

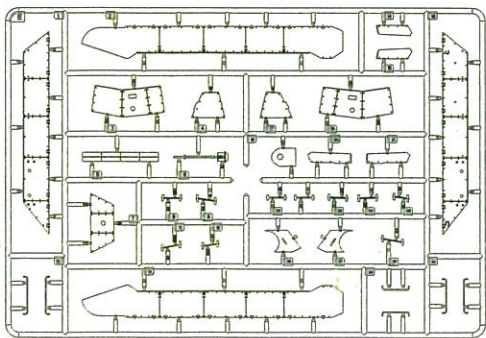
PPX10



Metal Gun Barrel



Spring X10



3a	КАБЕЛКОВ	ЗКОТННН	236	236
3a	КАБЕЛКОВ	ЗКОТННН	236	△ △
	"Нонкагуде"	ЕЕСТИ	231	231
	"Нонкагуде"	ЕЕСТИ	231	231

BT-009



## History | 历史介绍

## T34 Screened(Type 1)+T34-76 (Factory 112)

From 25 September to 9 October 1942, The Soviet Army conducted extensive experimental tests to install various types of spaced armor on the hull of the T-34 tank. The results showed that spaced armour not up to 10 mm and 20 mm could not resist the Soviet 76 mm gun and the German Panzer IV KwK L/24 gun. The armour thicknesses of 5mm and 20mm are effective in defending against enemy shells at a distance of 425 to 480mm from the main armor (That's like saying you have to get a big frame to frame the hull in, and there must be no contact between the frame and the hull.). However, the tests also proved that the T-34 instead resisted armor-piercing shells better when not fitted with additional armor. And this additional armor would come off after only two or three small caliber rounds.

In October 1942, Factory 112 produced a model of the full vehicle additional armour scheme. In this scheme, the additional armor was 20mm thick and covered the entire hull and turret, resulting in an excessive increase in weight and the manufacturing process is very difficult. Side skirt were added to the sides of the tank, which could be flipped upwards for routine maintenance (a design now common in various countries). These have special brackets inside the armor, which are used as a connection to the hull. The T-34 with this additional armour has an overall combat weight of 31.8 to 32.19 tons, compared to 28.63 tons for the T-34 without additional armor. There was also the option of changing the angle of inclination of the sides of the hull, but not even a model was made, as it was not possible to make any changes to the T-34 during the war.

After discussion, the experts concluded that 20mm thick additional armour would indeed protect the tank better, but the weight increase was too much and finally It was decided to use 16 mm thick armour. Two options were adopted, one with a total weight increase of 2622 kg to protect the hull and the turret. The other was to protect only the hull, with no additional armour for the turret, with a total weight increase of only 1833 kg, and this option was used only for the hull and turret with 10mm thick armour. On November 19, 1942, the experts involved in the discussions submitted a report to Stalin recommending the construction of 46 vehicles using the T-34 tanks under the first option, while 23 T-34 tanks under the second option were constructed. On December 7, this report was approved by Stalin and Resolution No. 2594 was signed. In accordance with the order, factory 112 produced the specified number of additional armoured T-34 tanks on 1 March 1943. Under Order No. 64 of the Commander of the Armoured and Mechanized Units of the Red Army, dated 9 June 1943, these tanks were transported to the front to receive the Field test. The 139th and 198th Tank Regiments equipped with this batch of additional armoured T-34s were incorporated into the 41st Tank Brigade of the 5th Tank Army and the 11th Tank Brigade of the 25th Tank Army. The 139th Tank Regiment is equipped with 21 and 11 T-34s with additional armour. The 198th Tank Regiment is equipped with 2 and 12 T-34s with additional armour, and 18 T-34s of the standard type.

During the motorized march to the rendezvous point, the running gear and engines of the tanks in both scenarios revealed a number of deficiencies, which it did not appear on the T-34 standard tank. Although the performance of the additional armor was generally unaffected, the deterioration of driving performance on soft ground and the internal clogging of the additional armor did not affect the performance of the T-34. A large amount of dirt is obviously more of a challenge for use and maintenance. From July 25 to August 8, 1943, the T-34 additional armoured tank officially entered the war. The 41st Tank Brigade deployed 89 T-34s and 10 British "Valentine" tanks. 28 July, the two sides on the front line started to fight. The Germans returned fire with tanks, anti-tank guns and self-propelled artillery against the brigade, which lost 7 additional armoured T-34s and captured the German positions. The additional armour proved effective against 75mm armour-piercing bullet, but not against the more commonly used German 75mm armour-piercing shell. To make matters worse, the Germans began to equip their Pak 43/41 88mm heavy anti-tank guns at this time. So from the second day of the battle, the 41st Tank Brigade suffered heavy losses.

In the course of the battle, the 41st Tanks travelled 35km and successfully completed their mission. However, the armoured tanks suffered heavy losses, only 2 and 5 of the two variants of the T-34 tank returned safely, respectively. The remaining 14 were destroyed, 5 overhauled and 6 undergoing medium repairs. 11th Tank Brigade 5 additional armoured tanks returned safely with relatively little damage, but 2 were destroyed, 2 overhauled (both Programme No. 2), 5 medium repairs (with 1 Programme No. 1). The investigation of the damage resulted in a very unfavourable conclusion for the armoured option tanks. 75 mm armour-piercing bullet hit 37 times. 16 times on the side of the hull, 5 times on the fenders, 6 times in front of the hull, 10 times in the turret. 88mm shells for Pak 43/41. 15 hits, 7 on the side of the hull, 3 on the fenders, 2 on the front of the hull, 2 on the rear of the hull, and 1 on the turret. In total, the hull was hit 23 times, the fenders 8 times, and the idea that the tank needed more side protection really should have been, but this mere addition of the option of additional armour is completely ineffective in practice for 75mm and 88mm armour-piercing ammunition.

On September 25, 1943, an investigation report based on the battle results of the T-34 armoured tank was released. The report stated that although the additional armor would have provided better protection for the T-34, given that all Soviet heavy tanks (at the time) were Neither could withstand the Pak 43/41 shells, so the T-34 prototype built at 112 was the last Soviet Large-scale use of additional armor type tanks in the war. Although research into additional armour did not stop there, the Soviet Union did not build any more prototypes during the Second World War.

1942年9月25日至10月9日，苏军进行了大量T-34坦克和车体上各种间隙的附加装甲实验测试。结果显示间隙没有达到10mm和20mm的附加装甲都无法抵挡苏联76mm火炮和德国IV号坦克的KwK L/24火炮。而厚度为5mm和20mm的装甲在距离主装甲425~480mm时，可以有效防御敌方炮弹（等于说要搞一个大框子把车体框进去，还不能有接触）。然而试验结果也证明，不安装附加装甲时，T-34反而能更好抵御破甲弹。而且这种附加装甲只要被两三发小口径炮弹击中就会脱落。

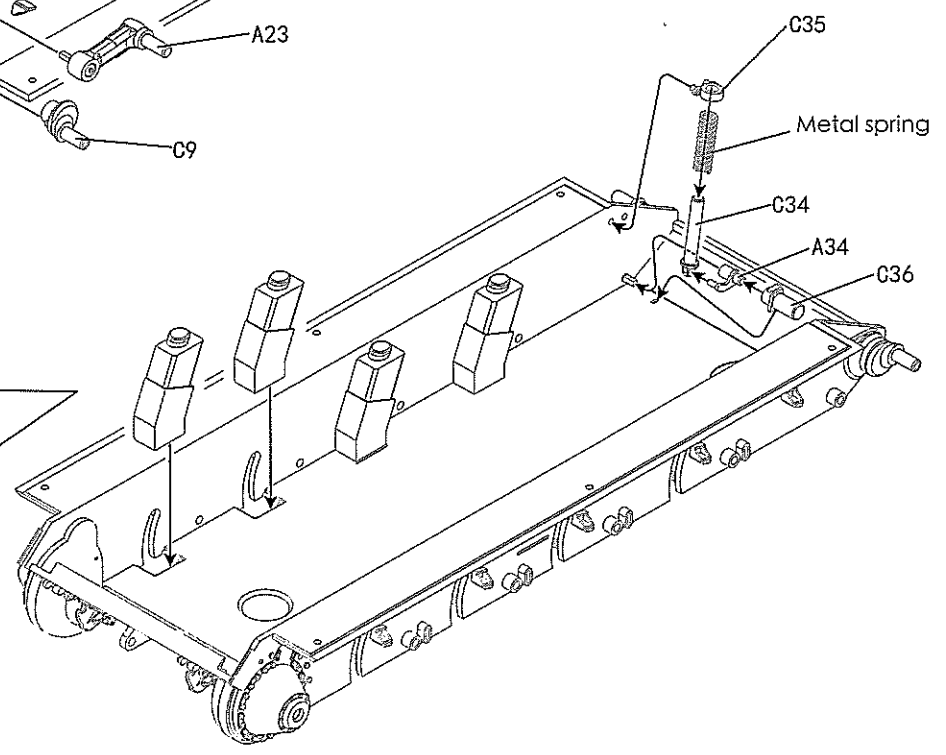
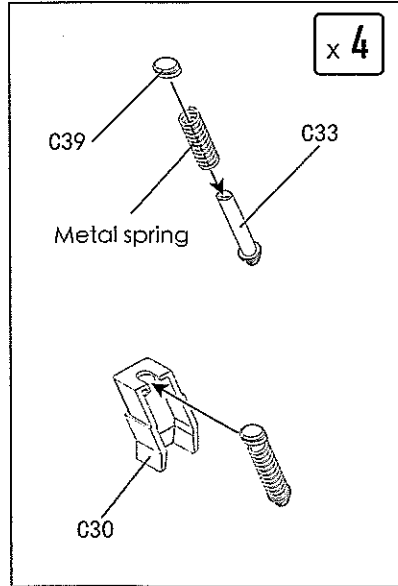
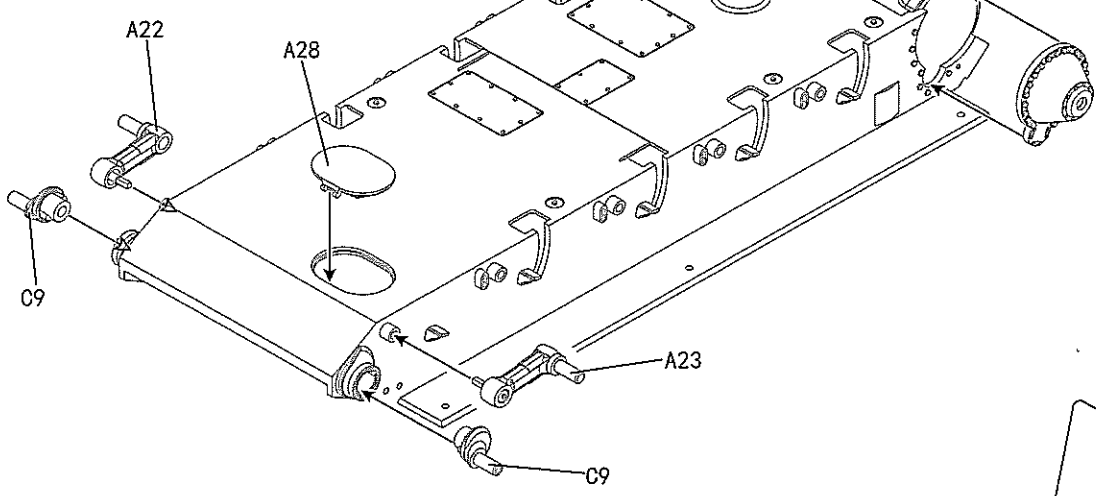
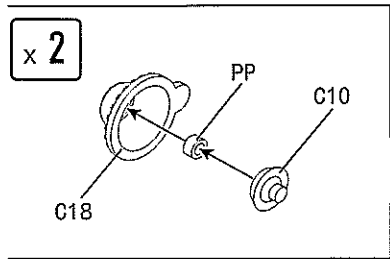
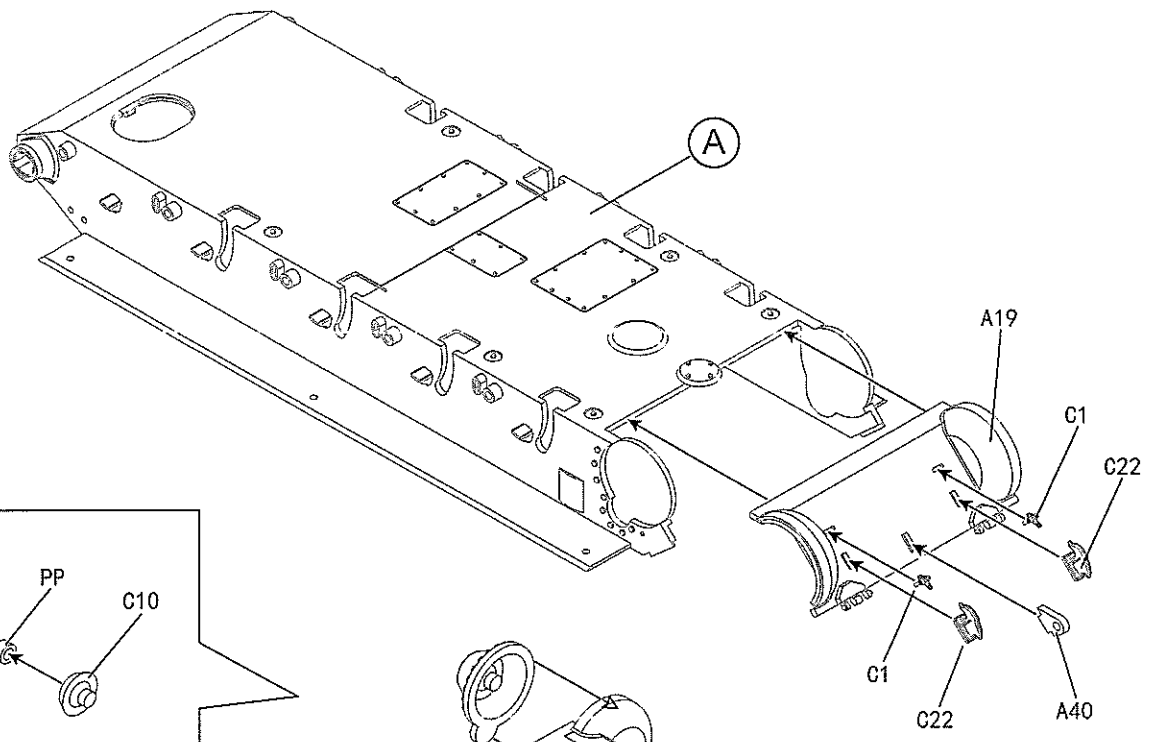
1942年10月，112厂制作了全车附加装甲方案模型。这个方案中，附加装甲厚度为20mm，全部覆盖在车体和炮塔上，导致车重增加太多，而且制造过程非常麻烦。坦克侧面增加了裙板，可以向上翻起，用来进行日常维护（各国现在普遍采用的设计）。这些装甲内部有特殊支架，用来作为与车体的连接。附加装甲有五种方案，分别有不同的厚度和防护等级。T-34安装这种附加装甲后，战斗全重为31.8~32.19吨，而没有附加装甲的T-34为28.63吨。在方案中，还有改变车体两侧倾斜角度的方案，但连模型都没有制作，毕竟战争期间不可能对T-34坦克生产线进行大规模修改。

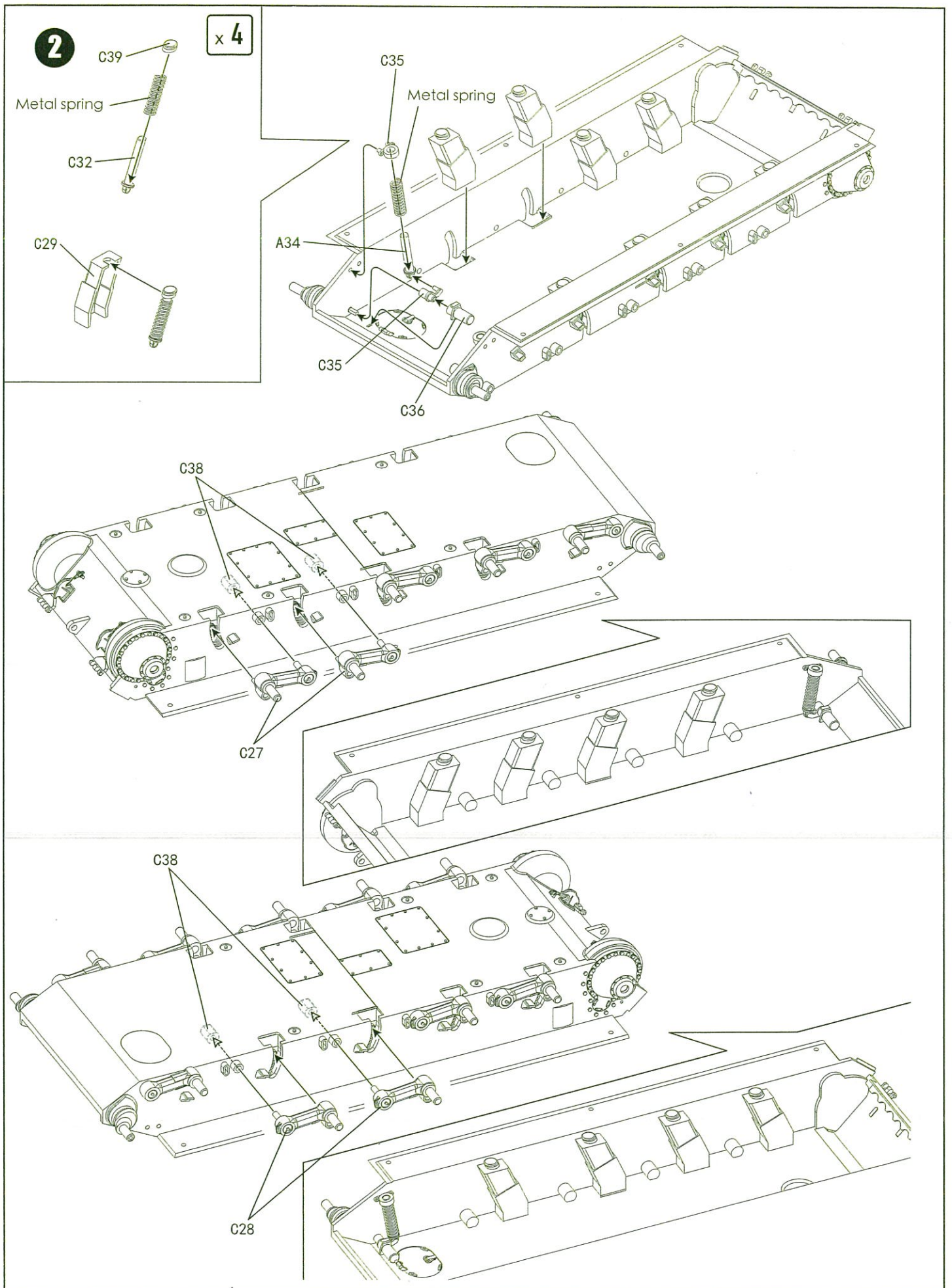
经过讨论之后，专家认为20mm厚的附加装甲确实可以更好保护坦克，但重量增加太多，最后决定采用16mm厚的装甲。并采用两种方案，一种全重增加2622千克，保护车体和炮塔。另一种则只保护车体，炮塔不安装附加装甲，全重只增加1833千克，而且这种方案只用了10mm厚的装甲。1942年11月19日，参与讨论的专家们向斯大林提交了一份报告，建议建造46辆采用第一种方案的T-34坦克，同时建造23辆采用第二种方案的T-34坦克。12月7日，这个报告获得斯大林批准，并签署了第2594号决议。根据该命令，112厂于1943年3月1日生产了指定数量的附加装甲型T-34坦克。根据1943年6月9日红军装甲和机械化部队指挥官的第64号命令，这些坦克被运往前线接受实战测试。装备这批次附加装甲型T-34坦克的第139和第198坦克团被编入第5坦克军第41坦克旅和第25坦克军第111坦克旅。第139坦克团分别装备了21辆和11辆两种加装了附加装甲的T-34坦克。第198坦克团分别装备了2辆和12辆，以及18辆标准型T-34。在前往集结地点的摩托化行军途中，两个方案的坦克行走装置和发动机暴露出许多缺陷，这些问题却并没有在T-34标准型坦克上出现。虽然总体来说附加装甲的性能不会受到影响，但在松软地面行驶性能的恶化，附加装甲内部堵塞了大量污垢，对于使用维护来说显然是个比较大的困难。

