

# AB41

# Autoblinda ITALIAN ARMORED CAR AB41

**Veicolo blindato italiano Ab40**  
**意大利AB41装甲侦察车**  
イタリアのAB41装甲偵察車

■ Interior Upgrade Kit MM 3501



**MM35005**  
1931-15 SERIES  
1 / 35

LANMO  
MODEL  
蘭模型



## AB-41简介

1937年，意大利皇家陆军（Regio Esercito）意识到，自1915年以来在侦察部队服役的蓝旗亚12M装甲车，至今仍在意大利非洲殖民地和西班牙内战中服役，即使仍然高效，也已过时，因为它们速度慢、装甲薄弱、越野性能差。这导致了菲亚特-安萨尔多Autoblindo系列的发展，其中最突出的是AB41。

In 1937, the Italian Regio Esercito (English: Royal Army) realized that the Lancia 12M armored cars in service in the reconnaissance units since 1915, still employed in the Italian African Colonies and in the Spanish Civil War, even if still efficient, were obsolete because they were not fast, were weakly armored and had bad off-road driving capabilities. This led to the development of the Autoblindo FIAT-Ansaldo series, of which the most prominent was the AB41.



## Ab装甲车系列的历史



大约在同一时期，意大利非洲警察（PAI）单方面请求安萨尔多公司研制一款用于侦察任务的装甲车，用于意大利在非洲的殖民地利比亚和埃塞俄比亚。当时，反殖民抵抗组织仍然存在，轻型坦克无法胜任装甲车提供的远程侦察任务。该请求也旨在取代1918年后抵达非洲的老式菲亚特-特尔尼的黎波里和蓝旗亚12M装甲车，这些装甲车当时已连续服役20年，并因缺乏备件而出现各种问题。

意大利陆军是首批使用装甲车的陆军之一，1912年意大利陆军开始使用FIAT Arsenale装甲车，该部队高度重视装甲车，认为其可作为装甲师的远程侦察车和步兵支援车。第一次世界大战中使用的装甲车得到了陆军最高统帅部的积极评价，他们对这种新车的实用性印象深刻。1918年至1932年间，各种装甲车的原型车层出不穷，但最终只有安萨尔多公司生产的46辆FIAT 611型装甲车，其最高公路速度仅为28公里/小时，续航里程为180公里。意大利军官对这种新型装甲车并不满意，在第二次意阿比西尼亚战争期间，它受到的批评比老款Lancia 12M还要多，这导致意大利陆军向所有意大利公司下单，要求生产新型轮式车辆，以取代在西班牙使用的Lancia 12M和FIAT 611。

## History of the AB Armored Car Series

The Italian Army, which was one of the first armies to use armored cars in 1912 with the FIAT Arsenale, held armored cars in high esteem for their role of long-range reconnaissance vehicles for armored divisions and support to infantry actions. The armored cars used in World War I received positive comments from the Army High Command who were impressed by the usefulness of the new vehicles. Between 1918 and 1932, there were a number of prototypes of various armored vehicles which, however, led to nothing other than the 46 FIAT 611s produced by Ansaldo with a maximum road speed of only 28 km/h and a range of 180 km. Italian officers were not satisfied with the new armored vehicle which during the Second Italo-Abyssinian War, received more criticism than the older Lancia 12M. This led the Italian Army to give an order to all Italian companies for a new wheeled vehicle to replace the Lancia 12M which was being used in Spain and the FIAT 611.

Around the same time, the Polizia dell'Africa Italiana or PAI (English: Italian Police of Africa) unilaterally requested the development of an armored car for reconnaissance duties from Ansaldo to be used in the Italian African colonies of Libya and Ethiopia, where anti-colonial resistance groups were still present and light tanks could not adequately perform the long-range reconnaissance role that armored cars provided. This request was also aimed to replace the old FIAT-Terzi-Tripoli and Lancia 12M that arrived in Africa after 1918, which by that point, had experienced 20 years of continuous service and suffered from several problems due to a lack of spare parts.

## 全体人员

意大利陆军是首批使用装甲车的陆军之一，1912年意大利陆军开始使用FIAT Arsenale装甲车，该部队高度重视装甲车，认为其可作为装甲师的远程侦察车和步兵支援车。第一次世界大战中使用的装甲车得到了陆军最高统帅部的积极评价，他们对这种新车的实用性印象深刻。1918年至1932年间，各种装甲车的原型车层出不穷，但最终只有安萨尔多公司生产的46辆FIAT 611型装甲车，其最高公路速度仅为28公里/小时，续航里程为180公里。意大利军官对这种新型装甲车并不满意，在第二次意阿比西尼亚战争期间，它受到的批评比老款Lancia 12M还要多，这导致意大利陆军向所有意大利公司下单，要求生产新型轮式车辆，以取代在西班牙使用的Lancia 12M和FIAT 611。



## Crew

The crew consisted of four: the front driver, who also operated the radio when not driving, placed in the front; the vehicle's commander who was in the turret in the middle of the vehicle, who in addition to giving orders to the rest of the crew, had to operate the main gun and control the battlefield; the rear driver on the left of the rear; and the machine gunner/radio operator, to the rear driver's right. Throughout the war, the lack of a loader for the main gun negatively affected the performance of the armored car.

## AB40 配备 MODELLO 1941 炮塔或 AB40/41

意大利最高指挥部立即发现，炮塔中的两挺机枪无法为步兵提供足够的支援火力，并且不允许AB40与其他装甲车交战。安萨尔多公司建议在AB40底盘上安装一种新型炮塔，文章中称之为Modello 1941（即使它是1940年生产的），专为L6/40轻型侦察坦克开发，配备一门20毫米自动炮。

改装后，车辆重量从6.8吨增加到7.45吨，为了避免额外重量对装甲车造成的压力问题，车辆安装了更强大的汽油发动机，即88马力的FIAT SPA ABM 2 6缸发动机。

经过几次测试，该发动机得到了军队的好评，并批准生产。不久之后，新型Modello 1941炮塔（该炮塔已在为L6/40制造）抵达装配线。由于SPA工厂的装配线需要改造，新发动机的安装时间更长，因此决定对AB40装甲车进行改装，将Modello 41炮塔安装在由FIAT SPA ABM 1发动机驱动的车体上。这些“混合动力”装甲车从外观上与AB41难以区分。

皇家陆军自主汽车采购办公室（Ufficio Autonomo Approvvigionamenti Automobilistici Regio Esercito）的登记册列出了所有生产的车辆，包括其注册号、底盘号和发动机号。其中提到，AB40型在1941年和1942年初仍在生产。根据这些登记册，从车牌号Regio Esercito 116B到Regio Esercito 551B的装甲车均为AB40型，共计435辆，占AB41型总产量的65%。注册号Regio Esercito 552B及之后的车辆均为AB41型。这意味着，大量的AB40型实际上安装了Modello 1941型炮塔。

## Ab40 with Modello 1941 turret or AB40/41

The Italian High Command immediately found that the two machine guns in the turret could not provide adequate support fire to the infantry and did not allow the AB40s to engage other armored cars.

Ansaldo proposed to install a new turret, that in the article it's called Modello 1941 (even if it was produced in 1940), developed for the L6/40 light reconnaissance tank, armed with a 20 mm automatic cannon, on the chassis of the AB40.

The modifications increased the weight, from 6.8 to 7.45 tonnes, and to avoid some stress problems for the armored car caused by the extra weight, a more powerful petrol engine, the 88 hp FIAT SPA ABM 2 6-cylinder, was mounted.

Following a few tests, it was judged favorably by the army, which authorized its production. After a short while, the new Modello 1941 turrets, which were already being produced for the L6/40, arrived at the assembly lines. The new engines took longer, as the assembly lines had to be modified at the SPA plant, so it was decided to modify the AB40 armored cars by mounting the Modello 41 turret on a hull powered by the FIAT SPA ABM 1 engine. These 'hybrid' armored cars are indistinguishable from the AB41 from the outside.

The registers of the Ufficio Autonomo Approvvigionamenti Automobilistici Regio Esercito (English: Royal Army Autonomous Automobile Procurement Office), which lists the vehicles produced with their registration, chassis and engine number, mention the AB40 version as a vehicle still produced in 1941 and early 1942. According to these registers, the armored cars registered from plate Regio Esercito 116B to Regio Esercito 551B would be AB40, i.e. 435 vehicles, 65% of the whole AB41 production. Those with registration Regio Esercito 552B onward would be AB41s. This means that a large number of the AB40s actually had the Modello 1941 turret mounted.

## 炮塔

如上所述，AB41炮塔是安萨尔多公司为L6/40轻型坦克开发和生产的1941型炮塔。该炮塔为单人炮塔，呈八角形，设有两个舱口：一个位于车顶，供车长/炮手使用；另一个位于炮塔后部，用于在维护操作期间拆卸主炮。由于该车没有风扇或排烟装置，炮塔侧面除了两个狭缝外，还有两个进气口。车顶舱口旁设有一个供车长使用的潜望镜，由于空间有限，潜望镜无法360°旋转，因此车长可以通过潜望镜观察部分战场情况。一段时间后，人们意识到炮塔存在平衡问题，因此在炮塔后部下方放置了一个配重块。



## Turret

As aforementioned, the AB41 turret was the Mod. 1941 developed and produced by Ansaldo for the L6/40 light tank. The one-man turret had an octagonal shape with two hatches: one for the vehicle's commander/gunner on the roof and the second one on the back of the turret, used to facilitate the disassembly of the main armament during maintenance operations. On the sides, the turret then had, in addition to two slits, two air intakes as the vehicle did not have fans or smoke extractors. On the roof there was a periscope for the commander next to the hatch, which allowed him a partial view of the battlefield because it was impossible, due to the limited space, to rotate it 360°. After some time it was realized that the turret had some balance problems, so a counterweight was put on the back, under the rear hatch.

## 主要武器

主要武器是 20/65 Breda Mod. 1935 L/65 火炮，射速为每分钟 220 发，配备圣乔治光学厂生产的 x1 瞄准镜。仰角为 +18°，俯角为 -9°。布雷达火炮可发射意大利生产的 20 x 138 毫米口径穿甲弹 (AP) 和高爆炸弹 (HE)，也可发射德国 FlaK 38 火炮和索洛图恩 S18-1000 反坦克炮使用的弹头，增加了火炮的反坦克能力。使用意大利穿甲弹，Mod. 1935 火炮可以在 100 米处穿透 38 毫米倾斜 90° 的装甲板，在 500 米处穿透 30 毫米装甲板。使用德国 Pz.Gr. 发射 40 弹药时，可在 100 米距离上击穿倾斜 90° 的 50 毫米装甲板，在 500 米距离上击穿 40 毫米装甲板。



## Primary Armament

The main armament was the Cannone da 20/65 Breda Mod. 1935 L/65 with a rate of fire of 220 rounds per minute with an x1 sight produced by the San Giorgio Optics Factory. The elevation was +18° while the depression was -9°. The Breda cannon could fire Armor Piercing (AP) and High-Explosive (HE) rounds of Italian production caliber 20 x 138 mm, but also those used by the German FlaK 38 cannon and the Solothurn S18-1000 anti-tank gun, increasing the anti-tank capacity of the cannon. With the Italian armor-piercing bullets, the Mod. 1935 cannon could penetrate a 38 mm armor plate inclined at 90° at 100 mmeters and a 30 mm armored plate at 500 meters. With German Pz.Gr. 40 ammunition, it could penetrate a 50 mm armor plate inclined at 90° at 100 m and a 40 mm armored plate at 500 m.

