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Search 4: blasting (Results 113311)
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Title: DETONATOR DEVICE COMMUNICATION

Abstract: A method of communicating with a detonator device using radio frequency identification (RFID) technology to read data from the device, and to transmit information and commands to the device.

Classifications:

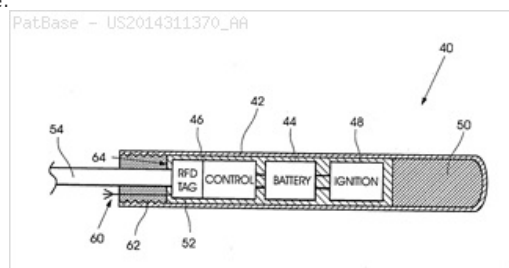
International (IPC 8-9): F42C 11/00 F42C 11/06 F42D

F42D 1/055 (Advanced/Invention);

F42D (Subclass/Invention)

CPC: F42D 1/055 F42C 11/001 F42C 11/065

US: 1/1 102/217



Family:

Publication number	Publication date	Application number	Application date
AU2012311993 AA	20130328	AU20120311993	20120921
AU2012311993 BB	20161027	AU20120311993	20120921
CA2844836 AA	20140210	CA20122844836	20120921
CA2844836 C	20180529	CA20122844836	20120921
DE602012015740 D1	20160428	DE201260015740T	20120921
EP2758748 A1	20140730	EP20120795317	20120921
EP2758748 B1	20160316	EP20120795317	20120921
ES2570202 T3	20160517	ES20120795317T	20120921
TR201605813 T4	20160621	TR20160005813T	20120921
US2014311370 AA	20141023	US20120346475	20120921
US9127921 BB	20150908	US20120346475	20120921
WO13044275 A1	20130328	WO2012ZA00058	20120921
ZA201400900 A	20141126	ZA20140000900	20140206

Priority:

ZA20110006918 20110922 EP20120795317 20120921 WO2012ZA00058 20120921

Probable Assignee: DETNET SOUTH AFRICA PTY LTD

Assignee(s): (std): DETNET SOUTH AFRICA PTY LTD

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Inventor(s): (std): MAURISSENS DANIEL AUGUST JULIEN LOUIS ; SCHLENTER CRAIG CHARLES ; KOEKEMOER ANDRE

Inventor(s): ANDRE KOEKEMOER

Agent(s): GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; PATENTANWALTE RUFF WILHELM BEIER DAUSTER AND PARTNER MBB; PATENTANWALTE RUFF WILHELM BEIER DAUSTER AND PARTNER; PATENTANWALTE RUFF WILHELM BEIER DAUSTER AND PARTNER MBB; CURELL MIREIA; FULYA SUEMERALP; CANTOR COLBURN LLP; MCCALLUM RADEMEYER AND FREIMOND ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DELAY COMPOSITIONS AND DETONATION DELAY DEVICES UTILIZING SAME

Abstract: A delay composition for a detonator or delay device. The composition comprising a mixture of silicon and barium sulfate, and an amount of red lead in the range of about 3 to 15 percent, and preferably 6 to 12 percent, by weight of the mixture. The invention also relates to a delay element comprising a rigid metal tube containing the delay composition, and a delay device incorporating the delay element.

Classifications:

International (IPC 8-9): C06B33/12 C06B43/00 C06B45/02 C06B45/04
C06B45/10 C06C5/04 C06C5/06 C06C7/00 F42B3/16

F42C19/12 (Advanced/Invention);

C06B33/00 C06C5/00 C06C7/00 F42B3/00 (Core/Invention)

International (IPC 1-7): C06B C06B033/12 C06B33/00 C06B33/12 C06C
C06C5/04 C06C5/06 C06C7/00 F42B3/16