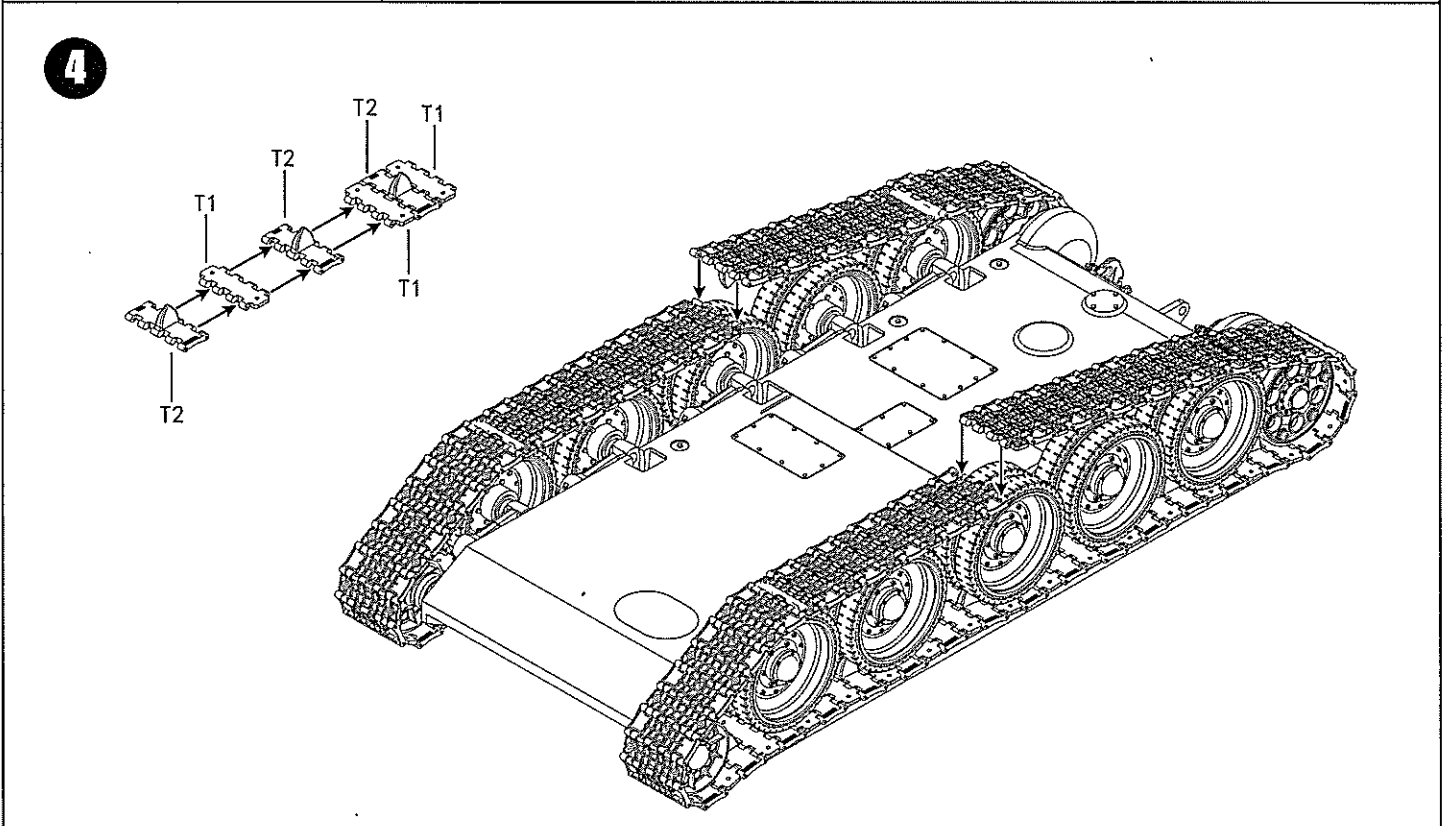
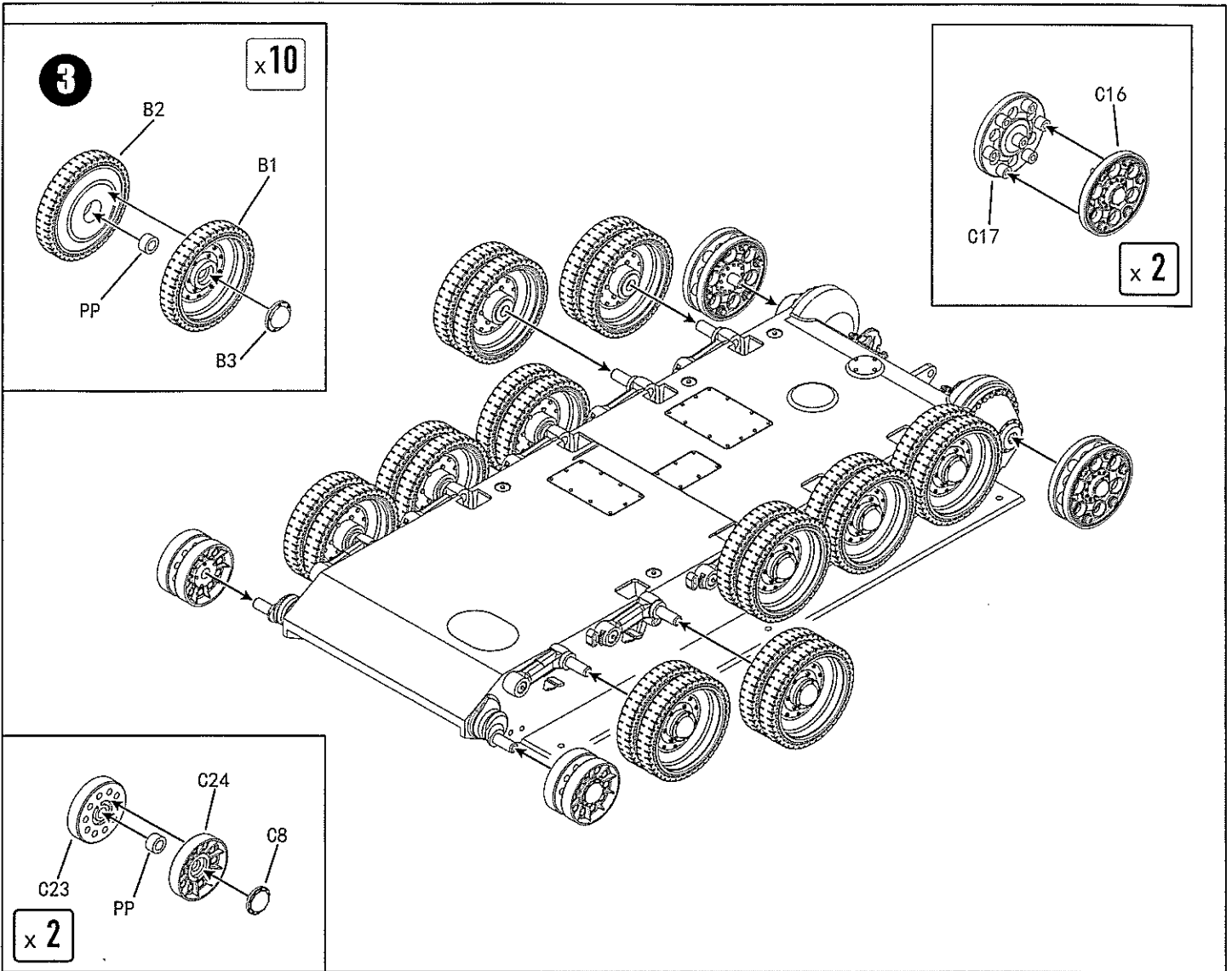
1943年7月25日至8月8日，T-34附加装甲型坦克正式参战。第41坦克旅出动89辆T-34坦克和10辆英国“瓦伦丁”坦克。7月28日前线双方开始交火，德军使用坦克、反坦克炮和自行火炮对该旅进行还击，该部队以损失7辆附加装甲型T-34的代价，并占领了德军阵地。事实证明附加装甲可以有效防御75mm破甲弹，却无法抵御德军更加常用的75mm穿甲弹。更糟糕的是，德军此时开始装备Pak 43/41型88mm重型反坦克炮，所以从战斗的第二天开始，第41坦克旅就遭到严重损失。战斗过程中，第41坦克旅行军35千米，成功完成任务。但是附加装甲型坦克受到了严重损失，两种附加装甲方案的T-34坦克分别只有2辆和5辆安全返回。其余14辆全毁，5辆大修，6辆中修。第111坦克旅5辆附加装甲型坦克安全返回，相对损失较小，但有2辆全毁、2辆大修（都是2号方案），5辆中修（有1辆1号方案）。通过对损失的调查，结论对于附加装甲方案非常不利。75mm穿甲弹一共击中37次，其中车体侧面16次，挡泥板5次，车体前方6次，炮塔10次。Pak 43/41的88mm炮弹击中15次，车体侧面7次，挡泥板3次，车体前方2次，车体尾部2次，炮塔1次。总计车体被击中23次，挡泥板8次，坦克需要增加侧面防护的想法确实应该，但是这种单纯增加附加装甲的方案对于75mm和88mm穿甲弹实际完全无效。

1943年9月25日，依据T-34附加装甲型坦克的战斗结果的一份调查报告正式出炉。报告中提到：尽管附加装甲可以为T-34提供更好的防护，但鉴于苏军的重型坦克（当时）全部都无无法抵御Pak 43/41炮弹的打击，因此112厂制造的T-34样车是苏军最后一次大规模使用附加装甲型坦克参战的案例。尽管附加装甲的研究工作并没有因此停止，但二战期间苏联再也没有制造过任何原型车。

