

Title (en)
FOUR-STROKE INTERNAL-COMBUSTION ENGINE

Publication
EP 0370218 B1 19930526 (DE)

Application
EP 89118790 A 19891010

Priority
DE 3839449 A 19881123

Abstract (en)
[origin: EP0370218A1] In a four-stroke internal-combustion engine, in particular for driving a motor vehicle, having gas exchange valves and an additional outlet valve for each cylinder, said outlet valve being adjustable by an actuating device, and having a throttle valve which is arranged in the outlet passage of the internal-combustion engine and is adjustable by an actuating device, the actuating devices being actuable by at least one directional control valve adjustable in dependence on a brake switch and braking of the internal-combustion engine being accomplished by opening the additional outlet valves and throttling the exhaust gases during the braking procedure, the braking of the internal-combustion engine is speed-dependent in that engine braking is cancelled below a limiting speed. <IMAGE>

IPC 1-7
F01L 13/06; F02D 13/04

IPC 8 full level
F01L 13/06 (2006.01); **F02D 9/06** (2006.01); **F02D 13/04** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP US)
F01L 13/06 (2013.01 - EP US); **F02D 13/04** (2013.01 - EP US); **F02B 2075/027** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
EP 0370218 A1 19900530; EP 0370218 B1 19930526; DE 3839449 A1 19900531; DE 58904491 D1 19930701; JP H02181012 A 19900713; JP H0432206 B2 19920528; US 5036811 A 19910806

DOCDB simple family (application)
EP 89118790 A 19891010; DE 3839449 A 19881123; DE 58904491 T 19891010; JP 29015489 A 19891109; US 43064289 A 19891031