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(54) **Vehicle provided with revolving turret**

Fahrzeug mit einem Drehturm

Véhicule fourni avec une tourelle rotative

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Description

[0001] The present invention relates to a vehicle, for instance a tracked vehicle or a rotated vehicle of military type, provided with revolving turret with artillery means.

[0002] To the state of the art are known armored vehicles movable by means of a system of tracks and provided with a central revolving turret upon which it is mounted the main armament of the truck which is usually constituted by a cannon. This cannon is provided with thermal sensors and usually has a system for the gas recovery and fire damping and is also hydraulically and/or electrically stabilized.

[0003] The turret is also usually provided with one or more machine guns and with various pointing and vision means or systems, such as a stabilized night/day periscopic viewer for the commander, a stabilized viewer with thermal view and laser telemeter for the gunner, apart from a fire controlling computer. This last one receives data from the various sensors of the vehicle and is able to process all the data for determining the best firing conditions.

[0004] Normally, in these types of vehicles, classified as tanks, or combat vehicles or troops transport vehicles, the interior where there is the position of the pilot and the interior of the turret are separated between them, for safety reasons united with strength reasons of the turret in general.

[0005] Is also know, from US patent N°5, 062,347, a trunnion assembly having a pivot pin with longitudinal axis defining a pivot axis weapon carrier with respect to a support member. This trunnion assembly may be part of a rotatable turret mounted on a vehicle. The base of the turret has a centrally located hatch that allows an operator to gain access to the turret. The hatch opens towards the trunnion assembly.

[0006] The Applicant has realized a vehicle provided with revolving turret with armament which communicates with the interior of the vehicle through an emergency hatch, preferably armor-plated, which opens at the bottom or the basis of the turret toward the interior of the armor-plated vehicle.

[0007] An aspect of the present invention relates to a vehicle provided with revolving turret having the characteristics of the attached claim 1.

[0008] The characteristics and the advantages of the vehicle according to the present invention will be clearer and evident from the following description, exemplificative and non-limiting, of a form of embodiment of the invention with reference to the attached figures wherein:

- Figure 1 shows a schematic view of the vehicle provided with revolving turret according to the present invention;
- Figure 2a shows a schematic view from the bottom of the turret according to the present invention;
- Figure 2b shows a lateral schematic view of the turret according to the present invention;

- Figure 2c shows a schematic view from the top of the turret according to the present invention;
- Figure 3a shows a perspective schematic view of the turret according to the present invention;
- Figure 3b shows a front schematic view of the turret according to the present invention;
- Figure 3c shows a magnified particular of the turret in its lower part according to the present invention.

[0009] With reference to the above mentioned figures the vehicle according to the present invention comprises an armor-plated cockpit 2 and preferably a track motion system 3 or alternatively rotated and is provided with a central revolving turret 4 upon which is mounted main armament 5 which is usually constituted by a cannon or by another weapon or actuator.

[0010] This cannon can be provided with thermal sensors and usually has a system for the gas recovery and fire damping and is also hydraulically stabilized.

[0011] The turret is also usually provided with one or more machine guns 6 and with various pointing and vision means or systems, such as a stabilized night/day periscopic viewer 7 for the commander, a stabilized viewer with thermal view and laser telemeter for the gunner, apart from a fire controlling computer. The latter receives data from the various sensors of the vehicle and is able to process all the data for determining the best firing conditions.

[0012] The turret is connected to the armor-plated cockpit of the vehicle by means of a circumferential fifth-wheel 8 which allows the complete revolving (by 360°) of the turret with respect to a vertical axis passing through the centre of this fifth-wheel.

[0013] According to the present invention, basis 9 of this turret presents a hatch 10 for the communication between the interior of the turret where there are the controls for the main and auxiliary armaments, and the interior of cockpit 2 of the vehicle.

[0014] This hatch permits the access to the turret not only from outside and from the top of the vehicle, as traditionally happens, but also by the personnel who is inside the cockpit itself of the vehicle, for the purpose of, for instance, looking over through episcopes, refilling the ammunition chest, carrying out emergency shots, having another escape way from the cockpit of the vehicle itself and carrying out maintenance operations.

