
AUTOBLINDA
'FERROVIARIA' AB40
Italian AB40 railway armored vehicle
意大利AB40铁路装甲车
イタリア製AB40鉄道装甲車
Interior Upgrade Kit NM 3502
半内构系列
MM35011
1 / 35
RE 394

AB-41簡介



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1ZM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系列的开发，其中最突出的是AB41。

In 1937, the Italian Regio Esercito (English: Royal Army) realized that the Lancia 1ZM 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



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 FIAT611 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 1ZM 还要多。这导致意大利陆军向所有意大利公司下订单，要求生产新型轮式车辆，以取代在西班牙使用的 Lancia1ZM 和 FIAT611。

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-特尔尼的翻被里和蓝旗亚1ZM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。

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 1ZM. This led the Italian Army to give an order to all Italian companies for a new wheeled vehicle to replace the Lancia 1ZM 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-Terni-Tripoli and Lancia 1ZM 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 FIATArsenale 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 Lancia1ZM 还要多。这导致意大利陆军向所有意大利公司下订单，要求生产新型轮式车辆，以取代在西班牙使用的 Lancia1ZM 和 FIAT611。

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。这既“避合动力”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 5518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 5528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, tht 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 5518 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。由于该车没有风扇罩排烟装置，炮塔侧面除了两个狭缝外，还设有两个进气口。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，因此在后部后舱口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，配备圣乔治奥光学厂生产的 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 毫米螺斜 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米距离上击穿螺斜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多恩斯 1938 型 8 毫米机枪，第一挺与机炮同轴，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多恩斯 1937 型中型机枪的车载版本，配备固定安装的弧形弹匣，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。在每个车辆战役期间，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，但产量很少，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凉亭木架上，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。

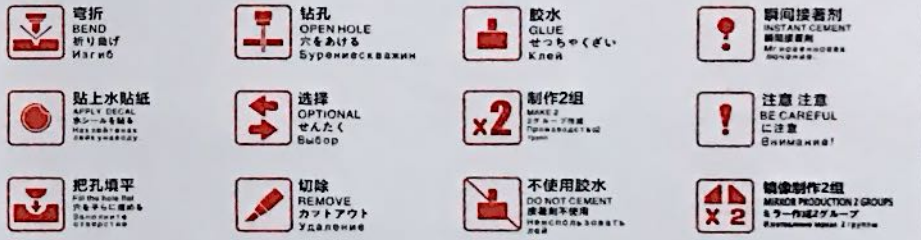
在单人炮塔中，没有空间容纳装填手，因此除了指挥和射击火炮之外，车辆指挥官还必须装填火炮，尽管两名驾驶员中的一人在不驾驶时将弹匣递给指挥官以方便装填的情况并不少见。

Ammunition

e 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.

