

Title (en)  
ROTATION SPEED REGULATOR FOR INTERNAL COMBUSTION ENGINES

Title (de)  
DREHZAHLREGLER FÜR BRENNKRAFTMASCHINEN

Title (fr)  
REGULATEUR POUR MOTEURS A COMBUSTION INTERNE

Publication  
**EP 0543965 B1 19961218 (DE)**

Application  
**EP 92911473 A 19920610**

Priority  
• DE 4120352 A 19910619  
• DE 9200480 W 19920610

Abstract (en)  
[origin: DE4120352A1] In centrifugally-controlled total rotation speed regulators which control the full-load charge of the appropriate fuel injection pump in accordance with the charge pressure, the hot-starting charge is to be reduced at higher engine operating temperatures to prevent sudden smoke emission. To this end, besides a basic support (26), the rotation speed regulator has a supplementary support (28) which is fitted to rotate on the basic support (26) and to pivot between two setting stops (31, 32). In addition to a full-load stop (27) on the basic support (26), the supplementary support (28) has an additional stop (33) which can be moved transversely to the direction of rotation of the basic support (26) by a matching unit (41) in accordance with the charge pressure. The setting stop (31) takes the form of a temperature-controlled adjuster (31). It positions the additional stop (33) in such a way that a sensor (39), the position of which determines the richness of the fuel mixture, moves the additional stop (33) out of the detection range of the sensor (39) when the internal combustion engine is running at low temperature and thus provides for the necessary rich fuel mixture, whereas with the engine hot, when it is started the additional stop (33) pivots into the detection range of the sensor (39), thus limiting the richness of the fuel mixture and preventing the sudden emission of smoke on hot-starting.

IPC 1-7  
**F02D 1/10**; **F02M 59/44**

IPC 8 full level  
**F02D 1/10** (2006.01); **F02D 1/10** (2006.01); **F02M 59/44** (2006.01)

CPC (source: EP US)  
**F02D 1/10** (2013.01 - EP US); **F02M 59/447** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**DE 4120352 A1 19921224**; **DE 4120352 C2 19980115**; DE 59207719 D1 19970130; EP 0543965 A1 19930602; EP 0543965 B1 19961218; JP H06500616 A 19940120; US 5307775 A 19940503; WO 9222739 A1 19921223

DOCDB simple family (application)  
**DE 4120352 A 19910619**; DE 59207719 T 19920610; DE 9200480 W 19920610; EP 92911473 A 19920610; JP 51121092 A 19920610; US 97742493 A 19930209