1



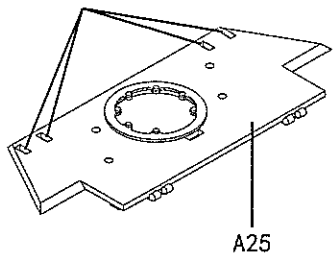




5

**?** Type 1  
Optional Parts  
可选零件

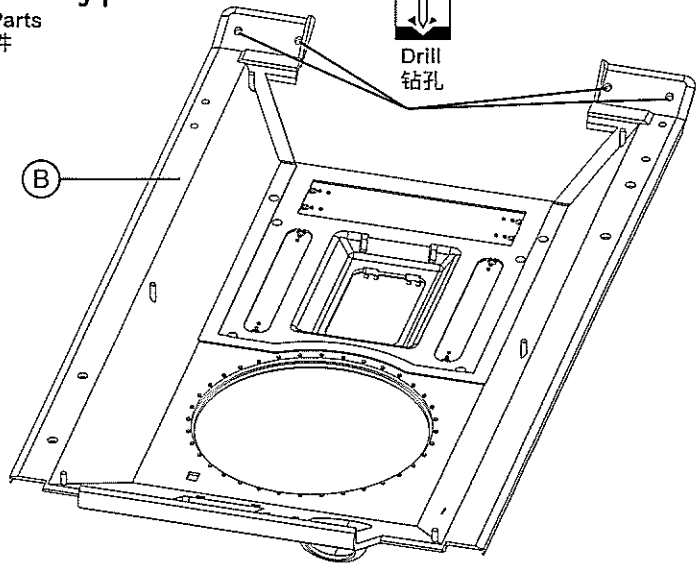
Drill  
钻孔



A25

**?** Type 2  
Optional Parts  
可选零件

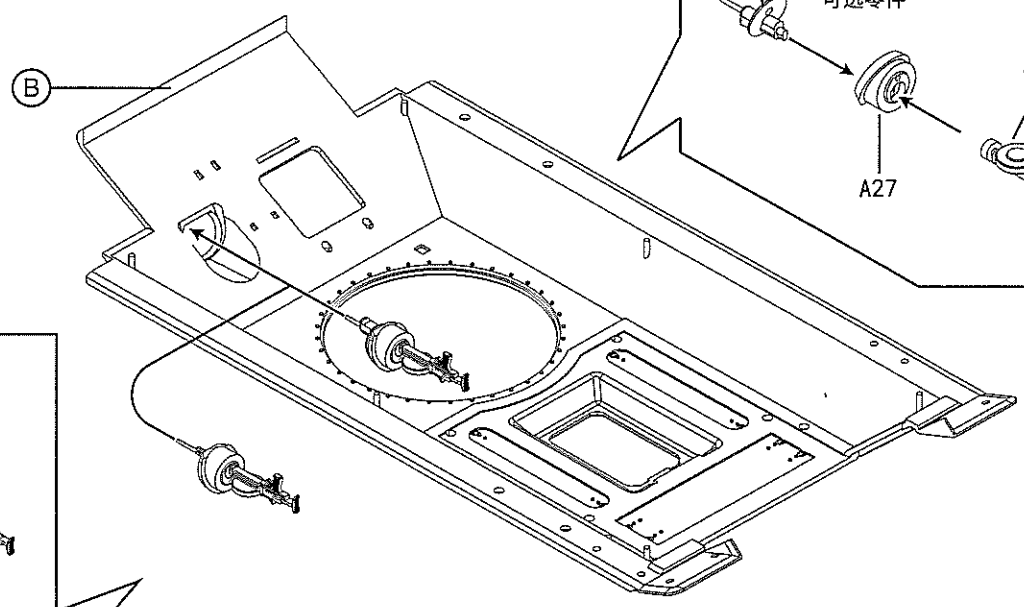
Drill  
钻孔



B

6

**?** D43 for T34E  
D43 or A4 for T34-76  
Optional Parts  
可选零件



B

A4

A27

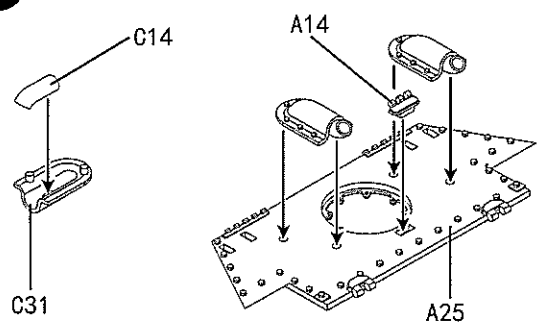
A18

D43

A27

A18

7



C14

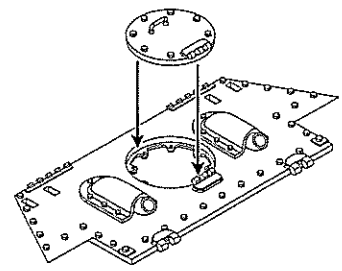
A14

C31

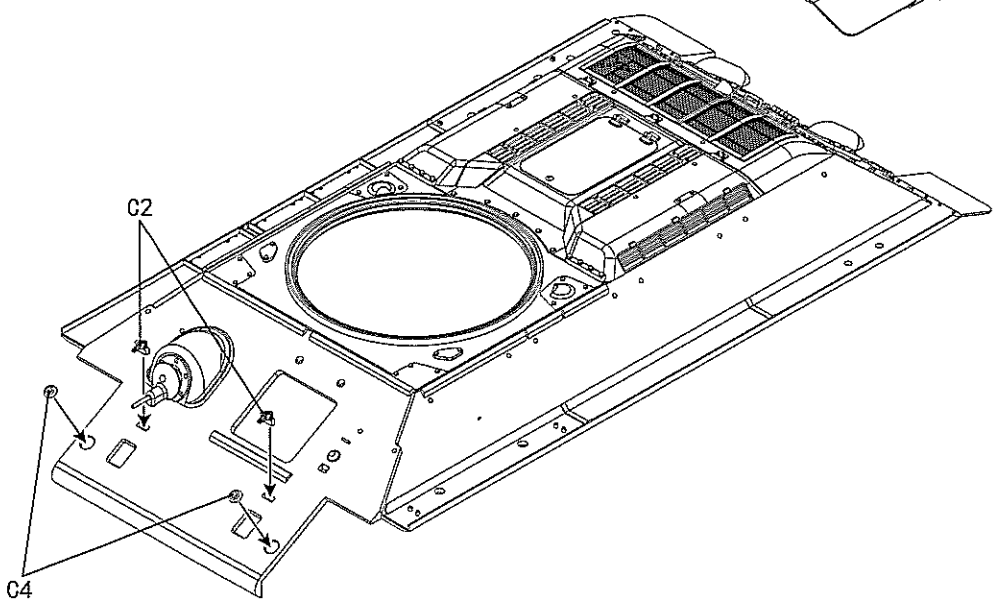
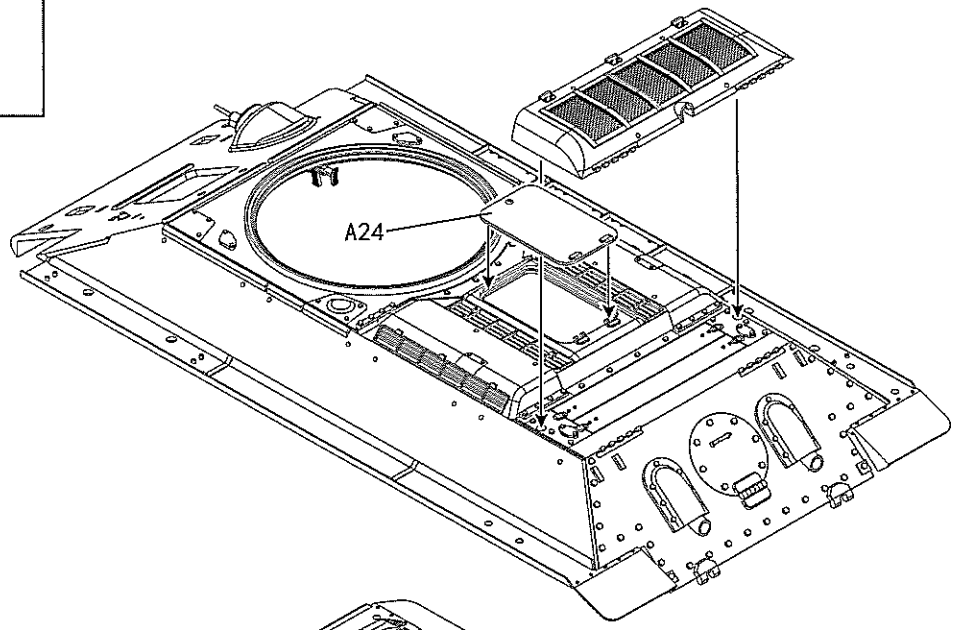
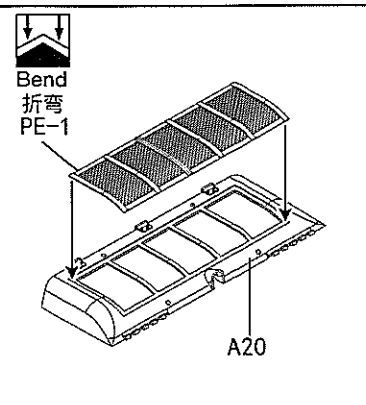
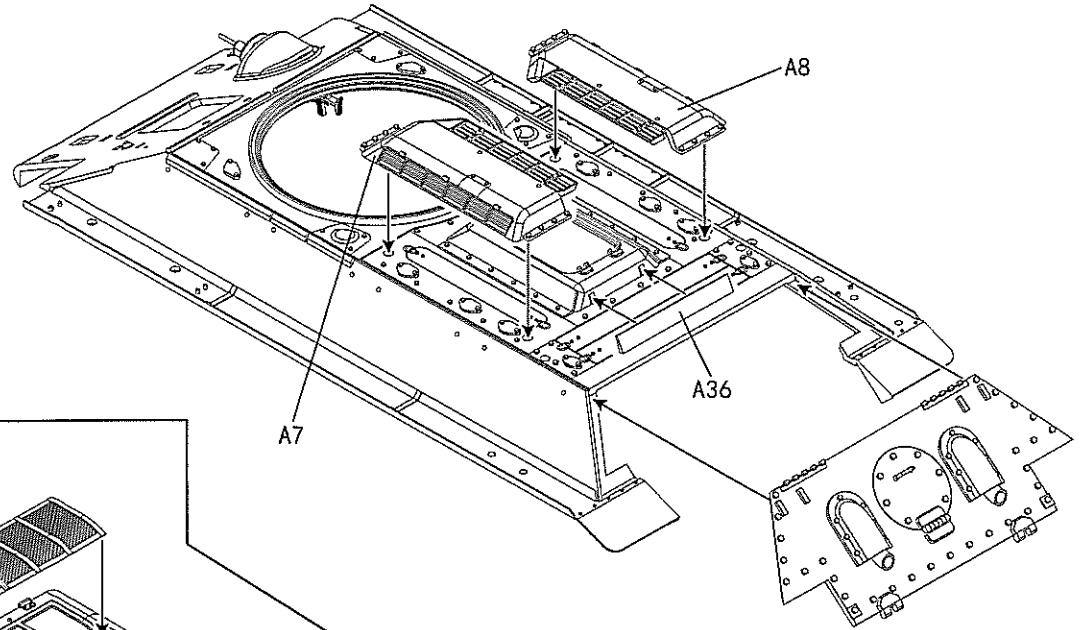
A25

A9

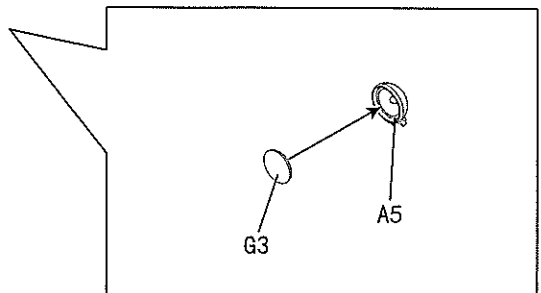
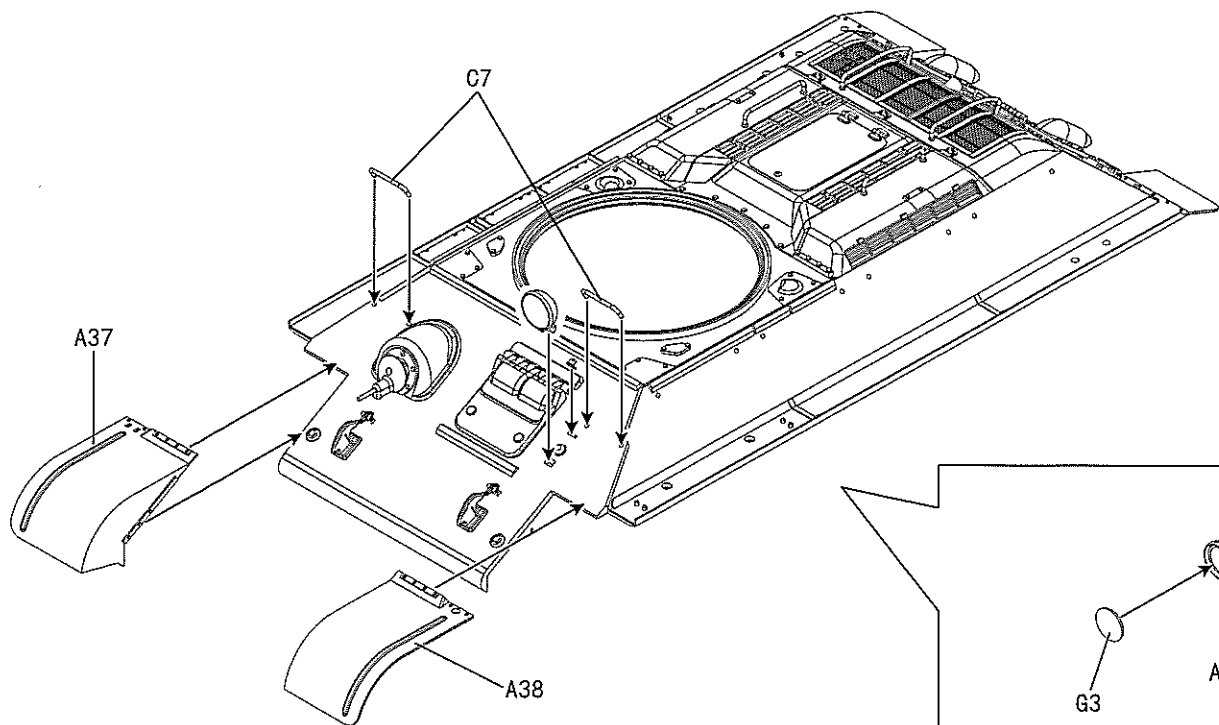
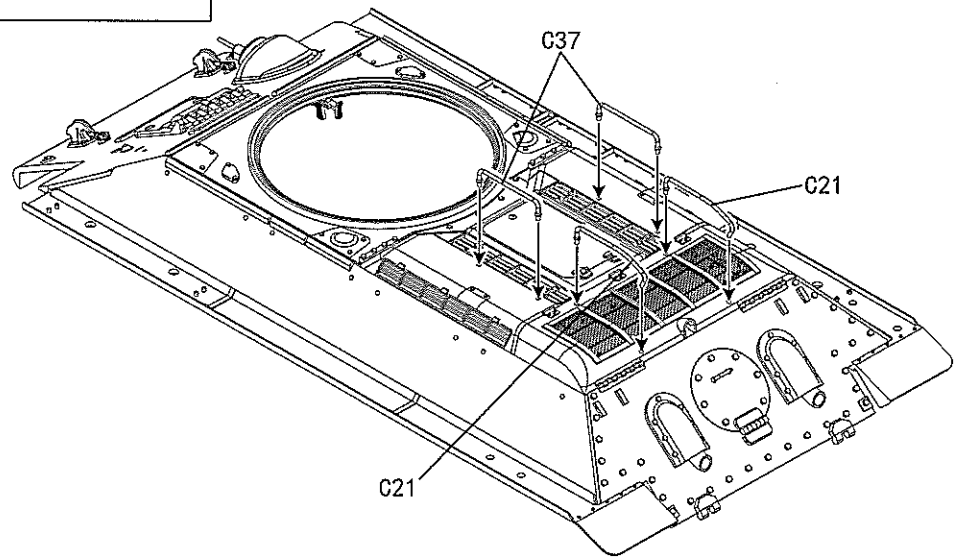
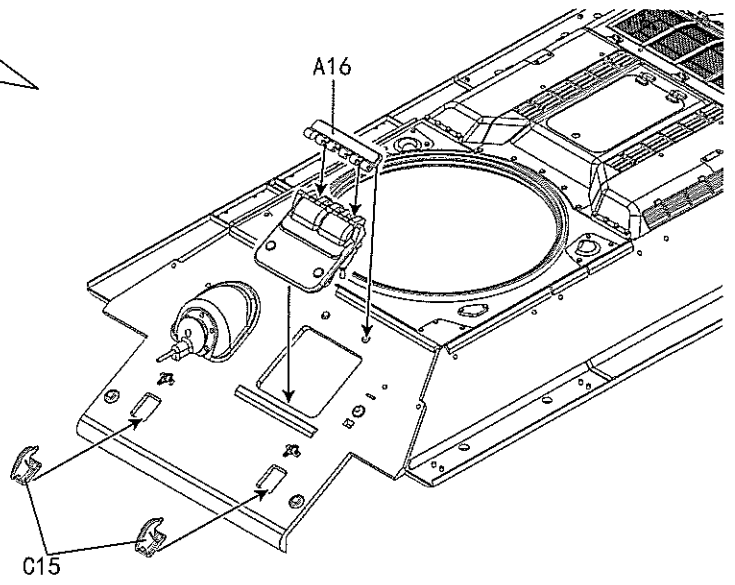
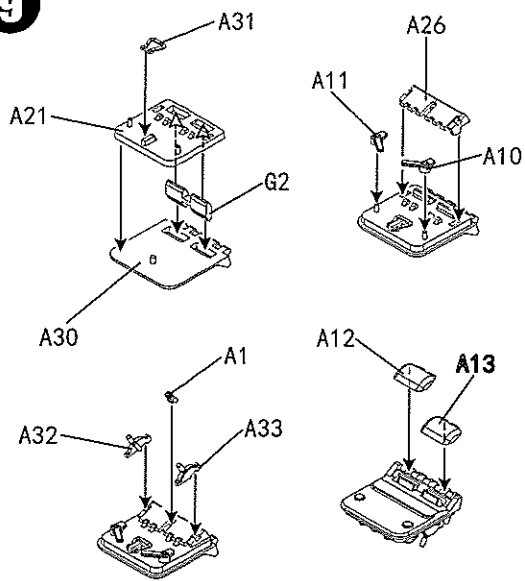
A29