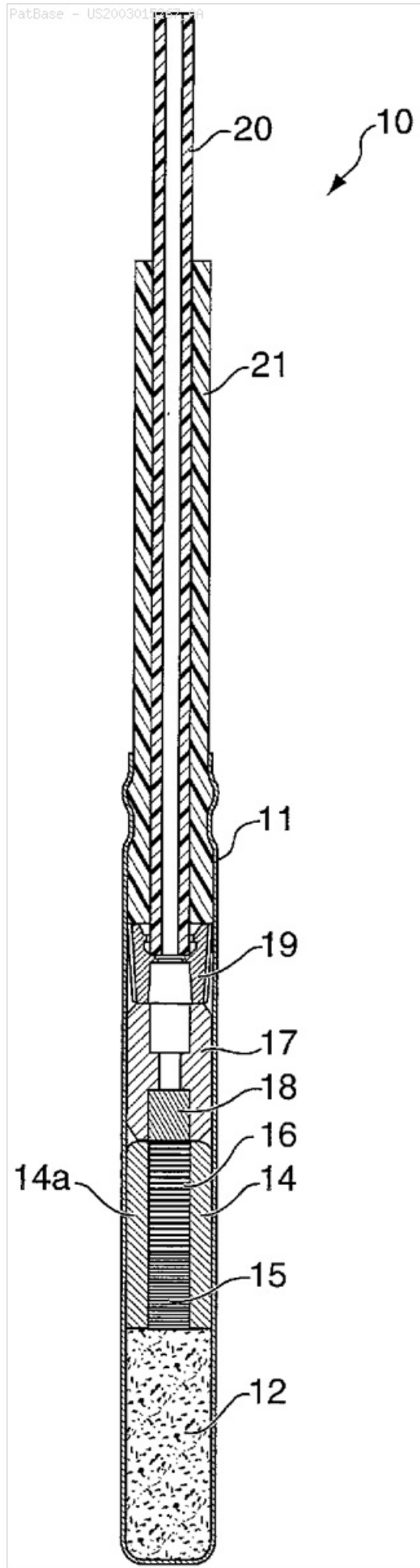
CPC: C06B33/12 C06C5/06 F42B3/16

European: C06B33/12 C06C5/06 F42B3/16

US: 102/202.13 102/202.130P 102/202.5 102/275 149/109.4

149/109.400S 149/17 149/17S 149/19.1 149/19.100P 149/19.2 149/21

149/37



Family:

Publication number	Publication date	Application number	Application date	
AU2002240749 AA	20020924	AU20020240749	20020307	
AU2002240749 BB	20050224	AU20020240749	20020307	
CA2340523 AA	20020909	CA20012340523	20010309	
CA2340523 C	20090602	CA20012340523	20010309	
SE200302370 A	20031110	SE20030002370D	20030904	
SE200302370 A0	20030904	SE20030002370	20030904	
SE200302370 L	20031110	SE20030002370	20030904	
SE524533 C2	20040824	SE20030002370	20030904	
US2003015267 AA	20030123	US20010895334	20010702	
US2008223242 AA	20080918	US20070977921	20071025	
US2012060983 AA	20120315	US20110302186	20111122	
US8066832 BB	20111129	US20070977921	20071025	
WO02072504 A1	20020919	WO2002CA00308	20020307	
ZA200306414 A	20040818	ZA20030006414	20030818	

Priority:

CA20012340523 20010309 US20010895334 20010702 WO2002CA00308 20020307
US20070977921 20071025 US20110302186 20111122

Probable Assignee: ORICA EXPLOSIVES TECHNOLOGY PTY LTD

Assignee(s): (std): AUBE REJEAN ; ORICA EXPLOSIVES TECH PTY LTD ; ORICA EXPLOSIVES TECHNOLOGY PTY LTD

Inventor(s): (std): AUBE REJEAN ; REJEAN AUBE

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; KIRBY EADES GALE BAKER; NIXON AND VANDERHYE PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: A SHELL FOR USE IN **BLASTING**

Abstract: A shell for use in **blasting**, the shell comprising an elongated body, the elongated body having a distal end arranged for housing an explosive material, a proximal end arranged to permit introduction of at least one detonator into an interior of the shell, and a cavity for holding the at least one detonator in a location in which operation of the detonator results in explosion of the explosive material, wherein a slot is provided in a sidewall of the shell to allow an activation lead connected to the detonator to pass through the slot to an exterior of the shell, and wherein the slot includes at least one retaining protrusion to retain the activation lead against withdrawal of the activation lead from the slot.