## 辅助武器

辅助武器包括两挺布雷达莫德洛 1938 型 8 毫米机枪。第一挺与火炮同轴，位于车体左侧，第二挺则安装在车体后部的球形支架上。这两挺机枪是布雷达莫德洛 1937 型中型机枪的车载版本，配备顶部安装的弧形弹匣，每把弹匣可容纳 24 发子弹。后部的机枪配备 x1 光学瞄准镜，可拆卸并用于防空。在整个非洲战役期间，AB41 机组人员使用各种手工制作的防空机枪支架。这些支架通常使用从盟军缴获的机枪，例如勃朗宁 M1919 或布伦机枪，或从战斗中缴获的意大利车辆上缴获的其他布雷达 M1938 型机枪。从 1943 年起，安萨尔多公司开始为 AB41 生产防空支架，但产量极少，其用途也鲜为人知。

## Secondary Armament

The secondary armament consisted of two Breda Modello 1938 8 mm caliber machine guns, the first coaxial to the cannon, on the left, and the second in a ball support on the rear of the vehicle. These machine guns were the vehicle version of the Breda Mododello 1937 medium machine gun and had a top-mounted curved box magazine with 24 rounds.

The machine gun at the rear had an x1 optics and could be disassembled and used in an anti-aircraft position. For the whole duration of the African Campaign, the AB41 crews used a variety of handcrafted supports for anti-aircraft machine guns. Often, machine guns captured from the Allies, such as the Browning M1919 or Bren gun, or other Breda Mod. 1938s taken from Italian vehicles destroyed in combat, were used in these mounts. From 1943 onward, an anti-aircraft support for the AB41 was produced by Ansaldo, but very few were produced and not much is known about their use.

## 弹药

AB41 装甲车的弹药包括 38 个 12 发 20 毫米弹匣（共 456 发）和 83 个 24 发 8 毫米弹匣（共 1992 发）。如上所述，弹匣被放置在车体两侧的白色油漆木架上，其中 14 个 20 毫米弹匣和 40 个 8 毫米弹匣与车长的无线电和对讲机一起放置在车体左侧，其余 24 个 20 毫米弹匣和 45 个 8 毫米弹匣放置在右侧。在单人炮塔中，没有空间容纳装填手，因此除了指挥和射击火炮之外，车辆指挥官还必须装填火炮，尽管两名驾驶员中的一人在不驾驶时将弹匣递给指挥官以方便装填的情况并不少见。



## Ammunition

The ammunition on the AB41 armored car consisted of 38 magazines of 12 rounds (for a total of 456 rounds) of 20 mm and 83 magazines of 24 rounds (for a total of 1,992 rounds) of 8 mm. As aforementioned, the magazines were placed in white painted wooden racks on the sides of the hull, 14 20 mm magazines and 40 8 mm magazines were placed on the left side together with the radio and intercom of the commander. The remaining 24 20 mm and 45 8 mm magazines were placed on the right side.

In the one-man turret, there was no space for a loader and it was the vehicle commander who had to load the cannon in addition to commanding and firing the cannon, even though it was not uncommon for one of the two drivers, when not driving, to pass the magazines to the commander to facilitate loading.

## 组装图标 ASSEMBLY ICONS



弯折  
BEND  
折り曲げ  
Изгиб



钻孔  
OPEN HOLE  
穴をあける  
Бурениескважин



胶水  
GLUE  
せつちやくざい  
Клей



瞬间接著剂  
INSTANT CEMENT  
瞬間接着剂  
Моментное  
лечение



贴水上贴纸  
APPLY DECAL  
水シールを貼る  
Наклеитьнак  
лейкунаводу



选择  
OPTIONAL  
せんたく  
Выбор



制作2组  
MAKE 2  
2グループ作成  
Производство  
групп



注意注意  
BE CAREFUL  
に注意  
Внимание!



把孔填平  
Fill the hole flat  
穴を平らに埋め  
Заполните  
отверстие



切除  
REMOVE  
カットアウト  
Удаление



不使用胶水  
DO NOT CEMENT  
接着剤不使用  
НЕ ИСПОЛЬЗОВАТЬ  
лей



镜像制作2组  
MIRROR PRODUCTION 2 GROUPS  
ミラー作成2グループ  
Изготовлениезеркал 2 группы

## 组装色块 ASSEMBLING COLOR BLOCKS



粘接位置  
Bonding position  
結合位置  
Позиция  
склеивания



选择粘接/可活动  
Bonding/non-bonding  
結合/非結合  
Склеивание/  
несклеивание



准备制作新部分  
New parts to prepare  
準備する新しい部品  
Новая деталь  
подготовлена  
к производству



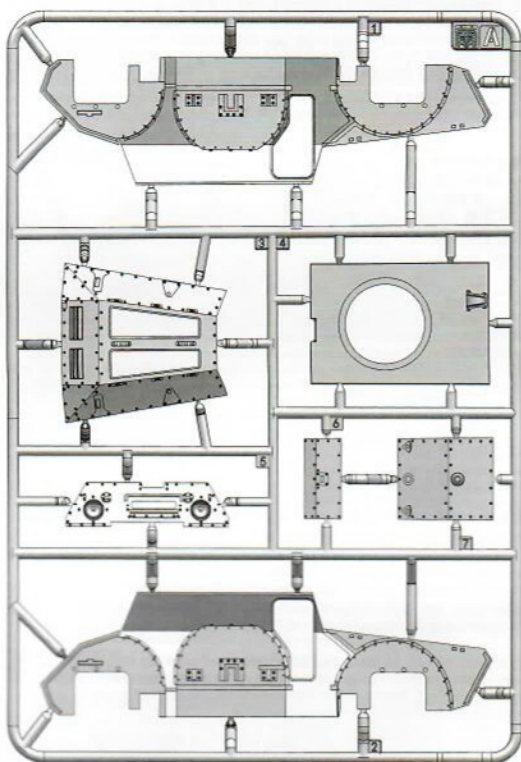
已完成的部分  
Completed Part  
完了した部分  
Завершенная часть



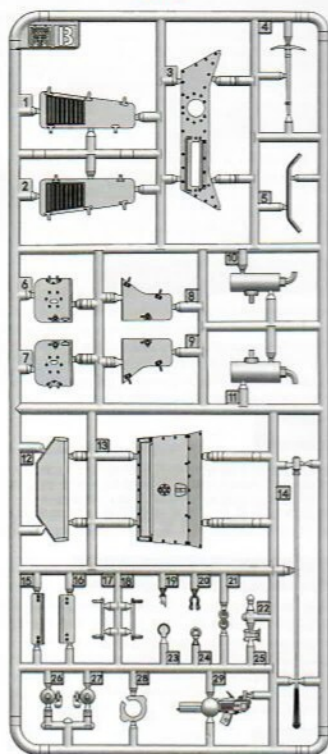
金属蚀刻片  
photo-etched  
フォトエッチング  
фототравление

板件说明 PARTS DRAWING

Ax1



Bx1

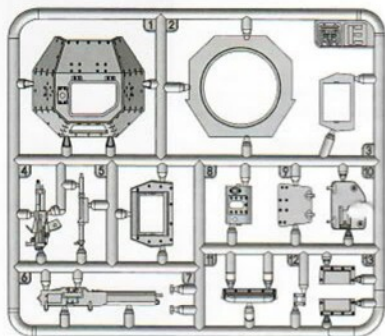


铜管  
Copper Tube

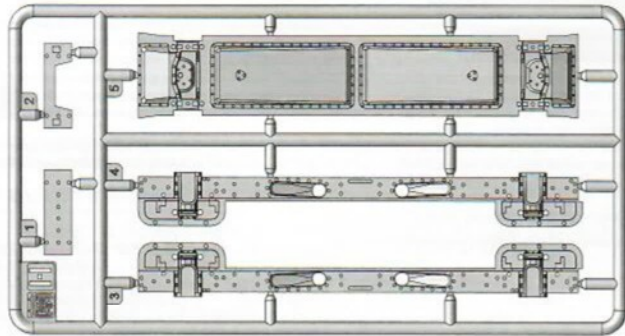


金属弹簧  
Metal spring

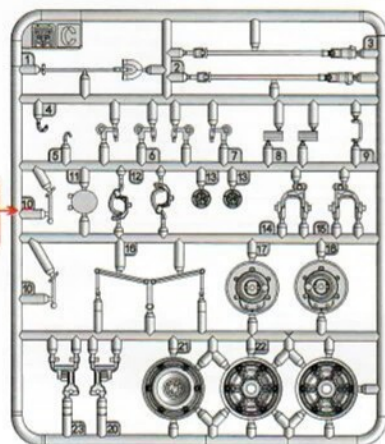
Ex1



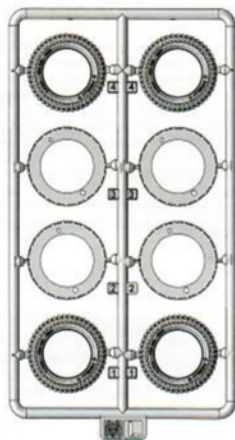
Hx1



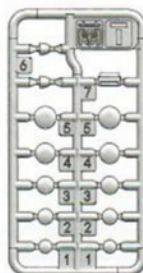
Cx1



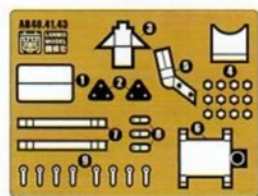
Lx3



Tx1



Pex1

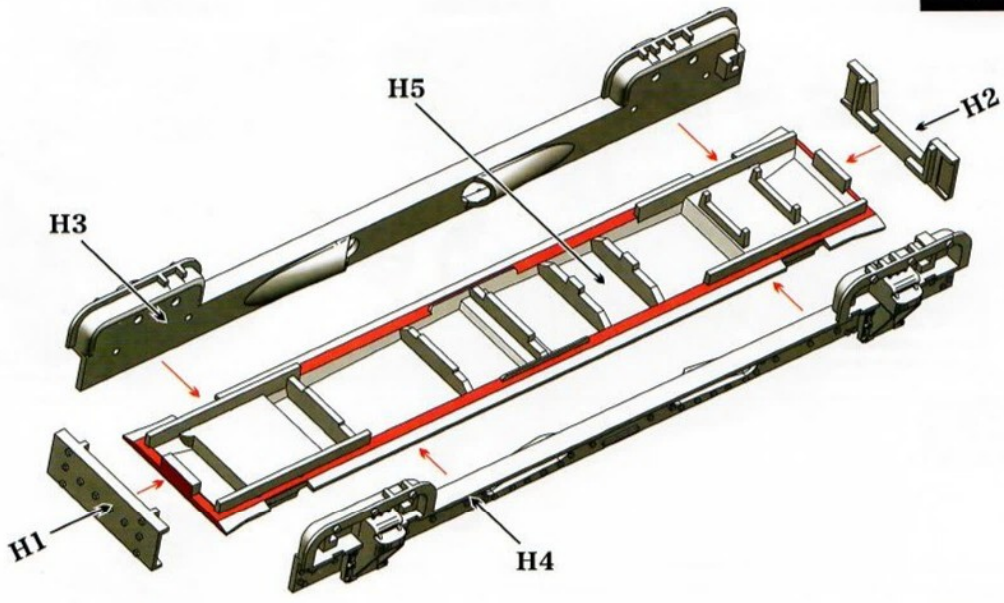


10  
!