[0015] This hatch opens at the bottom or basis of the turret toward the interior of the cockpit of the vehicle by means of a couple of opposed hinges 11.

[0016] Preferably, this hatch has a quadrangular or rectangular shape.

[0017] The hatch is also provided with closure means 12 and grasping means 13 which are accessible from the interior of the cockpit of the vehicle.

[0018] The turret according to the present invention does not have parts which enter the hull or the cockpit of the vehicle. The only communication or connection element is hatch 10.

Claims

1. A vehicle provided with a central revolving turret; said vehicle comprises:

- an armor-plated cockpit (2), comprising an interior volume;
- a turret having an interior volume, and it does not have parts which enter in the interior volume of cockpit (2), the turret being configured for mounting main armament (5);
- a system for motion of the central revolving turret (4), the system moving the central revolving turret comprising a circumferential fifth-wheel(8);

said central revolving turret comprises a base (9) and being connected to the armor-plated cockpit of the vehicle by said circumferential fifth-wheel (8) that allows the revolving of the turret around a substantially vertical axis that passes through the center of said fifth-wheel, **characterized in that:**

said base (9) of said central revolving turret presents an armor plated emergency hatch (10) that opens at the bottom or base of the turret toward an interior of the cockpit of the vehicle by means of a pair of opposed hinges (11), for the communication between the interior volume of the central revolving turret and the interior volume of cockpit (2) of the vehicle.

2. A vehicle according to claim 1, wherein said hatch has a quadrangular rectangular shape.
3. A vehicle according to claim 1, wherein said hatch is provided with closure means (12) and grasping means (13) that are accessible from the cockpit of the vehicle.
4. A vehicle according to claim 1, wherein said vehicle is provided with motion means comprising tracks.

Patentansprüche

1. Fahrzeug, das mit einem zentralen, drehbaren Geschützturm versehen ist; wobei das Fahrzeug aufweist:

- ein gepanzertes Cockpit (2), das einen Innenraum aufweist;
- einen Geschützturm, der einen Innenraum aufweist, und keine Teile hat, die in den Innenraum des Cockpits (2) hineingelangen, wobei der Geschützturm dazu ausgelegt ist, eine Hauptbewaffnung (5) anzubringen;
- ein System zur Bewegung des zentralen, dreh-

baren Geschützturms (4), wobei das System den zentralen, sich drehenden Geschützturm bewegt, der am Umfang eine Sattelkupplung (8) aufweist,

wobei der zentrale, sich drehende Geschützturm eine Basis (9) aufweist, und mit dem gepanzerten Cockpit des Fahrzeugs durch die am Umfang angeordnete Sattelkupplung (8) verbunden ist, welche das Drehen des Geschützturms um eine im wesentlichen vertikale Achse ermöglicht, die durch das Zentrum der Sattelkupplung hindurchgeht,

dadurch gekennzeichnet, dass:

die Basis (9) des zentralen, sich drehenden Geschützturms eine gepanzerte Notausstiegsluke (10) zur Verfügung stellt, die sich am Boden oder der Basis des Geschützturms zum Inneren des Cockpits des Fahrzeugs öffnet, mittels eines Paares entgegengesetzter Scharniere (11), für die Verbindung zwischen dem Innenraum des zentralen, sich drehenden Geschützturms und dem Innenraum des Cockpits (2) des Fahrzeugs.

2. Fahrzeug nach Anspruch 1, bei welchem die Luke eine quadratischrechteckige Form aufweist.
3. Fahrzeug nach Anspruch 1, bei welchem die Luke mit einem Schließmittel (12) und einem Greifmittel (13) versehen ist, die vom Cockpit des Fahrzeugs aus zugänglich sind.
4. Fahrzeug nach Anspruch 1, wobei das Fahrzeug mit einem Bewegungsmittel versehen ist, welches Gleisketten aufweist.

