

Title (en)
INTERNAL COMBUSTION ENGINE COMPRISING MEANS FOR RECIRCULATING EXHAUST AND TURBO BOOST GASES

Title (de)
BRENNKRAFTMASCHINE MIT ABGASRÜCKFÜHRUNGS- UND AUFLADUNGSVORRICHTUNG

Title (fr)
MOTEUR A COMBUSTION INTERNE COMPORTANT DES MOYENS DE RECIRCULATION DES GAZ D'ECHAPPEMENT ET DE SURALIMENTATION

Publication
EP 1012456 A1 20000628 (FR)

Application
EP 98942834 A 19980907

Priority
• FR 9801908 W 19980907
• FR 9711294 A 19970911

Abstract (en)
[origin: FR2768178A1] The invention concerns an internal combustion engine devoid of mechanical turbo boost means comprising n cylinders (C1,.....,C4) each provided with a piston with reciprocating translation movement, each cylinder being equipped with q exhaust valves and r induction valves, q and r being whole numbers not less than 1, each cylinder being, in an operating cycle, filled with air and fuel, a subsequent combustion with expansion supplying the energy delivered by the engine and an exhaust for evacuating burnt gases, the exhaust valves of n cylinders being connected to p exhaust manifold branches such that, on the same manifold branch, n' cylinders are coupled with $n' < n$ and $p < n$, each exhaust manifold branch (D) being connected to the exhaust gas outlet by a closure member (B) and connected to the atmosphere by at least one breather vent valve (SS) and each cylinder comprising, over part of its operating cycle, three successive phases phi 1, phi 2, phi 3, the n' groups of three phases of the whole set of n' cylinders connected to a common manifold branch covering the engine entire operating cycle.

IPC 1-7
F02B 27/00; **F02M 25/07**

IPC 8 full level
F02B 27/02 (2006.01); **F02B 27/00** (2006.01); **F02M 25/07** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP KR US)
F02B 27/00 (2013.01 - KR); **F02B 27/06** (2013.01 - EP US); **F02B 37/183** (2013.01 - EP US); **F02M 26/01** (2016.02 - EP US); **F02M 26/40** (2016.02 - EP US); **F02M 26/42** (2016.02 - EP US); **F02B 2075/025** (2013.01 - EP US); **F02B 2075/027** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US)

Citation (search report)
See references of WO 9913205A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
FR 2768178 A1 19990312; **FR 2768178 B1 19991119**; AU 9081598 A 19990329; BR 9812636 A 20000822; CN 1269866 A 20001011; EP 1012456 A1 20000628; JP 2001515986 A 20010925; KR 20010023886 A 20010326; US 6308666 B1 20011030; WO 9913205 A1 19990318

DOCDB simple family (application)
FR 9711294 A 19970911; AU 9081598 A 19980907; BR 9812636 A 19980907; CN 98808970 A 19980907; EP 98942834 A 19980907; FR 9801908 W 19980907; JP 2000510970 A 19980907; KR 20007002569 A 20000310; US 48581100 A 20000214