

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
RAD: 13-43288- -4	FECHA: 2015-03-30 11:21:34
DEP: 2020 DIRECCION DE NUEVAS CREACIONES	EVE: 1 REGISTRO/DEPOSITO/CONCESION/DEPOSITO
TRA: 2 PATENTES DE INVENCION	FOLIOS: 9
ACT: 519 TRASLADOINFORME	

DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado(a)/Señor(a)
DIEGO MUÑOZ MARROQUIN

Asunto: Radicación: 13-43288- -4
 Trámite: 2
 Evento: 1
 Actuación: 519
 Oficio: 3418
 Folios: 9

Patente de Invención	X			Patente de Modelo de Utilidad	
Vía Nacional	X				
Vía PCT (Fase Nacional)		Capítulo I		Capítulo II	
No. Solicitud Internacional					
Fecha de Presentación Internacional					

Como resultado del Examen de Fondo realizado, con fundamento en el Artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

1. Documentos estudiados

Descripción:	Rad. N° 13-043288-00000-0000	04/marzo/2013
Reivindicaciones:	Rad. N° 13-043288-00000-0000	04/marzo/2013
Dibujos:	Rad. N° 13-043288-00000-0000	04/marzo/2013

2. Objeto de la invención

De acuerdo con lo establecido en el numeral 1.2.2.2 del Capítulo Primero del Título X de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por el solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10) reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. Por lo tanto, se estudiarán las reivindicaciones 1 a 10.

Título de la solicitud: “Vehículo antiexplosivo ligero con brazo manipulador y cañón disruptor y método de neutralización de artefactos explosivos”. (Fl. 1)

El problema planteado en esta solicitud consiste en proporcionar un vehículo móvil anti explosivos fácil de transportar por dos personas, con capacidad para operar en interiores o exteriores, que pueda ser introducido en lugares de difícil acceso donde haya amenaza de peligro, con funciones que lo habiliten para manipular y monitorear los objetos sospechosos mediante un sistema remoto de control el cual sea operado por expertos antiexplosivos.

Para resolver este problema técnico, la solicitud en estudio plantea proporcionar un vehículo anti explosivos ligero que está conformado por un chasis el cual está soportado por dos orugas de movimiento paralelas a los costados del chasis, las cuales presentan una estructura cuyo movimiento es impartido por medio de dos motores eléctricos independientes acoplados a las ruedas traseras de las orugas. Sobre el chasis se encuentra la caja del sistema del control embebido de la máquina y la caja de fuentes. Asimismo se proporciona el método para llevar a cabo la neutralización de aparatos explosivos por medio de la manipulación indirecta de este vehículo anti explosivos.

El objeto de la presente Solicitud se relaciona con la Clasificación Internacional de Patentes (CIP): B 08 B 9/08; B 66 C 9/00; B 63 G 7/02.

3. De la Solicitud de Patente

Reivindicaciones (Art 30 D 486, Art 22 PCT)

El sistema ELMO en la reivindicación 1, así como en la descripción, describe una característica técnica conocida. No se admiten las referencias de componentes del producto mediante marcas registradas, puesto que la composición puede cambiar con el paso del tiempo, aunque conserve el mismo nombre. Se Debe ser explícito con los componentes, o bien, retirar la palabra ELMO, ya que esto es solo un sistema electrónico de control maestro.

4. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de presentación de la solicitud nacional, es decir 4 de marzo de 2013, y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

Ítem	Documento	Título	Fecha de Publicación
D1	US 5´561.883	“Tank cleaning system using remotely controlled robotic vehicle”	08/octubre/1996
D2	US 5´022.812	“Small all terrain mobile robot”	111/junio/1991
D3	US 6´802,237	“System and method for neutralization of mines using robotics and penetrating rods”	12/octubre/2004
D4	CA 2043825	“Method of detecting explosives and other substances in samples of ground material”	05/diciembre/1992

El documento D1¹ revela métodos y aparatos se dan a conocer para la limpieza de los contenedores de almacenamiento utilizados en petroquímica o refinerías de petróleo. Un vehículo robótico dual de orugas controlable a distancia se coloca en un recipiente a limpiar. Un material diluyente líquido de limpieza se dirige contra el material de desecho en el contenedor haciendo que una parte de ella para formar una suspensión que se aspiraron a cabo por una boquilla y la manguera llevado por el vehículo. (Resumen).

El documento D2² revela un vehículo controlado a distancia para atravesar diversos terrenos para llevar a cabo misiones en un entorno hostil. Este vehículo es suficientemente pequeño a fin de permitir la introducción en el medio ambiente a través de un agujero de hombre, y está diseñado de modo que pueda ser operado mientras sumergida. (Resumen).

El documento D3³ revela un sistema y método para neutralizar mina autónoma que tiene un vehículo de orugas que tiene una carcasa sellada, fuente de alimentación y accionada por motor para conjuntos de orugas en lados opuestos de la carcasa. (Resumen).

El documento D4⁴ revela un método para detectar la presencia de sustancias, tales como explosivos, contaminantes ambientales, hidrocarburos y materiales orgánicos, en una muestra de material del suelo compuesta de suelo, una capa de micro de suelo, líquido, o una combinación de los mismos se presenta. (Resumen).

5. Examen de Patentabilidad (Art 14 D486)

Nivel inventivo (Art18 D486)

La reivindicación 1 consiste en “*Un vehículo antiexplosivo ligero con brazo manipulador y cañón disruptor conformado por una plataforma impulsada por orugas, un brazo manipulador con una pinza en su extremo libre y un cañón disruptor...*” (Ver página 30 del radicado N° 13-043288-00000-0000).

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características Esenciales	D1	D2
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1[http://worldwide.espacenet.com/publicationDetails/biblio?
CC=US&NR=5561883A&KC=A&FT=D&ND=3&date=19961008&DB=worldwide.espacenet.com&locale=en_EP](http://worldwide.espacenet.com/publicationDetails/biblio?CC=US&NR=5561883A&KC=A&FT=D&ND=3&date=19961008&DB=worldwide.espacenet.com&locale=en_EP)

2[http://worldwide.espacenet.com/publicationDetails/biblio?
CC=US&NR=5022812A&KC=A&FT=D&ND=3&date=19910611&DB=worldwide.espacenet.com&locale=en_EP](http://worldwide.espacenet.com/publicationDetails/biblio?CC=US&NR=5022812A&KC=A&FT=D&ND=3&date=19910611&DB=worldwide.espacenet.com&locale=en_EP)

3[http://worldwide.espacenet.com/publicationDetails/biblio?
CC=US&NR=6802237B1&KC=B1&FT=D&ND=&date=20041012&DB=&locale=en_EP](http://worldwide.espacenet.com/publicationDetails/biblio?CC=US&NR=6802237B1&KC=B1&FT=D&ND=&date=20041012&DB=&locale=en_EP)

4[http://worldwide.espacenet.com/publicationDetails/biblio?
CC=CA&NR=2043825A1&KC=A1&FT=D&ND=&date=19921205&DB=&locale=en_EP](http://worldwide.espacenet.com/publicationDetails/biblio?CC=CA&NR=2043825A1&KC=A1&FT=D&ND=&date=19921205&DB=&locale=en_EP)

Un vehículo antiexplosivo ligero con brazo manipulador y cañón disruptor conformado por una plataforma impulsada por orugas, un brazo manipulador con una pinza en su extremo libre y un cañón disruptor	Un vehículo robótico móvil 12 controlable a distancia, vehículo siendo controlable desde fuera una línea de visión directa de un operador dijo, dicho vehículo robótico móvil capaz de dirigir una corriente de dicho líquido de limpieza sobre dicho material de desecho en una cantidad suficiente para provocar un flujo de al menos una parte del mismo. (Reiv. 1)	Un vehículo todo terreno adaptado para operación de control remoto en entornos potencialmente hostiles, incluyendo la operación cuando está sumergido, que comprende: un chasis principal que tiene un extremo delantero y un extremo trasero, dicho chasis principal equipado con un par de ruedas dentadas giratorias en cada lado sobre el mismo. (Reiv. 1)
El brazo manipulador está soportado por medio de una articulación de cadera	El brazo 69 soporta un tubo de suministro de pivote 70 montado 64 que suministra diluyente se calienta a través del tubo conector 73 y el cable umbilical / manguera 18, 19 (Fig. 1) y a través de conector de la manguera 74 (Fig. 2). (Col. 3, líneas 49 a 53)	Una unidad manipulable brazo montado de manera pivotante sobre dicho chasis principal 12, dicha unidad de brazo que tiene una articulación de hombro 70 que proporciona para la rotación alrededor de al menos un eje horizontal con respecto a dicho chasis principal 12, una articulación del codo 74 que proporciona para la rotación alrededor de un eje horizontal con respecto a dicho chasis principal, (Reiv. 1, ver Fig. 5)
La cadera tiene un sistema de fijación y soporte conformado por una barra de tensión	No menciona	
El extremo inferior del brazo se acopla a la cadera por medio de una articulación.	No menciona	
La parte inferior del brazo se acopla a la parte superior del brazo mediante una articulación.	El tubo de suministro 64 está montado de forma pivotante en 70 y suministra el diluyente a la boquilla 13 que está posicionada por un actuador hidráulico 13 montado en la plataforma 71. (Col. 3, líneas 53 a 55)	Una articulación del codo 74 que proporciona para la rotación alrededor de un eje horizontal con respecto a dicho chasis principal 12, una parte de brazo superior unir dicho articulación del hombro 70 con dicha articulación del codo 74 y una parte del antebrazo unido por un extremo a dicha articulación del codo 74. (Reiv. 1, ver Fig. 5)
En el extremo libre del brazo manipulador se ubica la cámara IP y una pinza, y esta última se acopla al extremo superior del brazo por medio de una articulación de muñeca	Una cámara de vídeo y una fuente de luz 14 están unidos a la boquilla 13 de manera que las señales de vídeo del mismo pueden ser monitoreado en la pantalla del monitor de vídeo consola de control 24 a través del cable umbilical / manguera 18, 19. (Col. 2, líneas 65 a 67)	No menciona
La oruga está conformada por un sistema de ruedas impulsoras donde cada una está acoplada a un motor eléctrico.	Una plataforma de carrocería de vehículo 71 está provista de doble oruga pistas 16, uno a cada lado, y que son independientemente hidráulicamente operables como se discutirá con más detalle posteriormente. (Col. 3, líneas 39 a 44) Las ruedas de soporte se muestran en la figura 1.	Un par de ruedas dentadas 18, 20 (Fig. 2) y un sistema para la rotación de éstas 21 (Fig. 1)
Una placa de soporte se acopla a la rueda impulsora y a su vez una pluralidad de ruedas de soporte, las cuales se distribuyen de forma proporcional a lo largo de la banda de la oruga		No menciona

Un servo driver acoplado al brazo manipulado controlado por medio de un sistema de control, el cual está conformado por una estación de control, un mando remoto y un sistema maestro ELMO.	La consola de control 22 está provisto de un panel de control 25 que contiene los controles y los interruptores apropiados, que se discutirá en más detalle más adelante, para controlar el funcionamiento del aparato de vehículo 12 y la cámara 42 y la fuente de luz 42A desde un entorno seguro controlada, remoto ubicación mientras el vehículo 12 se despliega en el tanque para ser limpiada. (Col. 3, líneas 5 a 12)	No menciona
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Los documentos D1 y D2 se consideran el estado de la técnica cercano a la invención definida por la reivindicación 1 porque divulgan dispositivos robóticos para irrumpir en territorios hostiles.

La diferencia entre la invención, definida por la reivindicación 1, y el robot del documento D1 consiste en que este último no divulga la rotación por medio de una articulación de cadera.

La diferencia entre la invención, definida por la reivindicación 1, y el robot del documento D2 consiste en que este último no divulga el sistema de toma y transmisión de datos además del sistema de control.

El efecto que logra el incluir la rotación por medio de una articulación de cadera, es el de realizar giros sobre el eje vertical para tener una visión de 360 grados en el campo de acción del robot.

Por lo tanto, el problema técnico objetivo que pretende resolver esta invención se puede formular así: ¿Cómo modificar el dispositivo del documento D1 para realizar giros sobre el eje vertical y tener una visión de 360 grados en el campo de acción del robot?

Sin embargo, el documento D2 muestra la comunicación entre el primer y segundo diodo: *“Una unidad manipulable brazo montado de manera pivotante sobre dicho chasis principal, dicha unidad de brazo que tiene una articulación de hombro que proporciona para la rotación alrededor de al menos un eje horizontal con respecto a dicho chasis principal, una articulación del codo que proporciona para la rotación alrededor de un eje horizontal con respecto a dicho chasis principal,”* (Reiv. 1)

En consecuencia, la persona del oficio normalmente versada en la materia, incluiría la rotación por medio de una articulación de cadera del documento D2 para llegar así al objeto de la reivindicación 1 de la solicitud. Por lo cual se considera que ésta es obvia.

Las reivindicaciones dependientes de la reivindicación 1 se encuentran afectadas de la siguiente manera por los documentos D1 y D2:

- Reivindicaciones 2 y 4: El documento D1 menciona las cámaras (14, 42) para la ubicación del dispositivo y la consola de control del dispositivo (22): *“La consola de control 22 está provisto de un panel de control 25 que contiene los controles y los interruptores apropiados, que se discutirá en más detalle más adelante, para controlar el funcionamiento del aparato de vehículo 12 y la cámara 42 y la fuente de luz 42A desde un entorno seguro controlada, remoto ubicación mientras el vehículo 12 se despliega en el tanque para ser limpiada”.* (Col. 3, líneas 5 a 12)

Por su parte, la reivindicación 6 consiste en *“Un método para neutralizar aparatos explosivos por medio de la manipulación indirecta de un vehículo antiexplosivos conformado por una plataforma impulsada por orugas, un brazo manipulador y un cañón disruptor...”* (Ver página 32 del radicado N° 13-043288-00000-0000).

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características Esenciales	D3	D4
Un método para neutralizar aparatos explosivos por medio de la manipulación indirecta de un vehículo antiexplosivos conformado por una plataforma impulsada por orugas, un brazo manipulador y un cañón disruptor.	Un método de neutralización de minas de forma autónoma. (Reiv. 14)	Un método para detectar la presencia de sustancias en una muestra de material del suelo. (Reiv. 1)
Se configuran los motores de acuerdo a los parámetros iniciales y los datos de configuración almacenados en un archivo de texto T1	Generar señales segundo control en una computadora de dicho módulo de control / comunicaciones, dichas señales segundo de control se generan a partir de las señales acústicas recibidas en un transductor acústico sobre dicho vehículo oruga orugas;	No menciona
Se revisan los datos almacenados en las memorias compartidas M1 y M2 sobre el estado de las señales digitales y análogas del sistema embebido	conectar cantidades de respuesta de alimentación de dicha fuente de alimentación a dicho motores con una unidad de control del motor conectado para recibir dichas señales primera y segunda de control desde dicho módulo de control / comunicaciones. (Reiv. 14)	No menciona
Igualmente se revisa la información de los comandos de control (posición, velocidad, etc...) enviados desde la estación central.	No menciona	No menciona
Se calcula un control de temperatura ON OFF de acuerdo a la información de temperatura enviada desde los sensores de temperatura del sistema embebido.	No menciona	Un método como se reivindica en las reivindicaciones 2 o 3, en el que la temperatura de la IMS se controla. (Reiv. 4)
Compara las señales para los puertos de salida del sistema embebido con las señales dadas tiempo atrás.	Generar señales de control desde un detector de influencia magnética en dicho ordenador de dicho módulo de control / comunicaciones. (Reiv. 23)	No menciona
Modificar los puertos de salida del sistema de acuerdo a los comandos de control.	No menciona	No menciona
Enviar los comandos de control de movimiento CDM a los servomotores previa verificación que estos son comandos nuevos	Generar señales de control primera de las señales GPS en una antena GPS acoplado a una sección de procesamiento de receptor GPS de un módulo de control / comunicaciones en un vehículo oruga orugas que tiene una carcasa sellada, fuente de alimentación, y motores que accionan conjuntos de orugas en lados opuestos de dicho alojamiento. (Reiv. 14)	No menciona
Revisar que los servomotores estén haciendo la función requerida.	No menciona	No menciona

Reportar errores a la base de datos	No menciona	La movilidad reducida es un parámetro que debe ser monitoreado, si los picos muestran localizaciones incorrectas esto se considera como un error, el cual es calculado y almacenado. (Pág. 9, líneas 7 a 12)
Recopilar la información de errores y alertas ocurridas dentro del vehículo en una lista FIFO F1	No menciona	

Los documentos D3 y D4 se consideran el estado de la técnica cercano a la invención definida por la reivindicación 6 porque divulgan métodos para la neutralización de artefactos explosivos.