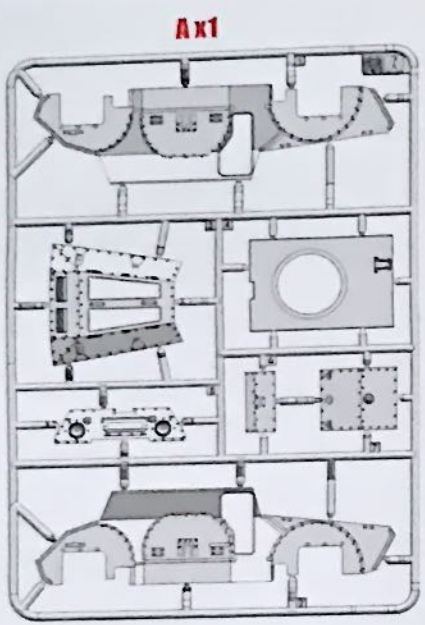
组装图标 ASSEMBLY ICONS

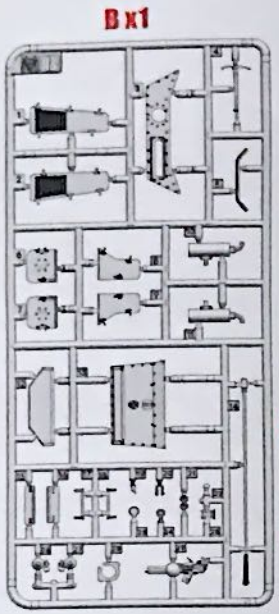


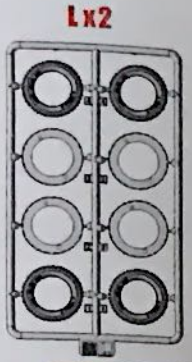
组装色块 ASSEMBLING COLOR BLOCKS



板件说明 PARTS DRAWING

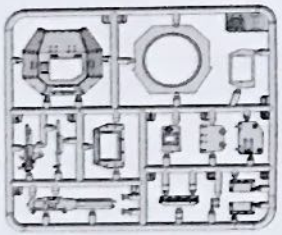


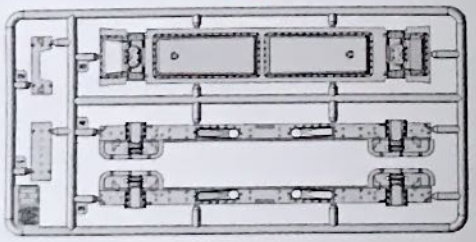


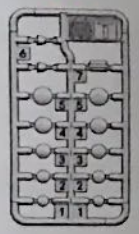


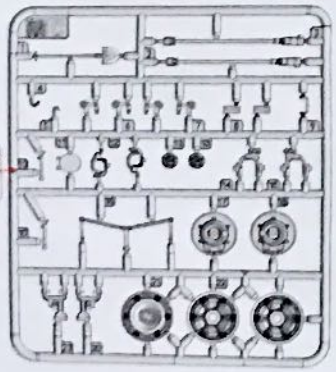


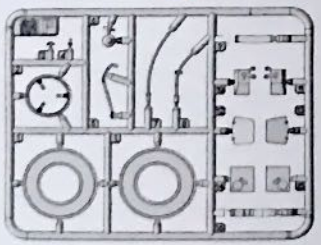


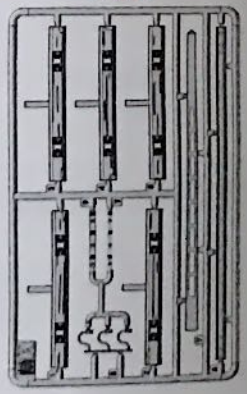


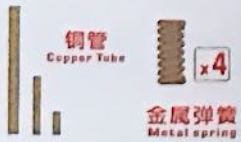




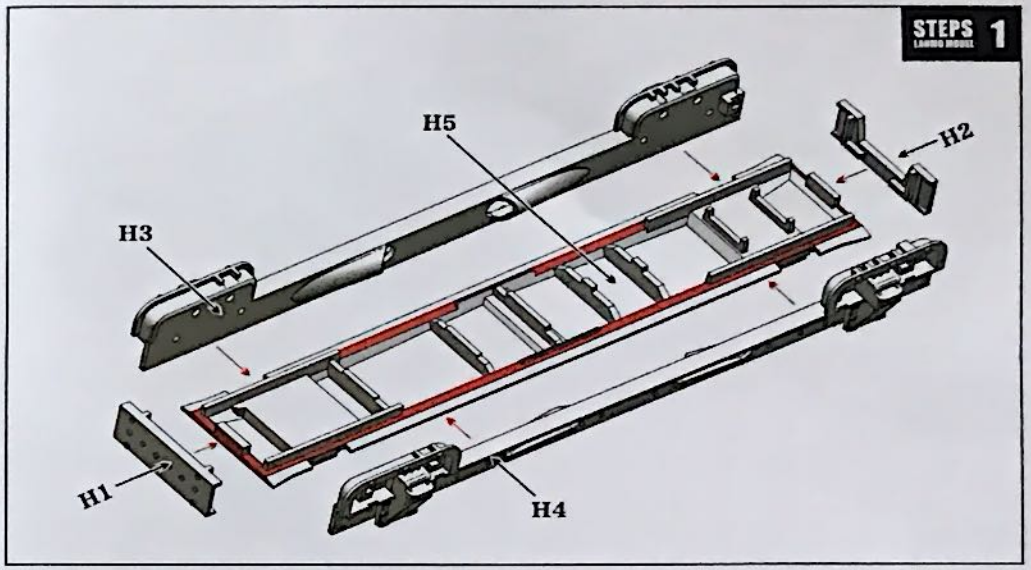


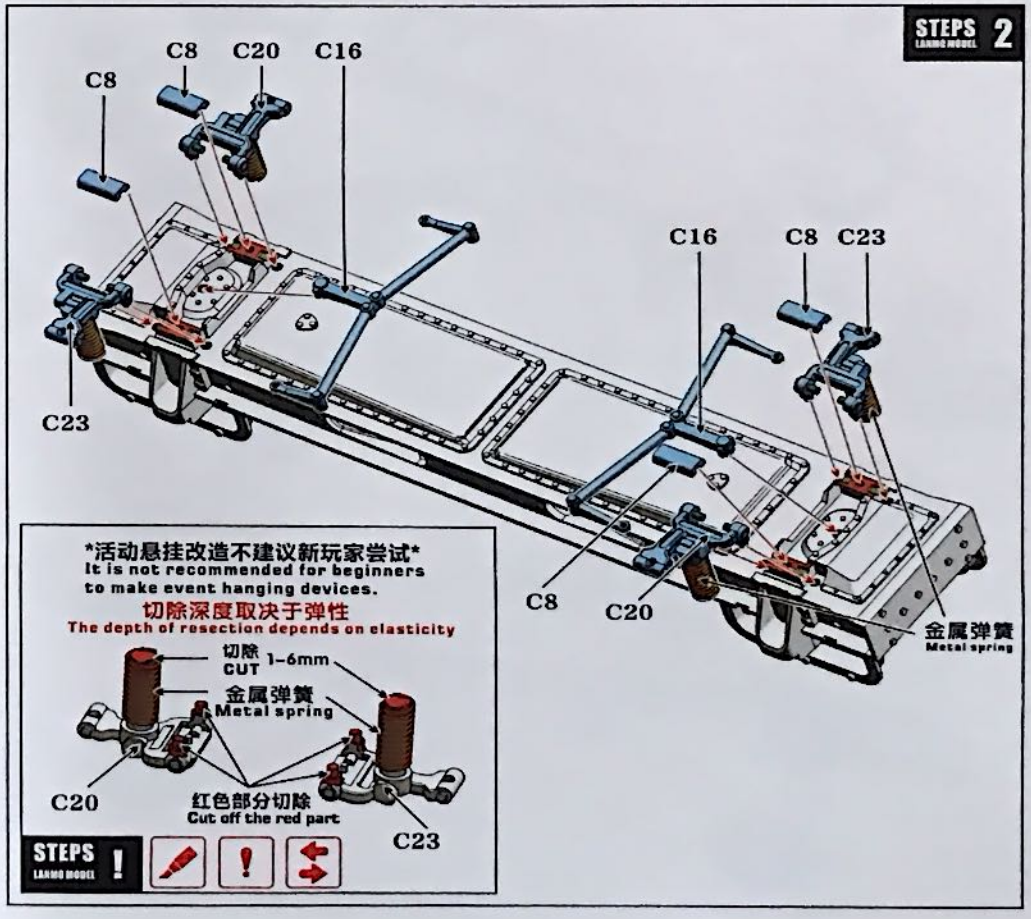




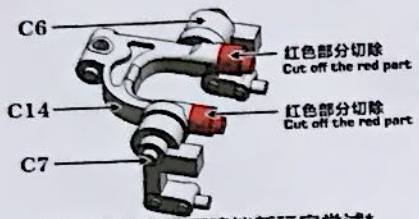


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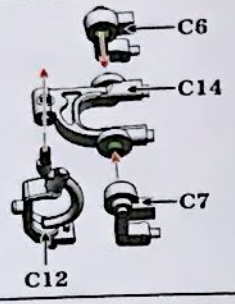


STEPS !

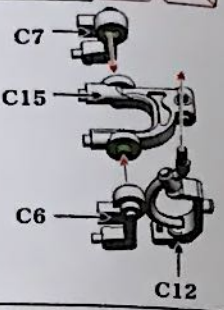


活动悬挂改造不建议新玩家尝试
It is not recommended for beginners to make event hanging devices.