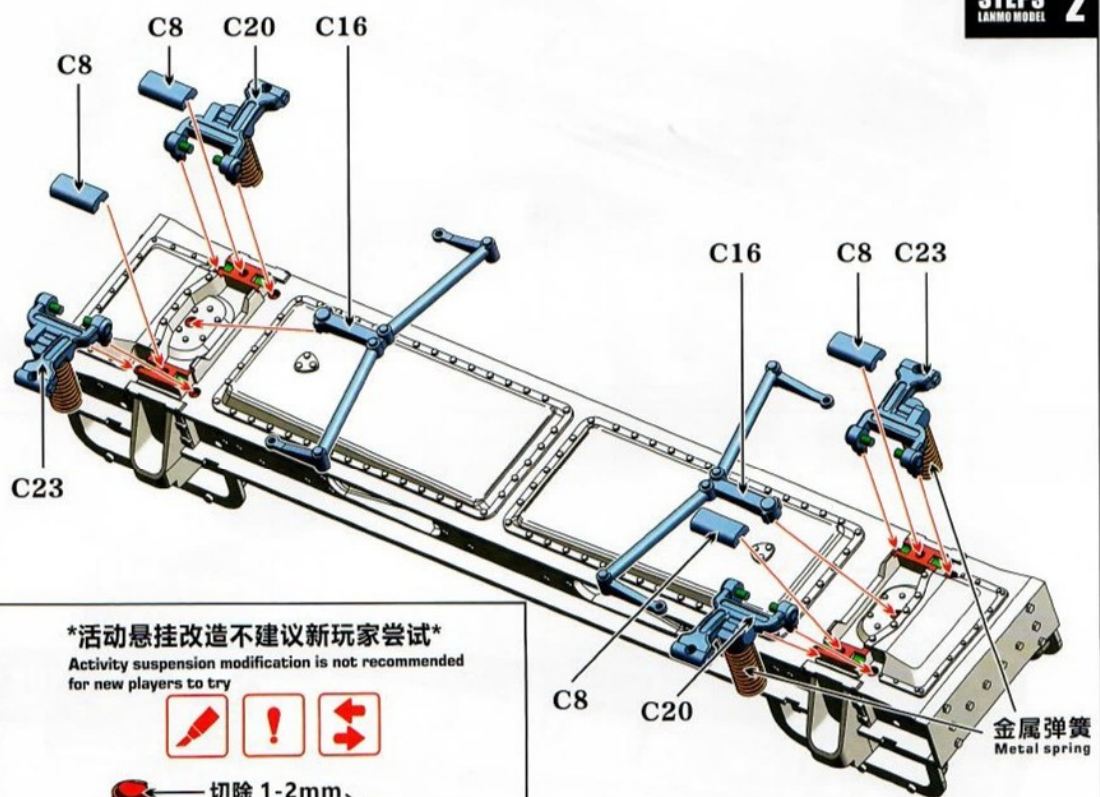
贴纸  
DECAL



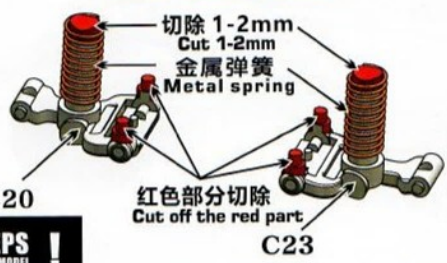
**STEPS 1**  
LAHMO MODEL



**STEPS 2**  
LAHMO MODEL



**\*活动悬挂改造不建议新玩家尝试\***  
Activity suspension modification is not recommended for new players to try



**STEPS !**  
LAHMO MODEL

**STEPS**  
LANMO MODEL **!**

C6  
C14  
C7

红色部分切除  
Cut off the red part

红色部分切除  
Cut off the red part

**\*活动悬挂改造不建议新玩家尝试\***  
Activity suspension modification is not recommended for new players to try

**STEPS** **A** **x2**

C6  
C14  
C7  
C12

**STEPS** **B** **x2**

C7  
C15  
C6  
C12

**STEPS** **3**

A B

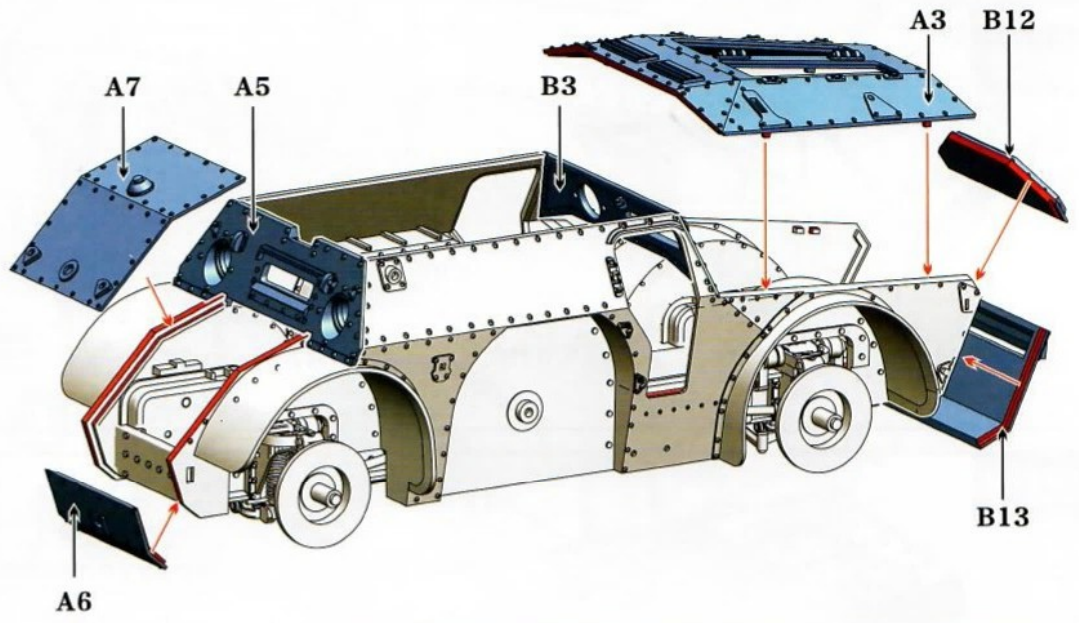
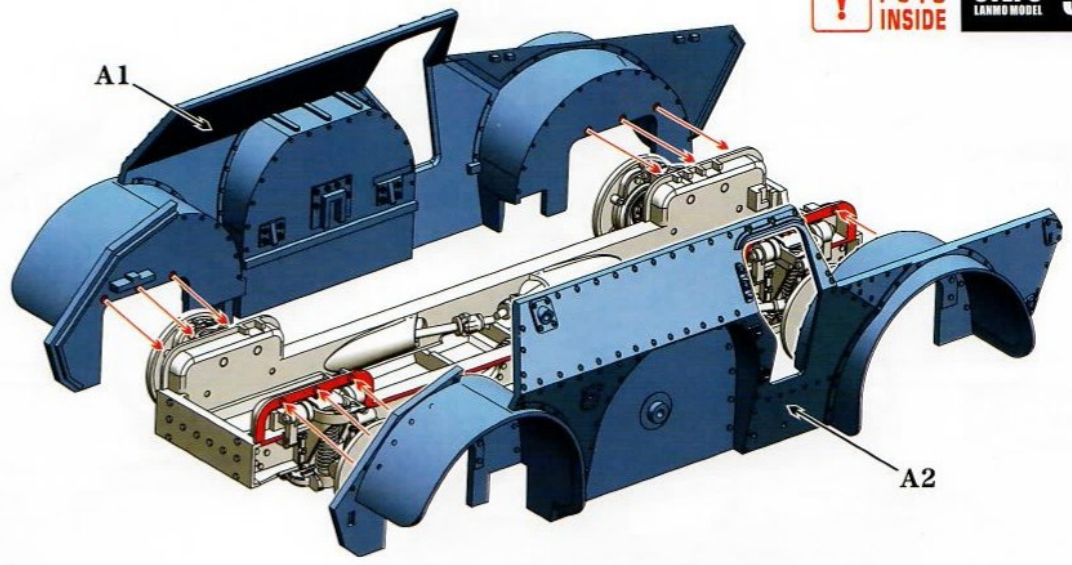
A B

C12  
C16

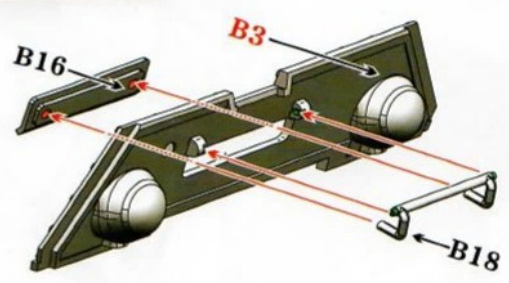
**STEPS** **4** **!** **内构**  
LANMO MODEL **INSIDE**