La diferencia entre la invención, definida por la reivindicación 6, y el método del documento D3 consiste en que este último no divulga el control de temperatura ON OFF y el procesamiento del error.

La diferencia entre la invención, definida por la reivindicación 6, y el método del documento D4 consiste en que este último no divulga la forma en que se procesan los datos internamente para la configuración de motores.

El efecto que logra el incluir el control de temperatura ON OFF y el procesamiento de errores, es el de generar una señal que indica una temperatura de operación de los motores.

Por lo tanto, el problema técnico objetivo que pretende resolver esta invención se puede formular así: ¿Cómo modificar el dispositivo del documento D3 para generar una señal que indique cuándo están los motores en disposición operativa?

Sin embargo, el documento D4 menciona el control de temperatura sobre la unidad IMS, la cual es la unidad operativa para el método de D4. (Reiv. 4)

En consecuencia, la persona del oficio normalmente versada en la materia, incluiría el control de la temperatura del documento D4 para llegar así al objeto de la reivindicación 6 de la solicitud. Por lo cual se considera que ésta es obvia.

Las reivindicaciones dependientes de la reivindicación se encuentran afectadas de la siguiente manera por los documentos D3 y D4:

- Reivindicación 7: El documento D3 menciona un mecanismo de arma de fuego mediante el cual se realiza la neutralización cargas generando un disparo de cañón. (Reiv. 1)
- Reivindicación 10: El documento D3 menciona la manipulación para el disparo de cañón en la reivindicación 14 que menciona: *“...se realizan maniobras para dicho vehículo de orugas para apuntar un cañón de la pistola de un mecanismo de la pistola que se extiende a través de una parte inferior de dicho alojamiento hacia dicha superficie y dijo mía”*

Las reivindicaciones 1, 7, 8 y 9 se encuentran objetadas en el numeral 4 del presente oficio.

6. Conclusión

Los requisitos de Patentabilidad de la presente Solicitud están afectados así:

Ítem	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	US 5´561.883	1, 2 y 4	Nivel inventivo
D2	US 5´022.812	1	Nivel inventivo
D3	US 6´802,237	6, 7 y 10	Nivel inventivo
D4	CA 2043825	6	Nivel inventivo

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta (60) días contados a partir del día siguiente de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Se invita al solicitante se sirva indicar, si así lo considera, su renuncia al término faltante de sesenta (60) días para dar respuesta a este requerimiento y presentarla por escrito.

Finalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones, no pagará la tasa de modificación voluntaria pero sí la correspondiente al pago por reivindicación adicional.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JOSÉ LUIS SALAZAR LÓPEZ
Director de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2015-04-07

Elaboró: Daniel Fernando Pulido Vargas
Revisó: Leonardo Rojas Vega

Search history

Search 1: TA=(anti-explosive and vehicle and camera) (Results 1)
Search 2: TA=(anti and explosive and vehicleand camera) (Results 0)
Search 3: TA=(anti and explosive and vehicle) (Results 96)

1) Family number: 18469920 (GB288524A)

Title:

IMPROVEMENTS IN OR RELATING TO ANTI-THEFT DEVICES FOR VEHICLES

Family:

Publication number	Publication date	Application number	Application date
GB288524 A	19281101	GB19280010592	19280410

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Assignee(s):

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International class (IPC 8-9):

B60R25/04 (Advanced/Invention)

International class (IPC 1-7):

B60R25/10

CPC:

B60R25/04

European class:

B60R25/04

Classification Explorer

© PatBase

Title:

Apparatus for firing an anti-vehicle ground-to-ground armor piercing explosive charge

Priority:

DE1962B069095 19621004FR19630949240 19631001

Family:

Publication number	Publication date	Application number	Application date
DE1199662 B	19650826	DE1962B069095	19621004
DE1199662 C	19650826	DE1962B069095	19621004
FR1372141 A	19640911	FR19630949240	19631001
GB1059356 A	19670222	GB19630039188	19631004
US3304864 A	19670221	US19630313394	19631002

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Inventor(s):(std):

THOMANEK FRANZ RUDOLF ; THOMANEK DIPL ING FRANZ RUDOLF ; RUDOLF THOMANEK FRANZ

International class (IPC 8-9):

F42B23/00 F42B23/04 F42C11/00 (Advanced/Invention);
F42B23/00 F42C11/00 (Core/Invention)

International class (IPC 1-7):

F41F3/04 F42B23/00 F42B23/04 F42B23/26 F42C15/04

CPC:

F42B23/00 F42B23/04 F42C11/007

European class:

F42B23/00 F42B23/04 F42C11/00B10

US class:

102/427

Classification Explorer

Cited documents:

US3204054, US3052772, US2975350, US2830538, US2472136, US2330205, GB564158, GB494330, GB453335, FR815386, FR1143629, DE1101227, CH214642 A3, AT78853,

Title: ARMORED TANK VEHICLE WITH ANTI-AIRCRAFT ARMAMENT**Priority:** CH19680004993 19680403 DE19681800330 19681001 NL19690004980 19690331

Family:	Publication number	Publication date	Application number	Application date
	CH490655 A	19700515	CH19680004993	19680403
	DE1800330 A1	19691204	DE19681800330	19681001
	DE1800330 B2	19770818	DE19681800330	19681001
	DE1800330 C3	19820114	DE19681800330	19681001
	DE1818019 A1	19770505	DE19681818019	19681001
	FR2005437 A1	19691212	FR19690009694	19690331
	GB1220533 A	19710127	GB19690014927	19690321
	JP49000280 B4	19740107	JP19690024483	19690401
	NL158611 B	19781115	NL19760003664	19760407
	NL160937 B	19790716	NL19690004980	19690331
	NL160937 C	19791217	NL19690004980	19690331
	NL6904980 A	19691007	NL19690004980	19690331
	NL7603664 A	19760730	NL19760003664	19760407
	SE357434 B	19730625	SE19690004385	19690328
	US3602088 A	19710831	US19690810143	19690325

Assignee(s):(std): CONTRAVES AG**Assignee(s):** CONTRAVES AG 8052 ZUERICH CH ; CONTRAVES AG CH ; CONTRAVES AG ZUERICH ZWITSERLAND ; CONTRAVES A G ; CONTRAVES A G TE ZUERICH ZWITSERLAND ; CONTRAVES A G ZUERICH ZWITSERLAND**Inventor(s):(std):** TIMO SPRING ; SPRING TIMO ; SPRING T**Inventor(s):** VERZICHT DES ERFINDERS AUF NENNUNG ; SPRING T CH**International class (IPC 8-9):** F41A23/04 F41A23/24 F41A23/34 F41A9/34 F41G1/40 F41G5/24 F41H7/00 F41H7/02 G02B23/00 (Advanced/Invention)**International class (IPC 1-7):** F41D9/02 F41F23/06 F41G5/08 F41G5/14 F41H5/16 F41H7/00 F41H7/02 F41H7/06 F41H7/08 F41H7/12**CPC:** F41A9/34 F41A23/04 F41A23/24 F41A23/34 F41G5/24 F41H5/266 F41H7/02 G02B23/00**European class:** F41A23/04 F41A23/24 F41A23/34 F41A9/34 F41G5/24 F41H5/26D F41H7/02 G02B23/00**US class:** 359/402 89/33.04 89/33.16 89/36.13 89/40.03 89/41.07 89/41.22[Classification Explorer](#)**Cited documents:** US3379098, US3362073, US3309963, US3223996, US3013207, US2857816, US2559714, US2207084, GB692140, DE1193399, BE705100,

Title: PARTRICIN METHYL ESTER
Priority: GB19700052271 19701103
Family:

Publication number	Publication date	Application number	Application date
AU197135251 A1	19730510	AU19710035251	19711102
AU469517 B2	19760219	AU19710035251	19711102
BE774862 A1	19720301	BE19710774862	19711103
CA972349 A1	19750805	CA19710126729	19711102
CY932 A	19780623	CY19710000932	19711102
DE2154436 A1	19720510	DE19712154436	19711102
DE2154436 B2	19781221	DE19712154436	19711102
DE2154436 C3	19791129	DE19712154436	19711102
ES396597 A1	19740516	ES19710396597	19711103
FR2112426 A1	19720616	FR19710039428	19711103
FR2112426 B1	19750314	FR19710039428	19711103
GB1359473 A	19740710	GB19700052271	19701103
JP55050960 B4	19801220	JP19710087524	19711102
MY7800206 A	19781231	MY19780000206	19781231
NL154513 B	19770915	NL19710015123	19711103
NL7115123 A	19720505	NL19710015123	19711103
US3780173 A	19731218	US19710194692	19711101
ZA7107326 A	19721227	ZA19710007326	19711102

Assignee(s):(std): HOLCO INVESTMENT INC ; PRODOTTI ANTIBIOTICI SPA ; BRUZZESE T ; FERRARI R
Assignee(s): FERRARI R IT ; BRUZZESE T IT ; BRUZZESE TIBERIO ; SOCIETA PRODOTTI ANTIBIOTICI S P A MAILAND IT SPA ; HOLCO INVESTMENT INC PANAMA ; HOLCO INVESTMENT INC LUGANO SCHWEIZ ; FERRARI RODOLFO ; SOCIETA PRODOTTI ANTIBIOTICI SPA ; SOC PRODOTTI ANTIBIOTICI SPA ; PRODOTTI AN IBIOTICI IT SPA ; SOCIETA PRODOTTI ANTIBIOTICI S P A SPA ; SPA SOC PRODOTTI ANTIBIOTICI SPA ; SPA PRODOTTI ANTIBIOTICI ; SPA PRODOTTI AN IBIOTICI IT ; SPA SOCIETA PRODOTTI ANTIBIOTICI S P A ; SPA SOCIETA PRODOTTI ANTIBIOTICI S P A 8 VIA BIELL ; SPA SOCIETA PRODOTTI ANTIBIOTICI ; SPA SOCIETA PRODOTTI ANTIBIOTICI S P A 8 VIA BIELLA MILAN ITALIE ; SPA SOCIETA PRODOTTI ANTIBIOTICI S P A MAILAND ITALIEN
Inventor(s):(std): BRUZZESE T ; BRUZZESE TIBERIO ; FERRARI R ; FERRARI RODOLFO
Inventor(s): RODOCFO FERRARI ; RODOLFO FERRARI ; TIBERIO BRUZZESE ; FERRARI R IT ; BRUZZESE T IT
International class (IPC 8-9): C07H17/08 (Advanced/Invention); C07H17/00 (Core/Invention)
International class (IPC 1-7): A01N61/00 A61K21/00 A61K27/00 A61K31/71 A61K35/00 A61K35/70 C07D493/08 C07G11/00 C07G7/00 C07H17/08 C12D9/14
CPC: Y10S435/889 A61K31/70 C07H17/08
European class: 30H4A4 A61K31/70 C07H17/08
US class: 424/12.2 424/122 435/124 435/889 536/16.8 536/6.5

[Classification Explorer](#)

Title: IMPROVEMENTS IN OR RELATING TO SAFETY DEVICES FOR PASSENGER-CARRYING VEHICLES

Priority: GB19710031068 19710702

Family:

Publication number	Publication date	Application number	Application date
GB1292579 A	19721011	GB19710031068	19710702

Assignee(s):(std): SANDERSON LOUIS WILLIAM

Assignee(s): LOUIS WILLIAM SANDERSON

Inventor(s):(std): SANDERSON LOUIS WILLIAM

Inventor(s): LOUIS WILLIAM SANDERSON

International class (IPC 8-9): B60R21/08 (Advanced/Invention);
B60R21/02 (Core/Invention)

International class (IPC 1-7): B60R21/10

CPC: B60R21/08

European class: B60R21/08

[Classification Explorer](#)

Title:

DISPOSITIF POUR COMMANDER LA MISE A FEU D'UN ENGIN EXPLOSIF LORS DU PASSAGE D'UN VEHICULE
Arrangements for controlling the firing of an explosive device when switching VEHICLE (Machine translation)

Priority:

FR19790024937 19791008

Family:

Publication number	Publication date	Application number	Application date
FR2467381 A1	19810417	FR19790024937	19791008
FR2467381 B1	19851018	FR19790024937	19791008

Assignee(s):(std):

FRANCE ETAT

Assignee(s):

ETAT FRANCAIS

Inventor(s):(std):

BOSC ANDRE ; GENDROT BERNARD ; MONTAGUT PATRICK

Inventor(s):

BERNARD GENDROT ANDRE BOSC ET PATRICK MONTAGUT

International class (IPC 8-9):

F42C11/00 F42C7/06 (Advanced/Invention);
F42C11/00 F42C7/00 (Core/Invention)

International class (IPC 1-7):

F42B23/04

CPC:

F42C7/06 F42C11/007

European class:

F42C11/00B10 F42C7/06

[Classification Explorer](#)

Cited documents:

US3754508, US2569808, BE515512, BE507538,

Title:

PERFECTIONNEMENTS APPORTES AUX TETES MILITAIRES, NOTAMMENT ANTICHARS, AGISSANT EN SURVOL D'UN OBJECTIF OU D'UN GROUPE D'OBJECTIFS IMPROVEMENTS TO MILITARY HEADS INCLUDING antitank ACTING OVERVIEW OF PURPOSE AND OBJECTIVES OF A GROUP OF (Machine translation)

Priority:

FR19800005542 19800312

Family:

Publication number	Publication date	Application number	Application date
FR2478297 A1	19810918	FR19800005542	19800312
FR2478297 B1	19860905	FR19800005542	19800312

Assignee(s):(std):

SERAT

Assignee(s):

ETUDES REALISA APPLIC TECH

Inventor(s):(std):

COLLETTE HUBERT

Inventor(s):

HUBERT COLLETTE

International class (IPC 8-9):

F42B10/56 F42B12/10 F42B12/22 F42B12/58 F42C13/00 (Advanced/Invention); F42B10/00 F42B12/02 F42C13/00 (Core/Invention)

International class (IPC 1-7):

F42B13/38 F42B13/50 F42B25/02 F42B25/16

CPC:

F42B10/56 F42B12/10 F42B12/22 F42B12/58 F42C13/006

European class:

F42B10/56 F42B12/10 F42B12/22 F42B12/58 F42C13/00P

[Classification Explorer](#)

Cited documents:

US4050381, US3730099, FR2204294, FR1527584,

Title:

Procedure of igniting an explosive device and explosive device thus obtained

Priority:

FR19810010994 19810603

Family:

Publication number	Publication date	Application number	Application date
DE3220108 A1	19821230	DE19823220108	19820528
DE3220108 C2	19930401	DE19823220108	19820528
FR2507307 A1	19821210	FR19810010994	19810603
FR2507307 B1	19840504	FR19810010994	19810603
IT1151420 A	19861217	IT19820021605	19820531
IT8221605 A0	19820531	IT19820021605	19820531
SE458807 B	19890508	SE19820003347	19820601
SE458807 C	19890831	SE19820003347	19820601
SE8203347 A	19821204	SE19820003347	19820601
SE8203347 L	19821204	SE19820003347	19820601
US4463681 A	19840807	US19820383854	19820601

Assignee(s):(std):

PHILIPS NV ; TRT TELECOM RADIO ELECTR ; PHILIPS CORP

Assignee(s):

PHILIPS GLOEILAMPENFABRIEKEN NV ; US PHILIPS CORP ; THOMSON TRT DEFENSE ; TELECOMMUNICAT RADIOELECT TELEPH ; U S PHILIPS CORP ; N V PHILIPS GLOEILAMPENFABRIEKEN ; N V PHILIPS GLOEILAMPENFABRIEKEN EINDHOVEN NL ; NAAMLOZE VENNOOTSCHAP PHILIPS GLOEILAMPENFABRIEKE ; NAAMLOZE VENNOOTSCHAP PHILIPS GLOEILAMPENFABRIEKEN

Inventor(s):(std):

LABOURDETE J L ; LABOURDETE JEAN LOUIS ; TRANIN J P ; TRANIN JEAN PIERRE ; TRANIN JEAN PIERE

Inventor(s):