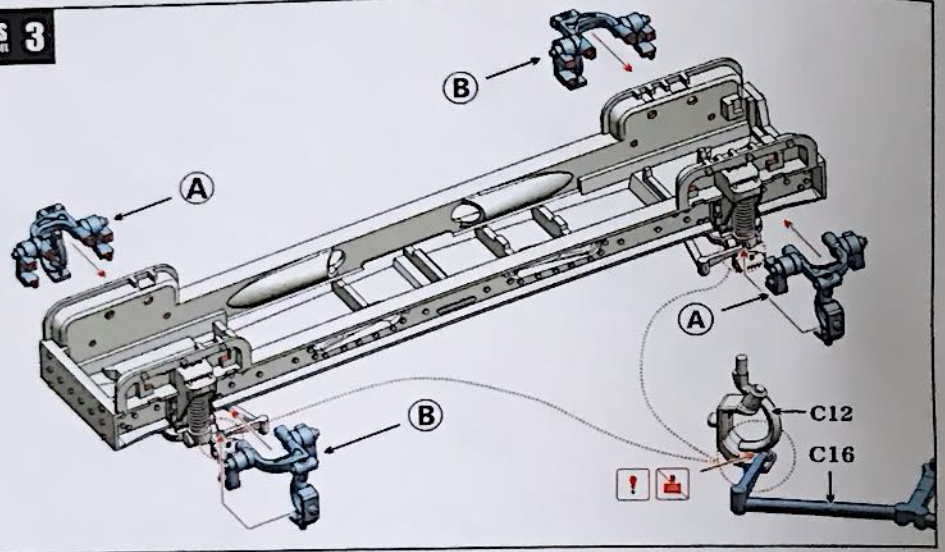
STEPS A ×2



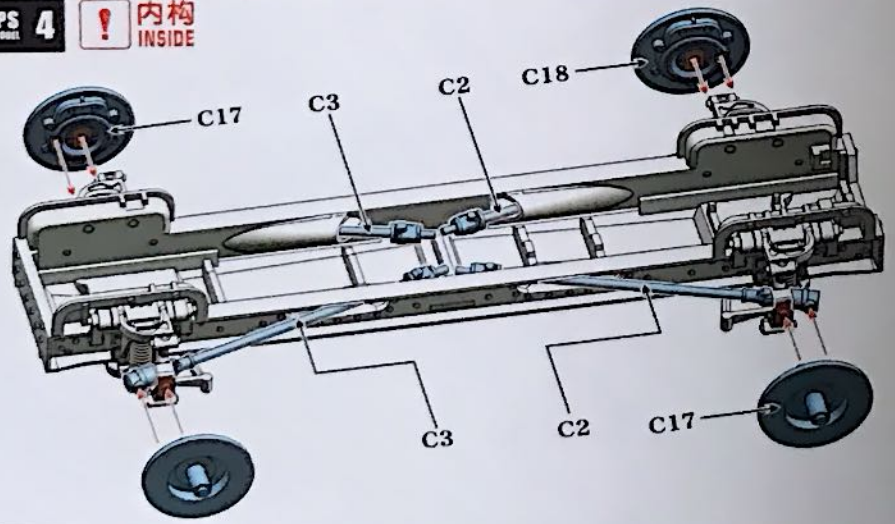
STEPS B ×2



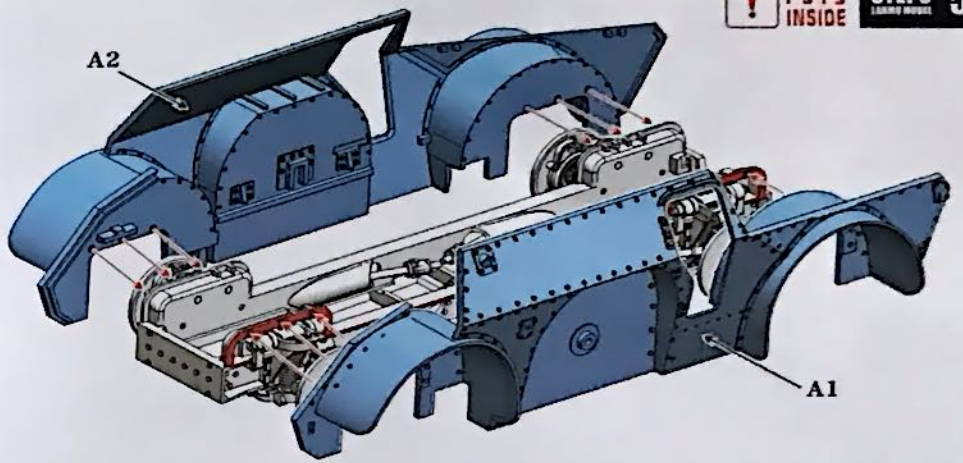
STEPS 3



STEPS 4 内构 INSIDE

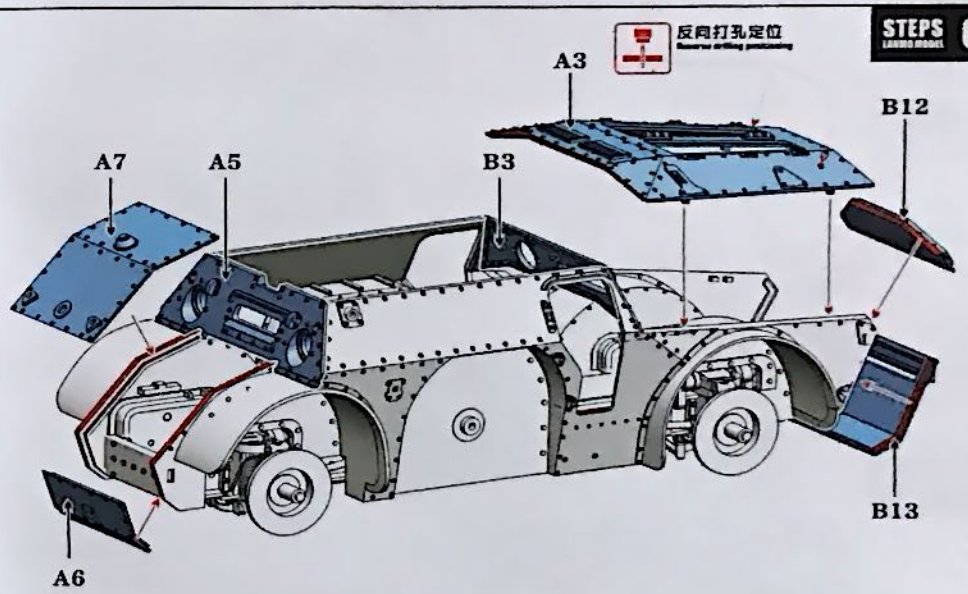


STEPS 5 内构 INSIDE

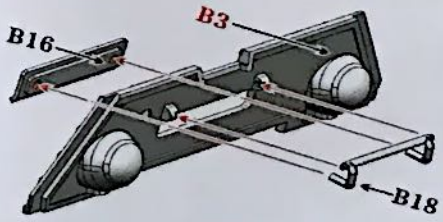


STEPS 6

