

Title (en)

INJECTION TIMING ADVANCE MECHANISM FOR INTERNAL COMBUSTION ENGINE

Publication

EP 0386448 B1 19930922 (DE)

Application

EP 90101873 A 19900131

Priority

DE 3907026 A 19890304

Abstract (en)

[origin: EP0386448A1] Injection timing advance mechanism for internal combustion engines, by means of which the reciprocal rotary position of a drive shaft (3) in relation to a drive shaft (2) can be varied as a function of operating variables. The advance mechanism comprises two pairs of cams (12) serving as variable-speed gears, whose adjusting cams (13) are connected by means of bolts (28) to intermediate elements (22) and these are coupled, each by means of a coupling bolt (34), each to two hydraulically actuatable control pistons (18) arranged parallel with one another on one side of the timing advance mechanism. The control pistons (18) are guided in a piston carrier (9) which has two lateral limiting surfaces (26) which each together with two walls (31) projecting from the intermediate elements (22) form a slideway for the intermediate elements (22). Due to the improved slideway, the injection timing advance mechanism may be used for transmitting higher drive outputs than hitherto usual.

<IMAGE>

IPC 1-7

F02D 1/18

IPC 8 full level

F02D 1/16 (2006.01); **F02D 1/18** (2006.01)

CPC (source: EP US)

F02D 1/183 (2013.01 - EP US)

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0386448 A1 19900912; EP 0386448 B1 19930922; DE 3907026 A1 19900906; DE 59002782 D1 19931028; ES 2044248 T3 19940101; JP H02277930 A 19901114; US 4998523 A 19910312

DOCDB simple family (application)

EP 90101873 A 19900131; DE 3907026 A 19890304; DE 59002782 T 19900131; ES 90101873 T 19900131; JP 4737590 A 19900301; US 46611890 A 19900116