LABOURDETE JEAN LOUIS BOURG LA REINE FR ; TRANIN JEAN PIERRE FONTENAY AUX ROSES FR ; J L LABOURDETE ; J P TRANIN ; JEAN LOUIS LABOURDETE ; JEAN PIERRE TRANIN ; JEAN PIERRE TRANIN ET JEAN LOUIS LABOURDETE

International class (IPC 8-9):

F42B23/04 F42C11/00 (Advanced/Invention);
F42B23/00 F42C11/00 (Core/Invention)

International class (IPC 1-7):

F42B11/06 F42B23/04 F42B23/06 F42B23/24 F42B23/26 F42C11/06 F42C13/00 F42C14/08 F42C15/14 F42C7/02 F42C7/04

CPC:

F42B23/04 F42C11/007

European class:

F42B23/04 F42C11/00B10

US class:

102/424 102/427

[Classification Explorer](#)

Cited documents:

US3780653, US3495532, US3410212, FR2332514, FR2319874, FR1451481, FR1340736,

9) Family number: 4423989 (US4459915A) PatBase

Title:

Priority:

Family:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

International class (IPC 8-9):

International class (IPC 1-7):

CPC:

European class:

US class:

Classification Explorer

Cited documents:

Combined rocket motor warhead

US19820434775 19821018

Publication number

Publication date

Application number

Application date

US4459915 A

19840717

US19820434775

19821018

GEN DYNAMICS CORP CONVAIR DIV

GENERAL DYNAMICS CONVAIR DIV CORP ; GENERAL DYNAMICS CORP ; HUGHES MISSILE SYSTEMS CO

LYNCH ROBERT A

F42B12/22 F42B15/00 (Advanced/Invention);

F42B12/02 F42B15/00 (Core/Invention)

F42B15/24

F42B12/22 F42B15/00

F42B12/22 F42B15/00

102/374 102/473 102/474 102/490 102/493 102/499

US4058063, US3853059, US3799054, US3696751, US3572249, US3491694, US3490373, US3081704,

Title:

Anti-armour munition

Priority:

DE19833321600 19830615

Family:

Publication number	Publication date	Application number	Application date
DE3321600 A1	19841220	DE19833321600	19830615

Assignee(s):(std):

HOFF GUENTER DR RER NAT

Assignee(s):

HOFF GUENTER DR RER NAT 7758 DAISENDORF DE

Inventor(s):(std):

HOFF GUENTER DR RER NAT

Inventor(s):

HOFF GUENTER DR RER NAT 7758 DAISENDORF DE

International class (IPC 8-9):

F42B12/16 (Advanced/Invention);
F42B12/02 (Core/Invention)

International class (IPC 1-7):

F42B13/10

CPC:

F42B12/16

European class:

F42B12/16

[Classification Explorer](#)

Priority:	DE19850001360U 19850112			
Family:	Publication number	Publication date	Application number	Application date
	DE8501360 U1	19850814	DE19850001360U	19850112
Assignee(s):	GRUENERT ROLF 3030 WALSRODE DE			
International class (IPC 8-9):	B60B39/00 (Advanced/Invention)			
International class (IPC 1-7):	B60B39/04 B60C27/00 B61C15/10			
CPC:	B60B39/04 B60B39/00			
European class:	B60B39/00 B60B39/04			
Classification Explorer				

Priority:	DE19860004524U 19860220			
Family:	Publication number	Publication date	Application number	Application date
	DE8604524 U1	19860424	DE19860004524U	19860220
Assignee(s):	GRUENERT ROLF 3030 WALSRODE DE			
International class (IPC 8-9):	B60B39/02 (Advanced/Invention)			
International class (IPC 1-7):	B60B39/00 F42D3/00			
CPC:	B60B39/022			
European class:	B60B39/02D2			
Classification Explorer				

Title:

Anti-terrorist vehicle impaler

Priority:

US19850715072 19850322

Family:

Publication number	Publication date	Application number	Application date
US4624600 A	19861125	US19850715072	19850322

Assignee(s):(std):

WAGNER GEORGE J ; WAGNER RICHARD H

Inventor(s):(std):

WAGNER RICHARD H ; WAGNER GEORGE J

International class (IPC 8-9):

E01F13/08 E01F13/12 (Advanced/Invention);
E01F13/00 (Core/Invention)

International class (IPC 1-7):

E01F13/00

CPC:

E01F13/08 E01F13/123

European class:

E01F13/08 E01F13/12D

US class:

404/6 404/9 49/131 49/33 49/49

[Classification Explorer](#)

Cited documents:

US4577991, US4554695, US4274172, US4010505, US3698135, US3475779, US3352189, US3170365, US1949295, US1845774, DE3134247, DE2833353,

Title:

Priority:

Family:

TRANSPORTING EXPLOSIVES

ZA19860002162 19860324

ZA19860021062 19860324

Publication number	Publication date	Application number	Application date
AU198770554 A1	19871001	AU19870070554	19870324
DE3709634 A1	19871119	DE19873709634	19870324
FR2596146 A1	19870925	FR19870004077	19870324
FR2596146 B1	19920529	FR19870004077	19870324
GB2188910 A1	19871014	GB19870006980	19870324
GB8706980 A0	19870429	GB19870006980	19870324
SE8701183 A	19870925	SE19870001183D	19870323
SE8701183 A0	19870323	SE19870001183	19870323
SE8701183 L	19870925	SE19870001183	19870323
ZA8702113 A	19870914	ZA19870002113	19870323
ZM2887 A	19880429	ZM19870000028	19870324
ZW5987 A	19870805	ZW19870000059	19870324

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

Inventor(s):

International class (IPC 8-9):

International class (IPC 1-7):

CPC:

European class:

[Classification Explorer](#)

Cited documents:

VAAL REEFS EXPL AND MINING

VAAL REEFS EXPLORATION AND MINING CO LTD ; VAAL REEFS EXPLORATION AND MINING COMPANY LIMITED ; VAAL REEFS EXPLORATION MINING CY

MCGIMPSEY S B ; SAMUEL BOYD MCGIMPSEY ; MCGIMPSEY SAMUEL BOYD

BOYD MCGIMPSEY SAMUEL ; S B MCGIMPSEY

E21F13/00 F42B39/14 F42D5/00 (Advanced/Invention);
E21F13/00 F42B39/00 F42D5/00 (Core/Invention)

B65D85/00 B65D88/12 B65D90/04 B65G67/02 E21F11/00 E21F13/00 E21F5/00 F42D3/04 F42D5/00

F42B39/14 F42D5/00

F42B39/14 F42D5/00

US4087041, GB1563339, FR2321400, EP0192585, DE8519765 U,

Title:

Device for introducing an elongated explosive charge into the ground

Priority:

DE19873730756 19870912

Family:

Publication number	Publication date	Application number	Application date
DE3730756 A1	19890323	DE19873730756	19870912

Assignee(s):(std):

ROS SPRENGTECHNIK GMBH

Inventor(s):(std):

ROSENSTOCK WINFRIED

International class (IPC 8-9):

E02F3/10 E02F5/10 F41H11/10 (Advanced/Invention);
E02F3/08 E02F5/02 (Advanced/Non-invention);
E02F3/08 E02F5/10 F41H11/00 (Core/Invention);
E02F5/02 (Core/Non-invention)

International class (IPC 1-7):

E02F3/08 F41H11/08 F42D1/00 F42D3/00

CPC:

E02F3/085 E02F3/10 E02F5/06 F41H11/10

European class:

E02F3/08G E02F3/10 E02F5/06 F41H11/10

[Classification Explorer](#)

Cited documents:

CH653725,

Title:

Directed-effect device for proximity-effect ignition of explosive charges

Priority:

FR19880006691 19880519

Family:

Publication number	Publication date	Application number	Application date
FR2631694 A1	19891124	FR19880006691	19880519
FR2631694 B1	19930716	FR19880006691	19880519

Assignee(s):(std):

CLAUSIN JACQUES

International class (IPC 8-9):

F42C13/08 (Advanced/Invention);
F42C13/00 (Core/Invention)

International class (IPC 1-7):

F42C13/08

CPC:

F42C13/08

European class:

F42C13/08

[Classification Explorer](#)

Cited documents:

US4022102, US3308760, GB2149066, FR2341835, FR2277321, DE3011366, DE2646651,

Title:	Integral inflatable occupant restraint system																																							
Priority:	US19900618397 19901127	WO1991US08533 19911115	US19920822272 19920117																																					
	US19930027704 19930308	US19930002334 19930108																																						
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>EP0558629 A1</td><td>19930908</td><td>EP19920901054</td><td>19911115</td></tr><tr><td>EP0558629 A4</td><td>19940309</td><td>EP19920901054</td><td>19911115</td></tr><tr><td>US5100169 A</td><td>19920331</td><td>US19900618397</td><td>19901127</td></tr><tr><td>US5184844 A</td><td>19930209</td><td>US19920822272</td><td>19920117</td></tr><tr><td>US5375908 A</td><td>19941227</td><td>US19930027704</td><td>19930308</td></tr><tr><td>US5390952 A</td><td>19950221</td><td>US19930002334</td><td>19930108</td></tr><tr><td>WO9209457 A1</td><td>19920611</td><td>WO1991US08533</td><td>19911115</td></tr><tr><td>WO9313965 A1</td><td>19930722</td><td>WO1993US00322</td><td>19930113</td></tr></table>				Publication number	Publication date	Application number	Application date	EP0558629 A1	19930908	EP19920901054	19911115	EP0558629 A4	19940309	EP19920901054	19911115	US5100169 A	19920331	US19900618397	19901127	US5184844 A	19930209	US19920822272	19920117	US5375908 A	19941227	US19930027704	19930308	US5390952 A	19950221	US19930002334	19930108	WO9209457 A1	19920611	WO1991US08533	19911115	WO9313965 A1	19930722	WO1993US00322	19930113
Publication number	Publication date	Application number	Application date																																					
EP0558629 A1	19930908	EP19920901054	19911115																																					
EP0558629 A4	19940309	EP19920901054	19911115																																					
US5100169 A	19920331	US19900618397	19901127																																					
US5184844 A	19930209	US19920822272	19920117																																					
US5375908 A	19941227	US19930027704	19930308																																					
US5390952 A	19950221	US19930002334	19930108																																					
WO9209457 A1	19920611	WO1991US08533	19911115																																					
WO9313965 A1	19930722	WO1993US00322	19930113																																					
Assignee(s):(std):	GOOR ASSOCIATES INC ; GOOR ASS INC																																							
Assignee(s):	GOOR ASSOCIATES INC A CO CORP ; GOOR ASSOCIATES INC A CORP OF COLORADO ; XCSI INC ; XSCI INC																																							
Inventor(s):(std):	GOOR DAN ; GOOR E PATRICIA																																							
Inventor(s):	GOOR E																																							
Designated states:	AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE																																							
International class (IPC 8-9):	B60R21/01 B60R21/02 B60R21/16 B60R21/18 B60R21/20 B60R21/207 (Advanced/Invention); B60R21/013 B60R21/231 (Advanced/Non-invention); B60R21/01 B60R21/02 B60R21/16 B60R21/20 (Core/Invention); B60R21/23 (Core/Non-invention)																																							
International class (IPC 1-7):	B60R21/18 B60R21/20 B60R21/22																																							
CPC:	B60R21/01 B60R21/02 B60R21/16 B60R21/18 B60R21/2072 B60R2021/01317 B60R2021/022 B60R2021/23153																																							
European class:	B60R21/01 B60R21/02 B60R21/16 B60R21/18 B60R21/207C B60R21/20J1 L60R21/013T L60R21/02A3 L60R21/231M																																							
US class:	280/730.1 280/730R 280/733 280/801.1 280/808 297/216.11 297/239 297/256.15 297/488																																							
Classification Explorer																																								
Cited documents:	WO8807947, USB520341, US520341, US5184844, US5106158, US5064483, US5062662, US5031932, US5022709, US4971354, US4946191, US4883320, US4834420, US4797229, US4738489, US4715617, US4690455, US4664443, US4662683, US4632460, US4533176, US4360223, US4348037, US4230366, US4166641, US3985374, US3975258, US3975037, US3971569, US3951450, US3905615, US3883053, US3866940, US3844581, US3767002, US3706463, US3706462, US3672699, US3510150, US3430979, FR2101637, DE3820145, DE2046426,																																							

Title: Theftproof cipher lock for explosive motor vehicle

Priority: CN19932006236U 19930316

Family:

Publication number	Publication date	Application number	Application date
CN2157321 Y	19940223	CN19932006236U	19930316

Assignee(s):(std): LI XIONGYE

Inventor(s):(std): XIONGYE LI

Inventor(s): LI XIONGYE

International class (IPC 8-9): F02P11/04 (Advanced/Invention);
F02P11/00 (Core/Invention)

International class (IPC 1-7): F02P11/04

[Classification Explorer](#)