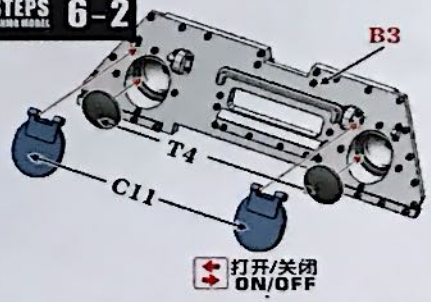
反向打孔定位

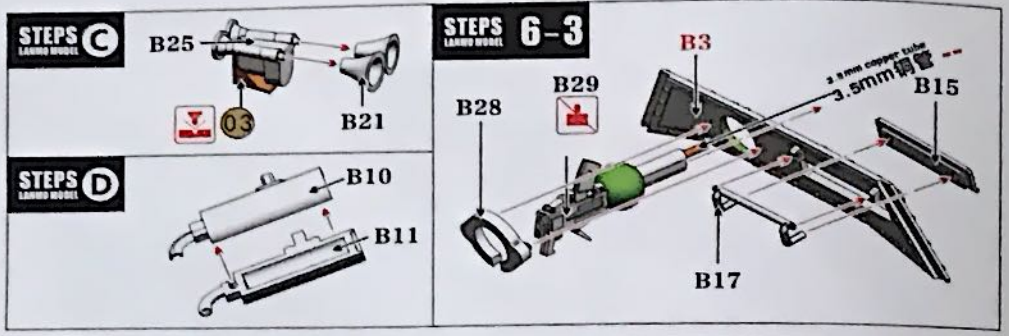


STEPS 6-1

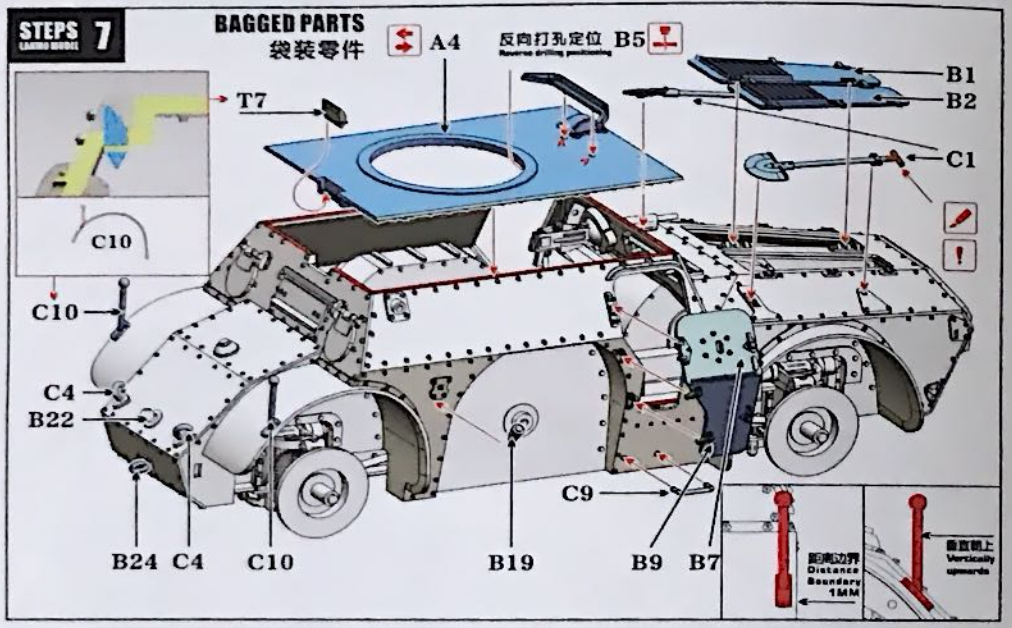


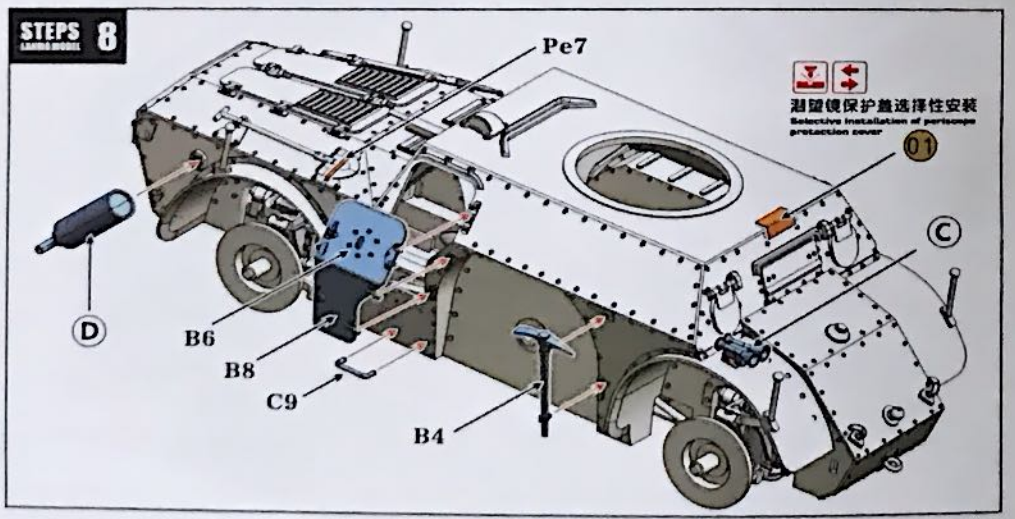
STEPS 6-2

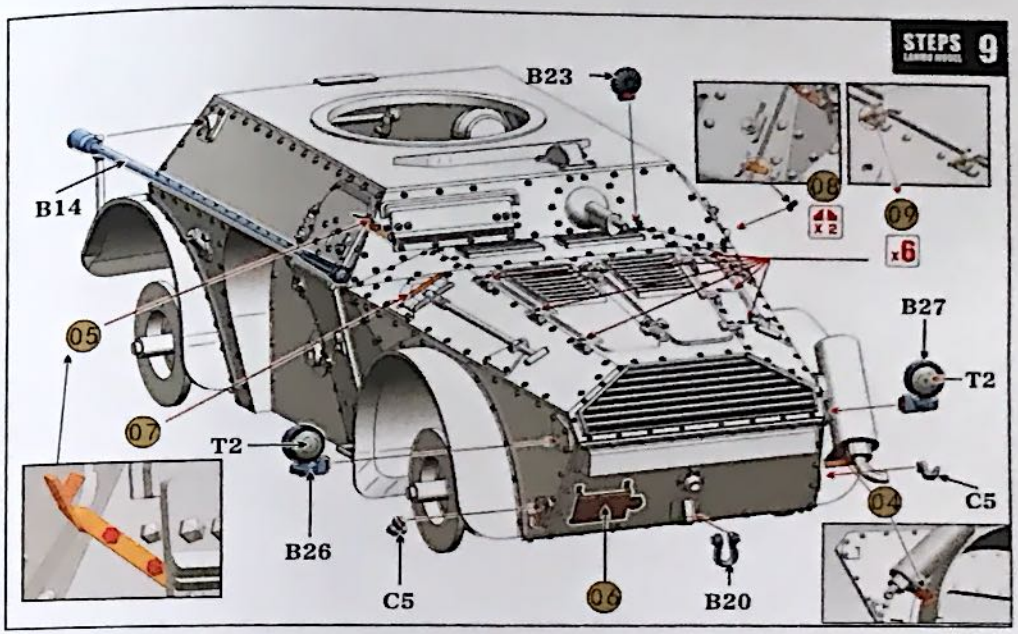


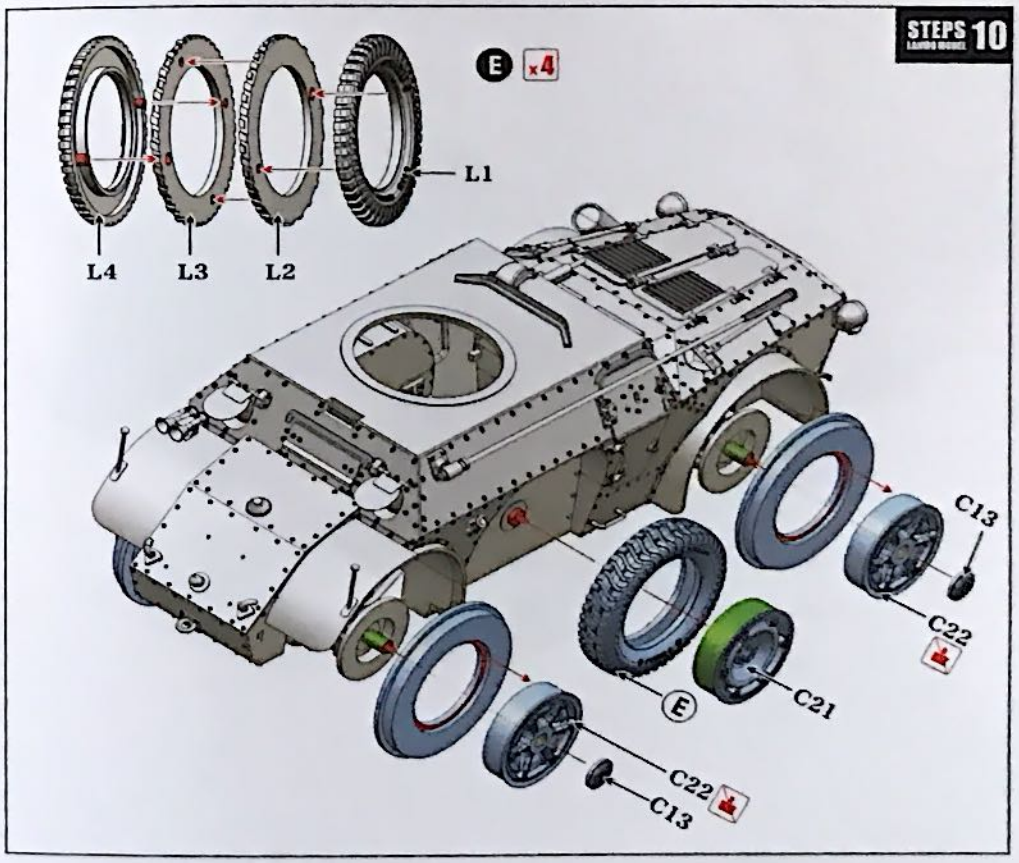

STEPS C
B25
03
B21
STEPS D
B10
B11

STEPS 6-3