8

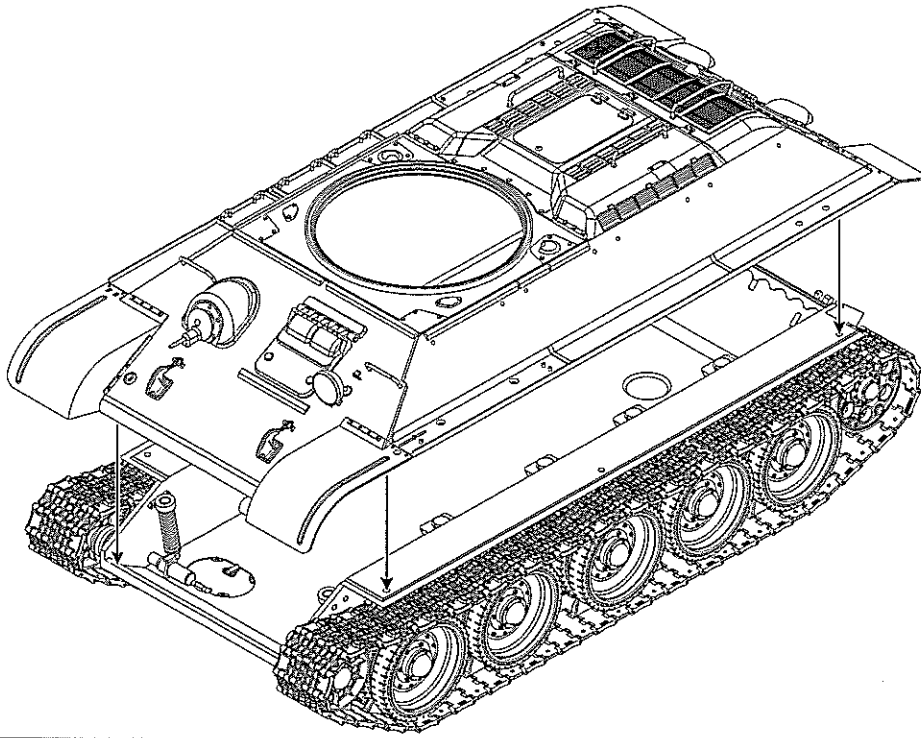


9





10

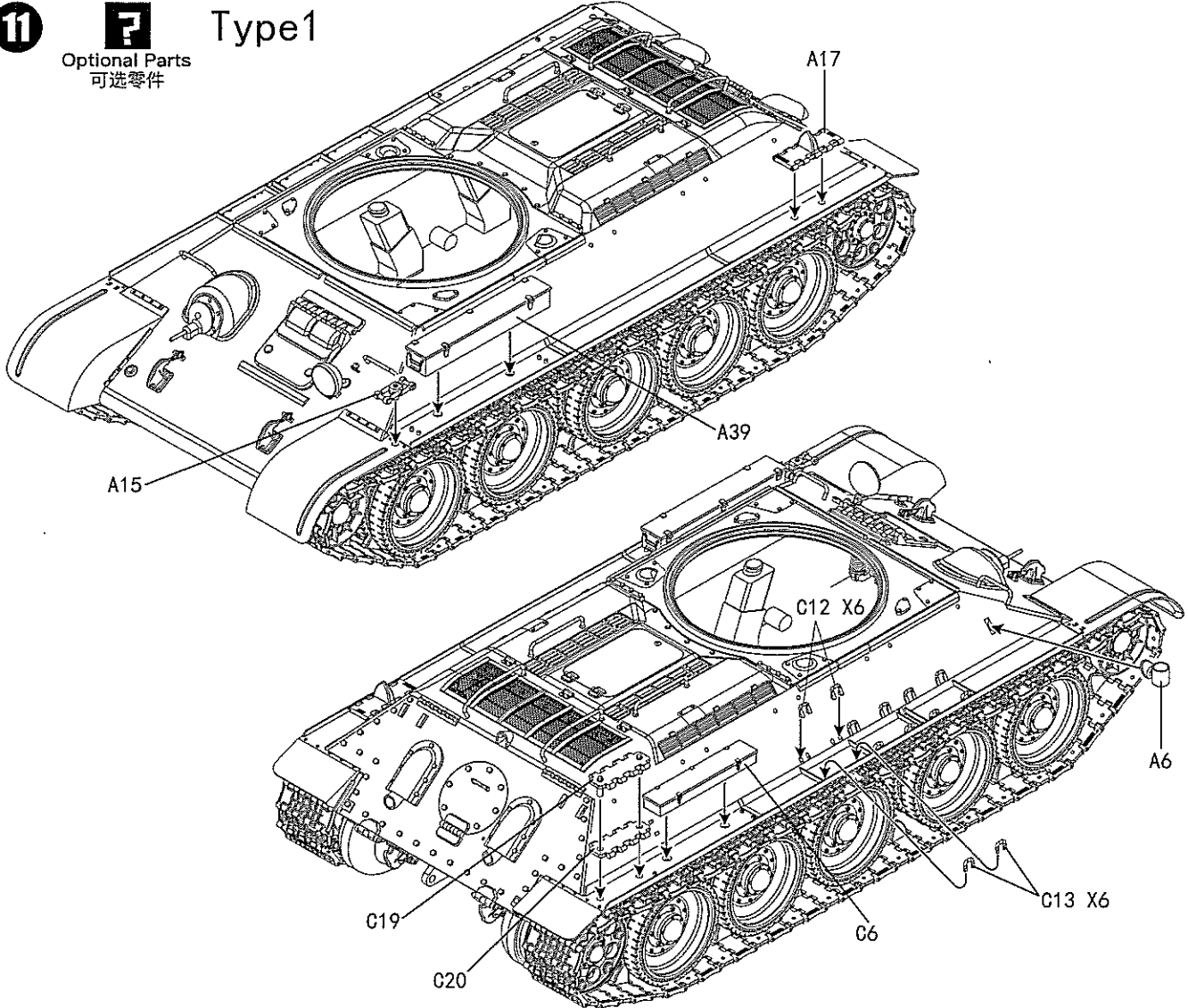


11

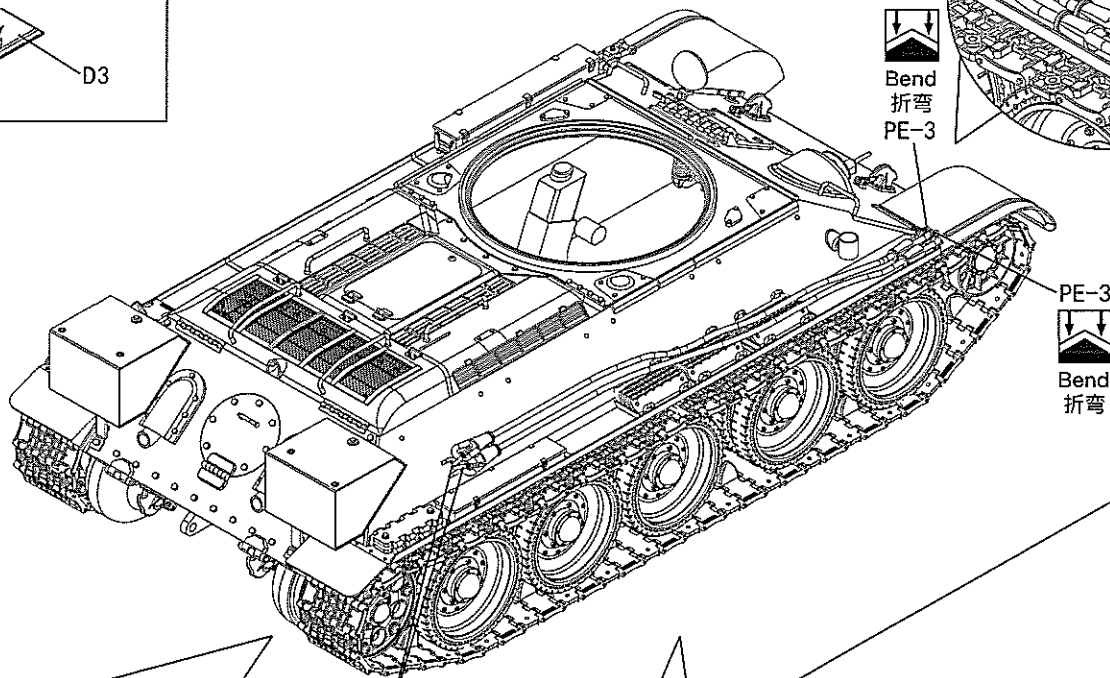
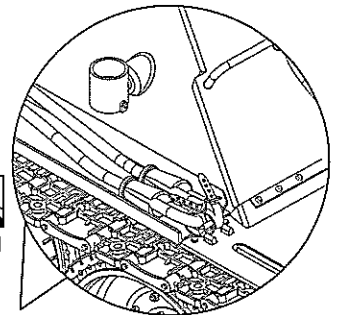
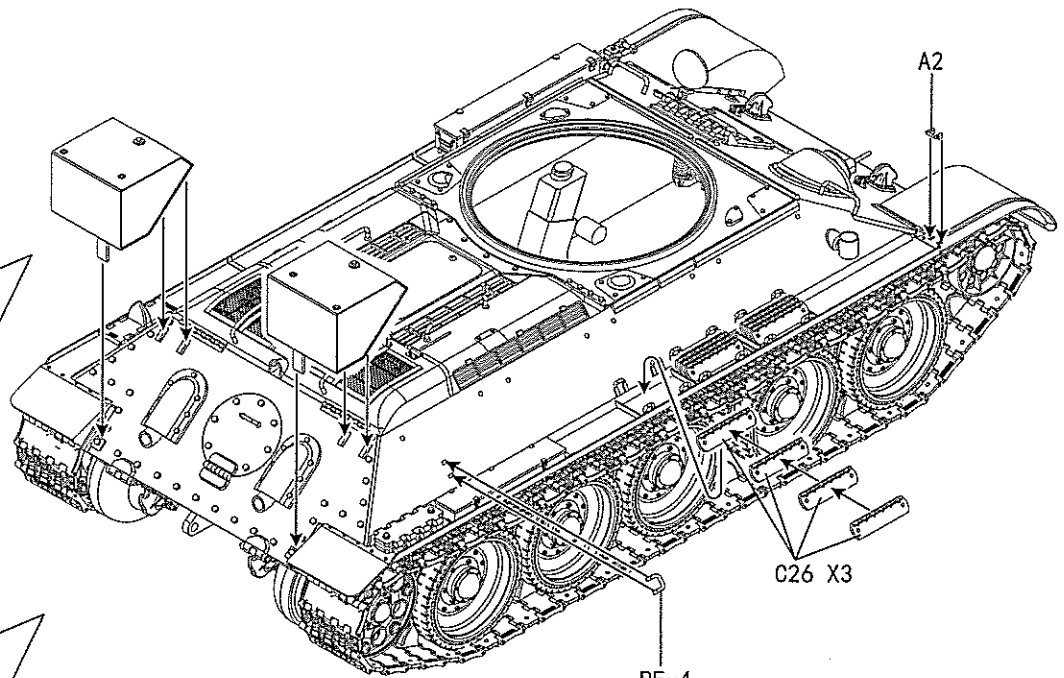
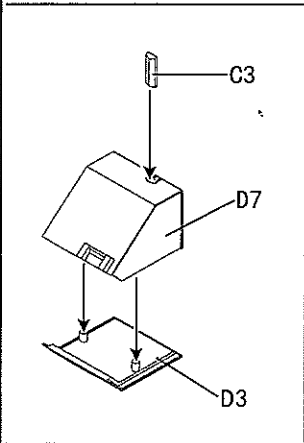
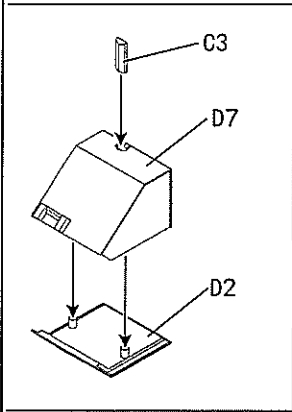


Type 1

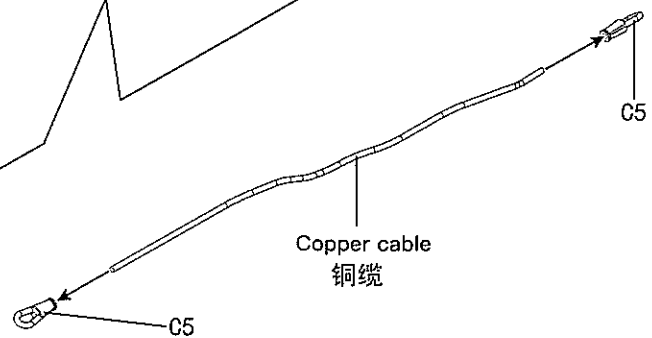
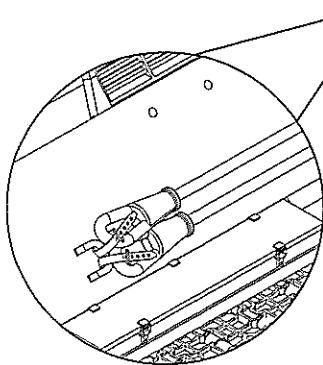
Optional Parts  
可选零件

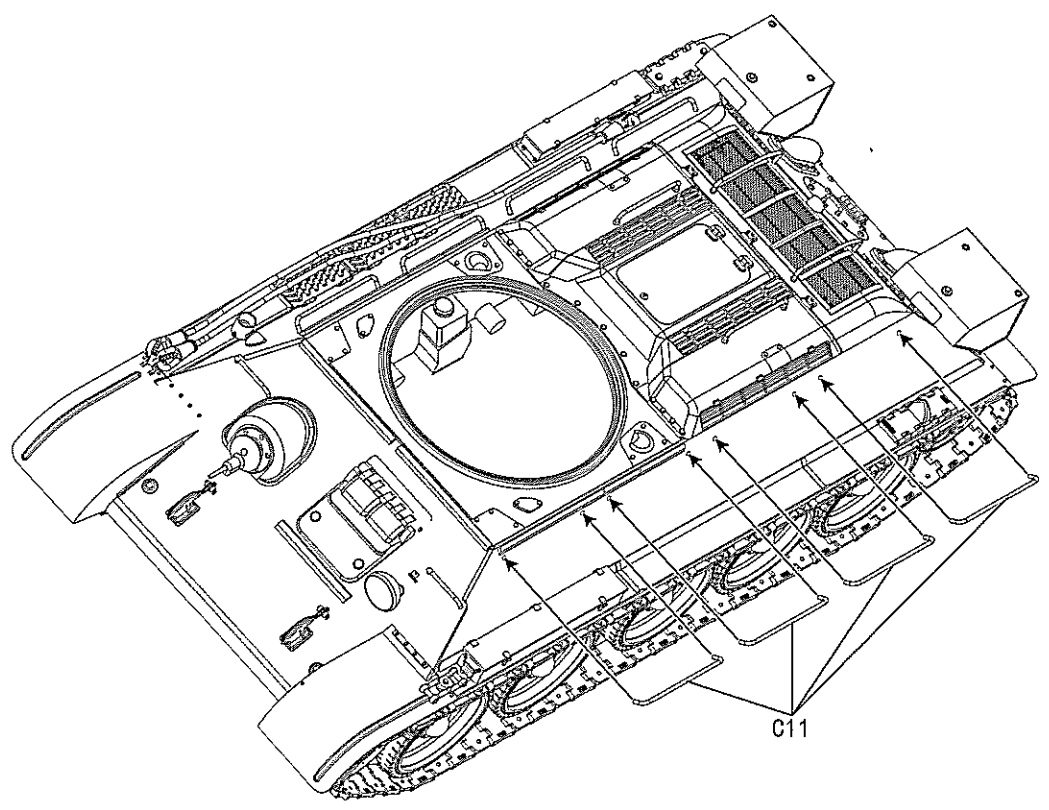
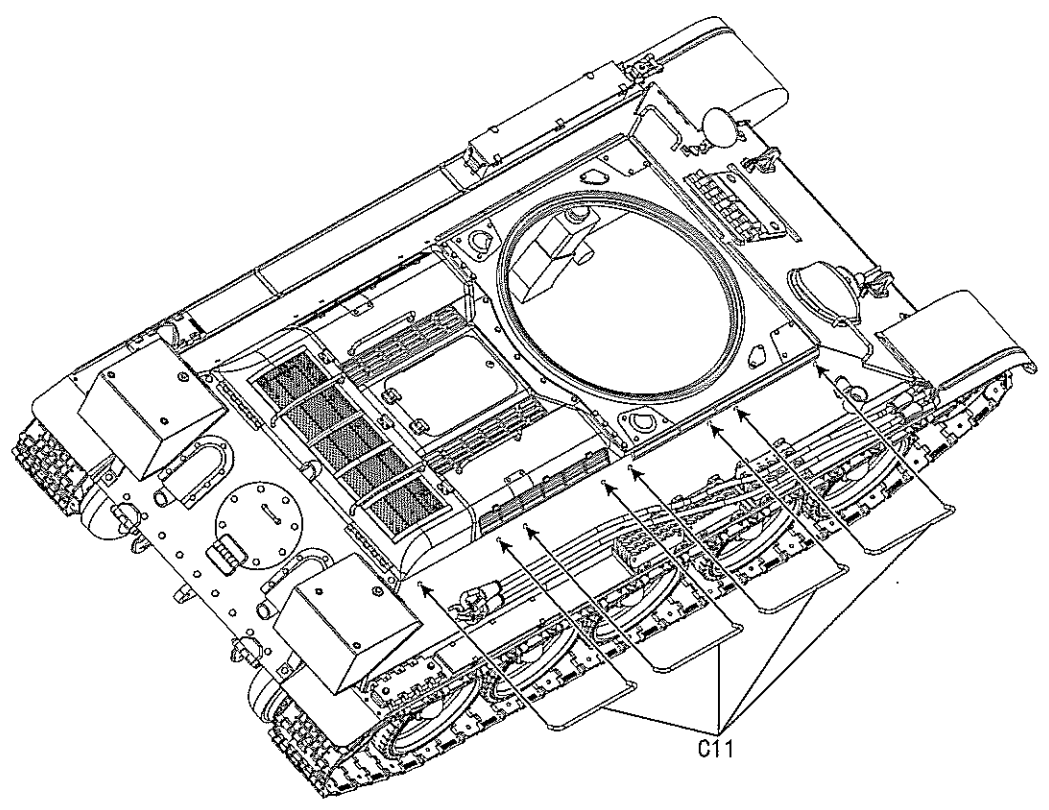


12



x 2





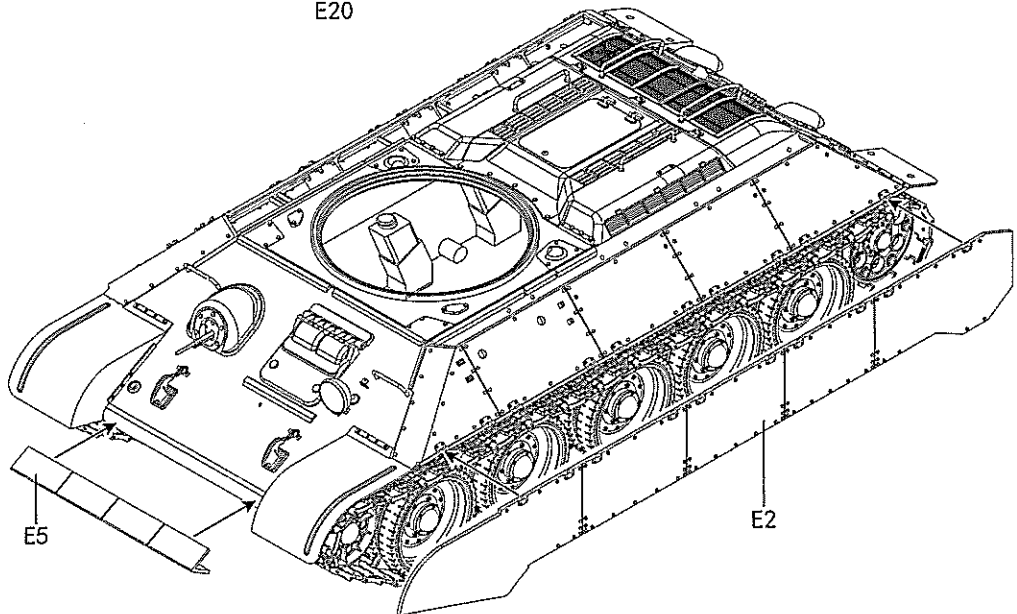
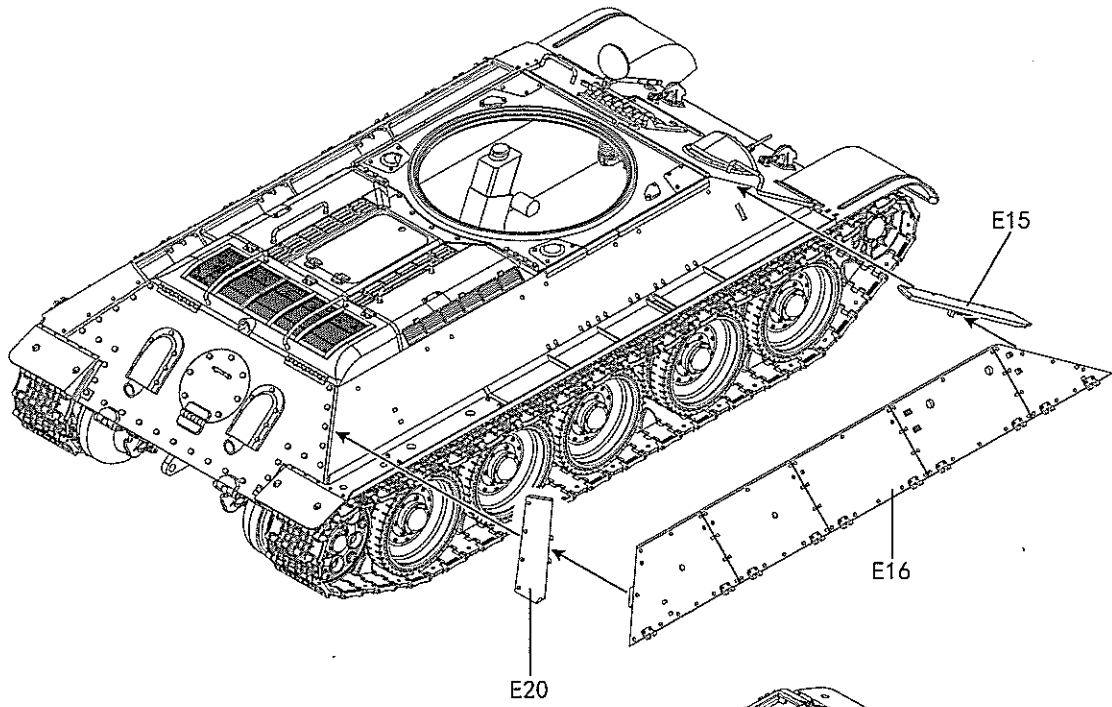
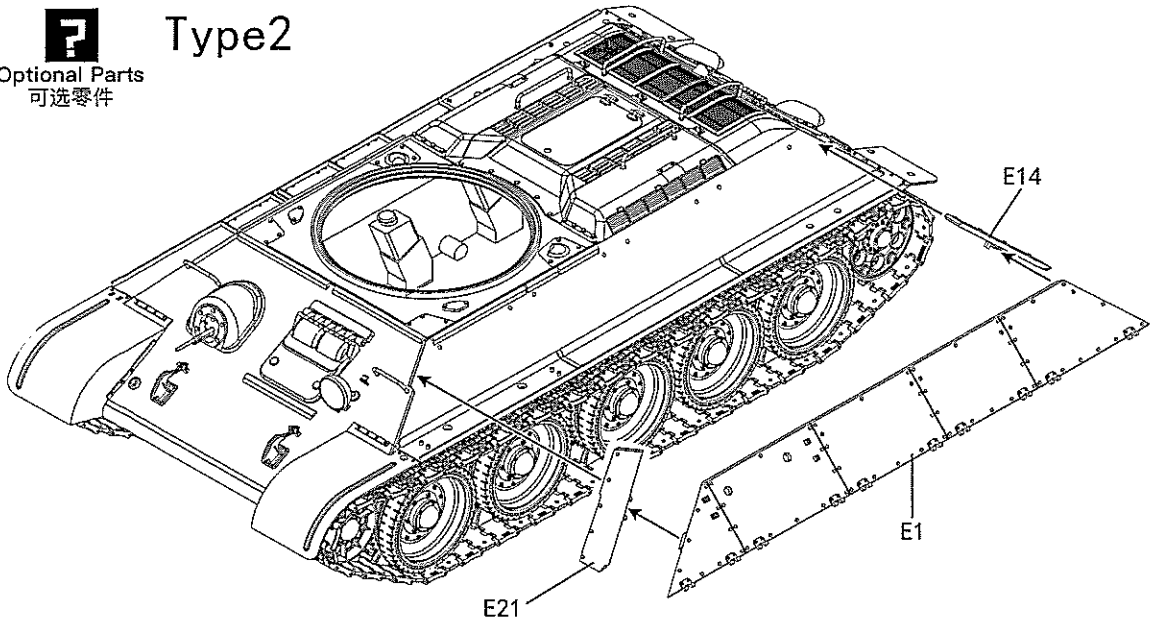
P11