Revendications

1. Véhicule pourvu d'une tourelle centrale rotative, ledit véhicule comprenant :

- un cockpit blindé (2) comprenant un volume intérieur ;
- une tourelle comportant un volume intérieur et ne comportant pas de pièces entrant dans le volume intérieur du cockpit (2), la tourelle étant configurée pour le montage d'un armement principal (5) ;
- un système de déplacement de la tourelle centrale rotative (4), le système déplaçant la tourelle centrale rotative comprenant une sellette d'attelage circonférentielle (8) ;

ladite tourelle centrale rotative comprend une base (9) et elle est reliée au cockpit blindé du véhicule par

ladite sellette d'attelage circonférentielle (8) qui permet la rotation de la tourelle autour d'un axe sensiblement vertical passant par le centre de ladite sellette d'attelage, **caractérisé en ce que** :

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ladite base (9) de ladite tourelle centrale rotative présente une trappe d'évacuation blindée (10) qui s'ouvre au bas ou à la base de la tourelle vers un intérieur du cockpit du véhicule au moyen d'une paire de charnières opposées (11), pour la communication entre le volume intérieur de la tourelle centrale rotative et le volume intérieur du cockpit (2) du véhicule.

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2. Véhicule selon la revendication 1, dans lequel ladite trappe a une forme rectangulaire quadrangulaire. 15
3. Véhicule selon la revendication 1, dans lequel ladite trappe est pourvue de moyens de fermeture (12) et de moyens de préhension (13) qui sont accessibles depuis le cockpit du véhicule. 20
4. Véhicule selon la revendication 1, dans lequel ledit véhicule est pourvu de moyens de déplacement comprenant des chenilles. 25

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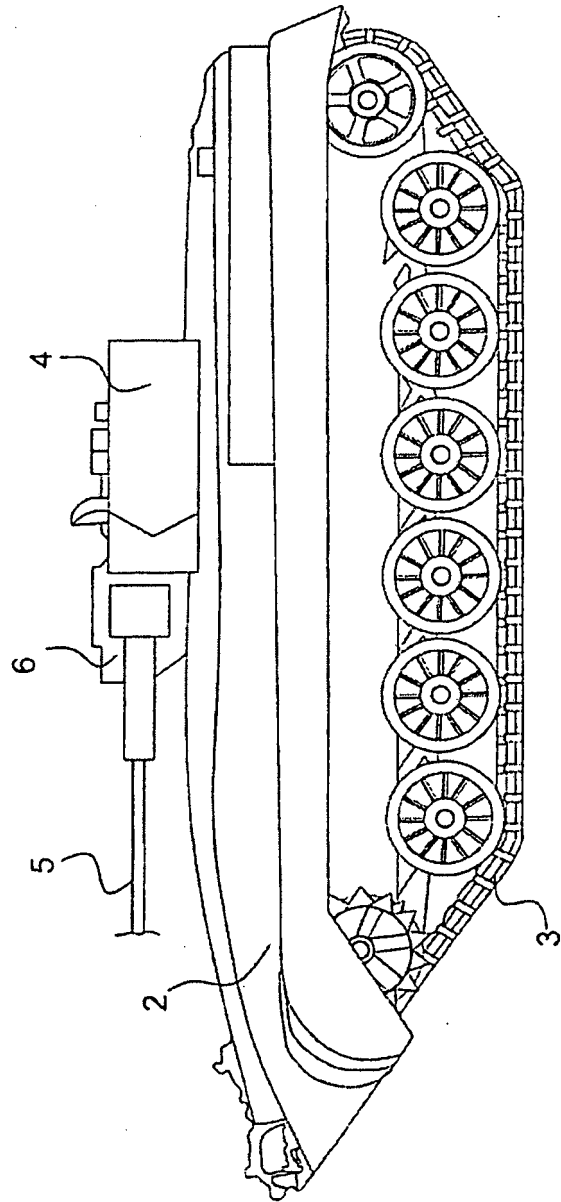


