 15/08** (2006.01); **F02P 15/10** (2006.01); **F02P 15/12** (2006.01)

CPC (source: EP US)  
**F02P 3/00** (2013.01 - EP US); **F02P 3/01** (2013.01 - EP US); **F02P 7/073** (2013.01 - EP US); **F02P 7/0775** (2013.01 - EP US); **F02P 15/08** (2013.01 - EP US); **F02P 15/10** (2013.01 - EP US); **F02P 15/12** (2013.01 - EP US); **F02B 2275/14** (2013.01 - EP US)

Citation (examination)  
EP 0034787 A1 19810902 - SIEMENS AG [DE]

Cited by  
EP1111630A3; EP0634573A1; WO9407027A1; WO9502761A1

Designated contracting state (EPC)  
BE DE ES FR GB IT LU NL SE

DOCDB simple family (publication)  
**EP 0415240 A2 19910306**; **EP 0415240 A3 19930707**; **EP 0415240 B1 19961211**; DE 3928726 A1 19910307; DE 59010597 D1 19970123; ES 2094738 T3 19970201; JP 2739518 B2 19980415; JP H03149351 A 19910625; US 5113839 A 19920519

DOCDB simple family (application)  
**EP 90116018 A 19900822**; DE 3928726 A 19890830; DE 59010597 T 19900822; ES 90116018 T 19900822; JP 22683190 A 19900830; US 57415090 A 19900829