C17 C3 C2 C18

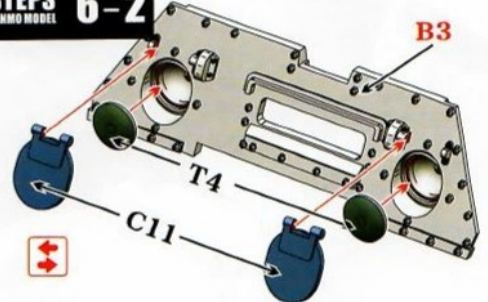
C3 C2 C17

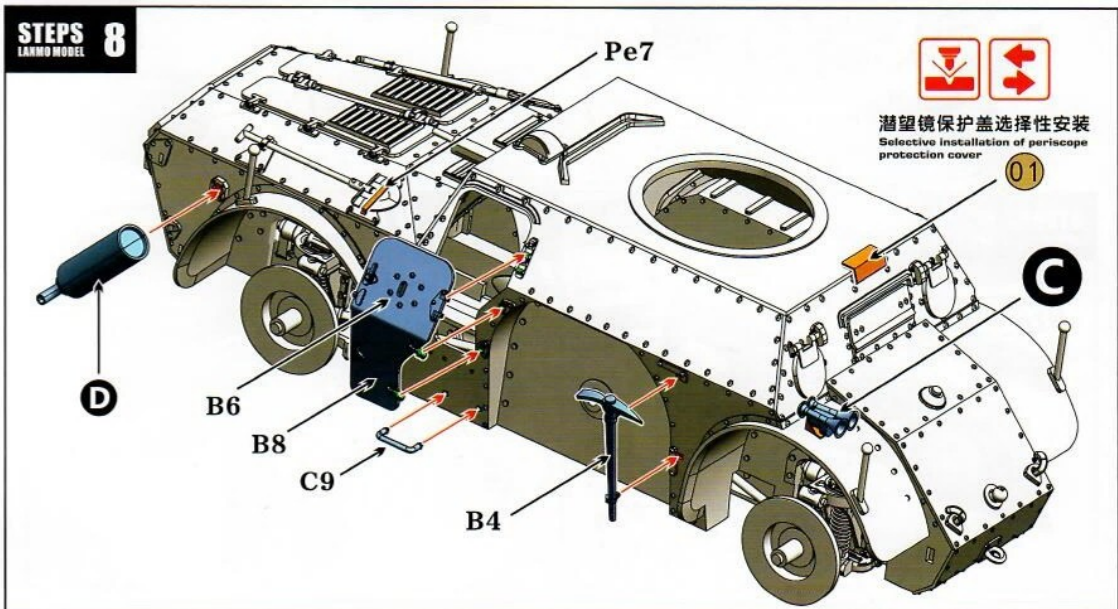
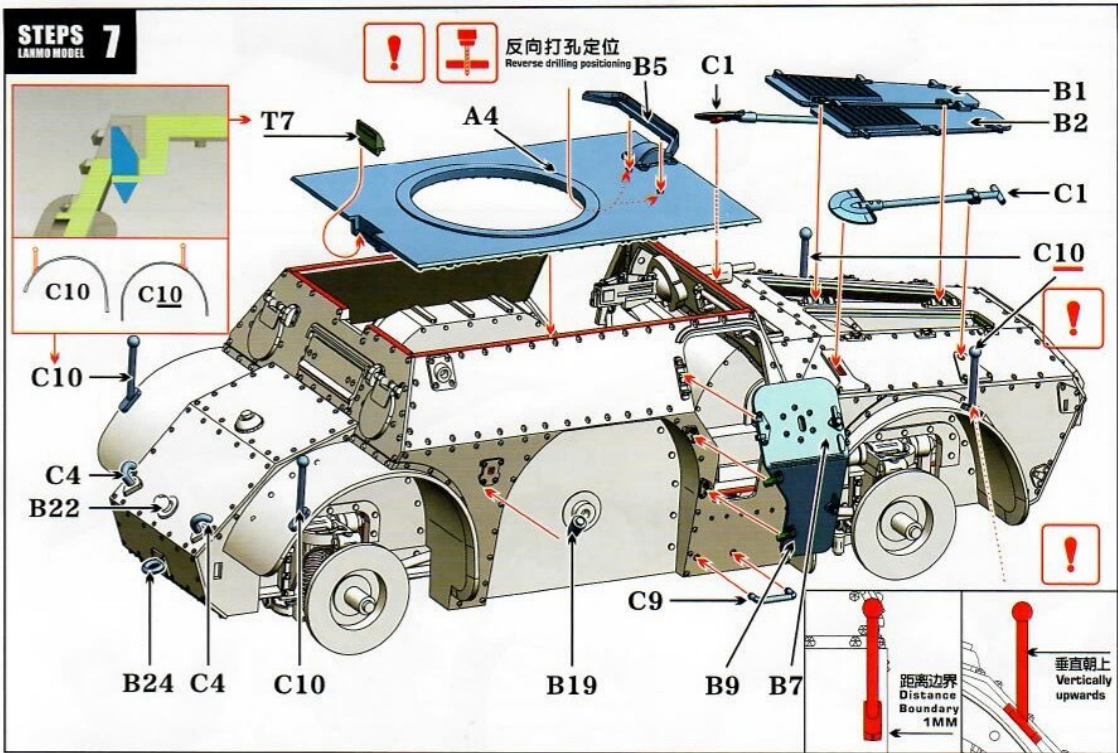
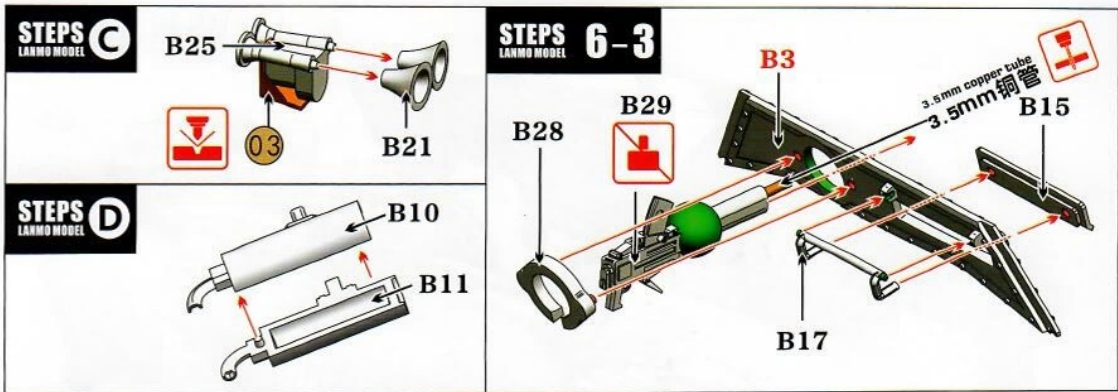


