

Title (en)

FUEL SUPPLY SYSTEM OF AN INTERNAL COMBUSTION ENGINE

Title (de)

KRAFTSTOFFVERSORGUNGSANLAGE EINER BRENNKRAFTMASCHINE

Title (fr)

INSTALLATION D'ALIMENTATION EN CARBURANT D'UN MOTEUR A COMBUSTION INTERNE

Publication

**EP 1042607 B1 20041110 (DE)**

Application

**EP 99931007 A 19990504**

Priority

- DE 9901328 W 19990504
- DE 19834120 A 19980729

Abstract (en)

[origin: DE19834120A1] In preart fuel supply systems comprising two series-connected fuel pumps, it was not satisfactorily possible, despite great efforts, to obtain a sufficiently precise control of the fuel quantity delivered by the second fuel pump. In particular, the change-over time of a control valve which controls the fuel quantity was quite long up to now. To solve this problem, the invention provides a control valve (30') in which the electromagnet (62) for holding the valve element (66) in the depicted initial position is flown through with just enough electricity so that the valve element (66) remains in this position. A slight change in the flow-through of the electromagnet (62) permits the control valve (30') to then change over into the final position within an extremely short time. The fuel supply system is provided for an internal combustion engine of a vehicle.

IPC 1-7

**F02M 59/36**; **F02M 59/46**; **F02M 63/02**; **F02M 59/34**

IPC 8 full level

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CPC (source: EP US)

**F02D 41/3845** (2013.01 - EP US); **F02M 59/34** (2013.01 - EP US); **F02M 59/367** (2013.01 - EP US); **F02M 63/0017** (2013.01 - EP US); **F02M 63/0033** (2013.01 - EP US); **F02M 63/0035** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F02D 2041/2044** (2013.01 - EP US)

Cited by

CN101446247A; WO2012175248A1; DE102011077987A1; US9303582B2; WO2012175247A1; DE102011077991A1; US9777662B2

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