

Title (en)

DEVICE FOR CARRYING THE GASES RELEASED BY THE CRANKCASE BACK INTO THE SYSTEM OF A SUPERCHARGED INTERNAL-COMBUSTION ENGINE

Publication

EP 0142092 B1 19880113 (DE)

Application

EP 84112998 A 19841029

Priority

CH 610683 A 19831114

Abstract (en)

[origin: US4557226A] In internal combustion engines (1), the sealing of the combustion chamber by pistons and piston rings is not absolute. Throughout the working cycle, gases from the cylinder enter the crankcase (1a). These blow-by gases must be able to escape from the crankcase (1a). In a device for returning the blow-by gases into the system of an internal combustion engine (1) supercharged with a gas-dynamic pressure-wave supercharger (10), it is envisaged that a gas delivery unit designed as an ejector (20) generates a reduced pressure in the crankcase (1a). The ejector (20) is operated with a propellant gas from a line (16) which is taken from the supercharger airline (13), a control (8) placed in the propellant gas line (16) ensuring that the reduced pressure in the crankcase (1a) never exceeds a defined value. The blow-by gases in the line (2) flow through an oil separator (4) and, mixed with the propellant gas in the line (16), are then returned into the exhaust line (15) of the engine system.

IPC 1-7

F01M 13/02

IPC 8 full level

F01M 13/00 (2006.01); **F01M 13/02** (2006.01); **F02B 33/42** (2006.01); **F02M 25/06** (2006.01); **F02B 1/04** (2006.01)

CPC (source: EP US)

F01M 13/00 (2013.01 - EP US); **F01M 13/02** (2013.01 - EP US); **F01M 2013/026** (2013.01 - EP US); **F01M 2013/027** (2013.01 - EP US); **F02B 1/04** (2013.01 - EP US)

Cited by

EP2431582A4; DE202008005363U1; DE4305122A1; EP0744534A3; DE102016209573A1; EP1813785A1; DE202006001287U1; DE20318633U1; DE112008001692B4; DE102016220770A1; EP3020934A1; DE102014223290A1; DE102015219203A1; US9932869B2; US10815939B2

Designated contracting state (EPC)

AT CH DE FR GB IT LI

DOCDB simple family (publication)

EP 0142092 A2 19850522; EP 0142092 A3 19850717; EP 0142092 B1 19880113; AT E31963 T1 19880115; CH 664798 A5 19880331; DE 3468721 D1 19880218; JP H0658053 B2 19940803; JP S60122213 A 19850629; US 4557226 A 19851210

DOCDB simple family (application)

EP 84112998 A 19841029; AT 84112998 T 19841029; CH 610683 A 19831114; DE 3468721 T 19841029; JP 23871984 A 19841114; US 67057584 A 19841113