Fig. 1

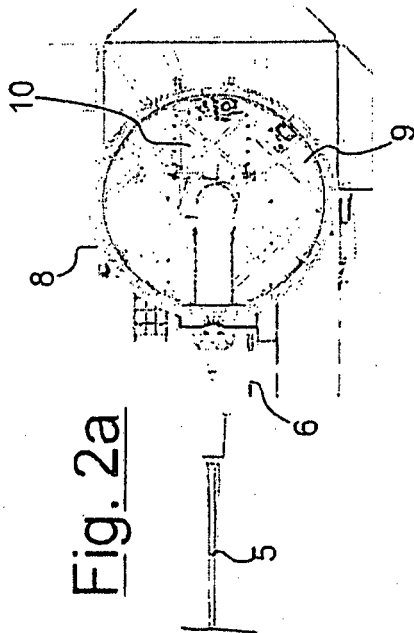


Fig. 2a

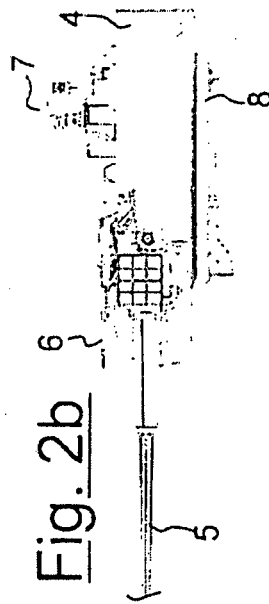


Fig. 2b

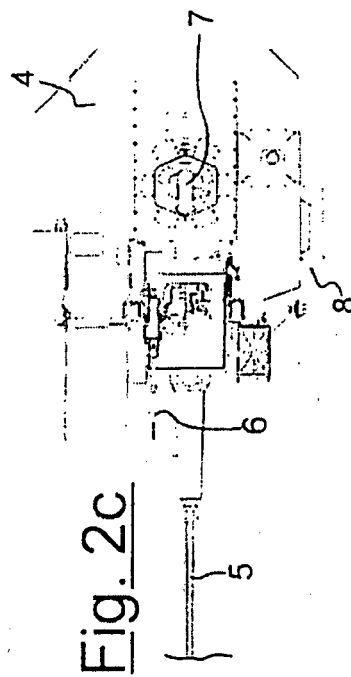


Fig. 2c

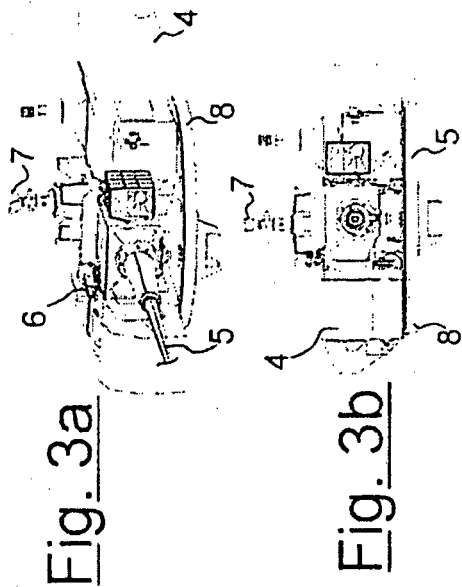


Fig. 3a

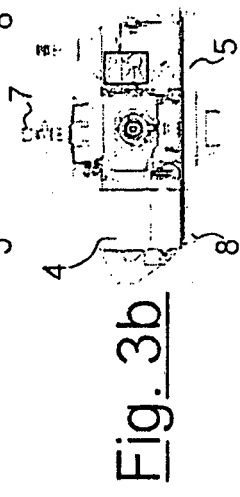


Fig. 3b

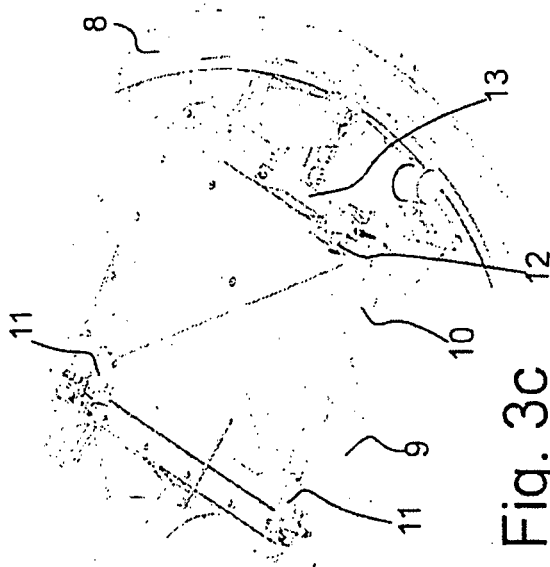


Fig. 3c

REFERENCES CITED IN THE DESCRIPTION

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