



(11) **EP 2 083 239 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
07.08.2013 Bulletin 2013/32

(51) Int Cl.:
F42B 12/46 (2006.01)
F42B 27/00 (2006.01)
F42B 12/48 (2006.01)

(43) Date of publication A2:
29.07.2009 Bulletin 2009/31

(21) Application number: **09380006.8**

(22) Date of filing: **22.01.2009**

(84) Designated Contracting States:
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 SE SI SK TR
Designated Extension States:
AL BA RS

(71) Applicant: **FALKEN, S.A.**
28021 Madrid (ES)

(72) Inventor: **Bardisa Jorda, Jose Ignacio**
28021 Madrid (ES)

(30) Priority: **22.01.2008 ES 200800145**

(74) Representative: **Carvajal y Urquijo, Isabel et al**
Clarke, Modet & Co.
c/ Goya, 11
28001 Madrid (ES)

(54) **Warhead with multiple effect units**

(57) The present invention refers to a fragmentable aerodynamic device comprising a body which comprises a series of gas-generating units (1, 2 and 3), each one of which has a cylindrical casing comprising a pan (4) and a closing lid (5), where there is a combustible mix (6), being the different casings axially coupled between one another, having one of the end units (3) an ignition fuse (8), where each one of the casings has an internal coaxial core (19) which is located between the bases of the casing and has an axial drill going through said bases, except for the external base of the end unit (1) which does not have the fuse (8), whose drill is designated for having a fire-transmitting mix (20); and **characterized in that** said casings have on their wall mutual coupling and fixing -means, which can be released by the pressure of the gases generated by the combustion of the transmission mix and the combustible mix contained in each casing.

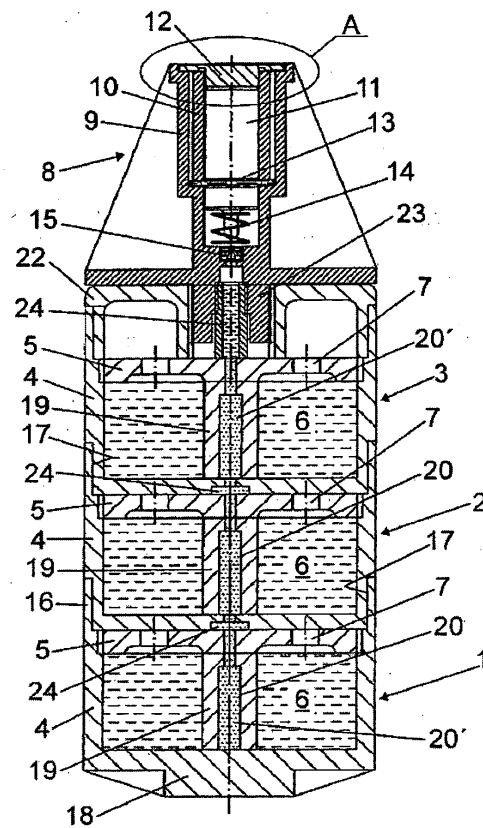


FIG. 1

EP 2 083 239 A3



EUROPEAN SEARCH REPORT

Application Number
EP 09 38 0006

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 5 983 801 A (BRUNN MICHAEL [US]) 16 November 1999 (1999-11-16) * column 2, line 9 - column 3, line 7; figures 1-4 *	1-7	INV. F42B12/46
A	DE 44 00 545 A1 (RAUFOSS AS [NO] RAUFOSS AS RAUFOSS [NO]) 4 August 1994 (1994-08-04) * column 6, line 11 - line 29 * * column 6, line 66 - column 7, line 28 * * figures 1,3 *	1-7	ADD. F42B12/48 F42B27/00
A	FR 2 758 879 A1 (NOBELSPORT [FR]) 31 July 1998 (1998-07-31) * page 5, line 29 - page 7, line 13; figure 1 *	1-7	
A	EP 1 296 112 A2 (FALKEN SA [ES]) 26 March 2003 (2003-03-26) * paragraphs [0029], [0031], [0032], [0035] - [0037], [0049]; figure 1 *	1-7	
A	WO 02/03018 A1 (BOFORS DEFENCE AB [SE]; ROENN TORSTEN [SE]; HEICHE ULF [SE]) 10 January 2002 (2002-01-10) * page 8, line 8 - line 22; figures 9,10 *	1-7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC) F42B
1	Place of search The Hague	Date of completion of the search 25 June 2013	Examiner Seide, Stephan
CATEGORY OF CITED DOCUMENTS		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	
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			

EPO FORM 1503 03/02 (P04/C01)

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

EP 09 38 0006

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.

25-06-2013

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5983801	A	16-11-1999	NONE	

DE 4400545	A1	04-08-1994	DE 4400545 A1	04-08-1994
			FR 2701107 A1	05-08-1994
			GB 2274905 A	10-08-1994
			NO 930376 A	04-08-1994
			SE 9304186 A	04-08-1994

FR 2758879	A1	31-07-1998	NONE	

EP 1296112	A2	26-03-2003	CA 2386274 A1	25-03-2003
			EP 1296112 A2	26-03-2003
			US 2003056680 A1	27-03-2003

WO 0203018	A1	10-01-2002	AU 7478901 A	14-01-2002
			DE 60119735 T2	26-04-2007
			EP 1297301 A1	02-04-2003
			ES 2261421 T3	16-11-2006
			IL 153620 A	17-02-2010
			SE 519807 C2	08-04-2003
			SE 0002486 A	04-01-2002
			US 2004139877 A1	22-07-2004
			WO 0203018 A1	10-01-2002
			ZA 200210376 A	10-02-2004