B3
B29
B28
3.5mm铜管
B15
B17

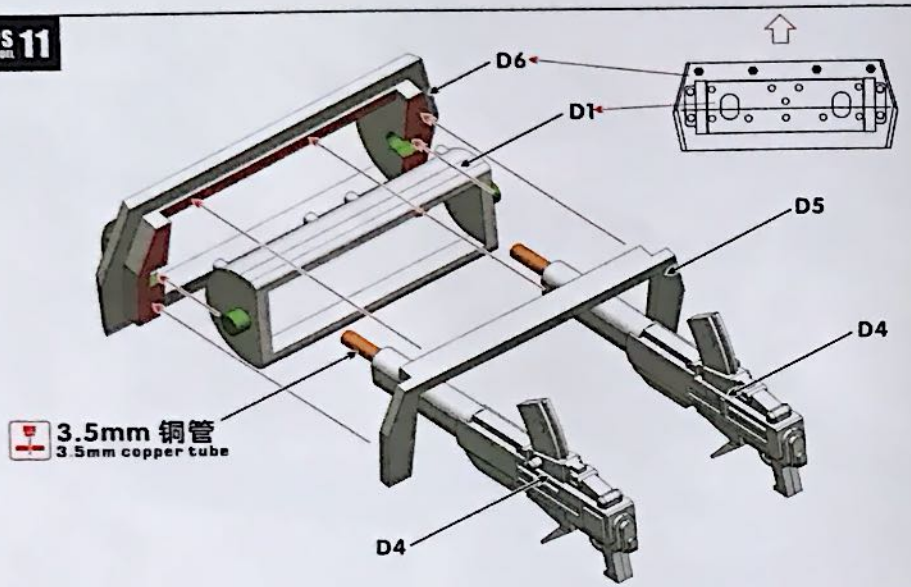

STEPS 7
BAGGED PARTS
袋装零件
A4
反向打孔定位
B5
T7
B1
B2
C1
C10
C10
C4
B22
B24
C4
C10
B19
C9
B9
B7
距离边界
Distance Boundary 1MM
垂直朝上
Vertically upwards


STEPS 8
Pe7
潜望镜保护盖选择性安装
Selective installation of periscope protection cover
01
C
D
B6
B8
C9
B4