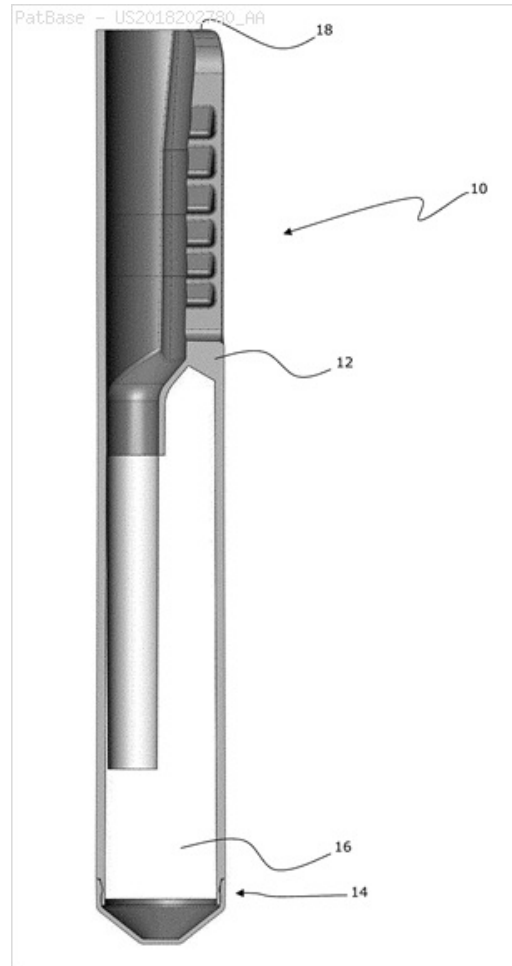
Classifications:

International (IPC 8-9): F42B3/10 F42B3/26 F42D1/04

F42D3/04 (Advanced/Invention);

F42D3/04 (Advanced/Non-invention)

CPC: F42D1/043 F42B3/26 F42D3/04



Family:

Publication number	Publication date	Application number	Application date
AU2015283666 AA	20170119	AU20150283666	20150701
CA2953686 AA	20161223	CA20152953686	20150701
CL2016003381 A1	20171006	CL20160003381	20161229
EP3164664 A1	20170510	EP20150815245	20150701
EP3164664 A4	20180228	EP20150815245	20150701
MX2017000186 A1	20170822	MX20170000186	20150701
US2018202780 AA	20180719	US20150322800	20150701
WO16001850 A1	20160107	WO2015IB54946	20150701

Priority:

AU20140902540 20140702 WO2015IB54946 20150701

Probable Assignee: ORICA INT PTE LTD

Assignee(s): (std): ORICA INT PTE LTD

Assignee(s): WEN YU ; BOOS THOMAS

Inventor(s): (std): WEN YU ; BOOS THOMAS ; THOMAS BOOS ; YU WEN

Agent(s): DAVIES COLLISON CAVE PTY LTD; GOWLING WLG CANADA LLP; SARGENT AND KRAHN; HEPP WENGER RYFFEL AG

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Programmable electronic timer circuit

Abstract: A programmable timer circuit (18) includes a counter (22) that contains a plurality of sequentially arranged counter stages (22a, 22b). A toggle logic gate (25) is disposed between each sequential pair of counter stages to accept the output signal from the preceding stage and to issue an input signal to the succeeding counter stage. The logic state of the input signal is determined by the logic state of the preceding output signal and the logic state of a program stage signal from an associated program stage. The logic state of the program signal is determined by the state of a fuse (F) associated with the program stage. Selected fuses can be blown by a programming routine to adjust the time delay between the initiation signal and issuance of the output signal. This sets the counter stages at power-up to a predetermined logic state in which the output signal will be produced with a predetermined time delay when the initiation signal is applied to the integrated circuit. The program routine includes activating the counter stages that will be active at the desired count and issuing a programming signal to burn the fuse associated with the active counter stage.

