

Title (en)

PROCESS FOR ADJUSTING QUANTITIES OF AIR AND FUEL IN A MULTI-CYLINDER INTERNAL COMBUSTION ENGINE.

Title (de)

VERFAHREN ZUM EINSTELLEN VON LUFT- UND KRAFTSTOFFMENGEN FÜR EINE MEHRZYLINDRIGE BRENNKRAFTMASCHINE.

Title (fr)

PROCEDE DE REGLAGE DES QUANTITES D'AIR ET DE CARBURANT DANS UN MOTEUR A COMBUSTION INTERNE A PLUSIEURS CYLINDRES.

Publication

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Application

EP 90910552 A 19900724

Priority

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Abstract (en)

[origin: WO9104401A1] In a process for adjusting the quantities of air and fuel in a multi-cylinder internal combustion engine with individual injection for each cylinder as far as possible, the quantity of fuel for each injection cycle is calculated taking account of the probable inlet pipe pressure during the period of opening of the inlet valve. After a change in the position of the accelerator pedal the throttle valve is not adjustable until the quantities of fuel dictating the new throttle valve setting have been calculated and essentially injected. Because the quantities of fuel to be injected are calculated with reference not to the current flow of air but to the determinant inlet pipe pressure during the inlet cycle and as a change in the throttle valve control which would cause a change in the inlet pipe pressure not taken into account in the injection quantity calculation is permitted only after a fresh calculation, there is, even with the internal combustion engine in unstable modes, an optimum ratio between the quantities of fuel and air per injection to maintain a predetermined air/fuel ratio. Besides the future inlet pipe pressure, account is also taken in calculating the quantity of fuel to be injected of the quantity of fuel which is transferred to or released from a wall film.

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WO 9104401 A1 19910404; AU 6037690 A 19910418; AU 630994 B2 19921112; BR 9006916 A 19911126; DE 3930396 A1 19910321; DE 3930396 C2 19931104; DE 59004343 D1 19940303; EP 0441908 A1 19910821; EP 0441908 B1 19940119; ES 2049478 T3 19940416; JP 2877511 B2 19990331; JP H04501904 A 19920402; KR 0151707 B1 19981001; KR 920701644 A 19920812; RU 2027051 C1 19950120; US 5095874 A 19920317

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