Title:	VEHICLE SELF-DEFENCE SYSTEM																																							
Priority:	WO1993RU00289 19931201		RU19950122733 19950901																																					
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>DE69321142 D1</td><td>19981022</td><td>DE19936021142</td><td>19931201</td></tr><tr><td>DE69321142 T2</td><td>19990225</td><td>DE19936021142T</td><td>19931201</td></tr><tr><td>EP0687885 A1</td><td>19951220</td><td>EP19940903183</td><td>19931201</td></tr><tr><td>EP0687885 A4</td><td>19961220</td><td>EP19940903183</td><td>19931201</td></tr><tr><td>EP0687885 B1</td><td>19980916</td><td>EP19940903183</td><td>19931201</td></tr><tr><td>RU2102678 C1</td><td>19980120</td><td>RU19950122733</td><td>19950901</td></tr><tr><td>RU95122733 A</td><td>19970820</td><td>RU19950122733</td><td>19950901</td></tr><tr><td>WO9515473 A1</td><td>19950608</td><td>WO1993RU00289</td><td>19931201</td></tr></table>				Publication number	Publication date	Application number	Application date	DE69321142 D1	19981022	DE19936021142	19931201	DE69321142 T2	19990225	DE19936021142T	19931201	EP0687885 A1	19951220	EP19940903183	19931201	EP0687885 A4	19961220	EP19940903183	19931201	EP0687885 B1	19980916	EP19940903183	19931201	RU2102678 C1	19980120	RU19950122733	19950901	RU95122733 A	19970820	RU19950122733	19950901	WO9515473 A1	19950608	WO1993RU00289	19931201
Publication number	Publication date	Application number	Application date																																					
DE69321142 D1	19981022	DE19936021142	19931201																																					
DE69321142 T2	19990225	DE19936021142T	19931201																																					
EP0687885 A1	19951220	EP19940903183	19931201																																					
EP0687885 A4	19961220	EP19940903183	19931201																																					
EP0687885 B1	19980916	EP19940903183	19931201																																					
RU2102678 C1	19980120	RU19950122733	19950901																																					
RU95122733 A	19970820	RU19950122733	19950901																																					
WO9515473 A1	19950608	WO1993RU00289	19931201																																					
Assignee(s):(std):	GUSCHIN NIKOLAI IVANOVICH ; KASHIN VALERY MIKHAILOVICH ; GALCHENKO ANDREI VASILEVICH ; KHAKALKIN VYACHESLAV NIKOLAEVI ; KASHUBSKY ARTUR ZAKHAROVICH ; K BJURO MASH ; KB MASH ; K BJURO MASINOSTROENJA ; TIMOFEEV VLADIMIR IVANOVICH ; KHARKIN VLADIMIR SERGEEVICH ; RYZHOV VLADIMIR IVANOVICH ; STULOV VALENTIN ALEXANDROVICH ; KONOVALOV VITALY SERAFIMOVICH ; ROSTOVTSEV AFRIKAN ANDRIANOVIC ; BARKHOTKIN VYACHESLAV ALEXANDR ; CHEKULAEV VLADIMIR ALEXANDROVI																																							
Assignee(s):	CHEKULAEV VLADIMIR ALEXANDROVICH ; BARKHOTKIN VYACHESLAV ALEXANDROVICH ; KONSTRUKTORSKOE BJURO MASHINOSTROENIA ; KHAKALKIN VYACHESLAV NIKOLAEVICH ; ROSTOVTSEV AFRIKAN ANDRIANOVICH ; KONSTRUKTORSKOE BJURO MASHINOSTROENIA KOLOMNA RU ; KONSTRUKTORSKOE BJURO MASINOSTROENJA KOLOMNA RU ; KONSTRUKTORSKOE BJURO MASHINOSTROENIJA																																							
Inventor(s):(std):	TIMOFEEV V I ; TIMOFEEV VLADIMIR IVANOVICH ; BARKHOTKIN V A ; BARKHOTKIN VYACHESLAV ALEXANDR ; CHEKULAEV V A ; CHEKULAEV VLADIMIR ALEXANDROVI ; GAL CHENKO A V ; GALCHENKO ANDREI VASILIEVICH ; GUSCHIN NIKOLAI IVANOVICH ; GUSHCHIN N I ; KASHIN V M ; KASHIN VALERY MIKHAILOVICH ; KHAKHALKIN V N ; KHAKHALKIN VYACHESLAV NIKOLAEV ; KASHUBSKIJ A Z ; KASHUBSKY ARTUR ZAKHAROVICH ; KHAR KIN V S ; KHARKIN VLADIMIR SERGEEVICH ; KONOVALOV V S ; KONOVALOV VITALY SERAFIMOVICH ; ROSTOVTSEV A A ; ROSTOVTSEV AFRIKAN ANDRIANOVIC ; RYZHOV V I ; RYZHOV VLADIMIR IVANOVICH ; STULOV V A ; STULOV VALENTIN ALEXANDROVICH ; KHAKALKIN VYACHESLAV NIKOLAEVI ; GALCHENKO ANDREI VASILEVICH																																							
Inventor(s):	CHEKULAEV VLADIMIR ALEXANDROVICH ; BARKHOTKIN VYACHESLAV ALEXANDROVICH ; BARKHOTKIN VYACHESLAV ALEXANDROVICH MOSCOW... ; STULOV VALENTIN ALEXANDROVICH MOSKOVSKAYA OBL KOLO ; RYZHOV VLADIMIR IVANOVICH MOSKOVSKAYA OBL KOLOMNA ; ROSTOVTSEV AFRIKAN ANDRIANOVICH MOSCOW 142914 RU ; KONOVALOV VITALY SERAFIMOVICH MOSCOW 123298 RU ; KHARKIN VLADIMIR SERGEEVICH MOSKOVSKAYA OBL KOLOMNI ; KASHUBSKY ARTUR ZAKHAROVICH MOSKOVSKAYA OBL KOLOMNI ; KHAKHALKIN VYACHESLAV NIKOLAEVICH ; KHAKHALKIN VYACHESLAV NIKOLAEVICH MOSCOW 123367 RU ; KASHIN VALERY MIKHAILOVICH MOSKOVSKAYA OBL KOLOMNA ; GUSCHIN NIKOLAI IVANOVICH MOSKOVSKAYA OBL KOLOMNA ; GALCHENKO ANDREI VASILIEVICH MOSKOVSKAYA OBL KOLOMNI ; CHEKULAEV VLADIMIR ALEXANDROVICH MOSKOVSKAYA OBL K ; BARKHOTKIN VYACHESLAV ALEXANDROVICH MOSCOW 103575 ; TIMOFEEV VLADIMIR IVANOVICH MOSKOVSKAYA OBL KOLOMNA ; TIMOFEEV VLADIMIR IVANOVICH MOKOVSKAYA OBL ; STULOV VALENTIN ALEXANDROVICH MOSKOVSKAYA OBL ; RYZHOV VLADIMIR IVANOVICH MOSKOVSKAYA OBL ; ROSTOVTSEV AFRIKAN ANDRIANOVICH MOSCOW ; KONOVALOV VITALY SERAFIMOVICH MOSCOW ; KHARKIN VLADIMIR SERGEEVICH MOSKOVSKAYA OBL ; KHAKHALKIN VYACHESLAV NIKOLAEVICH MOSCOW ; KASHUBSKY ARTUR ZAKHAROVICH MOSKOVSKAYA OBL ; KASHIN VALERY MIKHAILOVICH MOSKOVSKAYA OBL ; GUSCHIN NIKOLAI IVANOVICH MOSKOVSKAYA OBL ; GALCHENKO ANDREI VASILIEVICH MOSKOVSKAYA OBL ; CHEKULAEV VLADIMIR ALEXANDROVICH MOSKOVSKAYA OBL ; TIMOFEEV V.I. ; STULOV V.A. ; RYZHOV V.I. ; ROSTOVTSEV A.A. ; KONOVALOV V.S. ; KHARKIN V.S. ; KHAKHALKIN V.N. ; KASHUBSKIJ A.Z. ; KASHIN V.M. ; GUSHCHIN N.I. ; GALCHENKO A.V. ; CHEKULAEV V.A. ; BARKHOTKIN V.A. ; ROSTOVTSEV AFRIKAN ANDRIANOVICH ; KHAKALKIN VYACHESLAV NIKOLAEVICH																																							
Designated states:	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT RU SE US																																							
International class (IPC 8-9):	F41A23/00 F41A23/02 F41A23/34 F41H11/02 F42B12/32 (Advanced/Invention); G01S13/58 (Advanced/Non-invention); F41A23/00 (Core/Invention)																																							
International class (IPC 1-7):	F41A23/00 F41A23/34 F41H11/02																																							
CPC:	F41H11/02 F42B12/32 G01S13/583																																							
European class:	F41H11/02 F42B12/32 S01S13/58F																																							
Classification Explorer																																								
Cited documents:	US5229540, FR2642515, EP0525305, EP0310869, EP0199447, DE3410467, DE2031883, DE1903951,																																							

Title: Anti-explosive accumulator powered single rail hanging vehicle for coal mines

Priority: CN19942029441U 19940824

Family:

Publication number	Publication date	Application number	Application date
CN2218122 Y	19960124	CN19942029441U	19940824

Assignee(s):(std): ELECTRIC LOCOMOTIVE FACTORY FU

Assignee(s): ELECTRIC LOCOMOTIVE FACTORY FUSHUN MINES BUREAU

Inventor(s):(std): LIANFU QU ; QU LIANFU ; SHUTIAN WANG ; WANG SHUTIAN ; YIN XIANGFENG

International class (IPC 8-9): B61B3/02 (Advanced/Invention);
B61B3/00 (Core/Invention)

International class (IPC 1-7): B61B3/02

[Classification Explorer](#)

Title:

Shock absorbing vehicle seat assembly

Priority:

US19960613733 19960212

Family:

Publication number	Publication date	Application number	Application date
US5758859 A	19980602	US19960613733	19960212

Assignee(s):(std):

US GOV SEC ARMY

Assignee(s):

ARMY US GOV SECRETARYWASHINGTON DISTRICT OF COLUMB ; ARMY US SECRETARY ; U S GOVERNMENT AS REPRESENTED BY THE SECRETARY OF ; U S GOVERNMENT AS REPRESENTED BY THE SECRETARY OF THE ARMY

Inventor(s):(std):

GONZALEZ RENE G

International class (IPC 1-7):

F16M13/06

CPC:

B60N2/4235 B60N2/4242 B60N2/42736 B60N2/503 B60N2/505 B60N2/506 B60N2/525 B60N2/544 B60N2/548

European class:

B60N2/427R2 B60N2/42D4 B60N2/42D6 B60N2/50E B60N2/50H B60N2/50R B60N2/52G B60N2/54C B60N2/54T

US class:

248/420 248/619 248/624 248/631

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Cited documents:

US5328234, US5176356, US4358154, US4168819, US3985388, US3705745, US3066979, US3059966, US3043622, US2284352, FR1222829,

Title: Anti=terrorist protection system**Priority:** FR19960015915 19961218

Family:	Publication number	Publication date	Application number	Application date
	FR2757115 A1	19980619	FR19960015915	19961218
	FR2757115 B3	19990212	FR19960015915	19961218

Assignee(s):(std): SERPI SOC D ETUDE ET RECH ; SERPI SOCIETE D ETUDE ET RECH**Assignee(s):** SERPI SOCIETE D ETUDE ET RECHERCHE DE PROCEDES INDUSTRIELS ; SERPI SOC D ETUDE ET RECHERCHE DE PROCEDES IND ; SERPI SOC D ETUDE ET RECHERCHE DE PROCEDES INDUST**Inventor(s):(std):** BRUCH GUY**International class (IPC 8-9):** B60N2/24 B61D33/00 B65F1/14 (Advanced/Invention);
B60N2/24 B61D33/00 B65F1/14 (Core/Invention)**International class (IPC 1-7):** B60N2/44 B61D33/00 B65F1/14 E04H3/12**CPC:** B60N2/24 B61D33/0007 B65F1/14 B65F2220/104**European class:** B60N2/24 B61D33/00B B65F1/14 L65F220/104[Classification Explorer](#)

Title:

Vehicle armour protection against anti tank shot

Priority:

DE19863611746 19860408

Family:

Publication number	Publication date	Application number	Application date
DE3611746 C1	19981001	DE19863611746	19860408

Assignee(s):(std):

DAIMLER BENZ AEROSPACE AG

Assignee(s):

DAIMLER BENZ AEROSPACE AKTIENGESELLSCHAFT 81663 MU ; DAIMLER BENZ AEROSPACE AKTIENGESELLSCHAFT 81663 MUENCHEN DE

Inventor(s):(std):

GROESLER PETER ; NISL NORBERT

Inventor(s):

NISL NORBERT 86561 ARESING DE ; GROESLER PETER 82234 WESLING DE

International class (IPC 8-9):

F41H5/007 (Advanced/Invention);
F41H5/007 (Core/Invention)

International class (IPC 1-7):

F41H5/007

CPC:

F41H5/007

European class:

F41H5/007

[Classification Explorer](#)

Cited documents:

DE2008156,

Title: MINE, IN PARTICULAR ANTI-TANK OR ANTI-VEHICLE MINE, WITH MEANS CONFIRMING THE PRESENCE OF A TARGET

Priority: FR19980003282 19980313

Family:	Publication number	Publication date	Application number	Application date
	DE69902704 D1	20021010	DE19996002704	19990227
	DE69902704 T2	20030807	DE19996002704T	19990227
	EP0942257 A1	19990915	EP19990103858	19990227
	EP0942257 B1	20020904	EP19990103858	19990227
	FR2776060 A1	19990917	FR19980003282	19980313
	FR2776060 B1	20000623	FR19980003282	19980313

Assignee(s):(std): GIAT IND SA

Assignee(s): GIAT INDUSTRIES ; GIAT INDUSTRIES VERSAILLES ; GIAT IND

Inventor(s):(std): BOUTET CLAUDE

Designated states: DE GB SE

International class (IPC 8-9): F42C11/00 F42C15/40 (Advanced/Invention);
F42C11/00 F42C15/00 (Core/Invention)

International class (IPC 1-7): F42B23/04 F42B23/24 F42C11/00 F42C15/40

CPC: F42C11/007 F42C15/40

European class: F42C11/00B10 F42C15/40

[Classification Explorer](#)

Cited documents: US4750426, US4252062, GB2182423, FR2475716, EP0178268, DE3338936,

Title:

Cutter for vehicle passenger seat belt comprises blade operated by release trigger that instantaneously cuts belt in the event of a fire.

Priority:

FR19980011782 19980921

Family:

Publication number	Publication date	Application number	Application date
FR2783475 A1	20000324	FR19980011782	19980921

Assignee(s):(std):

CHARPA JEAN

Inventor(s):(std):

CHARPA JEAN

International class (IPC 8-9):

B60R22/32 (Advanced/Invention);
B60R22/32 (Core/Invention)

International class (IPC 1-7):

B60R22/32

CPC:

B60R22/322

European class:

B60R22/32C

[Classification Explorer](#)

Title:

Reduction of airbag explosive sound when triggered carried out according anti-noise technology regulations to prevent damage to hearing sucks air from vehicle interior synchronously

Priority:

DE19981044427 19980928

Family:

Publication number	Publication date	Application number	Application date
DE19844427 A1	20000406	DE19981044427	19980928

Assignee(s):(std):

BSCHORR OSKAR

Inventor(s):(std):

BSCHORR OSKAR

International class (IPC 8-9):

B60R21/16 B60R21/30 (Advanced/Invention);
B60R21/16 B60R21/30 (Core/Invention)

International class (IPC 1-7):

B60R21/16 B60R21/20 B60R21/26 B60R21/32 G10K15/00

CPC:

B60R21/164 B60R21/30

European class:

B60R21/16H B60R21/30

[Classification Explorer](#)

Cited documents:

WO9523081, US5246083, US3694003, DE3312769, DE29619556, DE2131479, DE2115302, DE19757363, DE19703820,

Title:	MOVABLE BARRIER WALL			
Priority:	US19980109288P 19981118	US19980109288P 19981120	US19980109288P 19981120	
	WO1999US27493 19991119	US19990444238 19991119	DE19991052967 19991103	
	WO1999US23119 19991006	US19990116763P 19990122	US19990117812P 19990130	
	WO2000DE03808 20001027	US20000600270 20000713		
Family:	Publication number	Publication date	Application number	Application date
	AU200023460 A1	20000613	AU20000023460	19991119
	AU200023460 A5	20000613	AU20000023460	19991119
	AU200123460 A5	20010514	AU20010023460	20001027
	DE19952967 C1	20010215	DE19991052967	19991103
	DE19983808 T	20020110	DE19991083808T	19991006
	DE19983808 T0	20020110	DE19991083808T	19991006
	DE19983808 T1	20020110	DE19991083808T	19991006
	GB200111769 A0	20010704	GB20010011769	19991006
	GB2362985 A1	20011205	GB20010011769	19991006
	GB2362985 B2	20030625	GB20010011769	19991006
	JP2003529199 T2	20030930	JP20000583006T	19991006
	KR20010075724 A	20010809	KR20017006305	20010518
	US6338594 BA	20020115	US19990444238	19991119
	US6556388 BA	20030429	US20000600270	20000713
	WO0030077 A1	20000525	WO1999US23119	19991006
	WO0030077 C2	20000921	WO1999US23119	19991006
	WO0031347 A1	20000602	WO1999US27493	19991119
	WO0031347 C2	20010517	WO1999US27493	19991119
	WO0132478 A1	20010510	WO2000DE03808	20001027
Assignee(s):(std):	DURSCHINGER GUNTER ; ENSIGN FERREL ; NELSON GEORGES ; HEYWARD GEORGE ; EVANS DAVID A ; MCFADDEN JOSEPH P ; POKHIL TARAS GRIGORIEVICH ; EVERITT BRENDA ANNE ; ABRAHAMSEN TORE ; ADLER RICHARD S ; DUERSCHINGER GUENTER ; SEAGATE TECHNOLOGY LLC ; SEAGATE TECHNOLOGY			
Assignee(s):	WELLS FARGO BANK NATIONAL ASSOCIATION COLLATERAL AGENT AND SECOND PRIORITY REPRESENTATIVE AS ; SEAGATE TECHNOLOGY US HOLDINGS INC ; SEAGATE TECHNOLOGY LLC SCOTTS VALLEY ; WELLS FARGO BANK NATIONAL ASSOCIATION AS COLLATERA ; SEAGATE TECHNOLOGY HDD HOLDINGS ; SEAGATE TECHNOLOGY INT ; WELLS FARGO BANK NATIONAL ASSOCIATION COLLATERAL A ; BANK OF NOVA SCOTIA ADMINISTRATIVE AGENT AS ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK COLLATERAL AGENT AS ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AND FI ; MAXTOR CORP ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AND FIRST PRIORITY REPRESENTATIVE AS ; EVAULT INC F K A I365 INC ; SEAGATE TECHNOLOGY LLC INTELLECTUAL PROPERTY DEPAR ; RICHARD S ADLER ; SEAGATE TECHNOLOGY INC ; GUNTER DURSCHINGER ; JPMORGAN CHASE BANK AS COLLATERAL AGENT			
Inventor(s):(std):	DUERSCHINGER GUENTER ; DURSCHINGER GUNTER ; ENSIGN FERREL ; EVANS DAVID A ; EVERITT BRENDA A ; EVERITT BRENDA ANNE ; ABRAHAMSEN TORE ; ADLER RICHARD S ; MCFADDEN JOSEPH P ; NELSON GEORGE ; NELSON GEORGES ; POKHIL TARAS GRIGORIEVICH ; HAYWARD GEORGE ; HEYWARD GEORGE			
Inventor(s):	JOSEPH P MCFADDEN ; RICHARD S ADLER ; TARAS GRIGORIEVICH POKHIL ; TORE ABRAHAMSEN ; BRENDA A EVERITT ; DAVID A EVANS ; FERREL ENSIGN ; GEORGE HEYWARD ; GEORGES NELSON ; GUNTER DURSCHINGER			
Designated states:	AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZW			
International class (IPC 8-9):	B60R21/01 B60R21/017 B60R21/26 B60R21/264 B60R21/276 E02B3/10 E02B7/26 E06B5/00 G01R33/09 G11B5/00 G11B5/09 G11B5/127 G11B5/39 H01F10/16 H01F10/30 H01L43/08 (Advanced/Invention); B60R21/01 B60R21/017 B60R21/26 B60R21/264 G11B5/09 G11B5/39 (Advanced/Non-invention); E02B7/26 E06B5/00 (Core/Invention); B60R21/26 (Core/Non-invention)			
International class (IPC 1-7):	B60R21/26 B60R21/28 B60R21/32 B60R22/195 E02B3/04 E02B7/20 E02B7/26 E06B5/00 G01R33/09 G11B5/39 H01F10/16 H01F10/30 H01L43/08			
CPC:	B60R21/0173 B60R21/2644 B60R21/276 B60R2021/26029 B82Y25/00 B82Y10/00 E02B3/104 E02D5/182 E02D5/185 G01R33/093			
European class:	B60R21/276 B60R21/28 B82Y10/00 B82Y25/00 E02B3/10A2 E02D5/18B E02D5/18C G01R33/09B G11B5/00 G11B5/09 G11B5/127P G11B5/39C1M2M G11B5/39C1M2M2 L60R21/017D L60R21/264C L60R21/26K S11B5/09 S11B5/39W			
US class:	360/314 405/104 405/114 405/87 405/92 405/97 G9B/005 G9B/005.044 G9B/005.130 G9B/5 G9B/5.044 G9B/5.13			
Classification Explorer				
Cited documents:	US6392849, US5988946, US5984577, US5869963, US5859754, US5859753, US5858455, US5828525, US5825595, US5818685, US5803494, US5751521, US5748399, US5738946, US5726837, US5725963, US5725326, US5716719, US5701222, US5583725, US5576915, US5576914, US5460462, US5442508, US5046445, US4495884, US3920871, US3339326, US1344043, NL9201601, JP9274710, JP9031936, JP8284139, JP7326024, JP7021530, JP61049013, JP11002077, JP10302203, JP10105928, GB2323621, EP0790157, EP0580286, DE3920693, DE19928691, DE19857919, DE19839283, DE19839263, DE19812221, DE19801777, DE19726295, DE19725418, DE19704501, DE19651389,			