Classifications:

International (IPC 8-9): F42B3/12 F42B3/16 F42C11/06 F42C19/08 F42C21/00 F42D1/00 F42D1/05 G04C23/50 G04F3/00

H03K17/28 (Advanced/Invention);

G04F3/00 (Advanced/Non-invention);

F42B3/00 F42C11/00 F42C19/00 F42D1/00 G04C23/00

G04F3/00 (Core/Invention)

International (IPC 1-7): F23Q F42B3/16 F42C11/00 F42C11/06 F42C19/08 F42C21/0 F42C21/00 F42D01/00 F42D1/0 F42D1/00 F42D1/05 G04C23/50 G04F3/00 G04G15/00 H01H43/02 H03K H03K17/28 H03K23/58

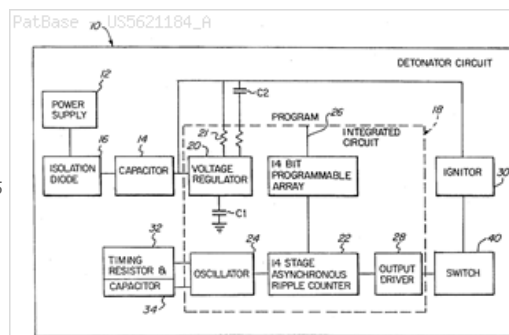
CPC: F42B3/122

European: F42B3/12B2

US: 102/206 102/215

JP F-Term: 2C014 2C094 2F081 2F081/AA00 2F081/BB01 2F081/DD00 2F081/EE06 2F081/FF11 2F081/GG01 2F081/GG09 2F081/HH01 2F081/JJ03

JP F-Index: F42B3/16 F42C11/06 F42D1/05 G04F3/00/301/E



Family:

Publication number	Publication date	Application number	Application date
AR001591 AA	19971126	AR19960336116	19960410
AU199654389 A1	19961107	AU19960054389	19960401
AU690451 B2	19980423	AU19960054389	19960401
BRPI9609672 A	19990706	BR1996P109672	19960401
CA2215326 AA	19970912	CA19962215326	19960401
CA2215326 C	20001114	CA19962215326	19960401
CL1996000537 A1	19970108	CL19960000537	19960404
CL42753 B	20060526	CL19960000537	19960404
DE69611038 D1	20001228	DE19966011038	19960401
DE69611038 T2	20010322	DE19966011038T	19960401
EP0828988 A1	19980318	EP19960911525	19960401
EP0828988 A4	19980708	EP19960911525	19960401
EP0828988 B1	20001122	EP19960911525	19960401
ES2155935 T3	20010601	ES19960911525T	19960401
IN188382 A	20020914	IN1996BO00187	19960404
JP10510915 T2	19981020	JP19960531759T	19960401
JP3027611 B2	20000404	JP19960531759	19960401
MX9707789 A1	19971231	MX19970007789	19960401
NO974663 A	19971208	NO19970004663	19971009
NO974663 A0	19971009	NO19970004663	19971009
NO974663 L	19971208	NO19970004663	19971009
PE46397 A1	19971123	PE19960000249	19960409
RU2129295 C1	19990420	RU19970118674	19960401
US5621184 A	19970415	US19950420991	19950410
WO9633384 A1	19961024	WO1996US04471	19960401
ZA9602523 A	19961007	ZA19960002523	19960329

Priority:

US19950420991 19950410 WO1996US04471 19960401

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Inventor(s): JAMES C III GWINN

Agent(s): APT PATENT AND TRADE MARK ATTORNEYS; SIM AND MCBURNEY; VILLASECA

Designated states: AT AU BE BR CA CH CN DE DK ES FI FR GB GR IE IT JP LU MC MX NL NO PT RU SE UA

Title: Precision delay detonator

Abstract: A delay detonator for detonating an **explosive charge** includes a tubular member having a closed end and an open end, a primary base charge disposed in the closed end of the tubular member and capable of detonating the **explosive charge** when ignited, a delay train charge disposed adjacent to the primary base charge for burning in response to an ignition signal to thus ignite the primary base charge, an ignition source disposed in the tubular member near the open end for developing an ignition signal, and a transition element disposed between the delay train charge and the ignition source and responsive to an ignition signal from the ignition source for igniting to achieve a substantially steady state combustion rate to the ignite the delay train charge.