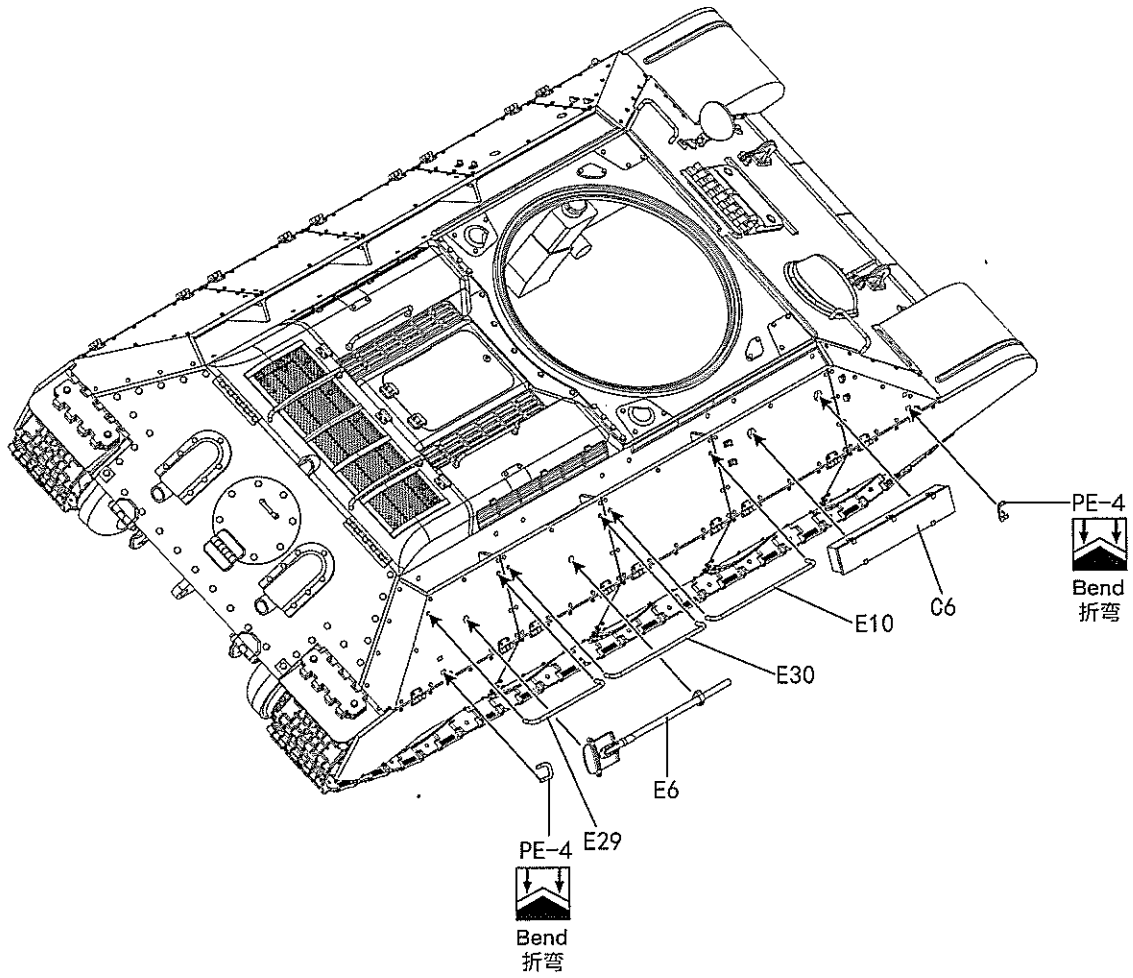
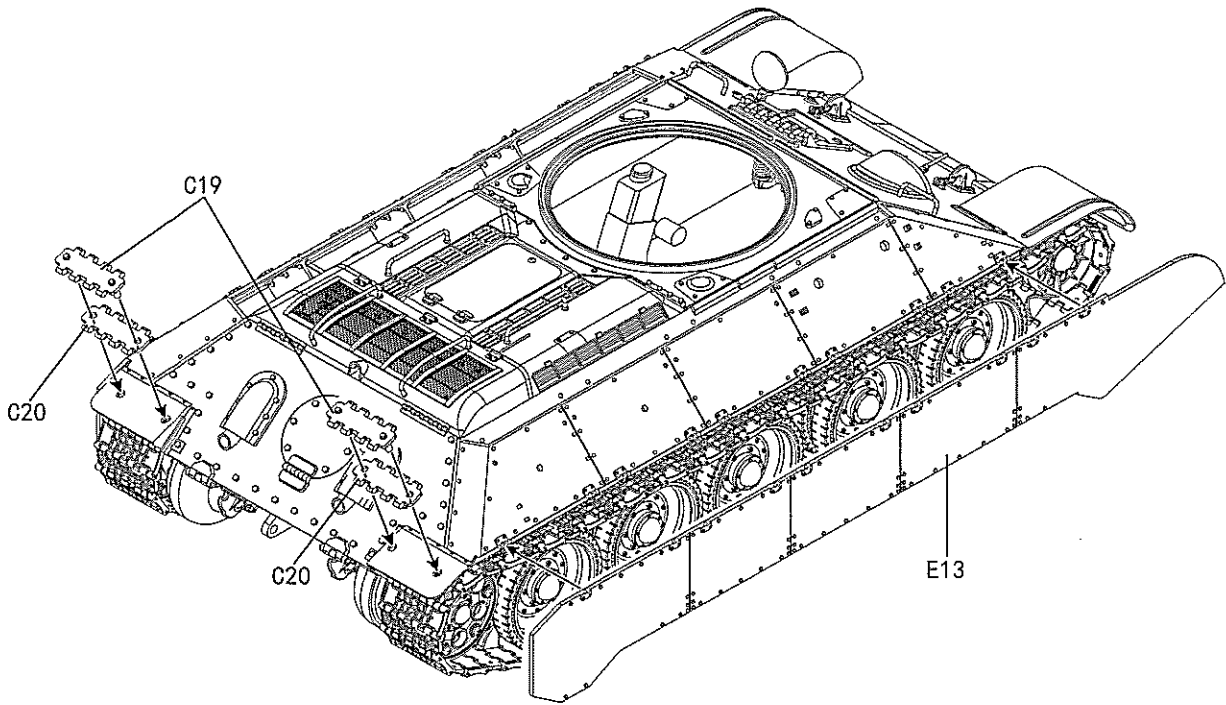
14

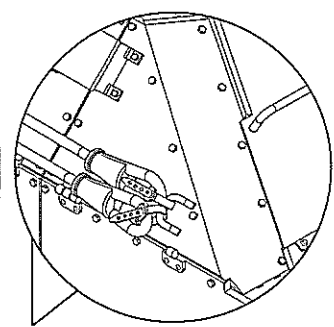
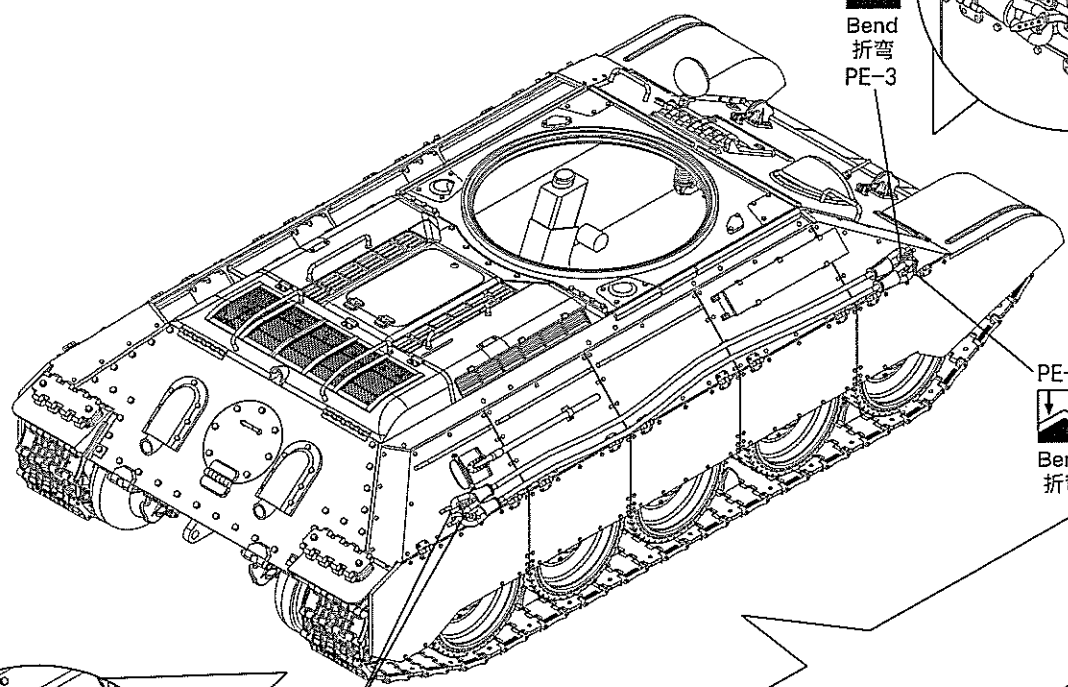
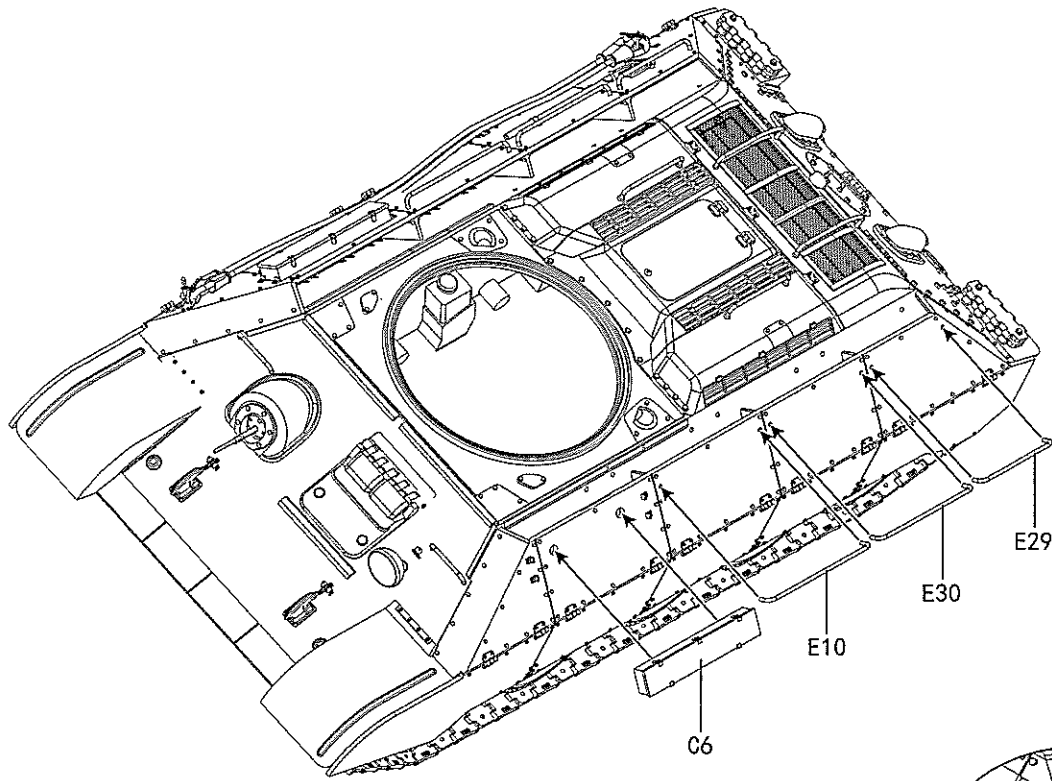


# Type2

Optional Parts  
可选零件



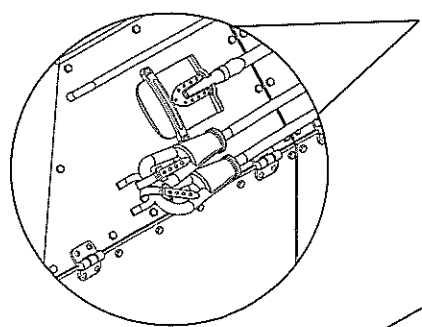




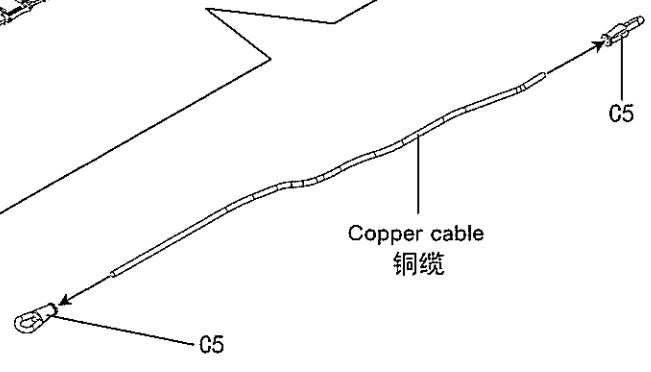
Bend  
折弯  
PE-3

PE-3  
Bend  
折弯

x 2

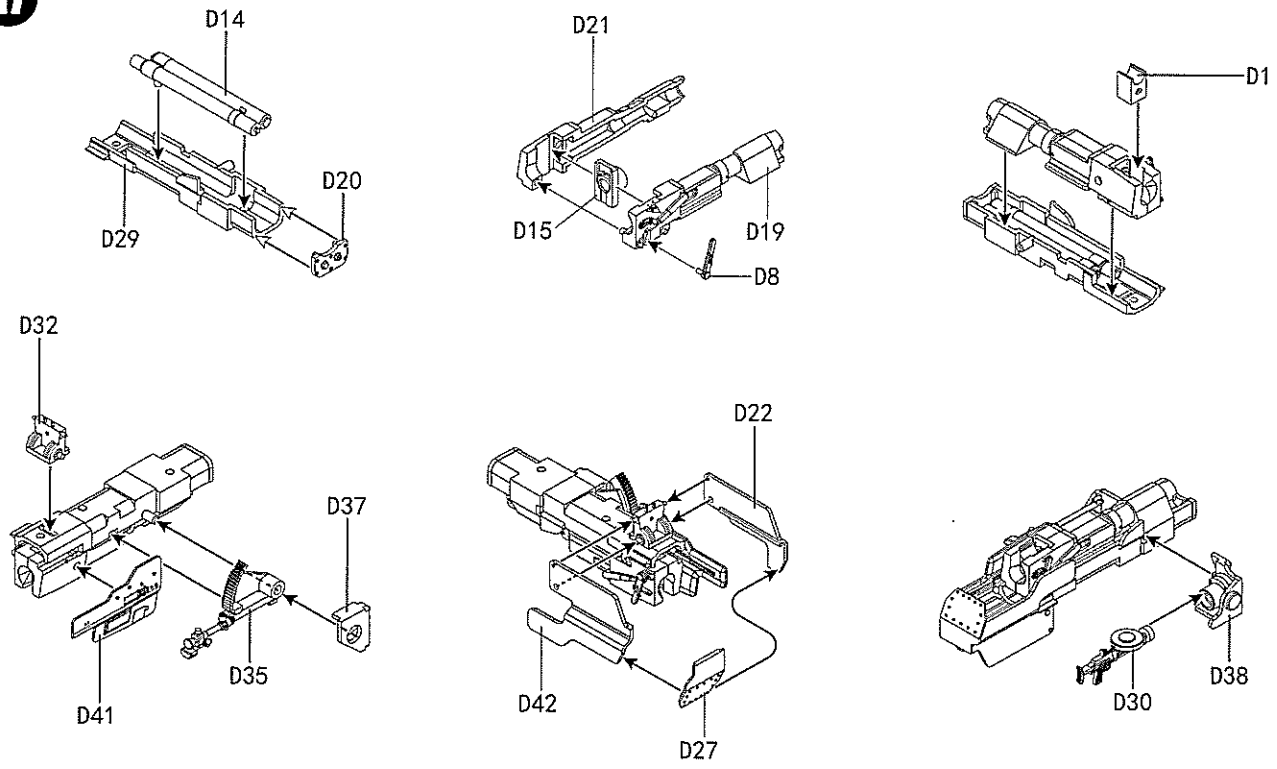


PE-3  
Bend  
折弯



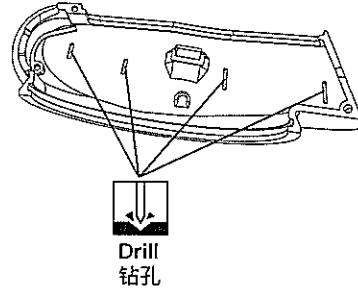
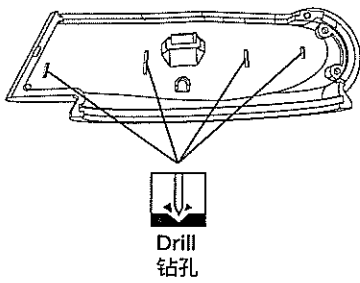
Copper cable  
铜缆

