

Title (en)  
Internal combustion engine.

Title (de)  
Brennkraftmaschine.

Title (fr)  
Moteur à combustion interne.

Publication  
**EP 0638707 A1 19950215 (EN)**

Application  
**EP 94112110 A 19940803**

Priority  

- JP 10840694 A 19940523
- JP 21105093 A 19930804

Abstract (en)  
[OBJECT] An engine brake device, which serves during engine braking to ensure a braking force by opening an exhaust valve of a cylinder near a top dead center in a compression stroke to discharge the compressed air, is utilized to provide an internal combustion engine which can attain exhaust gas recirculation. [CONSTRUCTION] In an internal combustion engine, in addition to an engine-braking master piston 2a for a cylinder actuated by a rocker arm 19a which in turn is actuated by a push rod 1a of another cylinder, an exhaust-gas-recirculation master piston 2b is provided which is actuated by a rocker arm 19b which in turn is actuated by a push rod 1b of the another cylinder to open an exhaust valve 8 in a suction stroke, thereby producing hydraulic pressure in the oil having been supplied to an oil passage 5. Further provided is an oil passage selector valve 11 for selectively switching over the hydraulic pressures produced by the engine-braking and exhaust-gas-recirculation master piston 2a to the oil passage. <IMAGE>

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**F01L 13/06**

IPC 8 full level  
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CPC (source: EP)  
**F01L 1/181** (2013.01); **F01L 13/065** (2013.01); **F02D 13/0273** (2013.01); **F02D 13/04** (2013.01); **F02M 26/01** (2016.02); **F02B 2075/027** (2013.01)

Citation (search report)  

- [A] FR 1269428 A 19610811
- [A] EP 0167267 A1 19860108 - JACOBS MFG CO [US]
- [A] US 4936273 A 19900626 - MYERS VAUGHN D [US]

Cited by  
CN110998072A; CN111212960A; US5794589A; EP1013913A4

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