Title: ARMORED VEHICLE WITH REINFORCED ANTI-MINE PROTECTION

Priority: RU19990106997 19990406

Family:

Publication number	Publication date	Application number	Application date
RU2175430 C2	20011027	RU19990106997	19990406
RU99106997 A	20010320	RU19990106997	19990406

Assignee(s):(std): GOSUDARSTVENNOE UNITARNOE PREDPRIJATIE ; GUP URAL SKOE ; KB TRANSPORTNOGO MASH

Assignee(s): GOSUDARSTVENNOE UNITARNOE PREDPRIJATIE "URAL'SKOE KONSTRUKTORSKOE BJURO TRANSPORTNOGO MASHINOSTROENIJA" ; GOSUDARSTVENNOE UNITARNOE PREDPRIJATIE URAL SKOE

Inventor(s):(std): TUMASOV VD ; TUMASOV V D ; TEHN JUV ; TEHN JU V ; STAFEEV OM ; STAFEEV O M ; POTKIN VI ; POTKIN V I ; PERESTORONIN VN ; PERESTORONIN V N ; MOLODNJAKOV NA ; MOLODNJAKOV N A ; KHEJFITS GA ; KHEJFITS G A ; ANDRONOV VA ; ANDRONOV V A

International class (IPC 8-9): F41H7/00 F41H7/04 (Advanced/Invention);
F41H7/00 (Core/Invention)

International class (IPC 1-7): F41H7/04

CPC: F41H7/042

European class: F41H7/04B

[Classification Explorer](#)

29) Family number: 16182466 (CN2426825Y)

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Title:	Antiexplosive apparatus for vehicle			
Priority:	CN20002020917U 20000704			
Family:	Publication number	Publication date	Application number	Application date
	CN2426825 Y	20010418	CN20002020917U	20000704
Assignee(s):(std):	LUO HUIZHONG			
Inventor(s):(std):	HUIZHONG LUO ; LUO HUIZHONG			
International class (IPC 8-9):	B60R21/12 (Advanced/Invention); B60R21/02 (Core/Invention)			
International class (IPC 1-7):	B60R21/12			

Classification Explorer

Title: Anti-tank obstacle establishment structure (Machine translation)

Family:	Publication number	Publication date	Application number	Application date
	KR200223019 Y1	20010515	KR20000032417U	20001120

International class (IPC 8-9): F41H11/08 (Advanced/Non-invention)

[Classification Explorer](#)

Title: Anti-explosive appliance consists of air bag or pressure sensors, cartridge of carbon dioxide, valve in fuel tank

Priority: DE20001001720 20000117

Family:

Publication number	Publication date	Application number	Application date
DE10001720 A1	20010927	DE20001001720	20000117

Assignee(s):(std): BOEGLER KARL ; PIEGSA STEFAN ; SCHULZE ANDREAS

Inventor(s):(std): BOEGLER KARL ; PIEGSA STEFAN ; SCHULZE ANDREAS

International class (IPC 8-9): A62C3/06 A62C3/07 A62C37/36 A62C99/00 B60K15/00 (Advanced/Invention)

International class (IPC 1-7): A62C3/07 B60K15/00 B60R27/00

CPC: A62C99/0018 A62C3/06 A62C3/07 A62C37/36 B60K15/00 B60K2015/03381

European class: A62C3/06 A62C3/07 A62C37/36 A62C99/00B2 B60K15/00

[Classification Explorer](#)

32) Family number: 23300375 (CN2491056Y)

© PatBase

Title:

Priority:

Family:

Assignee(s):(std):

Inventor(s):(std):

International class (IPC 8-9):

International class (IPC 1-7):

119 multifunctional chemical dangerous goods fire fighting supervision detection car

CN20012061229U 20010818

Publication number	Publication date	Application number	Application date
CN2491056 Y	20020515	CN20012061229U	20010818

LI JICHENG

JICHENG LI ; LI JICHENG ; NIU YUEXIAN ; XIE YANBO ; YANBO XIE ; YUEXIAN NIU

A62C27/00 G09B9/00 (Advanced/Invention);
A62C27/00 G09B9/00 (Core/Invention)

A62C27/00 G09B9/00

[Classification Explorer](#)

Title: Portable anti-explosive ground connection system (Machine translation)

Family:	Publication number	Publication date	Application number	Application date
	KR200294318 Y1	20021104	KR20020023732U	20020808

International class (IPC 8-9): H05F3/02 (Advanced/Non-invention)

[Classification Explorer](#)

Title:

MINE SWEEPING VEHICLE WITH BREAK AND TENSION SENSORS OF TARGET

Priority:

RU20010123194 20010821

Family:

Publication number	Publication date	Application number	Application date
RU2206047 C2	20030610	RU20010123194	20010821

Assignee(s):(std):

VC 44239 ; VOJSKOVAJA CHAST 44239

Assignee(s):

VOJSKOVAJA CHAST" 44239

Inventor(s):(std):

PROSKURJAKOV SV ; MAKAROV AV ; PROSKURJAKOV S V ; MAKAROV A V

International class (IPC 8-9):

F41H11/12 (Advanced/Invention);
F41H11/00 (Core/Invention)

International class (IPC 1-7):

F41H11/12

CPC:

F41H11/28

[Classification Explorer](#)

Title:

Steering wheeled type anti-explosive transport tricycle for coal mine

Priority:

CN20022095784U 20021231

Family:

Publication number	Publication date	Application number	Application date
CN2601893 Y	20040204	CN20022095784U	20021231

Assignee(s):(std):

WANG FENG

Inventor(s):(std):

WANG FENG

Inventor(s):

FENG WANG

International class (IPC 8-9):

B60P1/28 B60Q1/04 (Advanced/Invention);
B60P1/04 B60Q1/04 (Core/Invention)

International class (IPC 1-7):

B60P1/28 B60Q1/04

[Classification Explorer](#)

Title:

Ultra-low anti-explosive transport tricycle

Priority:

CN20022095783U 20021231

Family:

Publication number	Publication date	Application number	Application date
CN2601892 Y	20040204	CN20022095783U	20021231

Assignee(s):(std):

WANG FENG

Inventor(s):(std):

WANG FENG

Inventor(s):

FENG WANG

International class (IPC 8-9):

B60K11/02 B60P1/28 (Advanced/Invention);
B60K11/02 B60P1/04 (Core/Invention)

International class (IPC 1-7):

B60K11/02 B60P1/28

[Classification Explorer](#)

Title: Anti-remote controlling explosive apparatus
Priority: CN20032013970U 20030708

Family:	Publication number	Publication date	Application number	Application date
	CN2629349 Y	20040728	CN20032013970U	20030708

Assignee(s):(std): MO DAKUI
Inventor(s):(std): MO DAKUI
Inventor(s): DAKUI MO
International class (IPC 8-9): H04K3/00 (Advanced/Invention);
H04K3/00 (Core/Invention)
International class (IPC 1-7): H04K3/00

[Classification Explorer](#)

Title:

BLAST AND ANTI-RAMMING WALLS

Priority:

US20030462086P 20030411 US20030500707P 20030905 US20030504895P 20030922

Family:

Publication number	Publication date	Application number	Application date
WO04092543 A2	20041028	WO2004US10274	20040402
WO04092543 A3	20050825	WO2004US10274	20040402

Assignee(s):(std):

ADLER RICHARD S

Inventor(s):(std):

BLACKLIN PETER ; CRAWFORD JOHN ; HEYWARD GEORGE ; HINMAN EVE ; REPLOGLE JOHN

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC
EE EG 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 NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ
TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9):

E04H9/10 (Advanced/Invention);
E04H9/04 (Core/Invention)

International class (IPC 1-7):

E04B1/00

CPC:

E04H9/10

European class:

E04H9/10

[Classification Explorer](#)

Cited documents:

US5797591, US4409764, JP63181816, JP2002121821,

Title:

Anti-explosive vehicle tyre with external bearing ring

Priority:

CN200420035585U 20040408

Family:

Publication number	Publication date	Application number	Application date
CN2702873 Y	20050601	CN200420035585U	20040408

Assignee(s):(std):

WEI DAILIANG

Inventor(s):(std):

WEI DAILIANG

Inventor(s):

DAILIANG WEI

International class (IPC 8-9):

B60C11/02 (Advanced/Invention);
B60C11/02 (Core/Invention)

International class (IPC 1-7):

B60C11/02

[Classification Explorer](#)

Title:

Vehicle anti rollover device

Priority:

KR20040030672 20040430

Family:

Publication number	Publication date	Application number	Application date
KR100620034 B1	20060908	KR20040030672	20040430
KR20050105622 A	20051104	KR20040030672	20040430

Assignee(s):(std):

KOREA ADVANCED INST SCI AND TECH

Assignee(s):

KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY ; KOREA ADVANCED INST OF SCIENCE AND TECHNOLOGY

Inventor(s):(std):

LEE KYUE YOUNG ; YOON YONG SAN

International class (IPC 8-9):

B60G17/015 (Advanced/Invention);
B60G17/015 (Advanced/Non-invention);
B60G17/015 (Core/Invention)

International class (IPC 1-7):

B60G17/015

Classification Explorer

41) Family number: 33198769 (CN2773612Y)

Title:

Antiknock container

Priority:

CN200420055905U 20041230

Family:

Publication number	Publication date	Application number	Application date
CN2773612 Y	20060419	CN200420055905U	20041230

Assignee(s):(std):

JIANG YOUMING

Inventor(s):(std):

JIANG YOUMING

Inventor(s):

YOUMING JIANG

International class (IPC 8-9):

F42B39/30 (Advanced/Invention);
F42B39/00 (Core/Invention)

Classification Explorer

42) Family number: 34051419 (RU2287128C)					PatBase							
Title:	ANTI-CUMULATIVE PROTECTIVE DEVICE OF VEHICLE											
Priority:	RU20050110338 20050411											
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>RU2287128 C1</td><td>20061110</td><td>RU20050110338</td><td>20050411</td></tr></table>				Publication number	Publication date	Application number	Application date	RU2287128 C1	20061110	RU20050110338	20050411
Publication number	Publication date	Application number	Application date									
RU2287128 C1	20061110	RU20050110338	20050411									
Assignee(s):(std):	VOENNAJA AKADEMIJA RAKETNYKH V											
Assignee(s):	VOENNAJA AKADEMIJA RAKETNYKH VOJSK STRATEGICHESKOG ; VOENNAJA AKADEMIJA RAKETNYKH VOJSK STRATEGICHESKOGO NAZNACHENIJA IM PETRA VELIKOGO											
Inventor(s):(std):	BLINOV VASILIJ IVANOVICH ; DAVYDOV GENNADIJ VLADIMIROVICH ; LARIN VLADIMIR GEORGIEVICH											
International class (IPC 8-9):	F41H5/04 F41H7/04 (Advanced/Invention); F41H5/00 F41H7/00 (Core/Invention)											
Classification Explorer												

43) Family number: 34126339 (CN1888810A)

Title:

Anti-explosive container

Priority:

CN200610052683 20060726

Family:

Publication number	Publication date	Application number	Application date
CN100425941 C	20081015	CN200610052683	20060726
CN1888810 A	20070103	CN200610052683	20060726

Assignee(s):(std):

JIANG YOUMING ; YOUMING JIANG

Inventor(s):(std):

JIANG YOUMING ; YOUMING JIANG

International class (IPC 8-9):

F42B39/20 (Advanced/Invention);
F42B39/00 (Core/Invention)

Classification Explorer

44) Family number: 34214219 (CN2867271Y)

Title:

Counterterrorist explosion-eliminating protected foldable motor armoured vehicle

Priority:

CN200620089498U 20060303

Family:

Publication number	Publication date	Application number	Application date
CN2867271 Y	20070207	CN200620089498U	20060303

Assignee(s):(std):

LI LIANGYONG

Inventor(s):(std):

LI LIANGYONG

Inventor(s):

LIANGYONG LI

International class (IPC 8-9):

F41H7/02 (Advanced/Invention);
F41H7/00 (Core/Invention)

Classification Explorer

PatBase

45) Family number: 34371413 (CN2881036Y)

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Title:

Double-glazing lifting window of vehicle

Priority:

CN200620081072U 20060216

Family:

Publication number	Publication date	Application number	Application date
CN2881036 Y	20070321	CN200620081072U	20060216

Assignee(s):(std):

YANG JISHAN

Inventor(s):(std):

YANG JISHAN

Inventor(s):

JISHAN YANG

International class (IPC 8-9):

B60J1/17 E05F11/38 E05F15/16 E06B3/66 (Advanced/Invention);
B60J1/17 E05F11/38 E05F15/16 E06B3/66 (Core/Invention)

Classification Explorer

Title:

HYPERTENSION AGENT AND USE THEREOF

Priority:

DE200510055328 20051115 EP20060090025 20060215

Family:

Publication number	Publication date	Application number	Application date
EP1839666 A1	20071003	EP20060090025	20060215
WO07056996 A2	20070524	WO2006DE02018	20061114
WO07056996 A3	20071011	WO2006DE02018	20061114

Assignee(s):(std):

IVKOVIC SLAVKO ; LELAS TIHOMIR ; LJUBICIC MIJO

Inventor(s):(std):

IVKOVIC SLAVKO ; LELAS TIHOMIR ; LJUBICIC MIJO

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM 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 MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9):

A61K33/00 A61K33/06 A61K36/16 A61K36/185 A61K36/26 A61K36/73 A61K36/734 A61K36/8962 A61P9/12 (Advanced/Invention); A61K33/00 A61K33/06 A61K36/16 A61K36/185 A61K36/88 A61P9/00 (Core/Invention)

CPC:

A61K33/00 A61K33/06 A61K36/16 A61K36/185 A61K36/26 A61K36/734 A61K36/8962 A61K9/48 A61K45/06

European class:

A61K33/00 A61K33/06 A61K36/16 A61K36/185 A61K36/26 A61K36/734 A61K36/8962 A61K45/06 A61K9/48

[Classification Explorer](#)