17

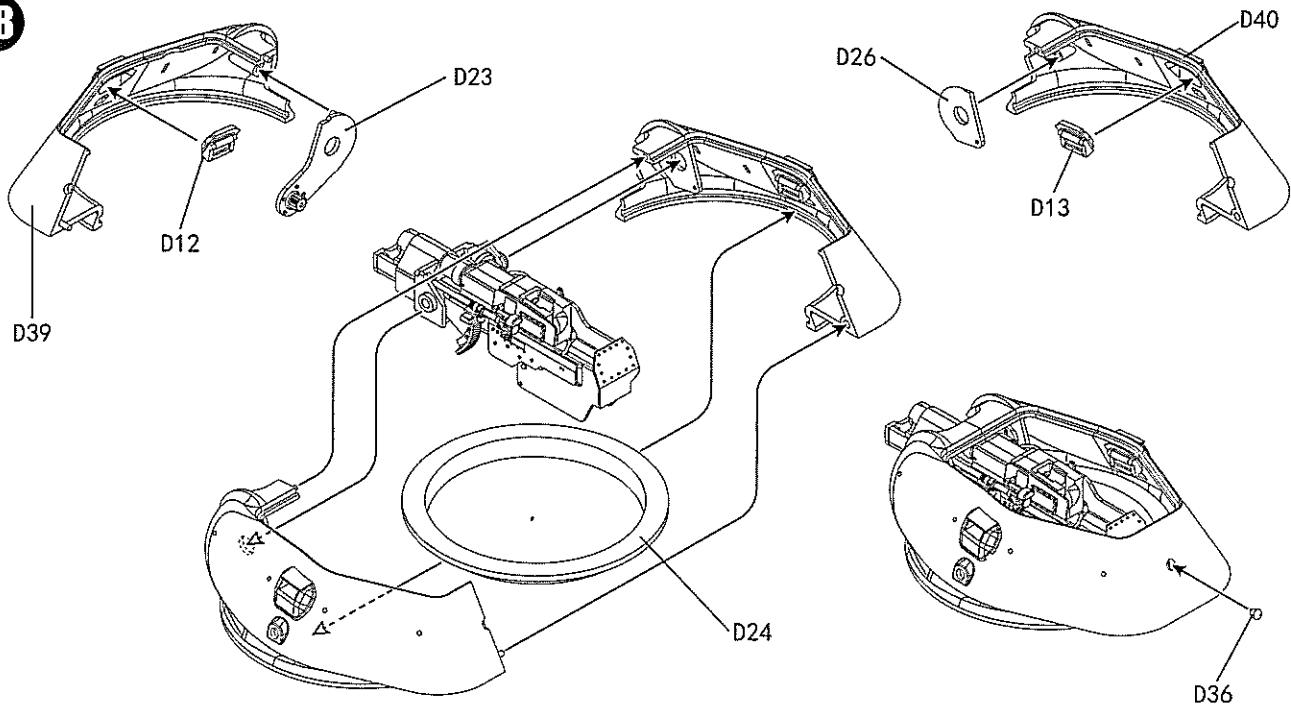


Type2

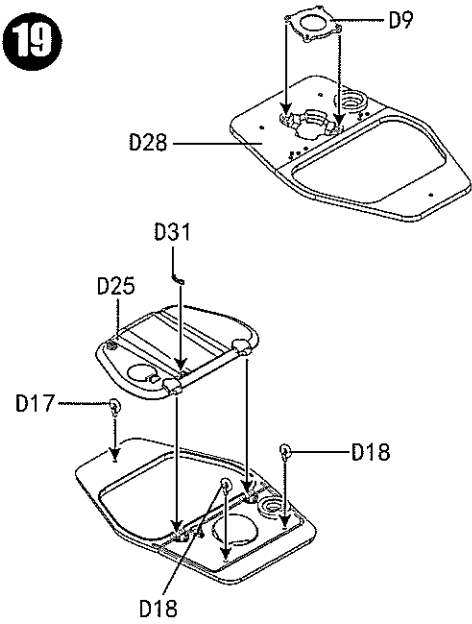
Optional Parts  
可选零件



18

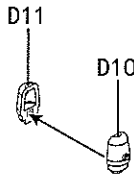
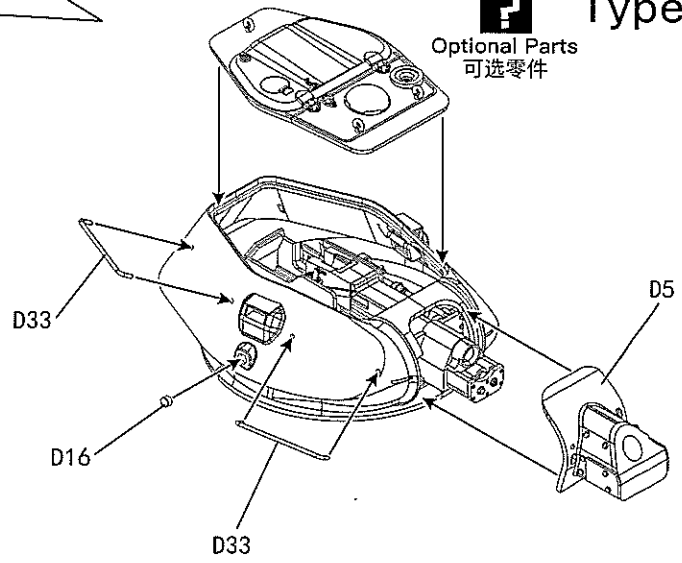


19

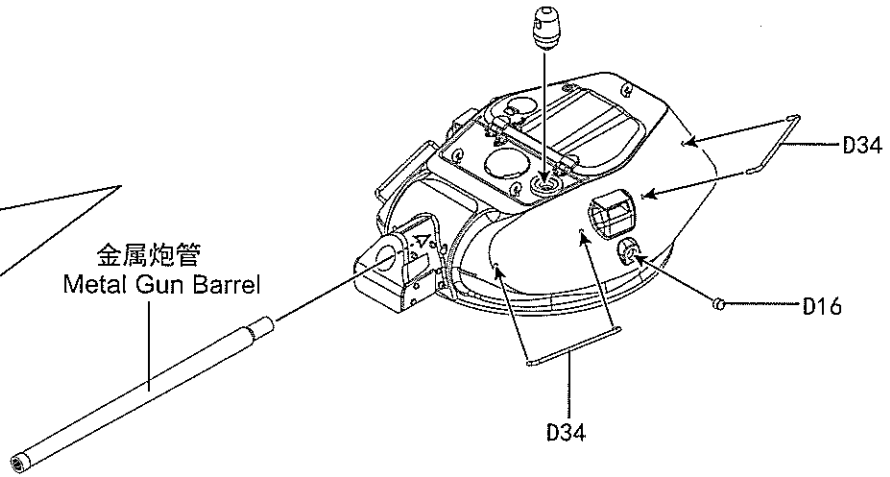


Type 1

Optional Parts  
可选零件



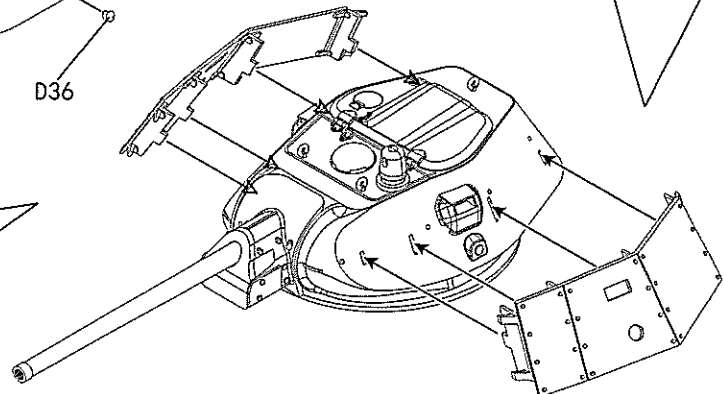
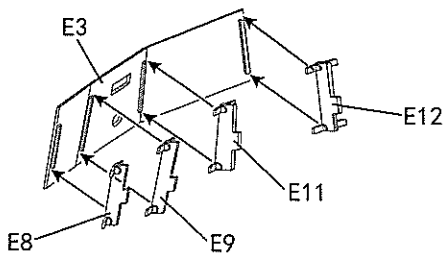
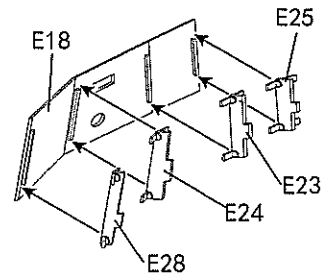
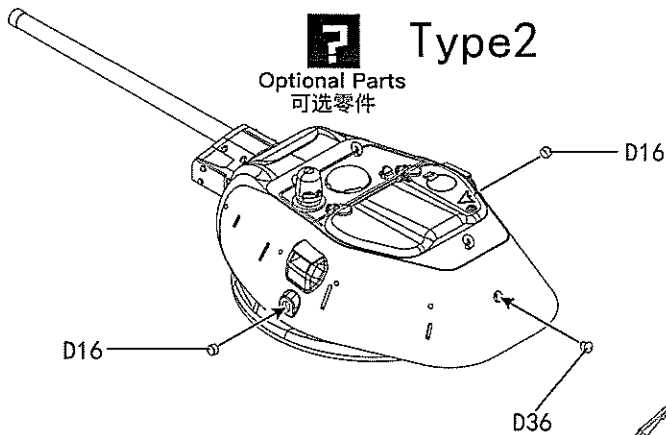
金属炮管  
Metal Gun Barrel



20

Type 2

Optional Parts  
可选零件



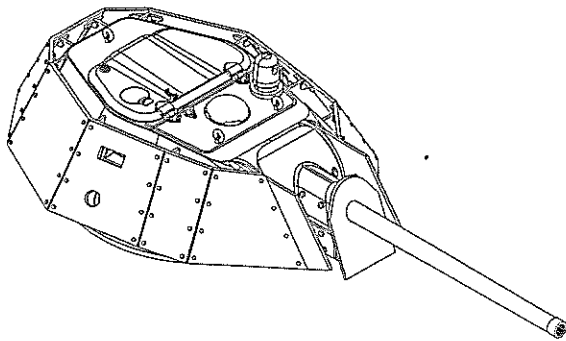
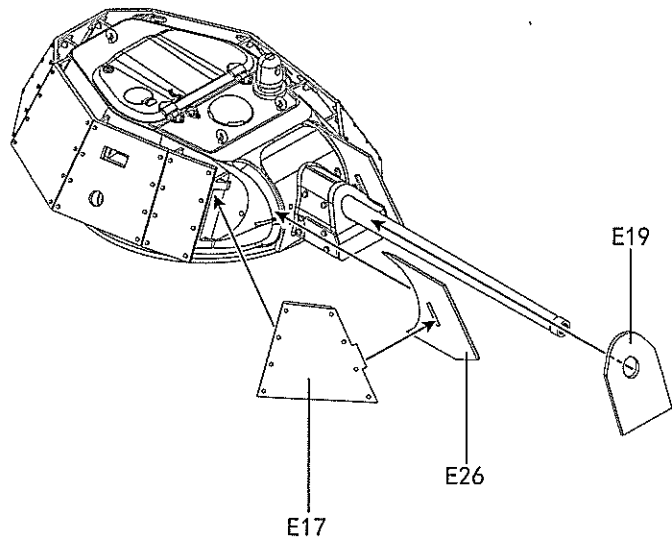
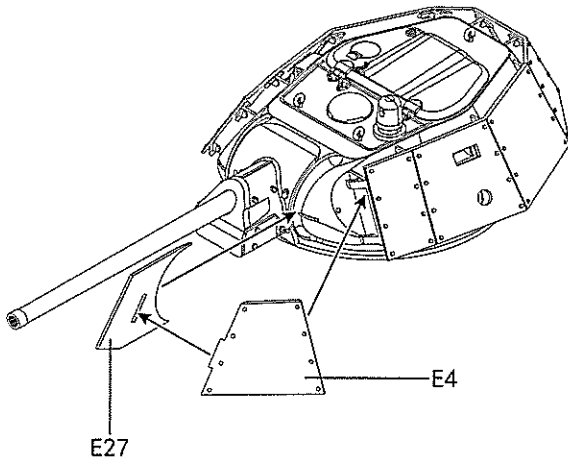
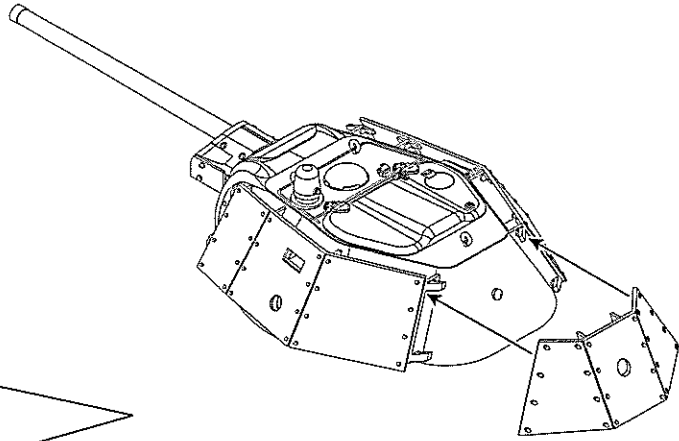
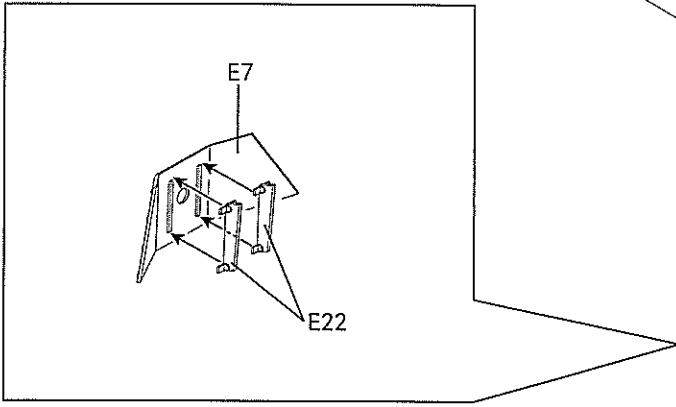