STEPS 9
B23
B14
08
x2
09
x6
B27
T2
05
07
T2
B26
C5
04
C5
06
B20

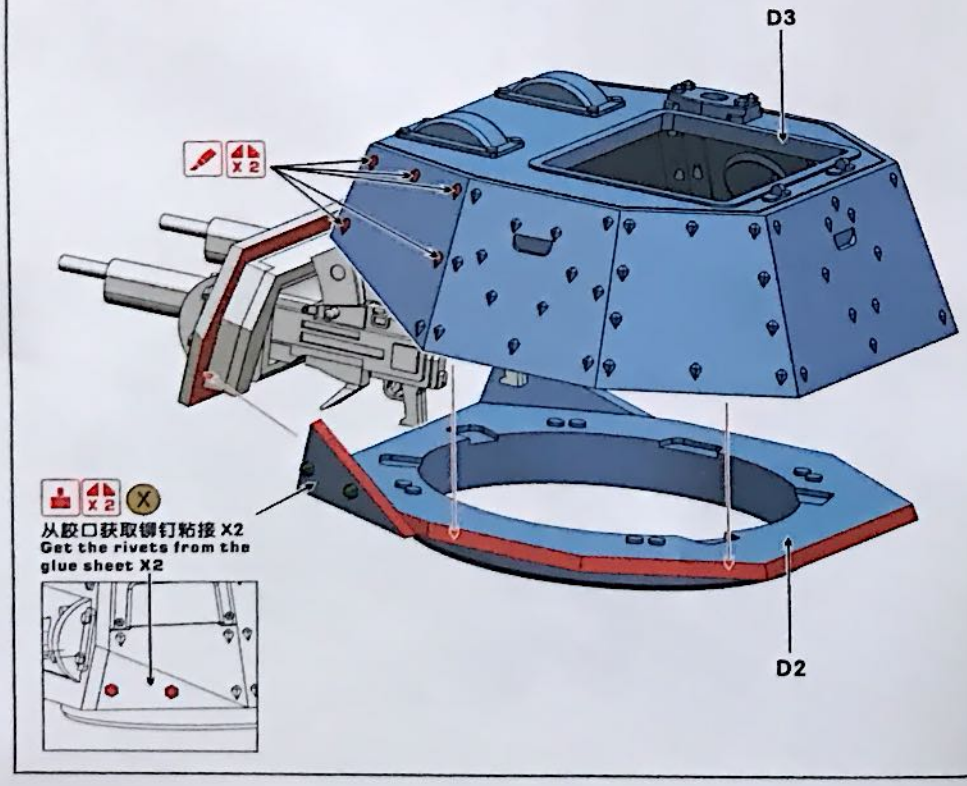

STEPS 10
E
x4
L1
L4
L3
L2
C13
C22
C21
E
C22
C13

STEPS 11



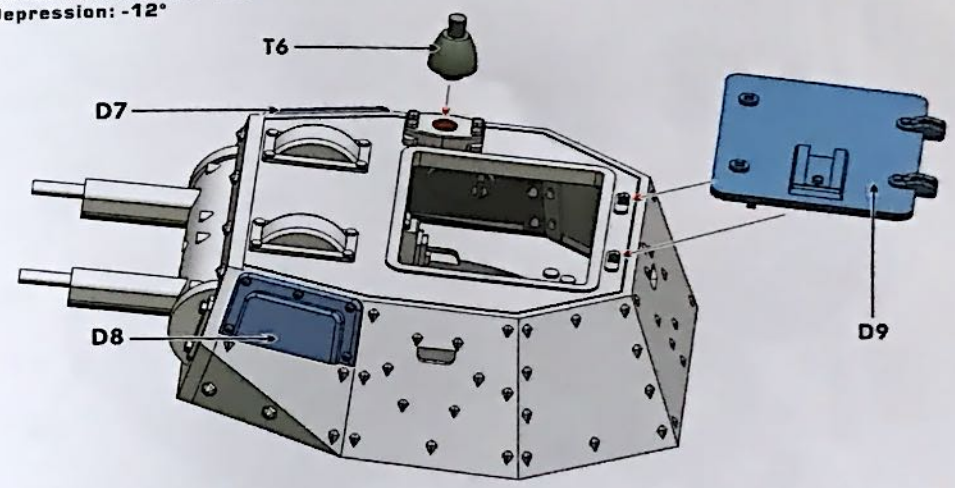
STEPS 12

内构
INSIDE

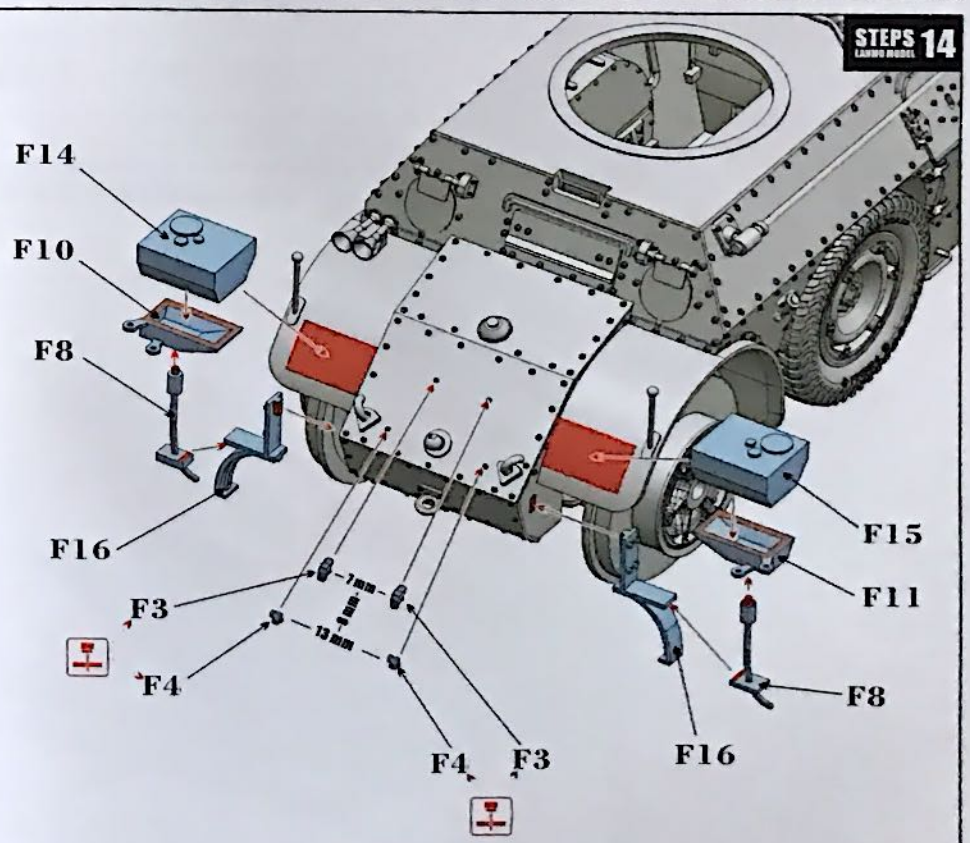


仰角：最大 +20°
俯角：-12°
Elevation: Maximum +20°