Cited documents:

WO0064586, DE19851282, DE19755921,

47) Family number: 34611531 (CN2908233Y)

Title:

Transportation vehicle for blasting material

Priority:

CN200620114462U 20060430

Family:

Publication number	Publication date	Application number	Application date
CN2908233 Y	20070606	CN200620114462U	20060430

Assignee(s):(std):

JIANGXI JIANGLING SPECIAL VEHI

Assignee(s):

JIANGXI JIANGLING SPECIAL VEHICLE FACTORY

Inventor(s):(std):

ZHANG RENZHONG GONG

Inventor(s):

RENZHONG GONG ZHANG

International class (IPC 8-9):

B60P3/00 (Advanced/Invention);

B60P3/00 (Core/Invention)

Classification Explorer

PatBase

48) Family number: 34611532 (CN2908234Y)

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Title:	Transportation van for blasting material			
Priority:	CN200620114463U 20060430			
Family:	Publication number	Publication date	Application number	Application date
	CN2908234 Y	20070606	CN200620114463U	20060430
Assignee(s):(std):	JIANGXI JIANGLING SPECIAL VEHI			
Assignee(s):	JIANGXI JIANGLING SPECIAL VEHICLE FACTORY			
Inventor(s):(std):	ZHANG RENZHONG GONG			
Inventor(s):	RENZHONG GONG ZHANG			
International class (IPC 8-9):	B60P3/00 (Advanced/Invention); B60P3/00 (Core/Invention)			

Classification Explorer

Title: Explosion-proof type bracket conveying vehicle for coal mine
Priority: CN200620023311U 20060104

Family:	Publication number	Publication date	Application number	Application date
	CN2918146 Y	20070704	CN200620023311U	20060104

Assignee(s):(std): TAIYUAN BRANCH OF CHINA COAL R
Assignee(s): TAIYUAN BRANCH OF CHINA COAL RESEARCH INSTITUTE
Inventor(s):(std): LEI HUANG WANG
Inventor(s): HUANG WANG LEI
International class (IPC 8-9): B60P3/00 (Advanced/Invention);
B60P3/00 (Core/Invention)

[Classification Explorer](#)

50) Family number: 41176040 (RU2339898C)

Title:

"INROG" VEHICLE SELF-DEFENSE SYSTEM

Priority:

RU20060112897 20060419

Family:

Publication number

Publication date

Application number

Application date

RU2006112897 A

20071110

RU20060112897

20060419

RU2339898 C2

20081127

RU20060112897

20060419

Assignee(s):(std):

G OBRAZOVATEL NOE UCHREZHDENIE

Assignee(s):

GOSUDARSTVENNOE OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA MOSKOVSKIJ GOSUDARSTVENNYJ TEKHNICHESKIJ UNIVERSITET IMENI N EH BAUMANA GOU VPO MGTU IM N EH BAUMANA

Inventor(s):(std):

ODINTSOV VLADIMIR ALEKSEEVICH

International class (IPC 8-9):

F41H11/02 F41H5/00 F41H5/007 (Advanced/Invention)

CPC:

F41H11/02

European class:

F41H11/02

Classification Explorer

Title:

Non-inflation and explosive-proof tyre

Priority:

CN200610053430 20060915

Family:

Publication number	Publication date	Application number	Application date
CN101073973 A	20071121	CN200610053430	20060915

Assignee(s):(std):

WANG WEIPENG

Inventor(s):(std):

WANG WEIPENG

Inventor(s):

WEIPENG WANG

International class (IPC 8-9):

B21D31/02 B60C7/00 D03D15/00 (Advanced/Invention);
B21D31/02 D03D15/00 (Advanced/Non-invention);
B21D31/00 B60C7/00 D03D15/00 (Core/Invention)

[Classification Explorer](#)

Title:

Suspected explosive removing, storing and transporting mobile machinery shop

Priority:

CN200720093305U 20070207

Family:

Publication number	Publication date	Application number	Application date
CN201002548 Y	20080109	CN200720093305U	20070207

Assignee(s):(std):

JILIN BEIDA TECHNOLOGY DEV CO

Assignee(s):

JILIN BEIDA TECHNOLOGY DEVELOPMENT CO

Inventor(s):(std):

MIN SHENG ; SHUAI TIAN

Inventor(s):

TIAN SHUAI ; SHENG MIN

International class (IPC 8-9):

B60P1/54 B60P3/00 F42B39/26 (Advanced/Invention);
B60P1/54 B60P3/00 F42B39/00 (Core/Invention)

[Classification Explorer](#)

Title: Environment protection type cleaning vehicle
Priority: CN200620007509U 20060303

Family:	Publication number	Publication date	Application number	Application date
	CN201008855 Y	20080123	CN200620007509U	20060303

Assignee(s):(std): ZHIQIANG ZHOU
Assignee(s): ZHOU ZHIQIANG
Inventor(s):(std): ZHIQIANG ZHOU
Inventor(s): ZHOU ZHIQIANG
International class (IPC 8-9): B08B3/04 (Advanced/Invention);
B08B3/04 (Core/Invention)

[Classification Explorer](#)

54) Family number: 41511043 (CN101112850A)

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Title:

Priority:

Family:

Assignee(s):(std):

Inventor(s):(std):

Inventor(s):

International class (IPC 8-9):

Method for making anti-burst inner tyre

CN200610014997 20060728

Publication number	Publication date	Application number	Application date
CN101112850 A	20080130	CN200610014997	20060728

CHUNGHUNG TIANJIN INDUSTRY CO

YUNBO ZHANG

ZHANG YUNBO

B60C5/20 (Advanced/Invention);
B60C5/00 (Core/Invention)

Classification Explorer

Title:

Bendable type explosive transport vehicle

Priority:

CN200720047789U 20070124

Family:

Publication number	Publication date	Application number	Application date
CN201015967 Y	20080206	CN200720047789U	20070124

Assignee(s):(std):

SIHENG CHEN

Assignee(s):

CHEN SIHENG

Inventor(s):(std):

BIN WANG ; SIHENG CHEN

Inventor(s):

WANG BIN ; CHEN SIHENG

International class (IPC 8-9):

B60P1/06 B60P3/00 F42B39/00 (Advanced/Invention);
B60P1/04 B60P3/00 F42B39/00 (Core/Invention)

[Classification Explorer](#)

Title: Safety anti-explosive device for tyre
Priority: CN200720154995U 20070723

Family:	Publication number	Publication date	Application number	Application date
	CN201111475 Y	20080910	CN200720154995U	20070723

Assignee(s):(std): YINFU FANG
Assignee(s): FANG YINFU
Inventor(s):(std): YINFU FANG
Inventor(s): FANG YINFU
International class (IPC 8-9): B60C17/01 (Advanced/Invention);
B60C17/00 (Core/Invention)

[Classification Explorer](#)

Title:

SECURITY SYSTEM AGAINST DAMAGING PRESSURE WAVES FOR MILITARY EQUIPMENT SUCH AS RADAR COVERINGS AND ARMOUR

Priority:

DE200710021822 20070507

Family:

Publication number	Publication date	Application number	Application date
DE102007021822 A1	20081113	DE200710021822	20070507
EP1990600 A2	20081112	EP20080008564	20080507

Assignee(s):(std):

STURM GUENTER ; STURM HANS GUENTER

Inventor(s):(std):

STURM GUENTER

Designated states:

AL AT BA 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 TR

International class (IPC 8-9):

B63B3/00 B63G13/00 B64C1/00 B64D47/00 E04B1/98 F41H3/02 F41H5/02 F41H5/06 F42D5/045 (Advanced/Invention); B63B3/00 B63G13/00 B64C1/00 B64D47/00 E04B1/98 F41H3/00 F41H5/00 F42D5/00 (Core/Invention)

CPC:

E04B1/98 F42D5/045

European class:

E04B1/98 F42D5/045

[Classification Explorer](#)

Cited documents:

US2004154463, DE875701, DE4200903, DE3818573, DE3110335, DE20307778 U, DE202004000682 U, DE1823002 U, DE1171372,

Title:

Brake device

Priority:

CN200820089073U 20080109

Family:

Publication number	Publication date	Application number	Application date
CN201165230 Y	20081217	CN200820089073U	20080109

Assignee(s):(std):

DIANLONG YIN

Assignee(s):

YIN DIANLONG

Inventor(s):(std):

DIANLONG YIN ; GANG WANG ; GUANGZE WANG ; QIANTING YIN ; RUI SUN

Inventor(s):

SUN RUI ; WANG GANG ; WANG GUANGZE ; YIN DIANLONG ; YIN QIANTING

International class (IPC 8-9):

B60T1/12 B60T13/24 B60T13/66 F15B15/19 (Advanced/Invention);
F15B15/19 (Advanced/Non-invention);
B60T1/00 B60T13/24 B60T13/66 F15B15/00 (Core/Invention)

[Classification Explorer](#)

Title:
Priority:
Family:

PROCESS AND DEVICE FOR PASSIVE SECURIZATION OF A FUEL CELL ASSEMBLY
FR20070055844 20070619 FR20070055856 20070619 WO2008FR51066 20080613

Publication number	Publication date	Application number	Application date
EP2162939 A2	20100317	EP20080806001	20080613
FR2917901 A1	20081226	FR20070055844	20070619
FR2917901 B1	20091016	FR20070055844	20070619
FR2917902 A1	20081226	FR20070055856	20070619
FR2917902 B1	20091016	FR20070055856	20070619
WO09004233 A2	20090108	WO2008FR51066	20080613
WO09004233 A3	20090226	WO2008FR51066	20080613

Assignee(s):(std):
Assignee(s):
Inventor(s):(std):
Designated states:

PEUGEOT CITROEN AUTOMOBILES SA ; SAINFLOU DAMIEN PIERRE
PEUGEOT CITROEN AUTOMOBILES SA SOCIETE ANONYME ; PEUGEOT CITROEN AUTOMOBILES SOC ANONYME SA
SAINFLOU DAMIEN PIERRE
AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI 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 PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):
CPC:
European class:

B60L11/18 H01M8/02 H01M8/04 H01M8/06 H01M8/24 (Advanced/Invention);
B60L11/18 H01M8/02 H01M8/04 H01M8/06 H01M8/24 (Core/Invention)
H01M8/04097 H01M8/04425 H01M8/04462 H01M8/0447 H01M8/04492 H01M8/04589 H01M8/04805 Y02E60/50
H01M8/0662 H01M8/04231 H01M8/2475 H01M2250/20 Y02T90/32 H01M8/04089 H01M8/04164 H01M2008/1095
H01M8/04C2 H01M8/04C8B H01M8/04H6F4 H01M8/06C T01M250/20 T01M8/04C2B T01M8/04C2E2A T01M8/04H4D12
T01M8/04H4F6 T01M8/04H4F8 T01M8/04H4H T01M8/04H4K4D T01M8/10P T01M8/24D2A Y02E60/50 Y02T90/32

Cited documents:

US2006263658, US2006040158, US2005118471, US2004101734, US2002094469, JPS59149665, JP59149665, JP2007115485, JP2006147150, JP2003132915, FR2870390,

[Classification Explorer](#)

Title: Leak-proof and anti-explosive vehicle wheel with inside and outside tires three inflation pressure clutched multi-chamber

Priority: CN200820007255U 20080310

Family:

Publication number	Publication date	Application number	Application date
CN201189805 Y	20090204	CN200820007255U	20080310

Assignee(s):(std): SHOUHUA CHEN

Assignee(s): CHEN SHOUHUA

Inventor(s):(std): SHOUHUA CHEN

Inventor(s): CHEN SHOUHUA

International class (IPC 8-9): B60B21/10 B60C29/02 B60C5/20 (Advanced/Invention);
B60B21/00 B60C29/00 B60C5/00 (Core/Invention)

[Classification Explorer](#)

61) Family number: 43117121 (CN201209480Y)

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Title:	Automatic protection apparatus of anti-explosion diesel engine			
Priority:	CN200820012251U 20080418			
Family:	Publication number	Publication date	Application number	Application date
	CN201209480 Y	20090318	CN200820012251U	20080418
Assignee(s):(std):	SANY HEAVY EQUIPMENT CO LTD ; SANY HEAVY MACHINE CO LTD			
Assignee(s):	SANY HEAVY MACHINE CO			
Inventor(s):(std):	HONGYANG LIU ; JIEFU ZHANG ; XIANGDONG ZHU ; XING LI ; ZHAOYONG XU ; ZHONGHAI XIAO			
Inventor(s):	ZHU XIANGDONG ; XU ZHAOYONG ; ZHANG JIEFU ; XIAO ZHONGHAI ; LI XING ; LIU HONGYANG			
International class (IPC 8-9):	F02B77/08 (Advanced/Invention); F02B77/08 (Core/Invention)			

Classification Explorer

Title:
Priority:
Family:

Pneumatic arrester of anti-explosion diesel engine
CN200820012250U 20080418

Publication number	Publication date	Application number	Application date
CN201209481 Y	20090318	CN200820012250U	20080418

Assignee(s):(std):
Assignee(s):
Inventor(s):(std):
Inventor(s):
International class (IPC 8-9):

SANY HEAVY EQUIPMENT CO LTD ; SANY HEAVY MACHINE CO LTD
SANY HEAVY MACHINE CO
ZHONGHAI XIAO ; XING LI ; XIANGDONG ZHU ; JIEFU ZHANG ; HONGYANG LIU
LIU HONGYANG ; LI XING ; XIAO ZHONGHAI ; ZHANG JIEFU ; ZHU XIANGDONG
F02D11/08 (Advanced/Invention);
F02D11/06 (Core/Invention)

[Classification Explorer](#)