21

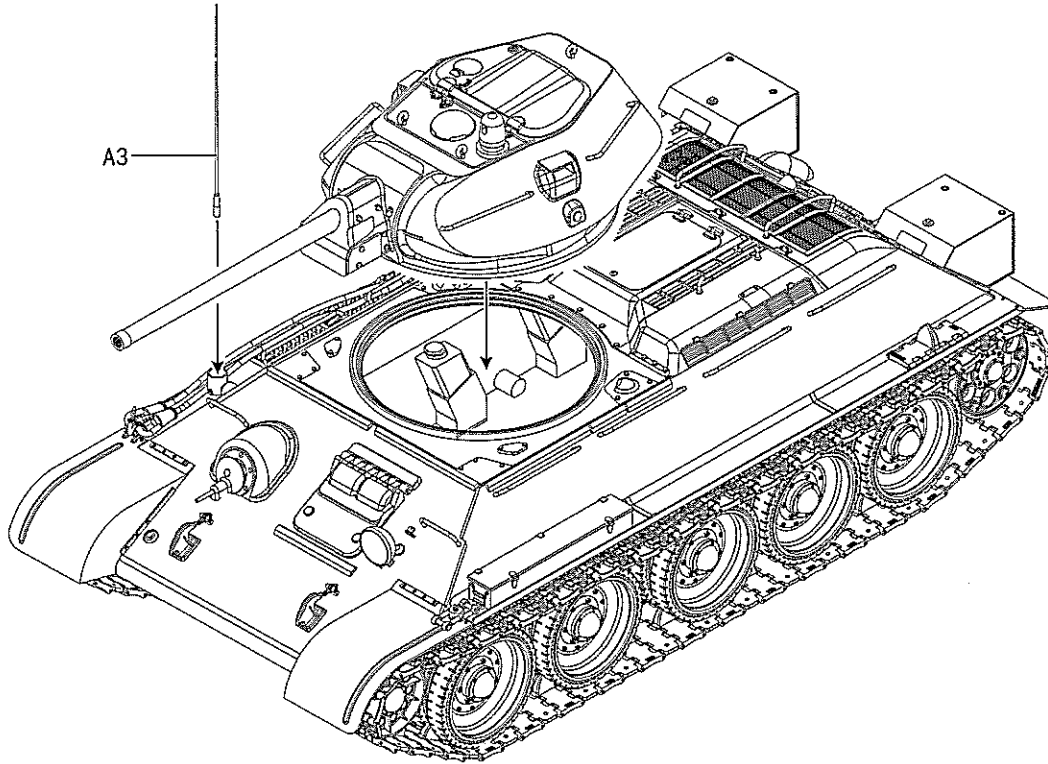


# Type2

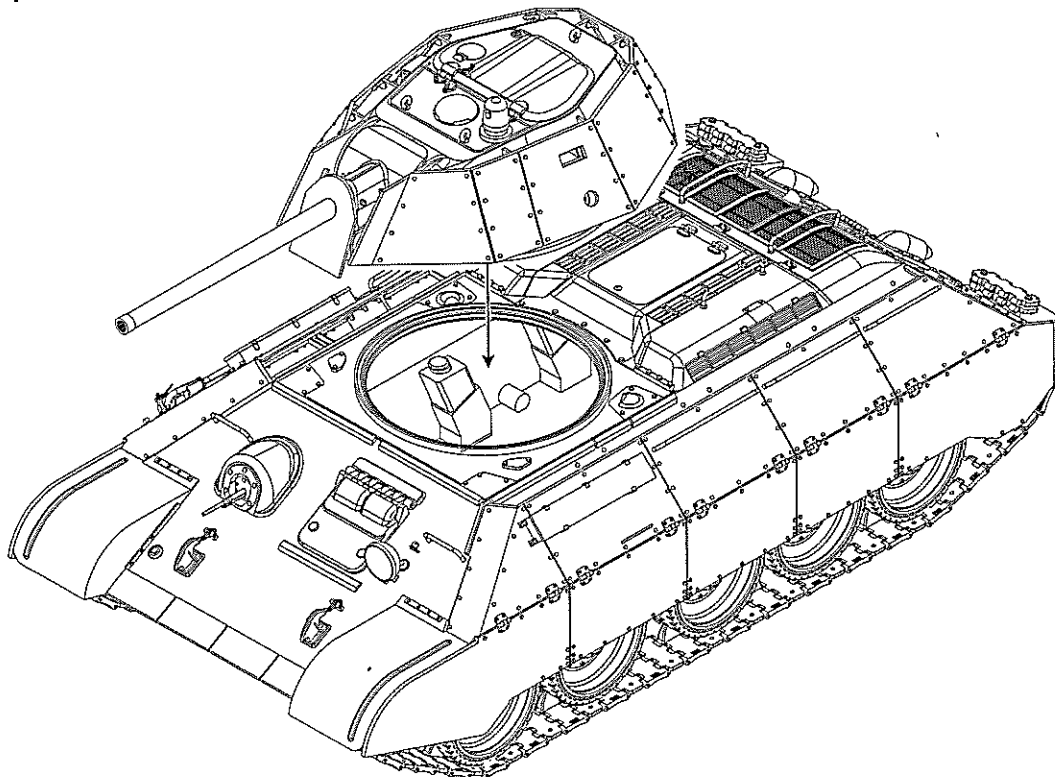
Optional Parts  
可选零件



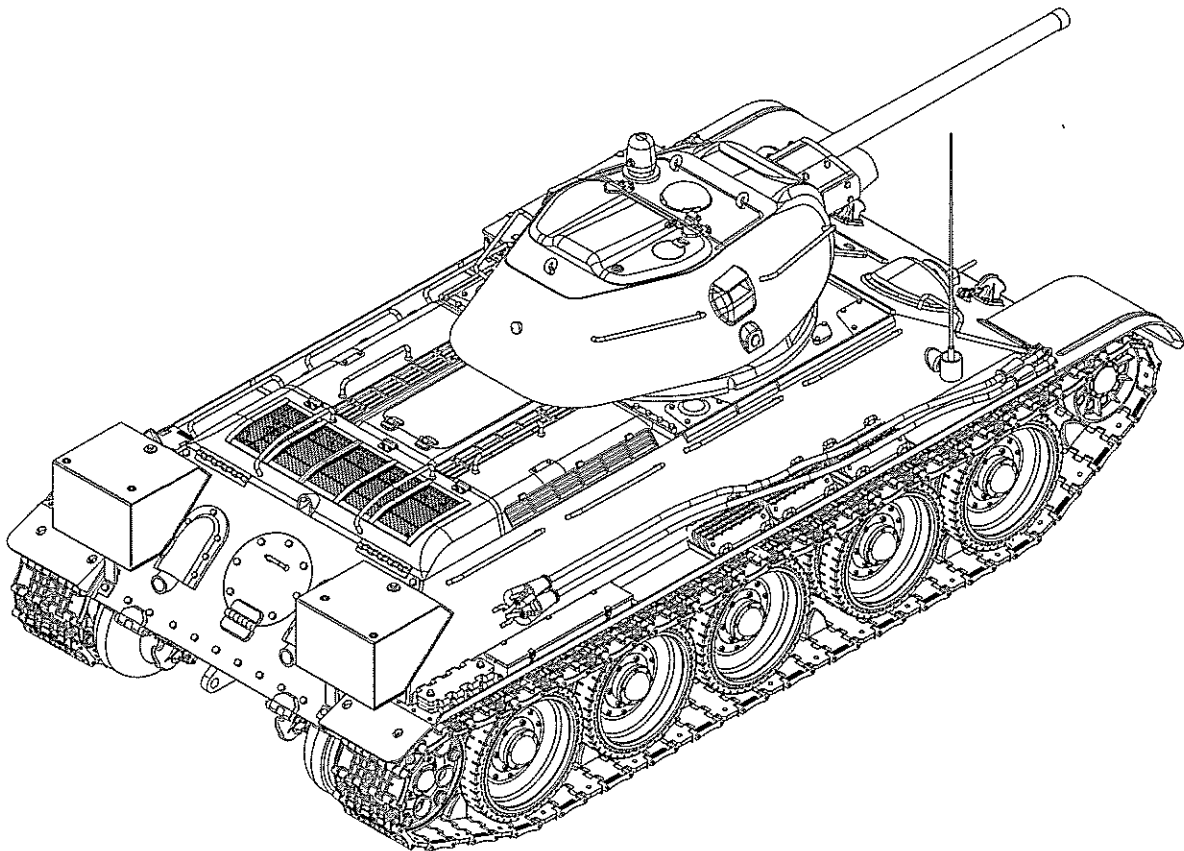
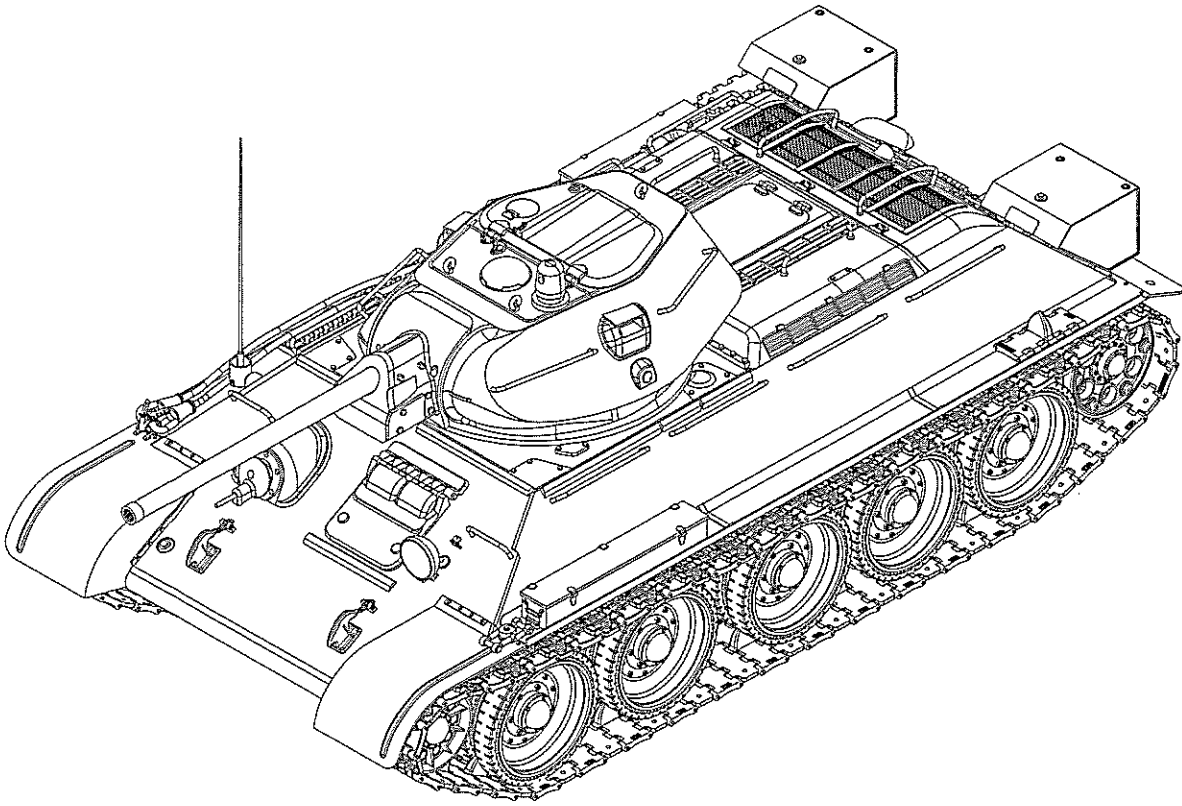
**22** Type 1



**22** Type 2

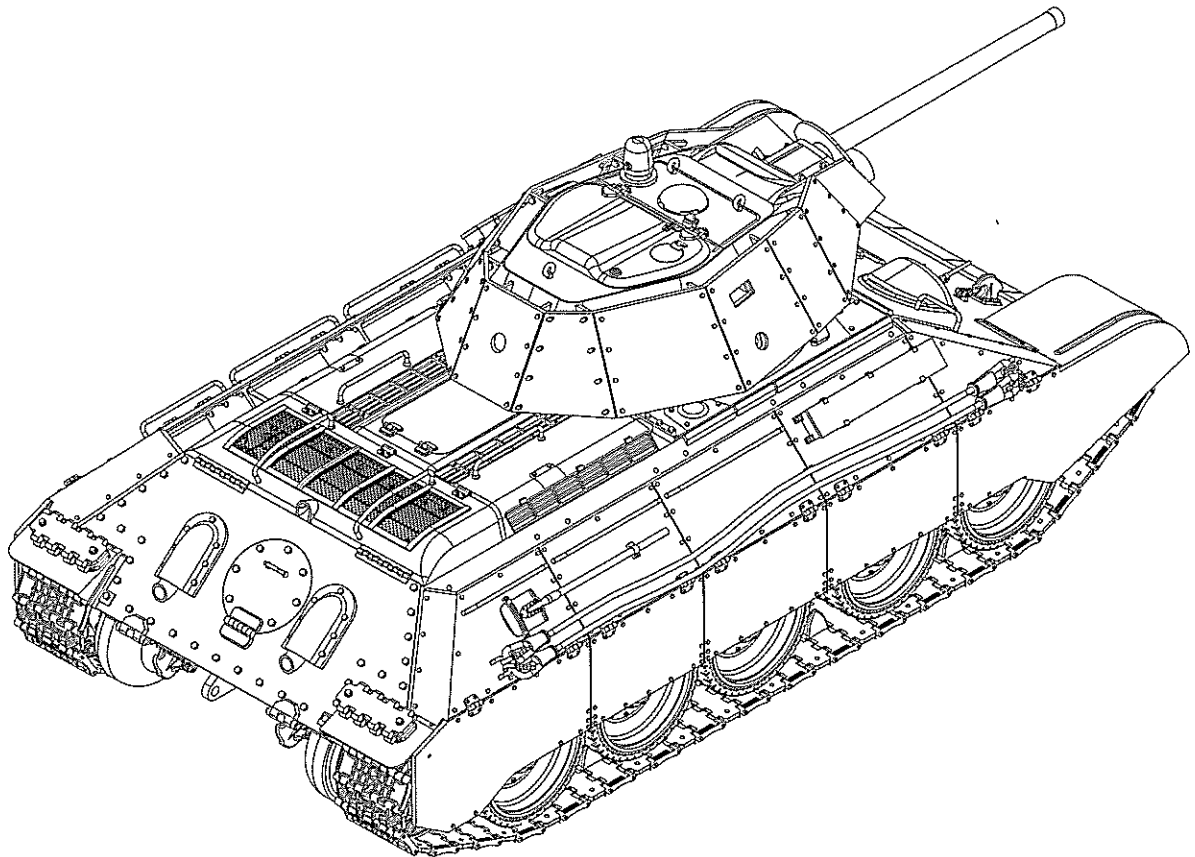
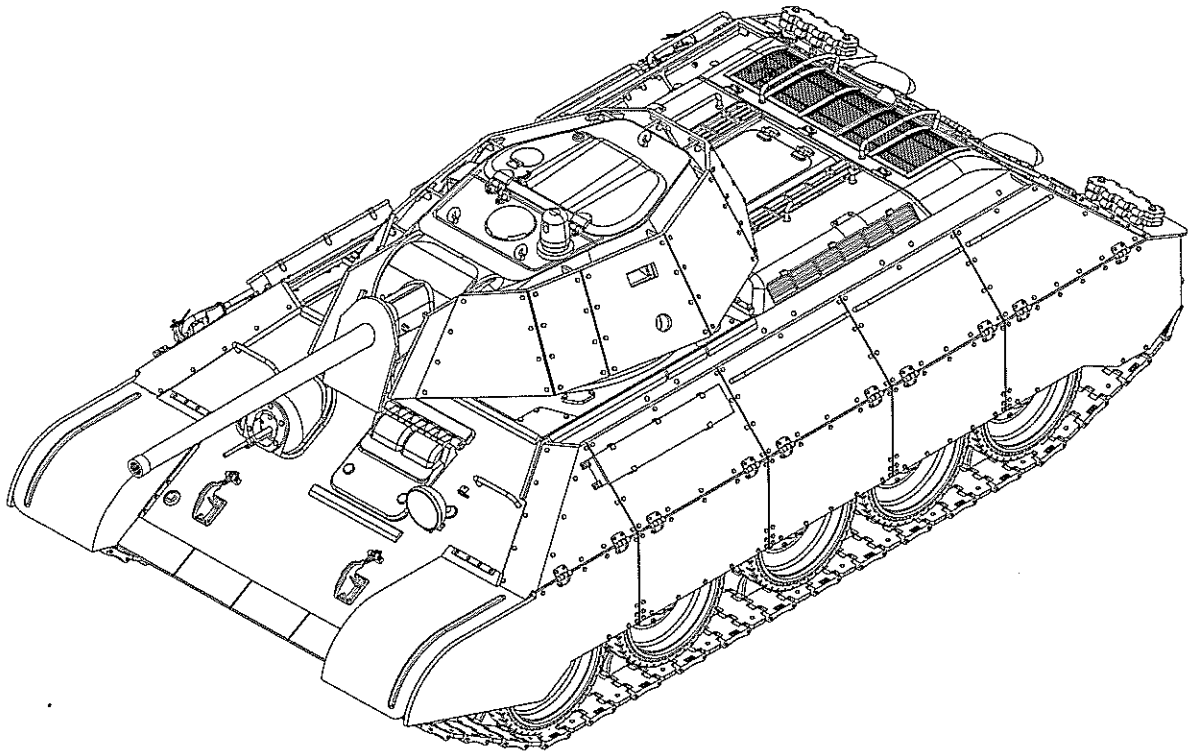


24 Type 1



25

Type 2

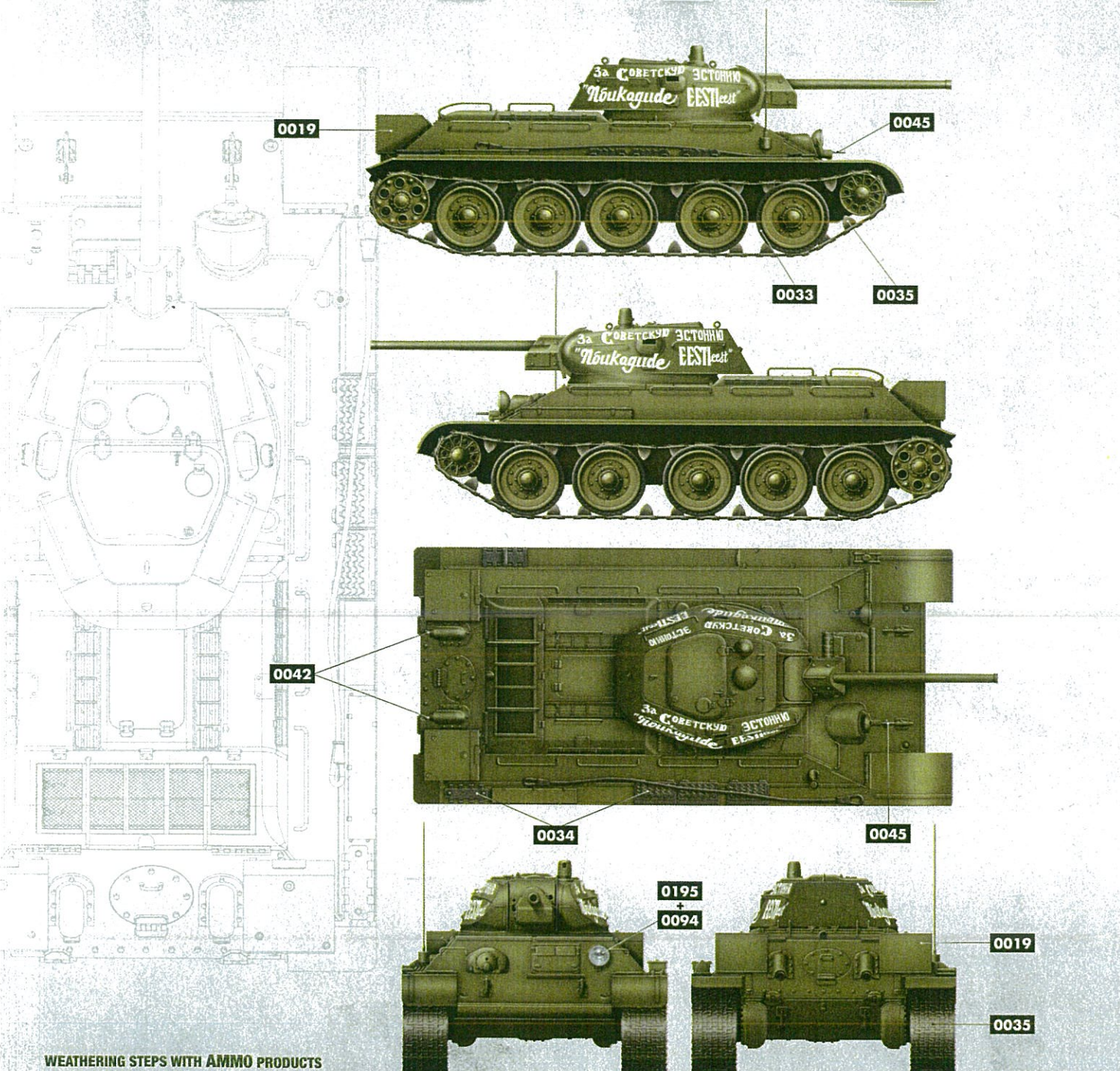


# T-34/76 112 Factory

## PAINTING AND MARKING GUIDE

**BORDER MODEL REF: BT-009** T-34E & T-34/76 (112 Factory)

-  A.MIG-0035 Dark Tracks
-  A.MIG-0034 Rust Tracks
-  A.MIG-0033 Rubber & Tires
-  A.MIG-0042 Old Rust
-  A.MIG-0045 Gun Metal
-  A.MIG-0195 Silver
-  A.MIG-0094 Crystal Glass
-  A.MIG-0019 480 Russian Green