**STEPS 6-1**  
LANMO MODEL

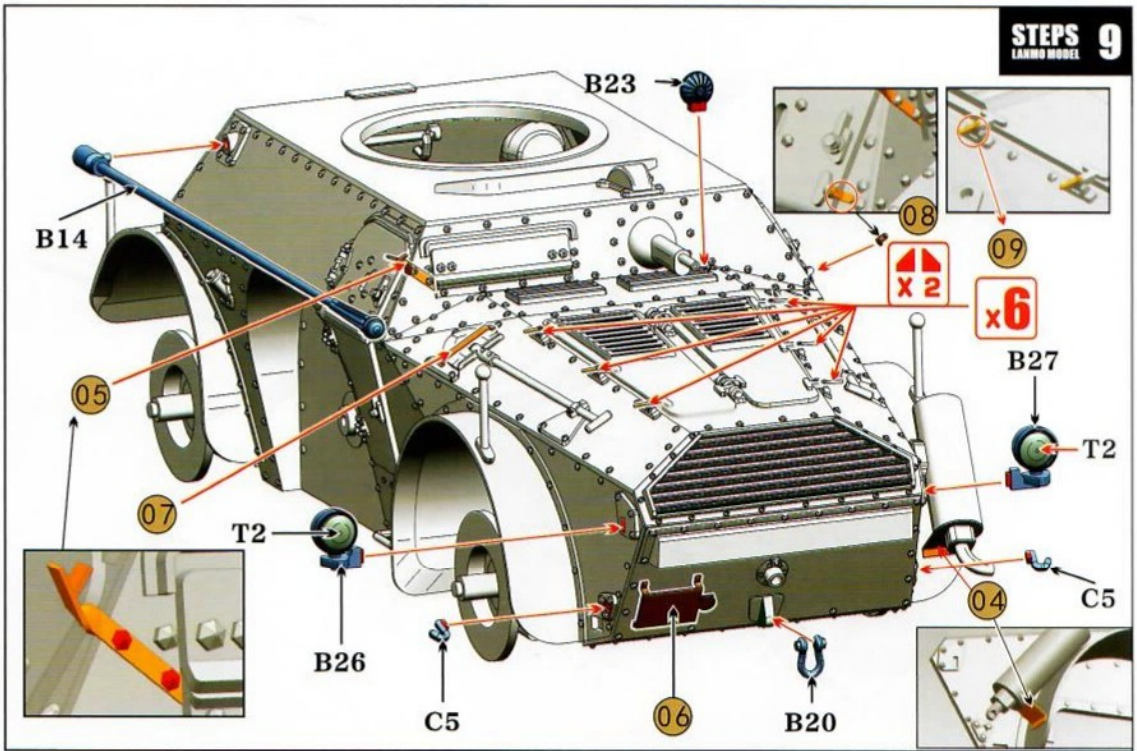


**STEPS 6-2**  
LANMO MODEL

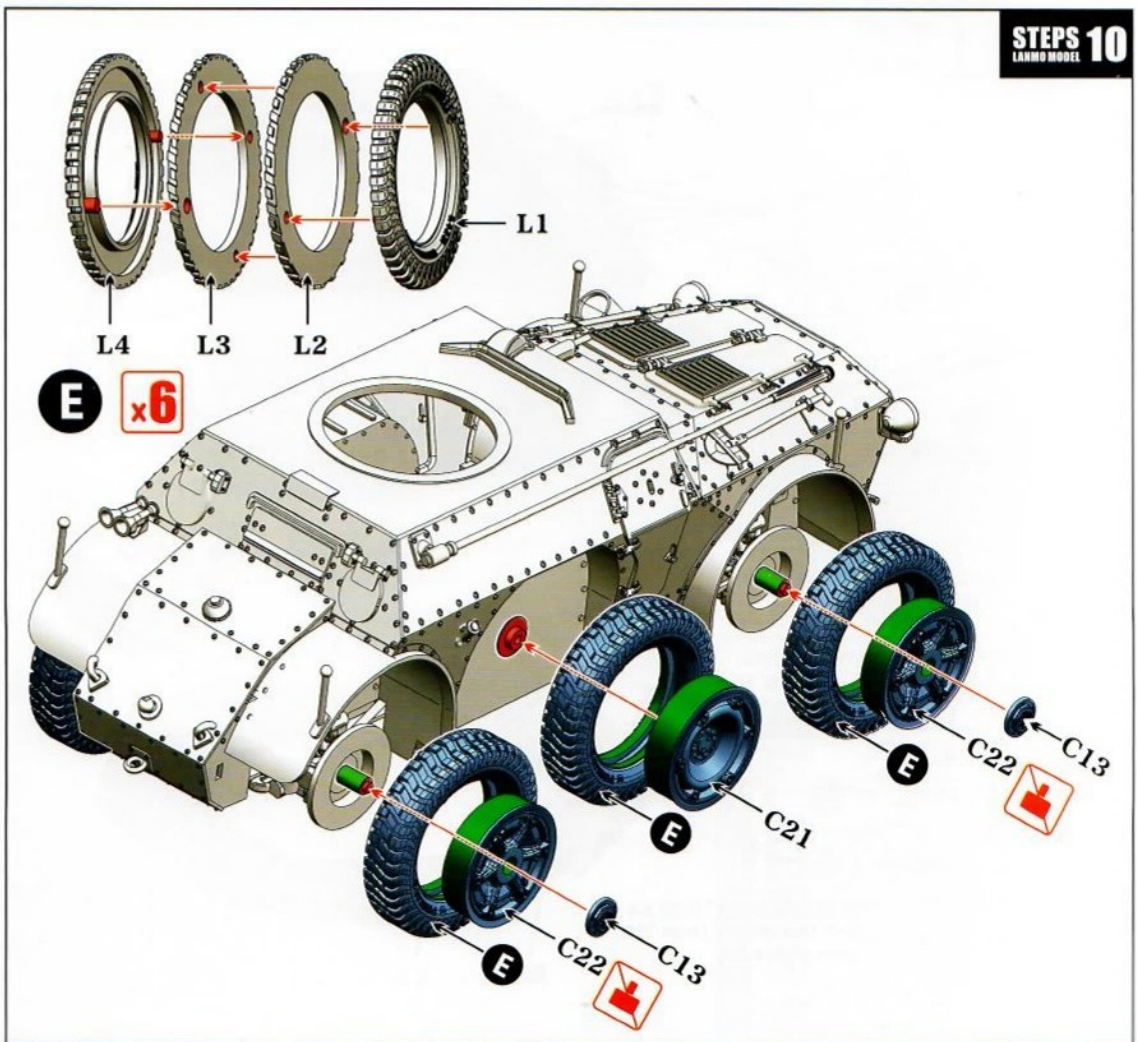




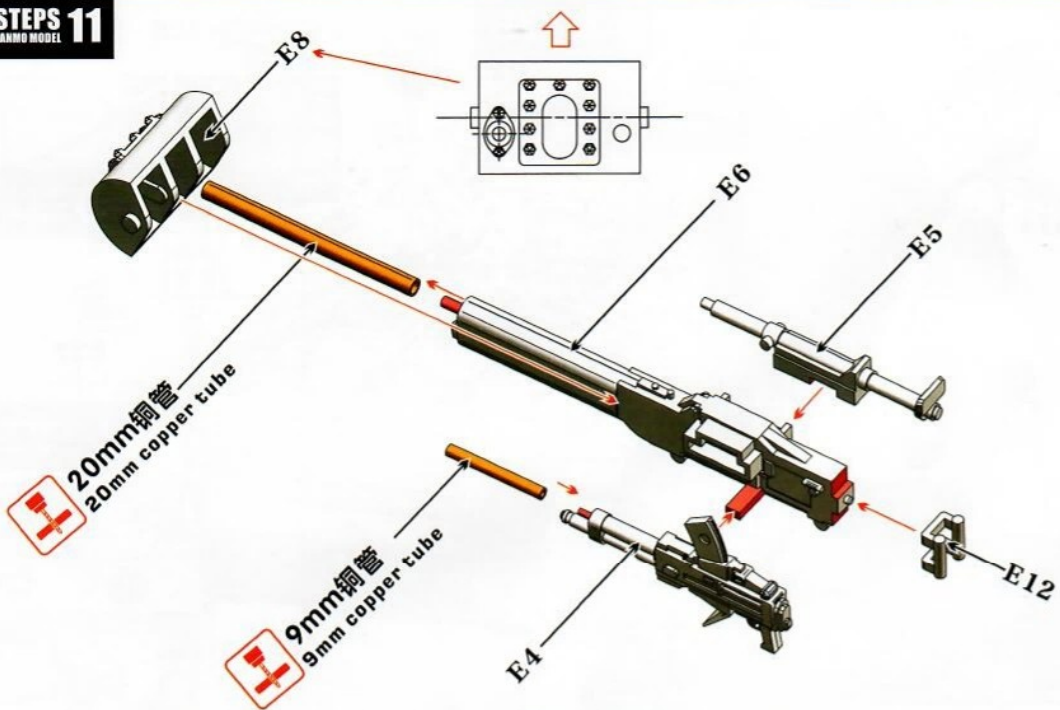
**STEPS 9**  
LAMBDO MODEL



**STEPS 10**  
LAMBDO MODEL

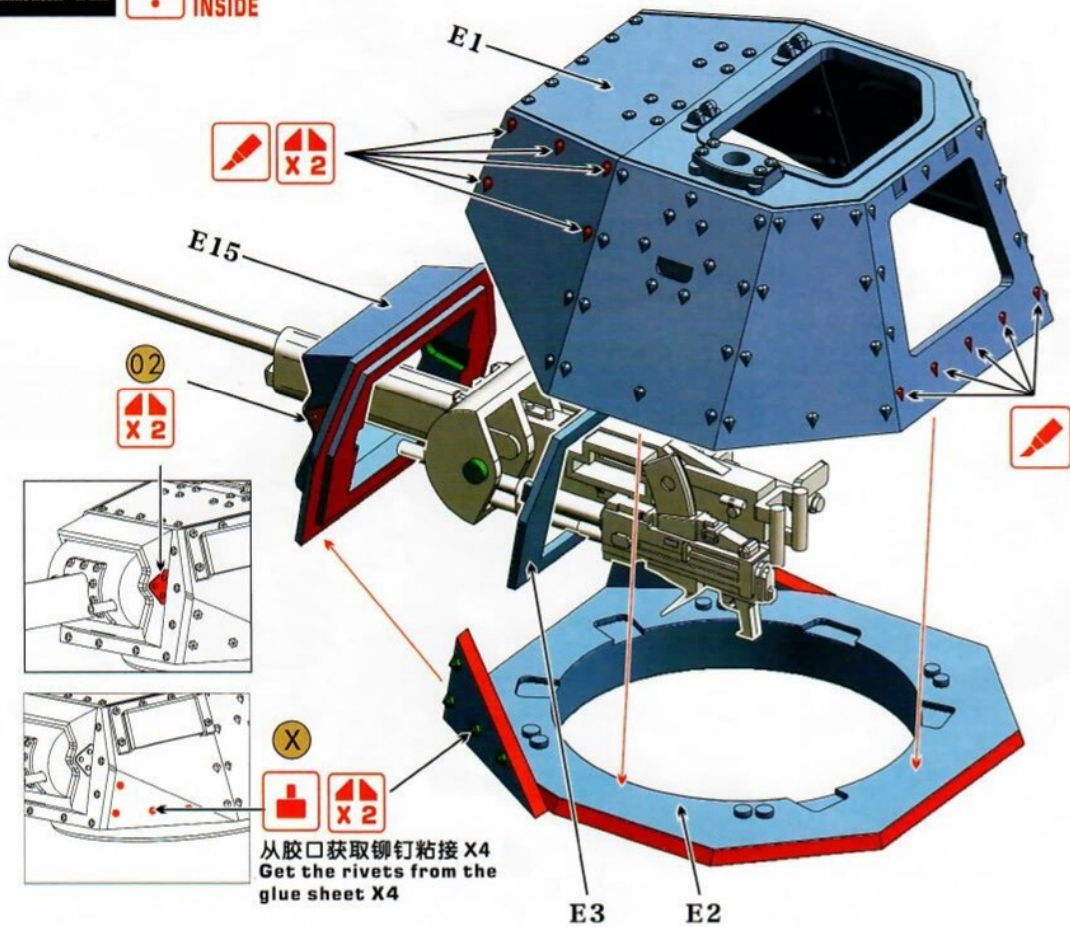


**STEPS 11**  
LANHO MODEL

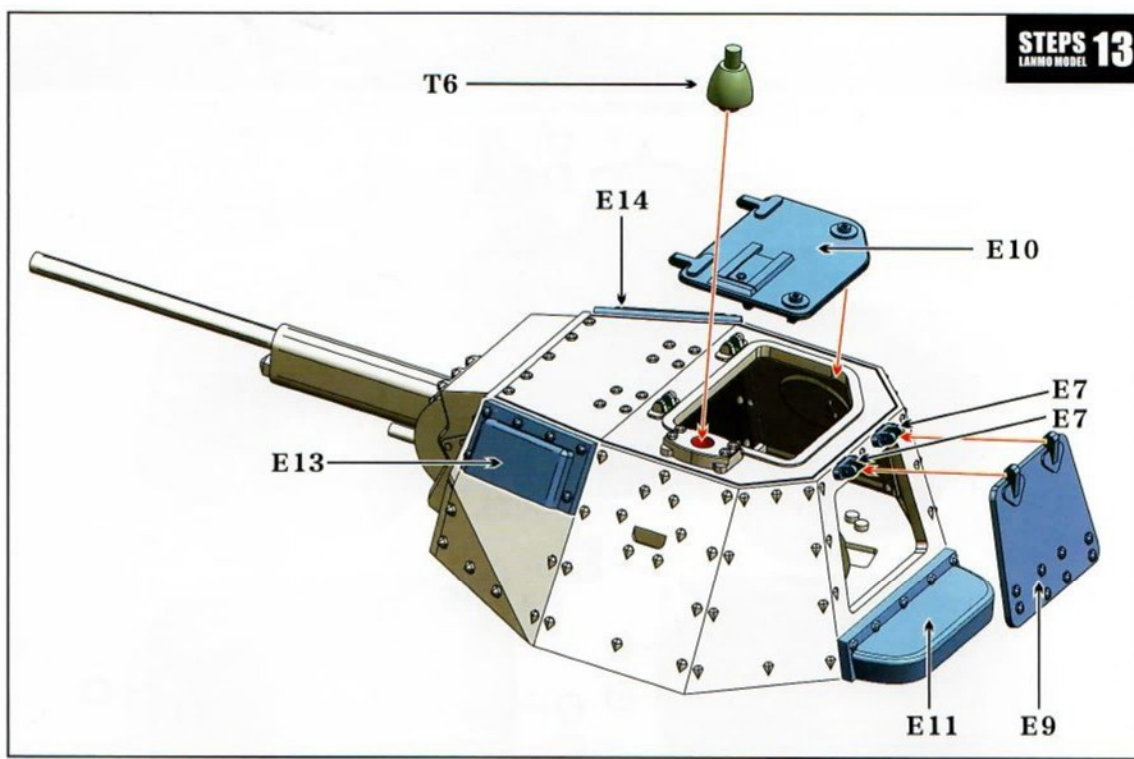


**STEPS 12**  
LANHO MODEL

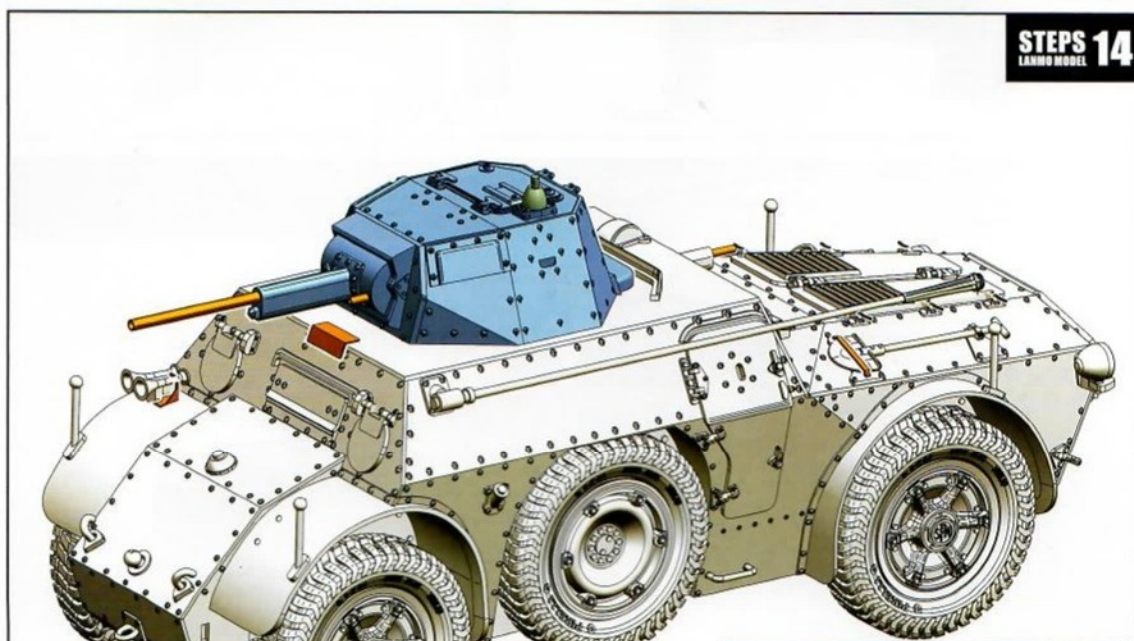
**内构**  
INSIDE



**STEPS 13**  
LANHO MODEL

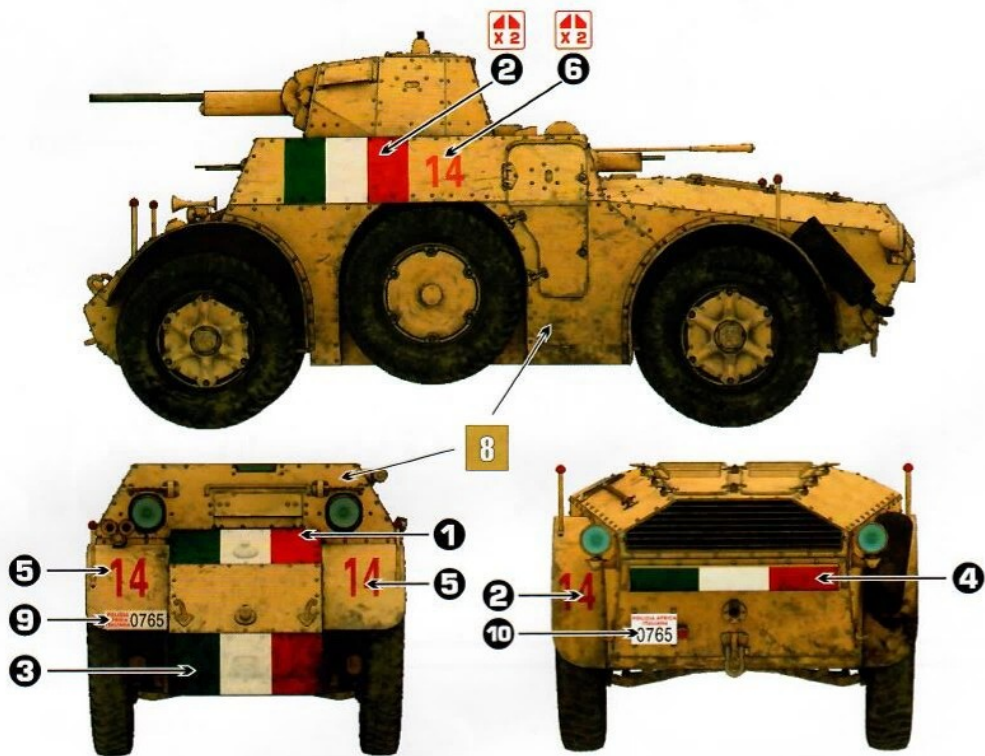


**STEPS 14**  
LANHO MODEL