Classifications:

International (IPC 8-9): C06C5/06 C06C7/00 F42B3/16

F42C19/08 (Advanced/Invention);

C06C7/00 (Advanced/Non-invention);

C06C5/00 C06C7/00 F42B3/00 (Core/Invention)

International (IPC 1-7): C06B C06C7/00 F41C19/08 F42B3/10 F42B3/16 F42C19/08

CPC: C06C5/06 F42B3/10 F42B3/16

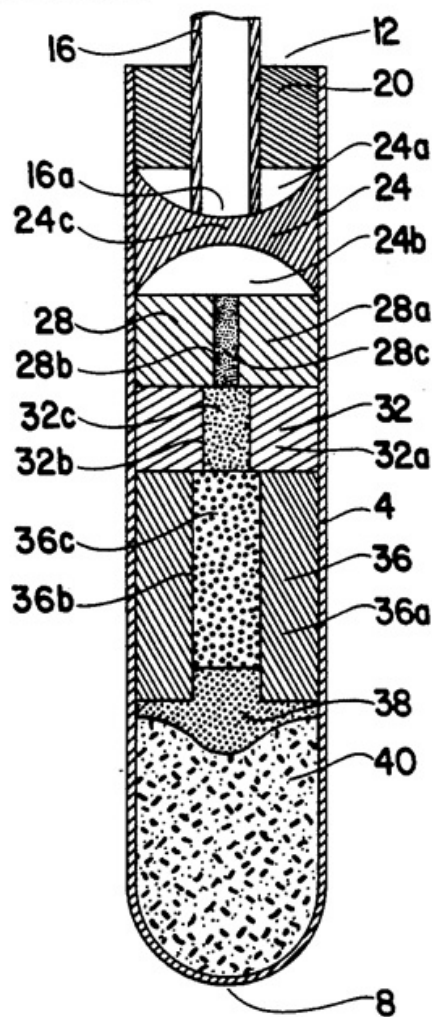
European: C06C5/06 F42B3/10 F42B3/16

US: 102/202.13 102/202.14 102/204 102/275.11

JP F-Term: 4H100

JP F-Index: C06C7/00

PatBase - US5182417_A



Family:

Publication number	Publication date	Application number	Application date
AT134762 E	19960315	AT19900314257T	19901224
AU199168626 A1	19910808	AU19910068626	19910102
AU629444 B2	19921001	AU19910068626	19910102
CA2035126 AA	19910731	CA19912035126	19910129
CA2035126 C	19990914	CA19912035126	19910129
DE69025584 D1	19960404	DE19906025584	19901224
DE69025584 T2	19960718	DE19906025584T	19901224
EP0439955 A2	19910807	EP19900314257	19901224
EP0439955 A3	19920603	EP19900314257	19901224
EP0439955 B1	19960228	EP19900314257	19901224
ES2086387 T3	19960701	ES19900314257T	19901224
JP4214088 A2	19920805	JP19910023724	19910125
NO905331 A	19910731	NO19900005331	19901210
NO905331 A0	19901210	NO19900005331	19901210
NO905331 L	19910731	NO19900005331	19901210
US5182417 A	19930126	US19910759113	19910906
ZA9010043 A	19911030	ZA19900010043	19901213

Priority:

US19900472350 19900130

CA19912035126 19910129

US19910759113 19910906

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Inventor(s): (std): BIGANDO DONALD ; WOLFEIL FRANK ; RONTEY DANIEL C

Inventor(s): WOLFEIL FRANK KINGSTON NEW YORK 12401 US ; FURANKU UORUFUAIKU ; DONARUDO BIGANDO ; DANIERU SHII RONTEI ; FRANK WOLFEIL ; DANIEL C RONTEY ; DONALD BIGANDO ; BIGANDO DONALD LAKE KATRINE NEW YORK 12449 US

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Designated states: AT BE DE ES FR GB IT SE