Title:	ANTI-EXPLOSIVE OIL TANK																																											
Priority:	WO2008CN00288 20080203		RU20080114527 20080203																																									
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>CN101932515 A</td><td>20101229</td><td>CN200880125961</td><td>20080203</td></tr><tr><td>CN101932515 B</td><td>20120523</td><td>CN200880125961</td><td>20080203</td></tr><tr><td>EP2256067 A1</td><td>20101201</td><td>EP20080706469</td><td>20080203</td></tr><tr><td>EP2256067 A4</td><td>20110706</td><td>EP20080706469</td><td>20080203</td></tr><tr><td>EP2256067 B1</td><td>20130109</td><td>EP20080706469</td><td>20080203</td></tr><tr><td>HK1142306 A1</td><td>20120928</td><td>HK20100108770</td><td>20100915</td></tr><tr><td>RU2008114527 A</td><td>20091027</td><td>RU20080114527</td><td>20080203</td></tr><tr><td>RU2411171 C2</td><td>20110210</td><td>RU20080114527</td><td>20080203</td></tr><tr><td>WO09100573 A1</td><td>20090820</td><td>WO2008CN00288</td><td>20080203</td></tr></table>				Publication number	Publication date	Application number	Application date	CN101932515 A	20101229	CN200880125961	20080203	CN101932515 B	20120523	CN200880125961	20080203	EP2256067 A1	20101201	EP20080706469	20080203	EP2256067 A4	20110706	EP20080706469	20080203	EP2256067 B1	20130109	EP20080706469	20080203	HK1142306 A1	20120928	HK20100108770	20100915	RU2008114527 A	20091027	RU20080114527	20080203	RU2411171 C2	20110210	RU20080114527	20080203	WO09100573 A1	20090820	WO2008CN00288	20080203
Publication number	Publication date	Application number	Application date																																									
CN101932515 A	20101229	CN200880125961	20080203																																									
CN101932515 B	20120523	CN200880125961	20080203																																									
EP2256067 A1	20101201	EP20080706469	20080203																																									
EP2256067 A4	20110706	EP20080706469	20080203																																									
EP2256067 B1	20130109	EP20080706469	20080203																																									
HK1142306 A1	20120928	HK20100108770	20100915																																									
RU2008114527 A	20091027	RU20080114527	20080203																																									
RU2411171 C2	20110210	RU20080114527	20080203																																									
WO09100573 A1	20090820	WO2008CN00288	20080203																																									
Assignee(s):(std):	HUANG XIAODONG ; KHUAN KSJAODON ; SHANGHAI HUAPENG EXPLOSION PROOF SCIENCE AND TECHNOLOGY CO LTD ; SHANGHAI HUAPENG EXPLOSIVE PROOF TECHNOLOGY CO LTD ; XIAODONG HUANG																																											
Assignee(s):	SHANGHAI HUAPENG EXPLOSIVE PROOF TECHNOLOGY CO																																											
Inventor(s):(std):	HUANG XIAODONG ; KHUAN KSJAODON ; XIAODONG HUANG																																											
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI 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 PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW																																											
International class (IPC 8-9):	A62C3/06 B65D81/00 B65D88/00 B65D88/04 B65D88/06 B65D88/12 B65D90/02 B65D90/16 B65D90/22 B65D90/32 F17C13/00 (Advanced/Invention); B65D88/00 (Core/Invention); B65D (Subclass/Invention)																																											
CPC:	B60K2015/03381 B65D88/04 A62C3/065 B65D81/00 B65D88/06 B65D88/128 B65D90/02 B65D90/16 B65D90/325 B65D2213/00 F17C13/002 F17C2201/0109 F17C2201/0119 F17C2201/0128 F17C2201/0133 F17C2201/0147 F17C2201/0161 F17C2201/054 F17C2201/056 F17C2201/058 F17C2203/013 F17C2203/0607 F17C2203/0624 F17C2203/0629 F17C2203/0639 F17C2203/0648 F17C2203/0673 F17C2205/0165 F17C2205/018 F17C2205/0184 F17C2205/0323 F17C2205/0379 F17C2205/0397 F17C2221/033 F17C2221/035 F17C2223/0123 F17C2223/0153 F17C2223/0161 F17C2223/033 F17C2223/035 F17C2223/036 F17C2260/036 F17C2260/042 F17C2260/044 F17C2260/053 F17C2270/0105 F17C2270/0134 F17C2270/0147 F17C2270/0168																																											
European class:	A62C3/06B B65D81/00 B65D88/04 B65D88/06 B65D88/12D B65D90/02 B65D90/16 B65D90/32A F17C13/00D L65D213/00 R17C201/01A1 R17C201/01A3 R17C201/01B R17C201/01C R17C201/01G R17C201/01G3 R17C201/05B R17C201/05C R17C201/05D R17C203/01A3 R17C203/06A2 R17C203/06A7A4 R17C203/06A7B1 R17C203/06B1A R17C203/06B1C R17C203/06B2B4 R17C205/01N1B R17C205/01N5 R17C205/01N7 R17C205/03L12 R17C205/03L5 R17C205/03M2A R17C221/03B1 R17C221/03B3 R17C223/01A3 R17C223/01B1 R17C223/01B1B R17C223/03B R17C223/03C R17C223/03D R17C260/03B1 R17C260/04A R17C260/04B R17C260/05A R17C270/01A1 R17C270/01B R17C270/01C6A R17C270/01D1																																											
Classification Explorer																																												
Cited documents:	WO07147316, US6178991, US4925053, DE20023859 U, CN92102437, CN2921544, CN2007002299, CN1651289, CN1501016, BE570366,																																											

64) Family number: 43802477 (CN101531177A)

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Title:

ANTI-THEFT ALARM FOR VEHICLES

Priority:

CN200820092511U 20080310CN200810170441 20081031

Family:

Publication number	Publication date	Application number	Application date
CN101531177 A	20090916	CN200810170441	20081031

Assignee(s):(std):

PENG GUOZHI

International class (IPC 8-9):

B60Q1/46 B60Q5/00 B60R25/10 B60R25/104 (Advanced/Invention);
B60Q1/26 B60Q5/00 B60R25/10 (Core/Invention)

[Classification Explorer](#)

Title:

OBJECT PROTECTION FROM HOLLOW CHARGES AND METHOD FOR THE PRODUCTION THEREOF

Priority:

EP20080405315 20081229 WO2009CH00407 20091219 EP20090775088 20091219
EP20120000855 20091219 EP20120000856 20091219 EP20120000857 20091219
US20110998995 20110622 US20130051625 20131011 US20140187667 20140224

Family:

Publication number	Publication date	Application number	Application date
AU2009335617 AA	20100708	AU20090335617	20091219
CA2747532 AA	20100708	CA20092747532	20091219
DK2382437 T3	20130527	DK20090775088T	20091219
EP2202478 A1	20100630	EP20080405315	20081229
EP2382437 A1	20111102	EP20090775088	20091219
EP2382437 B1	20130220	EP20090775088	20091219
EP2455701 A1	20120523	EP20120000855	20091219
EP2455701 B1	20130904	EP20120000855	20091219
EP2455702 A1	20120523	EP20120000856	20091219
EP2455702 B1	20141231	EP20120000856	20091219
EP2455703 A1	20120523	EP20120000857	20091219
EP2455703 B1	20140813	EP20120000857	20091219
ES2406759 T3	20130610	ES20090775088T	20091219
HR20130435 T1	20130630	HR20130000435	20130517
US2011252955 AA	20111020	US20090998995	20091219
US2014041190 AA	20140213	US20130051625	20131011
US2014190342 AA	20140710	US20140187667	20140224
US8578833 BB	20131112	US20090998995	20091219
US8701541 BB	20140422	US20130051625	20131011
WO10075637 A1	20100708	WO2009CH00407	20091219

Assignee(s):(std):

KAUFMANN HANSPETER ; RADSTAKE MARC ; RUAG LAND SYSTEMS ; RUAG LAND SYSTEMS AG ; RUAG SCHWEIZ AG

Inventor(s):(std):

HANSPETER KAUFMANN ; KAUFMANN HANSPETER ; KAUFMANN HANSPETER DR ; MARC RADSTAKE ; RADSTAKE MARC

Designated states:

AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ 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 PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):

B23P17/04 F41H5/02 F41H5/04 (Advanced/Invention);
F41H5/00 (Core/Invention)

CPC:

F41H5/02 Y10T29/49 Y10T29/49826 Y10T428/24058 F41H5/023 F41H5/0492

European class:

F41H5/02B F41H5/04H

US class:

29/428 29/592 29/592S 428/105 89/36.02 89/36.020P 89/912 89/912S

[Classification Explorer](#)

Cited documents:

WO11123086, WO11057628, WO10008428, WO09091373, US8132493, US8042449, US8011285, US7900548, US6311605, US5392687, US5214235, US3573150, US2013025442, US2012186427, US2012174756, US2011283873, US2011259184, US2011252955, US2011067561, US2009272254, US2009266226, US2009235814, US2009031889, FR1103549, DE688526, DE2601562, DE19825360, DE19825260,

Title:

Anti-explosion diesel tail gas combustion and purification device

Priority:

CN200920247282U 20091021

Family:

Publication number	Publication date	Application number	Application date
CN201546789 U	20100811	CN200920247282U	20091021

Assignee(s):(std):

SANY HEAVY EQUIPMENT CO LTD ; SANYHE INTERNAT HOLDINGS CO ; SANYHE INTERNAT HOLDINGS CO LTD

Assignee(s):

SANYHE INTERNATIONAL HOLDINGS CO ; SANYHE INTERNATIONAL HOLDINGS CO LTD

Inventor(s):(std):

HONGXIANG SUN ; RONG JIN ; ZHAOYONG XU ; ZHI SHAO ; ZHONGHAI XIAO ; XIANGDONG ZHU

Inventor(s):

XIAO ZHONGHAI ; XU ZHAOYONG ; ZHU XIANGDONG ; SHAO ZHI ; SUN HONGXIANG ; JIN RONG

International class (IPC 8-9):

F01N3/04 F01N3/06 F01N7/08 (Advanced/Invention)

[Classification Explorer](#)

Title:

Hinge type rubber wheel transportation vehicle

Priority:

CN201020701425U 20101229

Family:

Publication number	Publication date	Application number	Application date
CN201907397 U	20110727	CN201020701425U	20101229

Assignee(s):(std):

CHINA COAL RES INST SHANXI COAL MACHINE EQUIPMENT CO LTD ; TAIYUAN INST OF CHINA COAL RES INST

Assignee(s):

TAIYUAN INSTITUTE OF CHINA COAL RESEARCH INSTITUTE ; CHINA COAL RESEARCH INSTITUTE SHANXI COAL MACHINEEQUIPMENT CO

Inventor(s):(std):

XUERONG ZHANG ; XIUMEI ZHAO ; ZHENSHENG YANG ; YONGFENG CHEN ; TAO SHI ; RUIPING ZHAO ; QINGYU WANG ; QINGXIANG WANG ; PEIYAN GUO ; LONG XIE ; JINXI WANG ; JIANMIN MA ; HAIXING ZHAO ; FAN WANG ; BIN WANG

Inventor(s):

CHEN YONGFENG ; GUO PEIYAN ; MA JIANMIN ; SHI TAO ; YANG ZHENSHENG ; ZHAO XIUMEI ; ZHAO RUIPING ; ZHAO HAIXING ; ZHANG XUERONG ; XIE LONG ; WANG QINGYU ; WANG QINGXIANG ; WANG JINXI ; WANG FAN ; WANG BIN

International class (IPC 8-9):

B60K17/04 B60K20/02 B60K5/00 B60P1/16 (Advanced/Invention)

Classification Explorer

68) Family number: 49415867 (TWM410212Y)					PatBase
Title:	ANTI-EXPLOSIVE BOX AND VEHICLE WITH ANTI-EXPLOSIVE BOX				
Family:	Publication number	Publication date	Application number	Application date	
	TWM410212 Y	20110821	TW20100222560U	20101119	
Inventor(s):	WU, YUENCHUNG ; YEN, SHANGHE				
International class (IPC 8-9):	F42B39/14 (Advanced/Invention)				
Classification Explorer					

Title:

Drive axle of anti-explosion towing vehicle

Priority:

CN201120000246U 20110104

Family:

Publication number	Publication date	Application number	Application date
CN201951241 U	20110831	CN201120000246U	20110104

Assignee(s):(std):

GANZHOU WUHUAN MACHINE CO LTD

Assignee(s):

GANZHOU WUHUAN MACHINE CO

Inventor(s):(std):

AIZHEN XIE ; DONGMENG WU ; XUEJUN ZHU ; YUQUAN LIU ; ZHONGLIANG JIANG

Inventor(s):

ZHU XUEJUN ; JIANG ZHONGLIANG ; LIU YUQUAN ; WU DONGMENG ; XIE AIZHEN

International class (IPC 8-9):

B60B35/14 B60K17/06 B60K17/16 B60T1/06 (Advanced/Invention)

[Classification Explorer](#)

70) Family number: 49563770 (CN102175099A)

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Title:

Priority:

Family:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

Inventor(s):

International class (IPC 8-9):

Glass crushing device of vehicle

CN201010622055 20101231

Publication number	Publication date	Application number	Application date
CN102175099 A	20110907	CN201010622055	20101231

SHANGHAI TITO ENTPR CO LTD ; SPECIAL POLICE COLLEGE OF CHINESE PEOPLE S ARMED P ; SPECIAL POLICE COLLEGE OF CHINESE PEOPLE S ARMED POLICE FORCE ; CHINESE ARMED POLICE FORCE SPECIAL POLICE ACADEMY ; XI AN WUHUA ENERGY EXPLODING EQUIPMENT CO LTD

SHANGHAI TITO ENTERPRISE CO ; XI AN WUHUA ENERGY EXPLODING EQUIPMENT CO

YOUQIN GU ; YONG XIAO ; ZHEYU LI ; SONGQIAO ZHANG ; LUJUN ZHANG ; LING WEI ; JIABIN PENG ; HONGYE LIU ; FENG YAO ; CHUNYANG FAN ; BOXIANG SUN

FAN CHUNYANG ; GU YOUQIN ; LI ZHEYU ; LIU HONGYE ; PENG JIABIN ; ZHANG SONGQIAO ; ZHANG LUJUN ; YAO FENG ; XIAO YONG ; WEI LING ; SUN BOXIANG

F41H13/00 (Advanced/Invention)

[Classification Explorer](#)

Title:

Vehicle glass breaker

Priority:

CN201020698278U 20101231

Family:

Publication number	Publication date	Application number	Application date
CN202024680 U	20111102	CN201020698278U	20101231

Assignee(s):(std):

SPECIAL POLICE ACADEMY CHINESE ARMED POLICE FORCE ; SPECIAL POLICE COLLEGE OF CHINESE PEOPLE S ARMED P ; SPECIAL POLICE COLLEGE OF CHINESE PEOPLE S ARMED POLICE FORCE ; SHANGHAI YOUXIAN IND CO LTD ; XI AN WUHUA ENERGY EXPLODING EQUIPMENT CO LTD

Assignee(s):

SHANGHAI YOUXIAN INDUSTRIAL CO ; XI AN WUHUA ENERGY EXPLODING EQUIPMENT CO

Inventor(s):(std):

BOXIANG SUN ; CHUNYANG FAN ; FENG YAO ; HONGYE LIU ; JIABIN PENG ; LING WEI ; SONGQIAO ZHANG ; YONG XIAO ; YOUQIN GU ; LUJUN ZHANG ; ZHEYU LI

Inventor(s):

PENG JIABIN ; ZHANG LUJUN ; ZHANG SONGQIAO ; SUN BOXIANG ; WEI LING ; XIAO YONG ; YAO FENG ; LIU HONGYE ; LI ZHEYU ; GU YOUQIN ; FAN CHUNYANG

International class (IPC 8-9):

F41H13/00 (Advanced/Invention)

Classification Explorer

Title: ANTI-SKID DEVICE FOR A VEHICLE, CAPABLE OF PREVENTING A TIRE BEING SKIDDED WITH SIMPLE OPERATION

Priority: KR20100091591 20100917

Family:

Publication number	Publication date	Application number	Application date
KR20120029657 A	20120327	KR20100091591	20100917

Assignee(s):(std): KIM TAE JUNG

Inventor(s):(std): KIM TAE JUNG

International class (IPC 8-9): B60C27/00 B60C27/14 (Advanced/Invention)

[Classification Explorer](#)

Title:

SELF-CONTAINED JETTISON ABLE TRACKED DRIVE

Priority:

US20100892538 20100928 US20130854249 20130401

Family:

Publication number	Publication date	Application number	Application date
US2012073887 AA	20120329	US20100892538	20100928
US2013226382 AA	20130829	US20130854249	20130401
US8408340 BB	20130402	US20100892538	20100928

Assignee(s):(std):

GROSSMAN VITALY ; MEZIR BORIS ; NEM MIKE

Inventor(s):(std):

GROSSMAN VITALY ; MEZIR BORIS ; NEM MIKE

International class (IPC 8-9):

B62D11/04 B62D55/00 B62D55/06 B62D55/065 B62D55/084 (Advanced/Invention)

CPC:

B62D55/00 B62D55/084 B62D11/04 B62D55/065 Y10T29/49824

European class:

B62D55/00 B62D55/084

US class:

180/6.5 180/9.1 180/9.100P 29/426.6 305/120 701/22

[Classification Explorer](#)

Cited documents:

US7036894, US6425450, US5097916, US5022812, US3994352, US3752499, US2007017713,

Title: Anti-terrorist intelligent vehicle applicable to removing dangerous obstacles

Priority: CN201120330898U 20110905

Family:

Publication number	Publication date	Application number	Application date
CN202241267 U	20120530	CN201120330898U	20110905

Assignee(s):(std): SHENG DONG YU

Assignee(s): YU SHENG DONG

Inventor(s):(std): SHENG DONG YU

Inventor(s): YU SHENG DONG

International class (IPC 8-9): B25J13/00 B25J15/08 B25J19/04 B25J5/00 B25J9/12 (Advanced/Invention)

[Classification Explorer](#)

Title:

ANTI-EXPLOSION AND ANTI-IMPACT BUMPER SYSTEM OF REMOTE-CONTROL RAIL FLAT CAR

Priority:

CN201110439945 20111226

Family:

Publication number	Publication date	Application number	Application date
CN102514589 A	20120627	CN201110439945	20111226

Assignee(s):(std):

LIWEN LIU

Assignee(s):

LIU LIWEN

Inventor(s):(std):

JIMING LU ; LIWEN LIU ; TAOMEI FU ; YONG NING ; ZHENRU LIU ; ZHIQIANG YANG

Inventor(s):

YANG ZHIQIANG ; LU JIMING ; NING YONG ; LIU LIWEN ; LIU ZHENRU ; FU TAOMEI

International class (IPC 8-9):

B61F19/04 (Advanced/Invention)

[Classification Explorer](#)

Cited documents:

DE2410676, CN2592445, CN201357802, CN102085839,

Title:

Anti-explosive fuel tank for locomotive

Priority:

CN201220078289U 20120305

Family:

Publication number	Publication date	Application number	Application date
CN202520441 U	20121107	CN201220078289U	20120305

Assignee(s):(std):

CHINA FIRST AUTOMOBILE WORKS

Assignee(s):

CHINA FIRST AUTOMOBILE WORKS GROUP CO LTD

Inventor(s):(std):

SHI BAI ; ZHICHAO WANG

Inventor(s):

BAI SHI ; WANG ZHICHAO

International class (IPC 8-9):

F02M25/08 F02M37/08 F02M37/22 (Advanced/Invention)

[Classification Explorer](#)

77) Family number: 52648777 (RU2471141C) PatBase

Title:AVIATION ANTI-AVALANCHE SYSTEM

Priority:RU20110117897 20110504

Family:

Publication number	Publication date	Application number	Application date
RU2011117897 A	20121110	RU20110117897	20110504
RU2471141 C1	20121227	RU20110117897	20110504

Assignee(s):(std):G UCHREZHDENIE VYSOKOGORNYJ GEOFIZICHESKIJ INST GU VGI

Assignee(s):GOSUDARSTVENNOE UCHREZHDENIE VYSOKOGORNYJ GEOFIZICHESKIJ INST GU VGI

Inventor(s):(std):BAJSIEV KHADZHI MURAT KHASANOVICH ; ABSHAEV MAGOMET TAKHIROVICH ; ABSHAEV ALI MAGOMETOVICH

Inventor(s):BAJSIEV KHADZHI-MURAT KHASANOVICH

International class (IPC 8-9):B64D1/04 F42B12/48 F42B39/14 F42D3/00 (Advanced/Invention)

[Classification Explorer](#)

Cited documents:US2008216699, RU2265793, RU2010128249, EP0938640,

Title: MULTIFUNCTIONAL VACUUM SOLVENT EXHAUST EFFICIENT RECOVERY ENERGY-SAVING DEVICE

Priority: CN201220198455U 20120504

Family:

Publication number	Publication date	Application number	Application date
CN202569913 U	20121205	CN201220198455U	20120504

Assignee(s):(std): XU TONGJIE ; XU YAO

Inventor(s):(std): XU TONGJIE ; XU YAO

International class (IPC 8-9): B01D53/18 (Advanced/Invention)

[Classification Explorer](#)

79) Family number: 52717564 (CN102857682A)					PatBase								
Title:	Mining intrinsic safety type camera												
Priority:	CN201210379048 20121009												
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>CN102857682 A</td><td>20130102</td><td>CN201210379048</td><td>20121009</td></tr></table>				Publication number	Publication date	Application number	Application date	CN102857682 A	20130102	CN201210379048	20121009	
Publication number	Publication date	Application number	Application date										
CN102857682 A	20130102	CN201210379048	20121009										
Assignee(s):(std):	SHENZHEN DETA ELECTRIC AUTOMOBILE TECHNOLOGY CO LTD												
Inventor(s):(std):	THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED												
International class (IPC 8-9):	H04N5/225 (Advanced/Invention)												
Classification Explorer													

80) Family number: 53504944 (CN103029117A)

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Title:

EXPLOING ROBOT WORKSTATION IN HAZARDOUS AREAS

Priority:

CN201110291949 20110930

Family:

Publication number	Publication date	Application number	Application date
CN103029117 A	20130410	CN201110291949	20110930

Assignee(s):(std):

TIAN YIHENG

Inventor(s):(std):

TIAN YIHENG

International class (IPC 8-9):

B25J13/08 B25J19/04 B25J5/00 B25J9/16 (Advanced/Invention)

[Classification Explorer](#)

Title: ANTI-EXPLOSION VEHICLE-MOUNTED AIR CONDITIONER

Priority: CN201220617269U 20121121

Family:

Publication number	Publication date	Application number	Application date
CN202965885 U	20130605	CN201220617269U	20121121

Assignee(s):(std): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO LTD

Assignee(s): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO

Inventor(s):(std): WANG YI ; ZHANG PENG ; ZOU HONGQI

International class (IPC 8-9): B60H1/00 (Advanced/Invention)

[Classification Explorer](#)

Title: ANTI-EXPLOSION VEHICLE-MOUNTED COOLING PUMP

Priority: CN201220617297U 20121121

Family:

Publication number	Publication date	Application number	Application date
CN202971213 U	20130605	CN201220617297U	20121121

Assignee(s):(std): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO LTD

Assignee(s): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO

Inventor(s):(std): JIA MINGYANG ; LIU ANBANG ; ZHANG PENG

International class (IPC 8-9): F04D13/06 F04D29/02 (Advanced/Invention)

[Classification Explorer](#)

Title: ANTI-EXPLOSION VEHICLE-MOUNTED AIR CONDITIONER TEMPERATURE CONTROLLER

Priority: CN201220617240U 20121121

Family:

Publication number	Publication date	Application number	Application date
CN202965884 U	20130605	CN201220617240U	20121121

Assignee(s):(std): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO LTD

Assignee(s): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO

Inventor(s):(std): GUO XIAOPO ; WANG YI ; ZHANG PENG

International class (IPC 8-9): B60H1/00 F24F11/00 (Advanced/Invention)

[Classification Explorer](#)

Title: ANTI-EXPLOSION POWER COMPENSATOR FOR FLASH APPARATUS OF VEHICLE

Priority: CN201220621769U 20121121

Family:

Publication number	Publication date	Application number	Application date
CN202966103 U	20130605	CN201220621769U	20121121

Assignee(s):(std): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO LTD

Assignee(s): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO

Inventor(s):(std): WANG YI ; ZHANG PENG

International class (IPC 8-9): B60Q1/34 H05B37/02 (Advanced/Invention)

[Classification Explorer](#)

Title: ANTI-EXPLOSION BRAKE PAD

Priority: CN201220617250U 20121121

Family:

Publication number	Publication date	Application number	Application date
CN202971670 U	20130605	CN201220617250U	20121121

Assignee(s):(std): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO LTD

Assignee(s): NANYANG SECOND MECHANICAL EXPLOSION PROOF FIRE FIGHTING EQUIPMENT CO

Inventor(s):(std): ZHANG SONG ; JIA MINGYANG

International class (IPC 8-9): F16D65/04 F16D65/78 (Advanced/Invention)

[Classification Explorer](#)

Title:

WORKSHOP CRANE CONNECTING DEVICE

Priority:

CN201220703381U 20121219

Family:

Publication number	Publication date	Application number	Application date
CN203006265 U	20130619	CN201220703381U	20121219

Assignee(s):(std):

ZHEJIANG DAYANG BIOTECH GROUP CO LTD

Assignee(s):

ZHEJIANG DAYANG BIOTECH GROUP CO

Inventor(s):(std):

JIN XIAOMING ; MA JIANMING ; QIU XIESONG ; WANG WUJUN

International class (IPC 8-9):

B65G7/00 (Advanced/Invention)

[Classification Explorer](#)

Title: Armored vehicles with anti-mine protection (Machine translation)
Priority: RU20130120166U 20130430

Family:	Publication number	Publication date	Application number	Application date
	RU132882 U1	20130927	RU20130120166U	20130430

International class (IPC 8-9): F41H7/04 (Advanced/Invention)

[Classification Explorer](#)

Title:

PHARMACEUTICAL FORMULATIONS FOR THE TREATMENT AND PREVENTION OF TRAUMA-INDUCED NEUROPATHOLOGY AND NEURODEGENERATION

Priority:

US20130750745P20130109US2013081571520130315US2013096125120130807

US2013008119920130904US2013081571620130315US2013001819920130904

US2013005560420131016CA2013283105420131022US2014014870920140106

US2013014356220131230US20140924212P20140106

Family:

Publication number	Publication date	Application number	Application date
CA2831054 AA	20131226	CA20132831054	20131022
US2014193523 AA	20140710	US20140148709	20140106
US2014193526 AA	20140710	US20130815716	20130315
US2014193527 AA	20140710	US20130961251	20130807
US2014193528 AA	20140710	US20130018199	20130904
US2014194394 AA	20140710	US20130055604	20131016
US2014194397 AA	20140710	US20130143562	20131230
US2014272159 AA	20140918	US20130815715	20130315
WO14107794 A1	20140717	WO2014CA00003	20140107
WO14108807 A2	20140717	WO2014IB00594	20140103
WO14108807 A3	20141113	WO2014IB00594	20140103
WO14108808 A2	20140717	WO2014IB00606	20140107
WO14108808 A3	20141030	WO2014IB00606	20140107
WO14108809 A2	20140717	WO2014IB00609	20140105
WO14108809 A3	20141030	WO2014IB00609	20140105
WO14138874 A1	20140918	WO2014CA00196	20140310
WO14140802 A2	20140918	WO2014IB00764	20140103
WO14140802 A3	20141224	WO2014IB00764	20140103
WO14162195 A1	20141009	WO2014IB00472	20140104
WO14162195 A8	20141204	WO2014IB00472	20140104

Assignee(s):(std):

HENRY JAMES LOME ; HENRY JAMES LORNE ; SAPNA LIFE SCIENCES CORP ; SAPNA LIFE SCIENCES INC ; VANCHEM PERFORMANCE CHEMICALS

Assignee(s):

HENRY JAMES L

Inventor(s):(std):

HENRY JAMES L ; HENRY JAMES LOME ; HENRY JAMES LORNE ; SEGUIN JACQUELINE P ; ZELISKO PAUL M

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 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 VZ ZA ZM ZW

International class (IPC 8-9):

A61K31/00 A61K31/19 A61K31/194 A61K31/195 A61K31/197 A61K31/445 A61K31/495 A61K31/496 A61K31/5377 A61K31/57 A61K31/573 A61K33/00 A61K33/14 A61P25/00 A61P25/28 C09D5/08 C23C22/00 C23F11/00 (Advanced/Invention); C23F11/12 (Advanced/Non-invention)

CPC:

A61K33/14 A61K33/00 A61K31/194 A61K31/195 A61K31/197 A61K31/19 A61K31/57 A61K31/5377 A61K31/495 A61K31/496 C09D5/08 A61K45/06 C23C22/83 C23C2222/20 C23F11/10 B05D7/50 B05D2202/10

US class:

106/14.41 106/14.42 424/677 424/715 427/402 514/171 514/236.2 514/253.13 514/255.01 514/561 514/574

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Cited documents:

WO12112340, WO10107815, WO10077680, WO09089024, WO09059798, US7427442, US2011301133, US2011288059, US2011046090, US2010316678, US2009203658, US2008107756, JP2007039715, CN102409325, CA2831054, CA2810987, CA2625210,

Title:

MOBILE OPEN-TYPE ANTI-EXPLOSION TANK

Priority:

CN201320434441U 20130722

Family:

Publication number	Publication date	Application number	Application date
CN203534370 U	20140409	CN201320434441U	20130722

Assignee(s):(std):

JIHUA 3523 SPECIAL EQUIPMENT CO LTD

Assignee(s):

JIHUA 3523 SPECIAL EQUIPMENT CO

Inventor(s):(std):

CHAI SHUANG ; DING XIN ; LI QIAOTONG ; MA CHENGXI ; ZHANG ZHAONAN

International class (IPC 8-9):

F42D5/04 (Advanced/Invention)

[Classification Explorer](#)

Title:

REMOTE-MONITORING FULL-AUTOMATIC MINING DAMPER SYSTEM

Priority:

CN201320583647U 20130922

Family:

Publication number	Publication date	Application number	Application date
CN203547781 U	20140416	CN201320583647U	20130922

Assignee(s):(std):

JINAN JIAHONG SCIENCE AND TECHNOLOGY CO LTD

Assignee(s):

JINAN CARVEN TECHNOLOGY CO LTD ; JINAN JIAHONG SCIENCE AND TECHNOLOGY CO

Inventor(s):(std):

AI MAOLIANG ; WANG WEI ; XUE YANFEI ; ZHANG SHENGYING

International class (IPC 8-9):

E21F1/10 (Advanced/Invention)

[Classification Explorer](#)

Title:

DEVICE FOR CONVEYING EXPLOSIVES ONTO VEHICLE AND PREVENTING PROPAGATION OF EXPLOSION

Priority:

CN201420025249U 20140115

Family:

Publication number	Publication date	Application number	Application date
CN203740517 U	20140730	CN201420025249U	20140115

Assignee(s):(std):

GAOYAO NANHONG CHEMICAL CO LTD

Assignee(s):

GAOYAO SOUTH RAINBOW CHEMICAL CO LTD ; GAOYAO NANHONG CHEMICAL CO

Inventor(s):(std):

GUO LIEGUO ; HE ZHIBO ; PAN HAIXIONG ; PAN QIANGSHENG ; SONG QIANG ; YANG HONGHONG ; ZHANG BAOSHAN

International class (IPC 8-9):

B65G37/00 B65G43/08 (Advanced/Invention)

[Classification Explorer](#)

Title: MINE VEHICLE-MOUNTED TOP AIR CONDITIONER

Priority: CN201420171340U 20140410

Family:

Publication number	Publication date	Application number	Application date
CN203769831 U	20140813	CN201420171340U	20140410

Assignee(s):(std): NANYANG YITONG EXPLOSIONPROOF ELECTRIC CO LTD

Assignee(s): NANYANG CITY A PROOF ELECTRIC CO LTD ; NANYANG YITONG EXPLOSIONPROOF ELECTRIC CO

Inventor(s):(std): CHEN JIULONG ; XU CHUANG ; YANG HONGBO ; ZHANG MING ; ZHAO CHANGYOU ; ZHAO JINYI ; ZONG LINCAI

International class (IPC 8-9): E21F3/00 (Advanced/Invention)

[Classification Explorer](#)

Title: INTELLIGENT CONTROL SYSTEM FOR ANTI-EXPLOSION VEHICLE

Priority: CN201420021406U 20140115

Family:

Publication number	Publication date	Application number	Application date
CN203819156 U	20140910	CN201420021406U	20140115

Assignee(s):(std): SHENZHEN RUILANGTE EXPLOSION PROOF VEHICLES CO LTD

Assignee(s): EXPLOSION VEHICLE CO LTD SHENZHEN RUI LANGTE ; SHENZHEN RUILANGTE EXPLOSION PROOF VEHICLES CO

Inventor(s):(std): OUYANG YING ; WEN FENG ; WEN WEI ; ZHANG HAIYOU ; ZHANG XINGSHENG ; ZHOU HUICHAO

International class (IPC 8-9): B60R16/02 (Advanced/Invention)

[Classification Explorer](#)

94) Family number: 58280011 (JP2014234945A)

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Title:

Mine processing equipment (Machine translation)

Priority:

JP20130116664 20130603

Family:

Publication number	Publication date	Application number	Application date
JP2014234945 A2	20141215	JP20130116664	20130603

International class (IPC 8-9):

F41H11/26 (Advanced/Invention)

[Classification Explorer](#)

Cited documents:

US2004200626, JP2004245455, EP1722186,

Title: High voltage devices and anti-openings having the same electric or hybrid vehicles (Machine translation)

Priority: CN201420644548U 20141031

Family:

Publication number	Publication date	Application number	Application date
CN204156501 U	20150211	CN201420644548U	20141031

Assignee(s): TO VIEW AUTOMOBILE CO LTD

International class (IPC 8-9): B60R16/02 H02H5/00 (Advanced/Invention)

[Classification Explorer](#)

Title:

BATTERY CONTROL SYSTEM, AND VEHICLE CONTROL SYSTEM

Priority:

JP20130166803 20130809

Family:

Publication number	Publication date	Application number	Application date
WO15019834 A1	20150212	WO2014JP69232	20140718

Assignee(s):(std):

HITACHI AUTOMOTIVE SYSTEMS LTD ; NISSAN MOTOR

Assignee(s):

NISSAN MOTOR CO LTD ; NISSAN MOTOR CO

Inventor(s):(std):

HASHIMOTO HIROAKI ; IGUCHI TOYOKI ; MACHIDA AKIHIRO ; MORIKAWA HIROSHI ; MAESHIMA TOSHIKAZU ; KIYOTA SHIGEYUKI ; SAITOU HIROAKI ; TAKADA MASAYUKI ; TANAKA YOSHIYUKI ; SHINOTSUKA NORIHIRO

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 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

International class (IPC 8-9):

B60L3/00 G01R31/36 H01M10/48 H01M2/34 H02J7/00 H02J7/02 (Advanced/Invention)

Classification Explorer