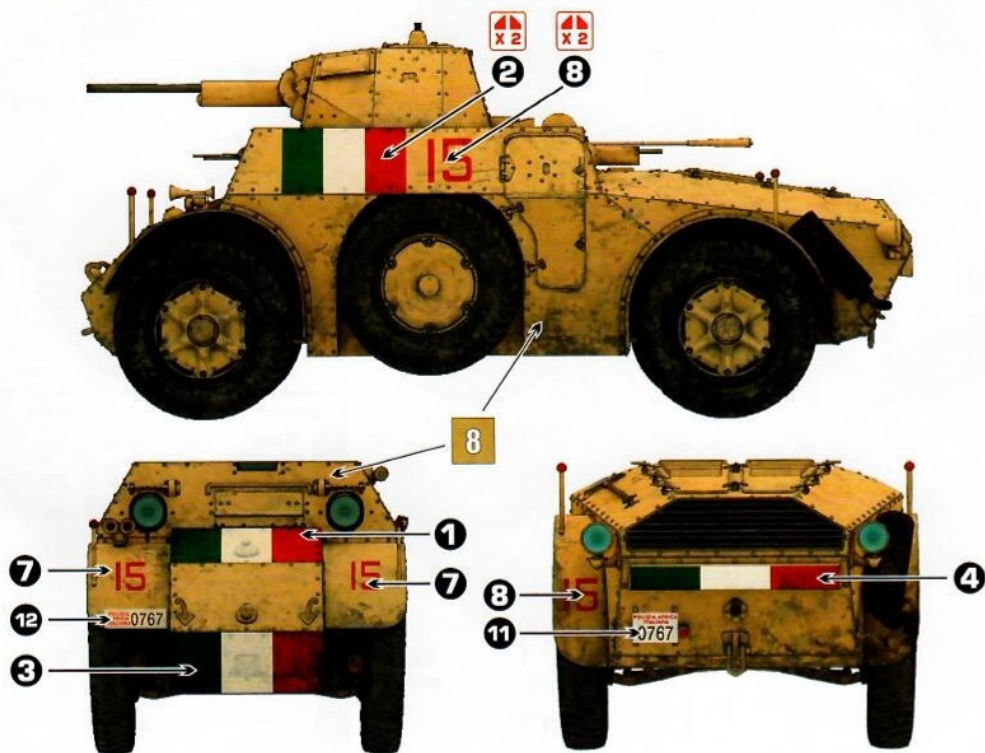


color	mr.hobby	TAMIYA	HUMBROL	model master
1 橄榄绿 Olive Green	38	XF 62	66	
2 消光黑 Matte Black	33	XF 1	33	1749
3 消光红 Matte red	3	XF 7	19	1950
4 黑铁色 Black Iron Color	28	X 10	53	1749
5 木棕色 Wood Brown	43	XF 21	10	1540
6 消光白 Matte White	1	XF 2	22	1744
7 德国灰 German Gray	40	XF 63	67	
8 暗黄色 Dark yellow	39	XF 60	83	
9 红褐色 German Gray	42	XF 10		
10 金属铜 German Gray	10	XF 6	12	1511

\*1942年11月，意大利非洲警察第六营“罗莫洛·格西”的AB41在突尼斯巴尔塞  
 Ab41 of the Polizia dell'Africa italiana's 6° Battaglione Romolo Gessi in Barce, Tunisia on 13th November 1942.

