



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
04.03.2015 Bulletin 2015/10

(51) Int Cl.:
F02B 41/06 ^(2006.01) **F02M 25/07** ^(2006.01)

(43) Date of publication A2:
24.09.2014 Bulletin 2014/39

(21) Application number: **14461513.5**

(22) Date of filing: **12.03.2014**

(84) Designated Contracting States:
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 States:
BA ME

(71) Applicant: **Szczepanik, Piotr**
97-320 Wolborz (PL)

(72) Inventor: **Szczepanik, Piotr**
97-320 Wolborz (PL)

(74) Representative: **Ucinska, Julita**
Kancelaria Patentowa
ul. Strzelecka 8/15
PL-97-200 Tomaszow Mazowiecki (PL)

(30) Priority: **15.03.2013 PL 40316313**

(54) **Piston combustion engine**

(57) Piston combustion engine characterised in that the basic engine unit is formed by a pair of cylinders 1, 2 with separate combustion chambers 12, 13, connected with each other by means of at least one through-conduit 7, arranged at a height between the bottom dead centre of the piston and the top dead centre of the piston of each of the cylinders forming a pair, wherein the intake port of the through-conduit may be arranged at a different height

than the exhaust port of that conduit, whereby one of the cylinders of the pair comprises at least one intake port 8, and the other of the cylinders of the pair comprises at least one exhaust port, and yet further, the working cycle of one piston is shifted in phase relative to the cycle of the other piston by an angle $\alpha \geq 0^\circ$. The engine may include more than one basic unit, forming a pair.

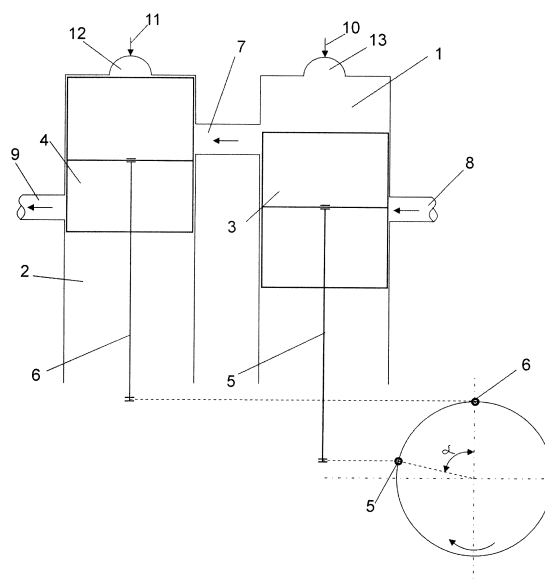


Fig.1



EUROPEAN SEARCH REPORT

Application Number
EP 14 46 1513

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 4 131 090 A (JARNUSZKIEWICZ STANISLAW) 26 December 1978 (1978-12-26) * abstract * * figures *	1-7	INV. F02B41/06 F02M25/07
X	WO 94/28300 A1 (ORBITAL ENG PTY [AU]; BROOKS ROY STANLEY [AU]; HOUSTON RODNEY ALEXANDE) 8 December 1994 (1994-12-08) * abstract * * figures *	1,2,4-7	
X	JP 2002 021568 A (HATTORI HACHIRO) 23 January 2002 (2002-01-23) * figures *	1,2,4-7	
X	EP 1 930 570 A1 (FORD GLOBAL TECH LLC [US]) 11 June 2008 (2008-06-11) * abstract * * figures *	1,2,4-7	
X	JP S47 23515 U (-) 16 November 1972 (1972-11-16) * figures *	1,2,4-7	TECHNICAL FIELDS SEARCHED (IPC)
X	JP S52 102910 A (IWATA SHIROHACHI) 29 August 1977 (1977-08-29) * figures *	1,2,4-7	F02B F02M
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 January 2015	Examiner Matray, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 46 1513

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-01-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4131090	A	26-12-1978	NONE
WO 9428300	A1	08-12-1994	BR 9406286 A 02-01-1996 CA 2162038 A1 08-12-1994 CN 1121741 A 01-05-1996 EP 0702751 A1 27-03-1996 JP H08510315 A 29-10-1996 WO 9428300 A1 08-12-1994
JP 2002021568	A	23-01-2002	NONE
EP 1930570	A1	11-06-2008	EP 1930570 A1 11-06-2008 US 2008134999 A1 12-06-2008
JP S4723515	U	16-11-1972	JP S4723515 U 16-11-1972 JP S5042889 Y2 08-12-1975
JP S52102910	A	29-08-1977	NONE