

Title (en)

SELF-PRESSURE-REGULATING COMPRESSED AIR ENGINE COMPRISING AN INTEGRATED ACTIVE CHAMBER

Title (de)

SELBSTDRUCKREGELNDER DRUCKLUFTMOTOR MIT INTEGRIERTER AKTIVER KAMMER

Title (fr)

MOTEUR À AIR COMPRIMÉ À CHAMBRE ACTIVE INCLUSE ET AUTODÉTENDEUR

Publication

EP 2625400 A1 20130814 (FR)

Application

EP 11764537 A 20111003

Priority

- FR 1058037 A 20101005
- EP 2011067212 W 20111003

Abstract (en)

[origin: WO2012045694A1] The invention relates to a multimode engine comprising an included active chamber, having a cylinder (1) and a piston (2) that divides the cylinder into an active chamber (CA) and an expansion chamber (CD), and in which: compressed air contained in a tank (12) directly feeds the intake of the engine cylinder (1); the included active chamber (CA) is filled at a constant admission pressure at each engine revolution, said admission pressure decreasing as the pressure in the tank decreases; the volume of the included active chamber (CA) increases progressively as the pressure in the tank (12) decreases; means enable not only the admission opening and conduit (7) to be opened essentially at the top dead centre of the stroke of the piston, but also the modification of the duration and/or the angular sector of the admission, in addition to the opening passage section; and the volume of the included active chamber (CA) is dimensioned for maximum storage pressure, and is then progressively increased, resulting in a self-pressure regulating engine.

IPC 8 full level

F02B 21/00 (2006.01); **F01B 17/02** (2006.01); **F01D 13/02** (2006.01); **F02M 31/04** (2006.01); **F02M 31/16** (2006.01); **F24S 90/00** (2018.01)

CPC (source: EP KR US)

F01B 17/02 (2013.01 - EP US); **F01B 17/022** (2013.01 - EP KR US); **F01B 29/10** (2013.01 - KR US); **F02B 21/00** (2013.01 - EP KR US); **F02M 31/042** (2013.01 - EP KR US); **F02M 31/163** (2013.01 - EP KR US); **F24S 90/00** (2018.04 - EP KR US); **Y02B 10/20** (2013.01 - EP KR US); **Y02E 10/46** (2013.01 - EP KR US); **Y02T 10/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2012045694A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 2965582 A1 20120406; **FR 2965582 B1 20160101**; AP 2013006794 A0 20130430; AP 3567 A 20160201; AU 2011311696 A1 20130411; AU 2011311696 B2 20160505; BR 112013008233 A2 20160614; CA 2810922 A1 20120412; CL 2013000827 A1 20140110; CN 103189612 A 20130703; CN 103189612 B 20150916; CO 6741150 A2 20130830; CR 20130194 A 20130827; CU 20130052 A7 20130731; DO P2013000065 A 20131130; DO P2013000066 A 20140316; EA 030098 B1 20180629; EA 201390480 A1 20130730; EP 2625400 A1 20130814; GE P20156345 B 20150810; IL 225297 A0 20130627; IL 225297 A 20160831; IN 611MUN2013 A 20150925; JP 2013538987 A 20131017; KR 101840895 B1 20180321; KR 20130139977 A 20131223; MA 34544 B1 20130902; MX 2013002593 A 20130821; MY 164600 A 20180130; NI 201300029 A 20130716; NZ 608168 A 20141224; PE 20140563 A1 20140510; SG 189273 A1 20130628; US 2013167520 A1 20130704; US 9045982 B2 20150602; WO 2012045694 A1 20120412; ZA 201302709 B 20140625

DOCDB simple family (application)

FR 1058037 A 20101005; AP 2013006794 A 20111003; AU 2011311696 A 20111003; BR 112013008233 A 20111003; CA 2810922 A 20111003; CL 2013000827 A 20130326; CN 201180048062 A 20111003; CO 13054377 A 20130319; CR 20130194 A 20130502; CU 20130052 A 20130404; DO 2013000065 A 20130325; DO 2013000066 A 20130325; EA 201390480 A 20111003; EP 11764537 A 20111003; EP 2011067212 W 20111003; GE AP2011013076 A 20111003; IL 22529713 A 20130318; IN 611MUN2013 A 20130402; JP 2013532150 A 20111003; KR 20137011561 A 20111003; MA 35769 A 20130325; MX 2013002593 A 20111003; MY PI2013001188 A 20111003; NI 201300029 A 20130314; NZ 60816811 A 20111003; PE 2013000784 A 20111003; SG 2013025341 A 20111003; US 201113823498 A 20111003; ZA 201302709 A 20130416