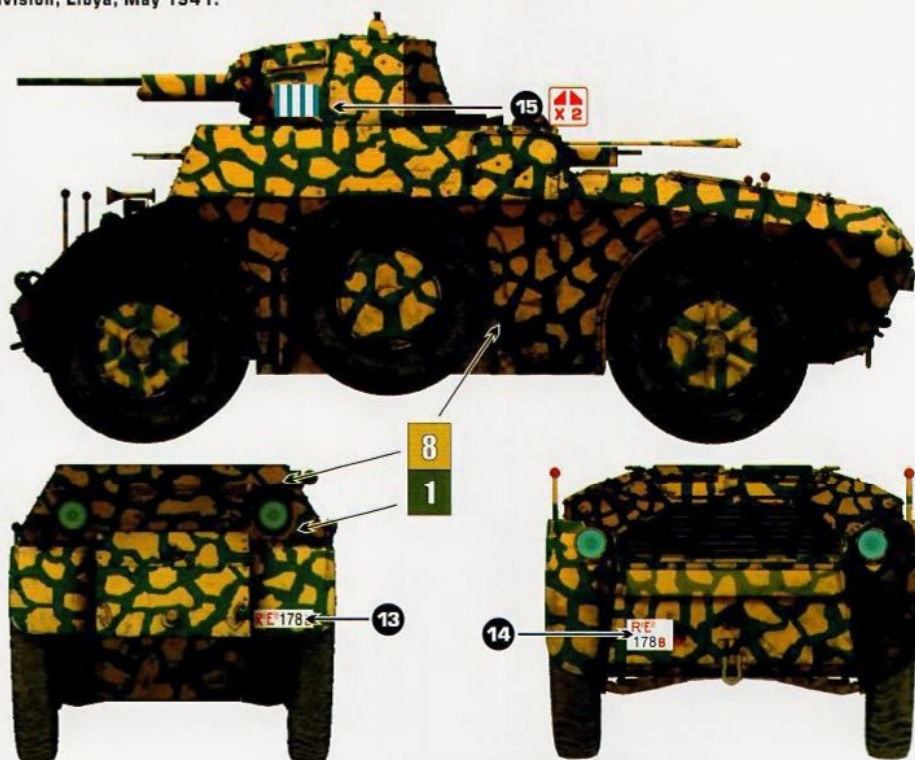


\*1943年初突尼斯·意大利非洲警察所属车辆  
 Polizia Africa Italiana, Tunisia, early 1943

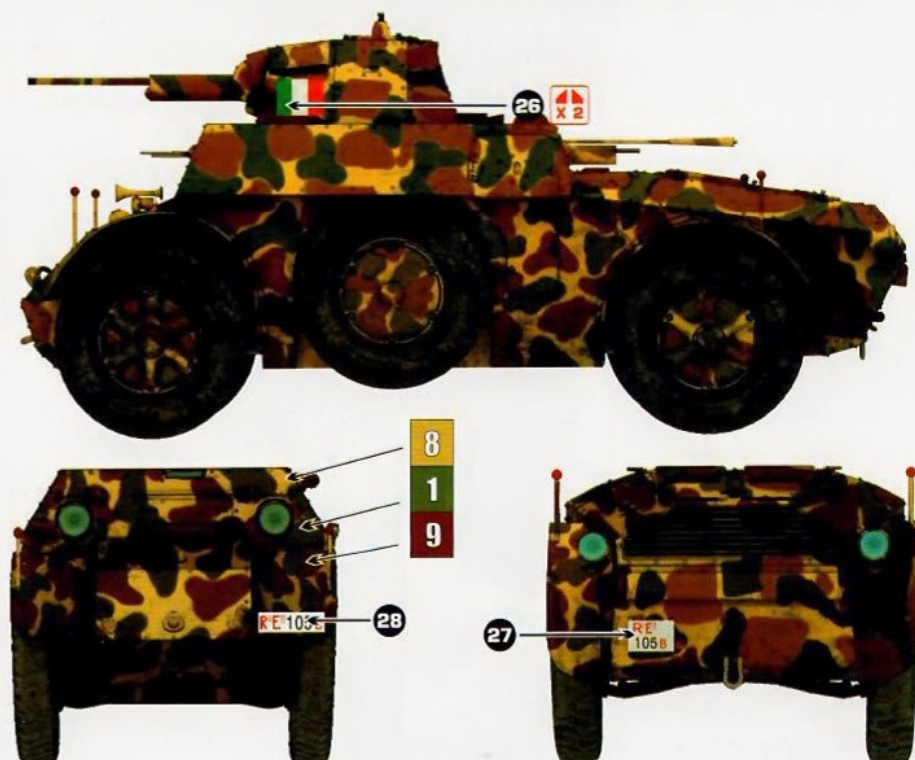


\*1941年5月，利比亚，隶属于阿利埃特师的骑兵部队“贝萨格里里”（Bersaglieri）的远程侦察巡逻队的Autoblinda AB41。

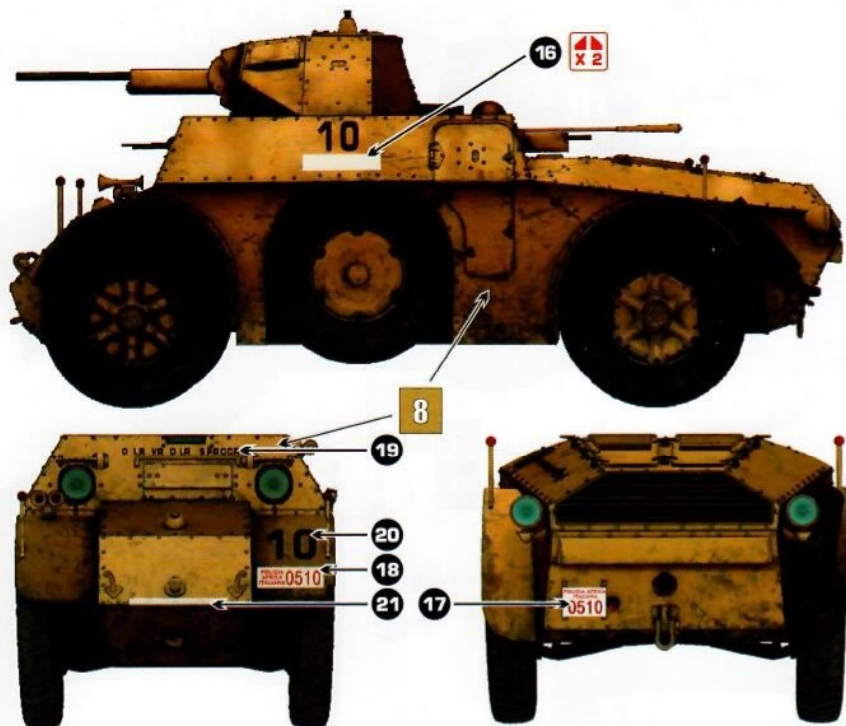
Autoblinda AB41 of the long range reconnaissance patrols of the Bersaglieri, a cavalry unit attached to the Ariete Division, Libya, May 1941.



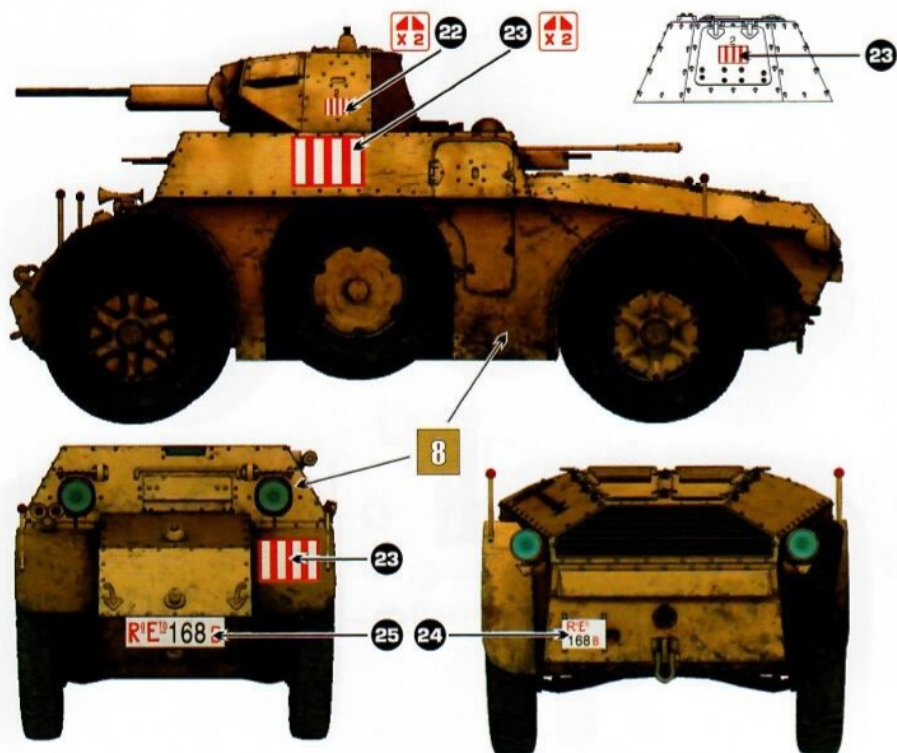
\*1942年11月，意大利，布雷西亚第十五骑兵团（Reggimento Cavalleria）的Autoblinda AB41。  
Autoblinda AB41, Italy, November 1942, 15° Reggimento Cavalleria of Brescia.

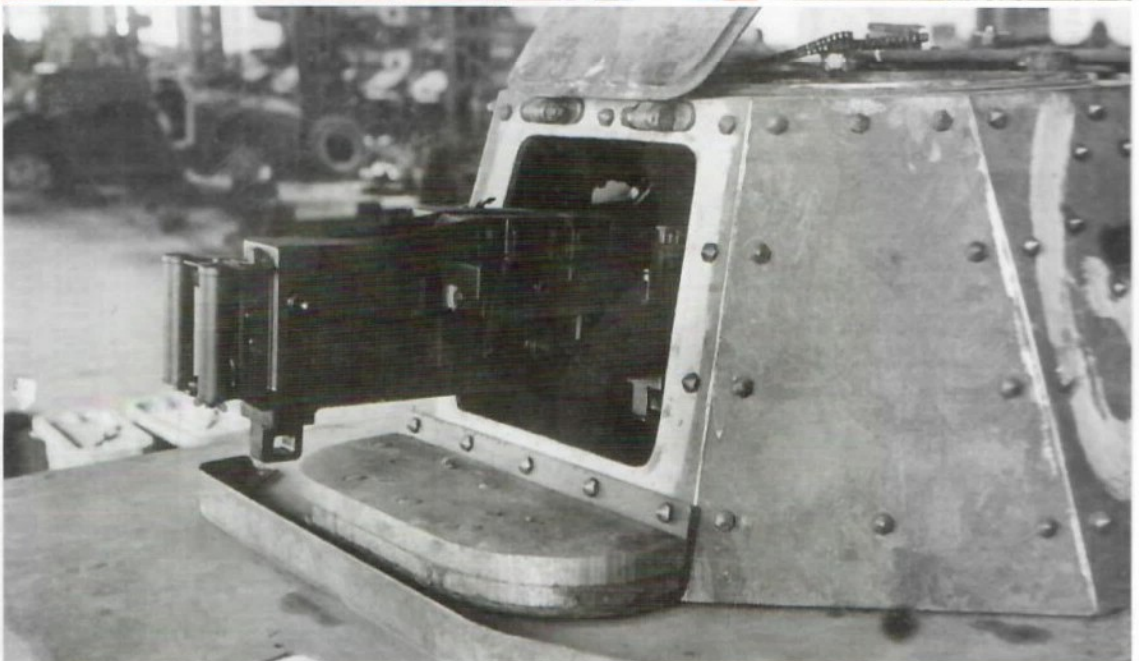
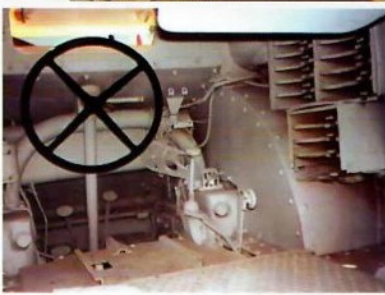
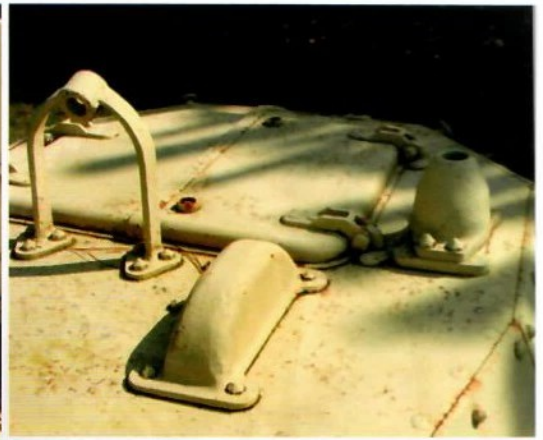


\*1941年意大利非洲警察 (Polizia dell'Africa Italiana) 的第九辆AB41装甲车, 编号为“10”  
 1941. The ninth AB41 of the Polizia dell'Africa Italiana, the number '10'



\*1942年春, 利比亚, 皇家陆军第2装甲集团“尼扎”, 第1中队, 第4排。  
 Ansaldo AB41, Regio Esercito, Il Gruppo Corazzato "Nizza", 1st Squadron, 4th Platoon, Libya, spring 1942