Depression: -12°

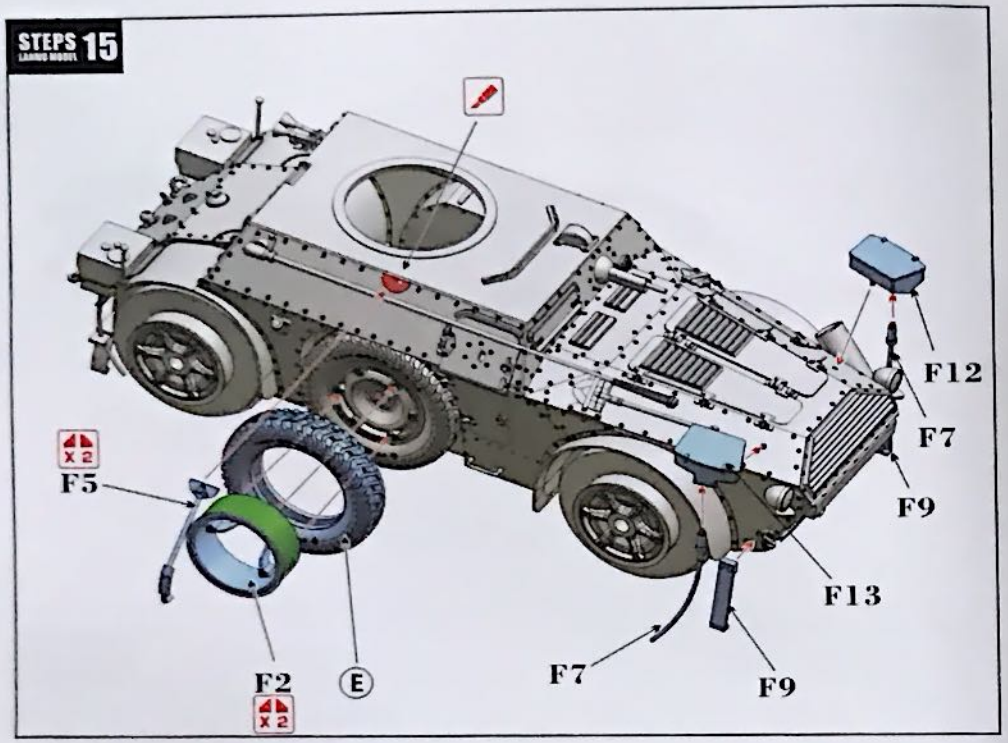
STEPS 13



STEPS 14

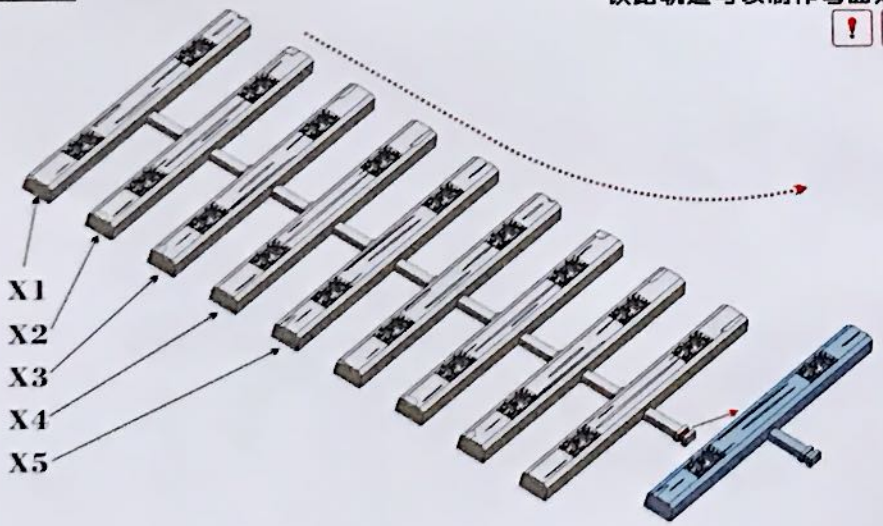


STEPS 15

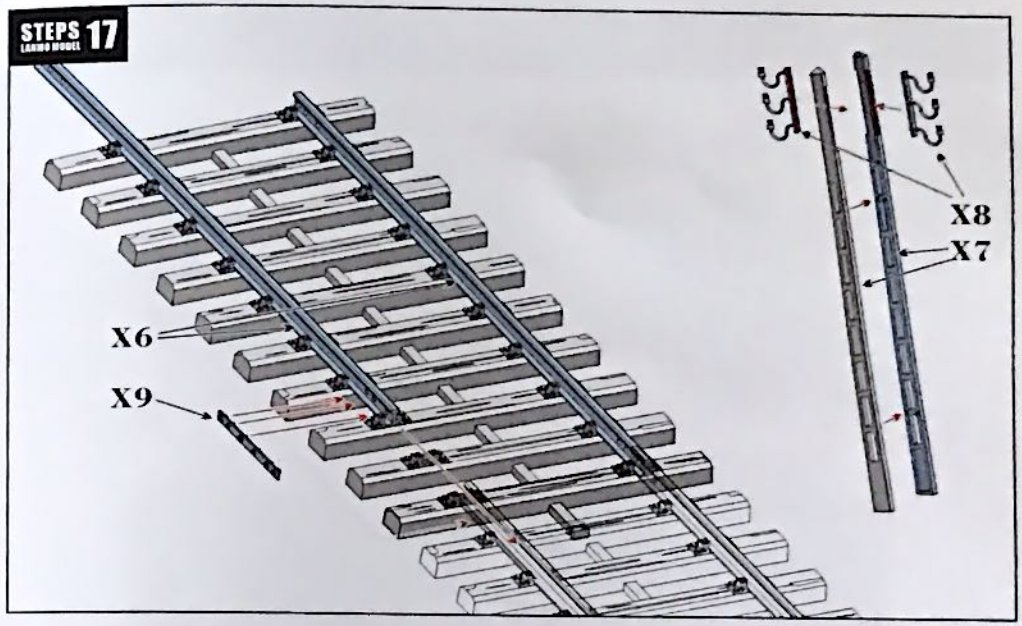


STEPS 16

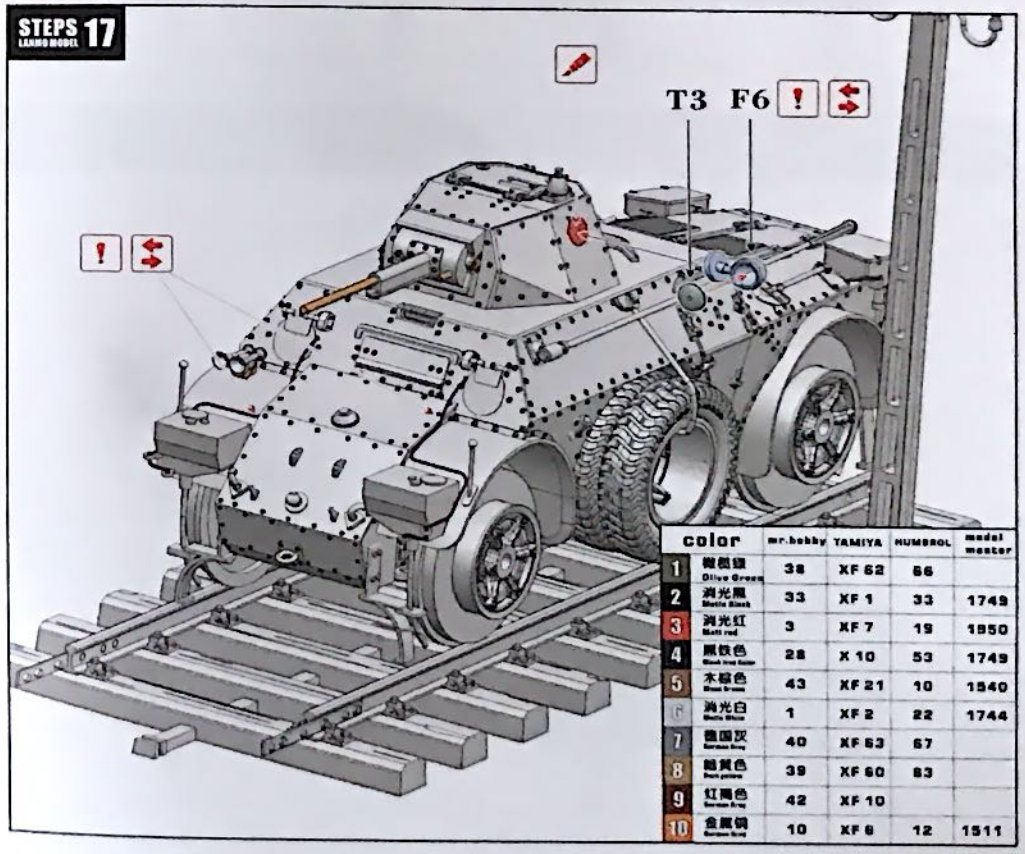
Railway tracks can be made to have a curved effect.
铁路轨道可以制作弯曲效果