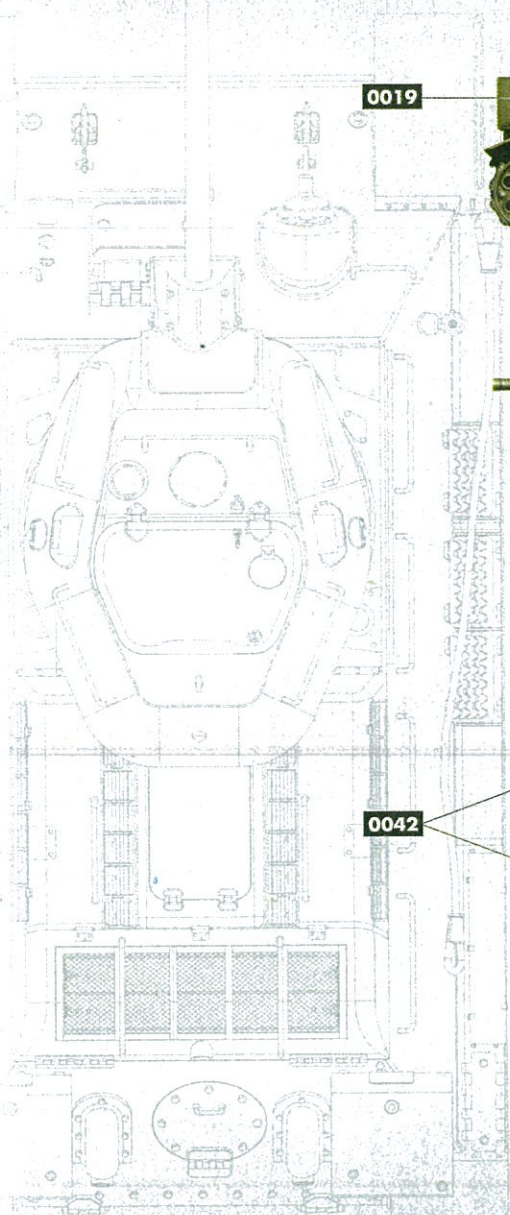
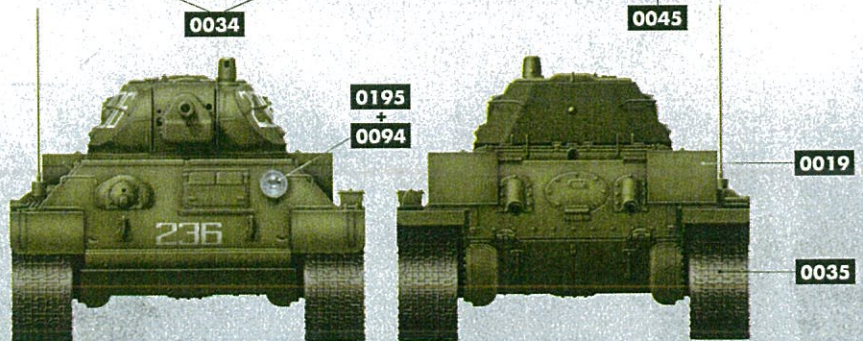
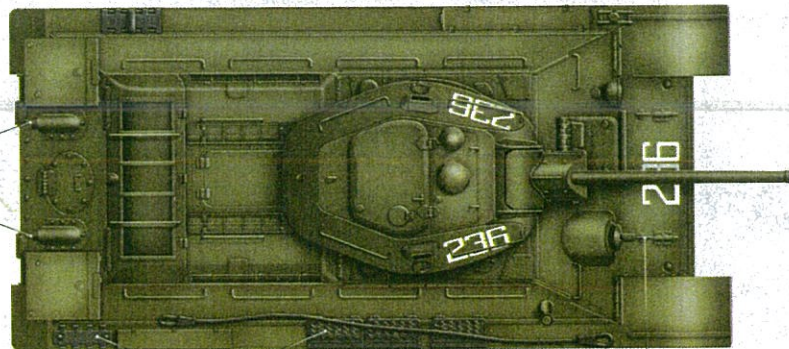
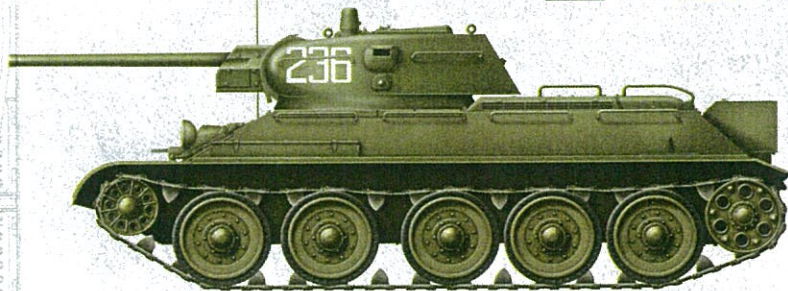
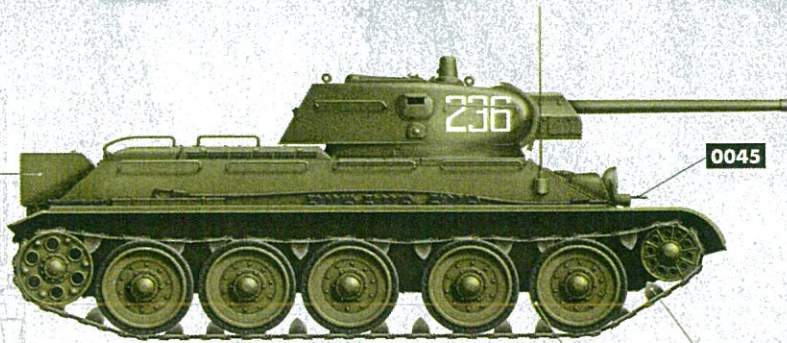
### WEATHERING STEPS WITH AMMO PRODUCTS

- |  |  |  |  |
|--|--|--|--|
| <b>1 GENERAL WASH</b><br>A.MIG-1005 Dark Brown Wash for Green Vehicles | <b>3 STREAKING</b><br>A.MIG-1203 Streaking Grime | <b>5 RAINMARKS</b><br>A.MIG-1258 Streakingbrusher Dust | <b>7 MUD</b><br>A.MIG-1703 Moist Ground      |
| <b>2 FILTER</b><br>A.MIG-1507 Tan for Yellow Green                     | <b>4 TRACKS WASH</b><br>A.MIG-1002 Tracks Wash   | <b>6 DUST</b><br>A.MIG-3030 Factory Dirt Ground        | <b>8 SPLASHES</b><br>A.MIG-1752 Loose Ground |
|  |  |  | <b>9 FUEL</b><br>A.MIG-1409 Fuel Stains      |
|  |  |  | <b>10 OIL</b><br>A.MIG-1408 Fresh Engine Oil |

## PAINTING AND MARKING GUIDE

**BORDER MODEL REF: BT-009** T-34E & T-34/76 (112 Factory)

 A.MIG-0035 Dark Tracks	 A.MIG-0034 Rust Tracks	 A.MIG-0033 Rubber & Tires	 A.MIG-0042 Old Rust
 A.MIG-0045 Gun Metal	 A.MIG-0195 Silver	 A.MIG-0094 Crystal Glass	 A.MIG-0019 480 Russian Green



### WEATHERING STEPS WITH AMMO PRODUCTS

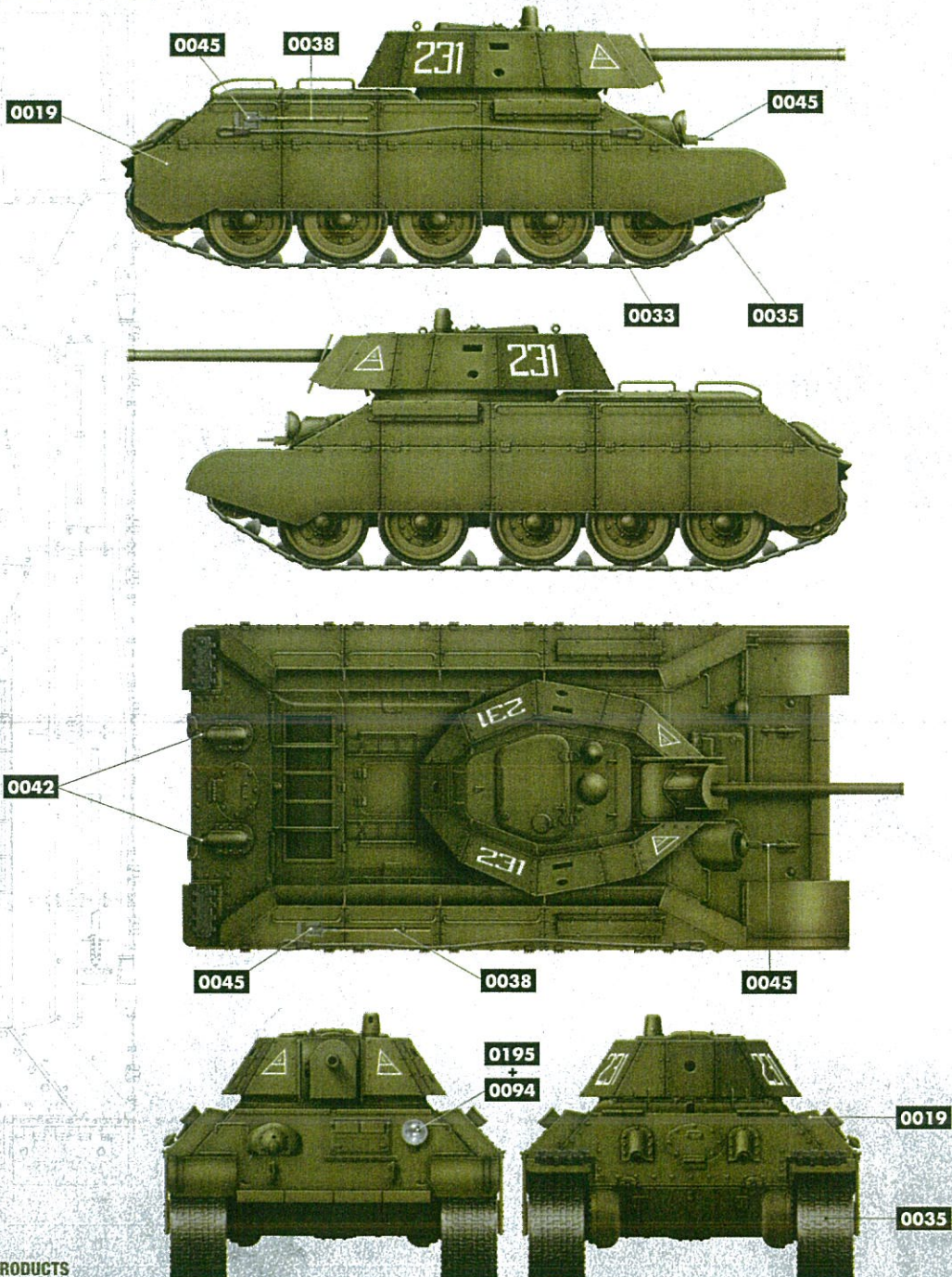
<b>1 GENERAL WASH</b> A.MIG-1005 Dark Brown Wash for Green Vehicles	<b>3 STREAKING</b> A.MIG-1253 Streakingbrusher Grime	<b>5 RAINMARKS</b> A.MIG-1208 Rainmarks Effects	<b>7 MUD</b> A.MIG-1704 Heavy Earth	<b>9 FUEL</b> A.MIG-1409 Fuel Stains
<b>2 FILTER</b> A.MIG-1506 Brown for Dark Green	<b>4 TRACKS WASH</b> A.MIG-1002 Tracks Wash	<b>6 DUST</b> A.MIG-3028 City Dark Dust	<b>8 SPLASHES</b> A.MIG-1753 Turned Dirt	<b>10 OIL</b> A.MIG-1408 Fresh Engine Oil

# T-34E Spaced Armour

## PAINTING AND MARKING GUIDE

**BORDER MODEL REF: BT-009** T-34E & T-34/76 SPACED ARMOUR

 A.MIG-0035 Dark Tracks	 A.MIG-0034 Rust Tracks	 A.MIG-0033 Rubber & Tires	 A.MIG-0042 Old Rust
 A.MIG-0045 Gun Metal	 A.MIG-0195 Silver	 A.MIG-0094 Crystal Glass	 A.MIG-0019 4B0 Russian Green
 A.MIG-0038 Light Wood			



### WEATHERING STEPS WITH AMMO PRODUCTS

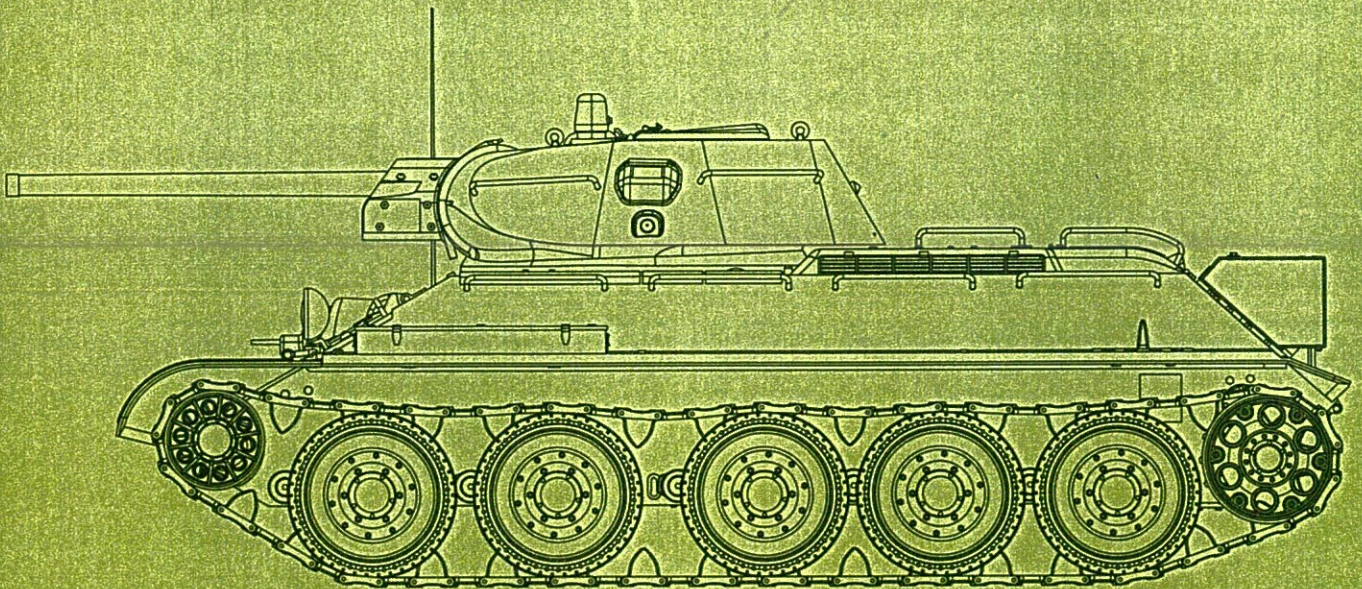
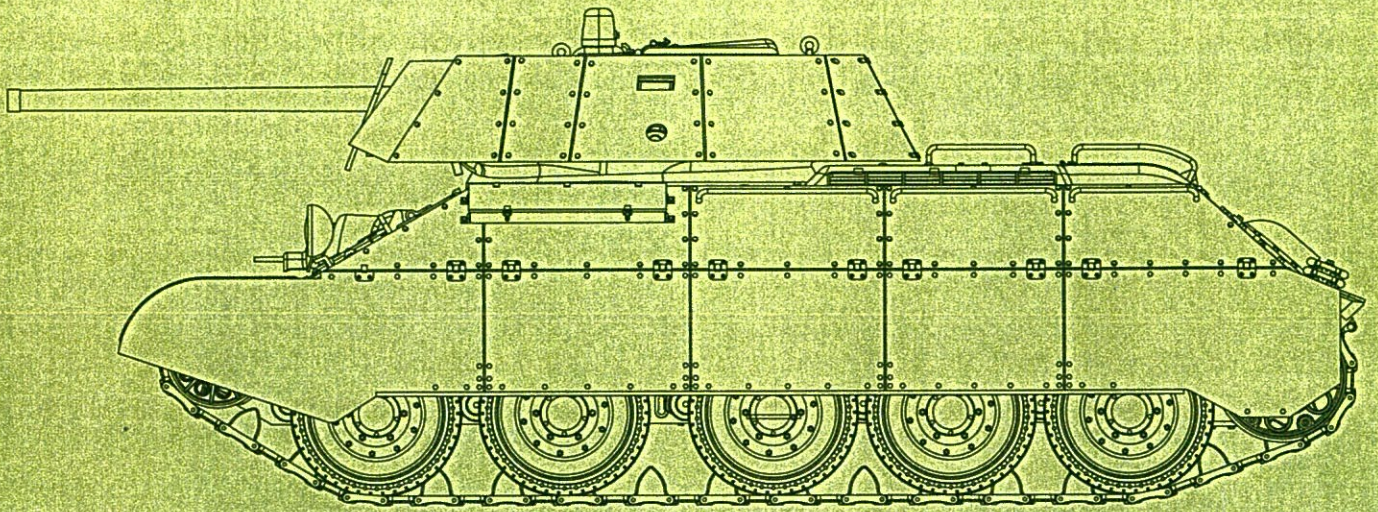
<b>1 GENERAL WASH</b> A.MIG-1005 Dark Brown Wash for Green Vehicles	<b>3 STREAKING</b> A.MIG-1206 Dark Streaking Grime	<b>5 RAINMARKS</b> A.MIG-1258 Streakingbrusher Dust	<b>7 MOD</b> A.MIG-1702 Turned Earth	<b>9 FUEL</b> A.MIG-1409 Fuel Stains
<b>2 FILTER</b> A.MIG-1507 Tan for Yellow Green	<b>4 TRACKS WASH</b> A.MIG-1002 Tracks Wash	<b>6 DUST</b> A.MIG-3013 Rubble	<b>8 SPLASHES</b> A.MIG-1751 Dry Steppe	<b>10 OIL</b> A.MIG-1408 Fresh Engine Oil

# T34

SCREENED (TYPE 1)

# T34-76

(FACTORY 112). 2 IN 1



BT-009



