

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 A1 20001011 (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
F02D 41/38 (2006.01); **F02M 59/34** (2006.01); **F02M 59/36** (2006.01); **F02M 59/46** (2006.01); **F02M 63/02** (2006.01)

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)

Citation (search report)
See references of WO 0006894A1

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

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
DE 19834120 A1 20000203; DE 59911043 D1 20041216; EP 1042607 A1 20001011; EP 1042607 B1 20041110; JP 2002521615 A 20020716; JP 4217382 B2 20090128; US 6253734 B1 20010703; WO 0006894 A1 20000210

DOCDB simple family (application)
DE 19834120 A 19980729; DE 59911043 T 19990504; DE 9901328 W 19990504; EP 99931007 A 19990504; JP 2000562654 A 19990504; US 50950300 A 20000605