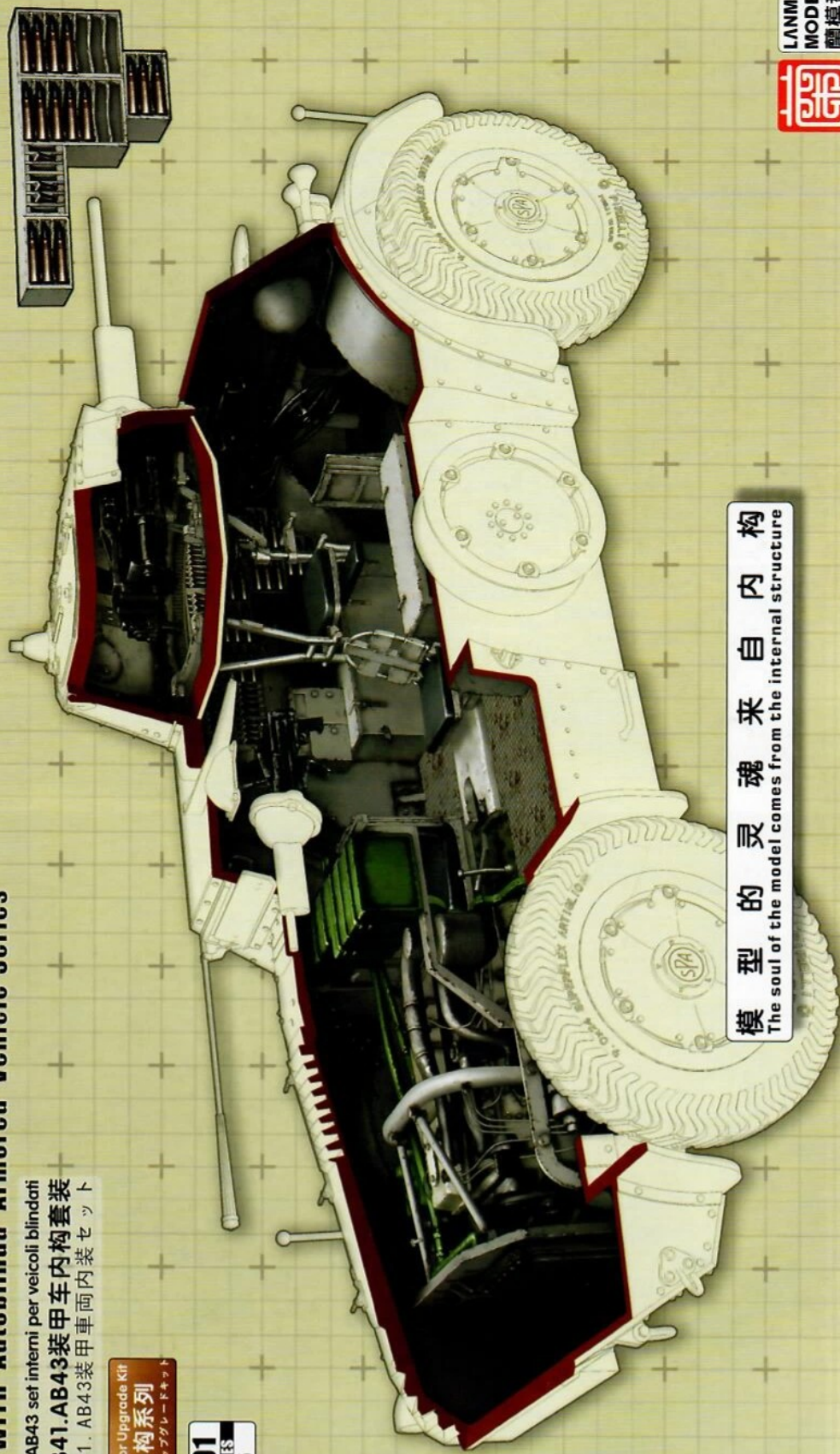
# internal structure kit Autoblinda AB40 . AB41 . AB43

WORKS WITH Autoblinda Armored Vehicle Series

AB40.AB41.AB43 set interni per veicoli blindati  
AB40.AB41.AB43装甲车内饰套装  
AB40. AB41. AB43装甲车内饰套装



**NM 3501**  
1931-45 SERIES  
1 / 35



模型的灵魂来自内构  
The soul of the model comes from the internal structure



LANMO  
MODEL  
蘭模型

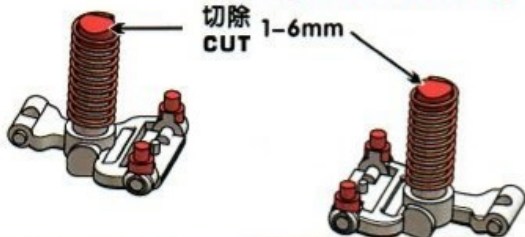
# 说明书修订 INSTRUCTION MANUAL REVISION

## \*活动悬挂改造不建议新玩家尝试\*

Activity suspension modification is not recommended for new players to try

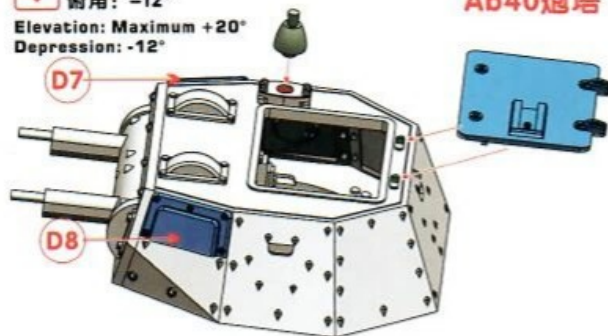


切除深度取决于弹性  
The depth of resection depends on elasticity



仰角: 最大+20°  
俯角: -12°  
Elevation: Maximum +20°  
Depression: -12°

AB40 TURRET  
Ab40炮塔



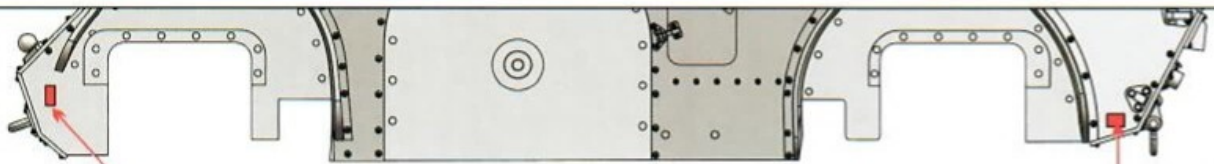
ORIGINAL ARMOR PLATES  
外嵌装甲板



优先选择原装甲板  
内嵌式需要硬粘接

ORIGINAL PARTS ARE PREFERRED;  
EMBEDDED PARTS REQUIRE HARD BONDING.

EMBEDDED ARMOR PLATES  
内嵌装甲板

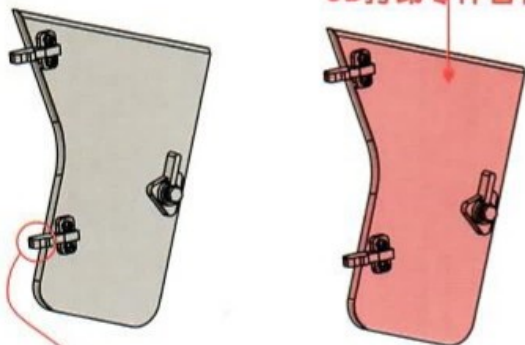


铁路版定位孔

RAILWAY VERSION POSITIONING HOLE



3D PRINTED PARTS ALTERNATIVES  
3D打印零件替代品



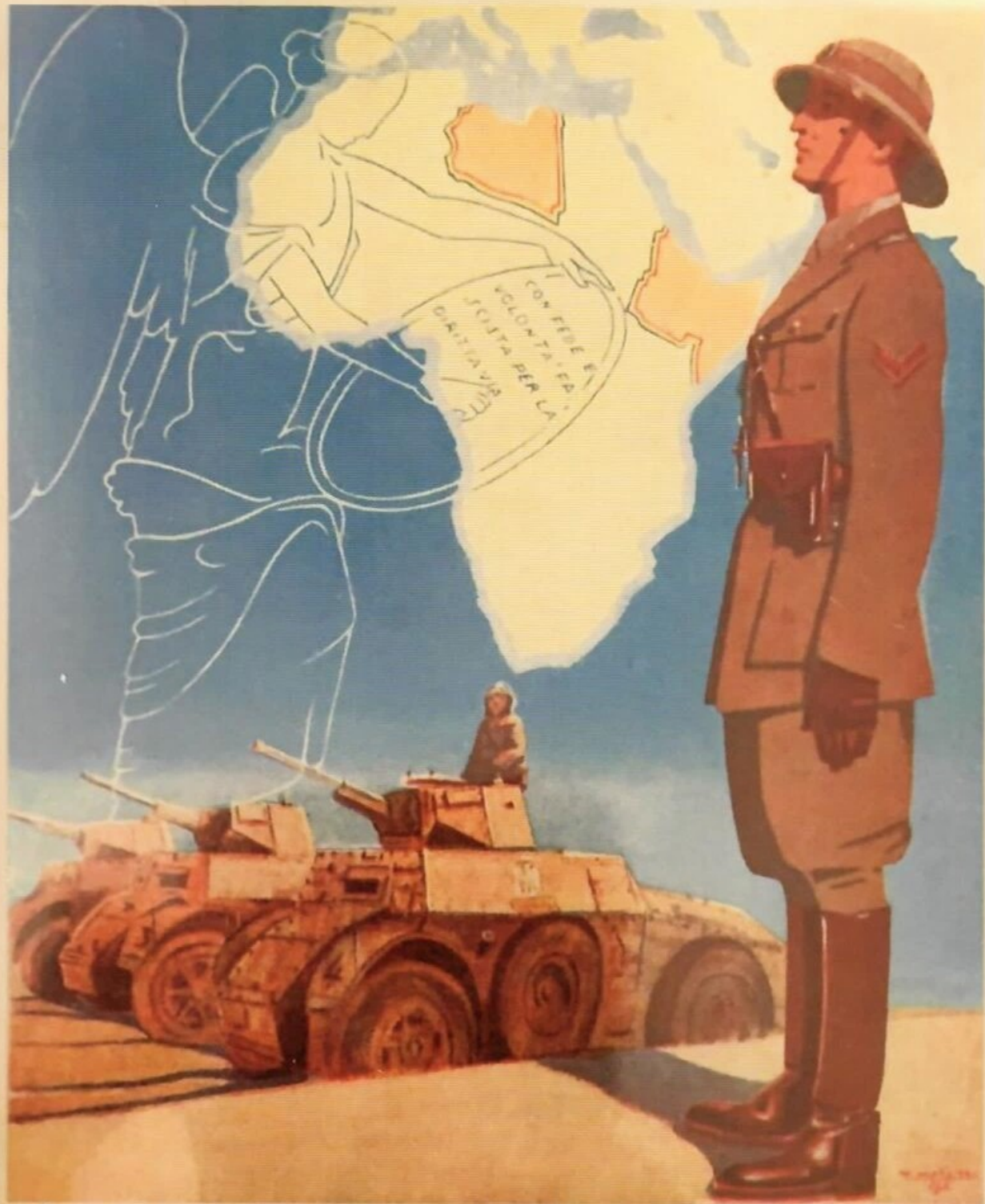
PARTS PASTING AREA  
零件粘贴处



此处有断的可能性

A PORTION MAY BE MISSING HERE.





**CORPO • DI • POLIZIA  
DELL' AFRICA • ITALIANA**

**ARRUOLAMENTI**

dal cartello di M. MELIS