STEPS 17

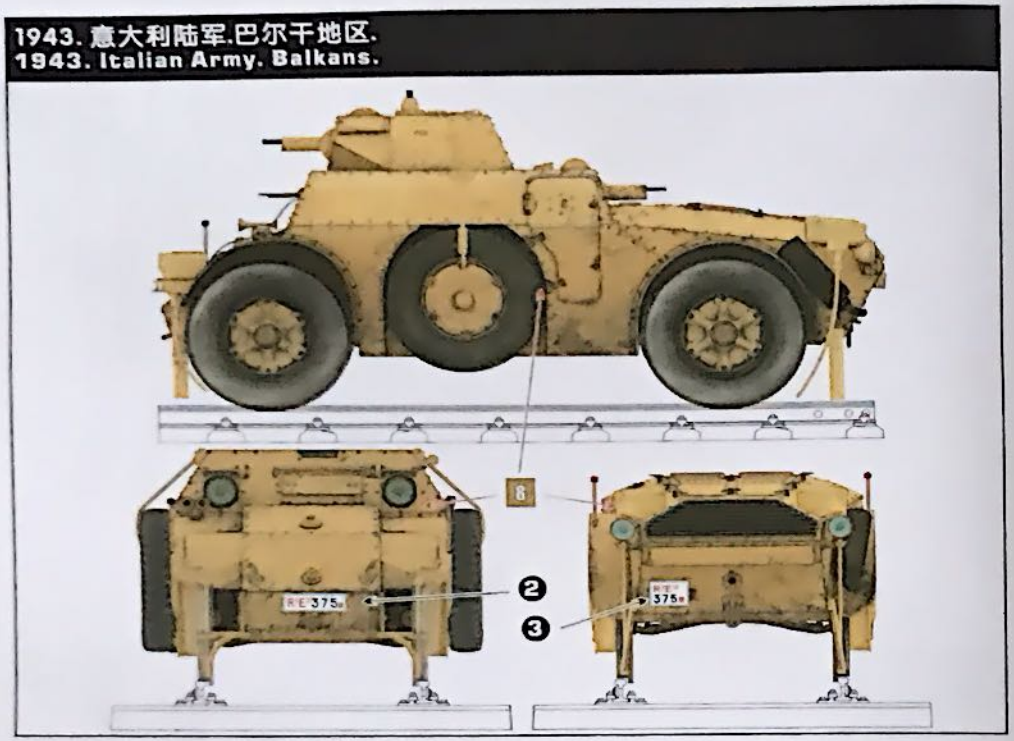


STEPS 17

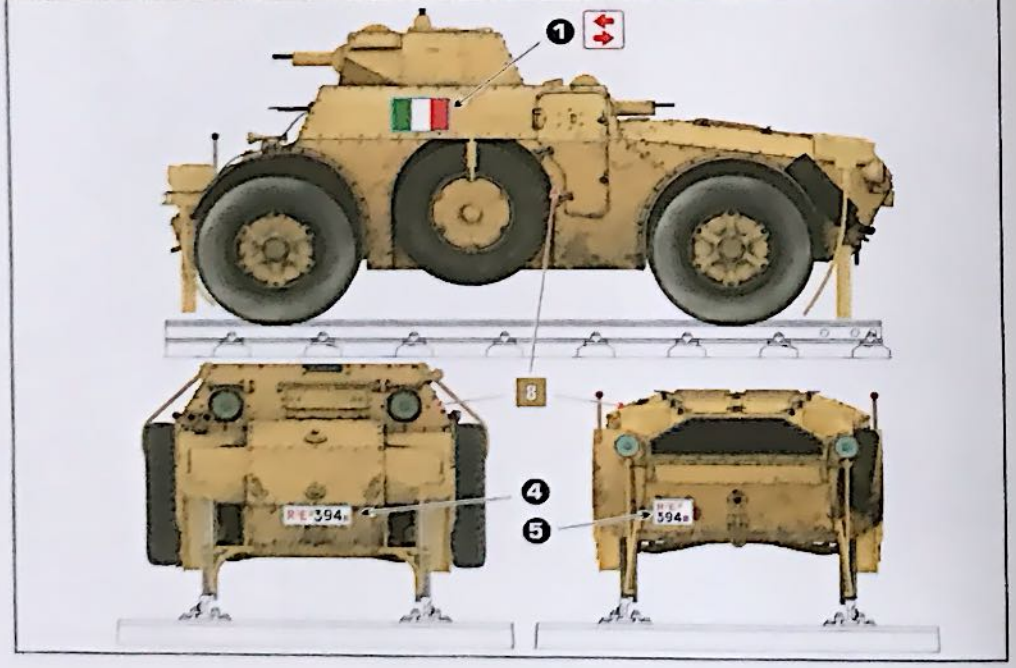


	color	mr.hobby	TAMIYA	NUMBROL	model master
1	橄榄绿 Olive Green	38	XF 62	66	
2	消光黑 Matte Black	33	XF 1	33	1749
3	消光红 Matt red	3	XF 7	19	1950
4	黑铁色 Black Iron Color	28	X 10	53	1749
5	木棕色 Wood Brown	43	XF 21	10	1940
6	消光白 Matte White	1	XF 2	22	1744
7	德国灰 German Grey	40	XF 53	67	
8	暗黄色 Dark yellow	39	XF 60	83	
9	红褐色 German Red	42	XF 10		
10	金属钢 German Steel	10	XF 8	12	1511

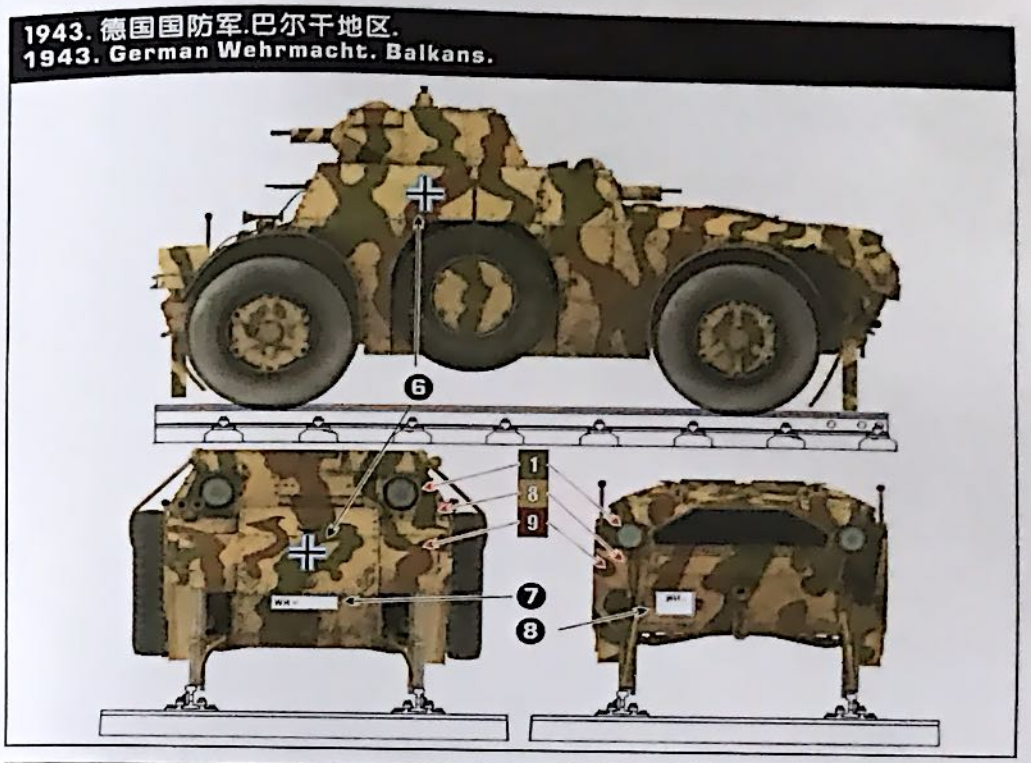
1943. 意大利陆军.巴尔干地区.
1943. Italian Army. Balkans.



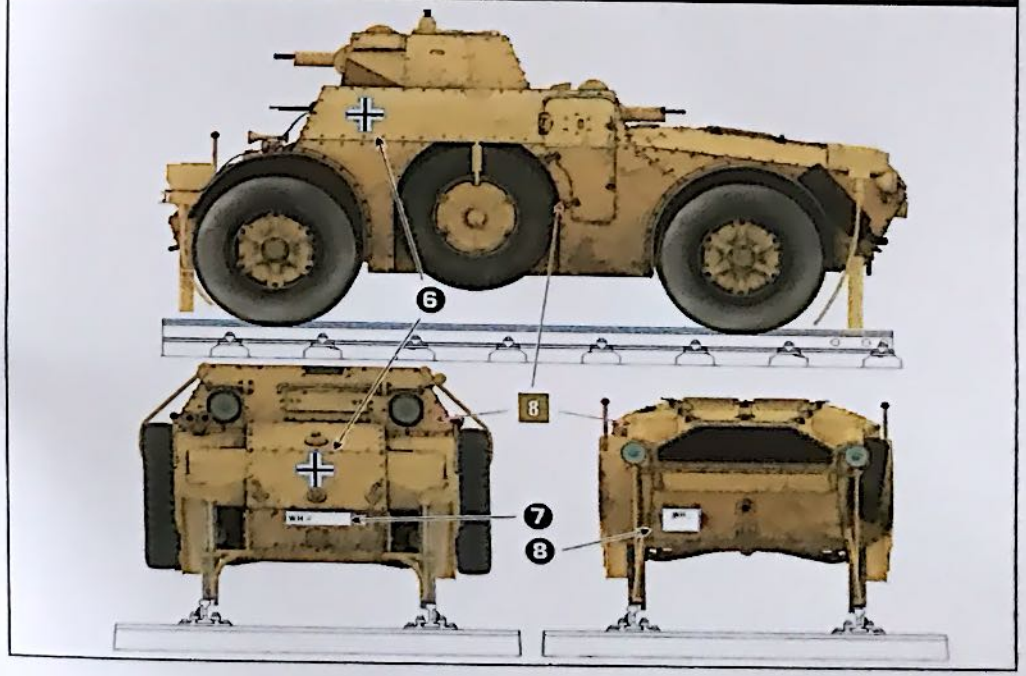
1942. 意大利陆军.巴尔干地区.
1942. Italian Army. Balkans.



1943. 德国国防军.巴尔干地区.
1943. German Wehrmacht. Balkans.



1943. 德国国防军.巴尔干地区.
1943. German Wehrmacht. Balkans.



internal structure kit

Autoblinda AB40 . AB41 . AB43

WORKS WITH Autoblinda Armored Vehicle Series

AB40 AB41 AB43 set interni per veicoli blindati

AB40.AB41.AB43装甲车内构套装

AB40 AB41 AB43装甲車両内装セット

内构系列

NM 3501

1 / 35

LANMO MODEL 蓝模

模 型 的 灵 魂 来 自 内 构

The soul of the model comes from the internal structure

RAILWAY TRACK EUROPEAN GAUGE

European gouge railway track

欧洲轨距铁路轨道

ヨーロッパ規格の鉄道線路

配件系列

including utility poles

NM3503

1 / 35

LANMO MODEL 蓝模