



# Flakpanzer M42A1 DUSTER



During the WWII, the US Army normally used half-track as the platform for self-propelled anti-aircraft firepower. It is not until late stage that the Army commenced to use M24 tank chassis carrying twin Bofors 40 mm guns. Designated as M19, it was accepted in June 1944, yet too late to enter WWII, and production units were reduced. The M16 only saw services in the Korean War from 1953.

The M24 family, including M19, ceased to produce in 1945 after the end of WWII. Therefore in August 1951, the US Army approved Cadillac Motor Car Division to work on a new self-propelled anti-aircraft tank, using M41 light tank chassis carrying newly developed M2A1 twin Bofors 40 mm guns. By the end of 1951 the prototype was completed. The fire control radar was deleted due to cost and production schedule issues. The new model was accepted in October 1953 and designated as M42.

The M42 adopts an open-topped traversing turret and optical sight. Each gun maintained a rate-of-fire of 240 rounds per minute, which is sufficient to against subsonic aircraft and ground targets. A new fuel injection system was installed since February 1956, which increased operation range by 20%. This new model was known as M42A1.

After WWII, Germany was occupied by the Allied forces. Only a small number of border defense force and minesweeper boats were allowed. By this time the Cold War was established and Germany split into two countries in 1949. The West Germany rearmed in 1955. It was the M16 half-track entering West German Army services firstly as the backbone for anti-aircraft forces. Starting from 1956, a total of 496 M42A1 entered West German Army and saw services until 1979, by which time been replaced by the Flugabwehrkanonenpanzer Gepard.

第二次大戦の期間、米陸軍の対空自走砲は、M15やM16などハーフトラックをベースとしたもののみで、新たにM24戦車の車体にボフォース40mm連装砲を搭載したタイプの開発が始まったのは、大戦の末期になってからであった。この車輛は1944年6月にM19対空自走砲として正式採用されたが、第二次大戦中の配備には間に合わず、生産数量は削減されてしまった。そのため、1953年に勃発した朝鮮戦争に投入された対空自走砲は、ハーフトラックベースの車輛のみであった。

1945年、第二次大戦の終結とともに、M19を含むM24戦車系車輛の生産は中止された。そのため、米陸軍は1951年、キャデラック社に対し、M41軽戦車の車体をベースに、新たに開発されたM2A1ボフォース40mm連装砲を搭載した新型対空自走砲の開発を指示した。1951年末までに試作車が完成、このとき同時に開発していた射撃統制レーダーは、コストと生産スケジュールの問題によって取りやめとなった。この新型対空自走砲は、1953年10月米陸軍に正式採用され、M42の名称が与えられたのであった。

M42は、オープントップの旋回砲塔に光学式照準器を装備、搭載した2門の40mm機関砲はそれぞれ毎分240発の発射速度を持ち、亜音速の航空機や、地上の目標に対して有効であった。1956年2月、エンジンに新式の燃料噴射装置が取り付けられたことで、航続距離が20%増加、この新エンジン搭載車輛は、M42A1の型式名称で呼ばれることとなった。

第二次世界大戦終結後、ドイツは連合国軍によって占領された。ごく小規模の国境警備隊と掃海艇部隊を除き、ドイツ軍は解体された。やがて東西両陣営による冷戦が始まり、1949年ドイツは二つの国家に分断され、必然的に1955年西ドイツは再軍備をはじめたのだ。西ドイツ陸軍は、M16ハーフトラックを装備し、最初は防空部隊的な位置づけであった。1956年から総計496輛のM42A1が配備され1979年まで使用され、やがて対空戦車ゲパルトに取って代わられていったのである。

美軍在二次大戰期間參與作戰的對空自走砲，均以半履帶車輛底盤為載台，至大戰末期為了提高自走砲的機動性能與火力，開始着手將M24輕戰車的底盤搭載上雙聯裝的波佛斯40mm火炮。這款自走砲於1944年六月制式化，並被命名為M19。但隨著大戰進入尾聲，削減了生產數量的M19並未及參與戰鬥，直到數年後的韓戰爆發才真正的投入戰場。

由於包括M19在內的M24家族的車輛在1945年大戰結束後即已陸續停止生產，因此1951年八月美國陸軍批准通用汽車公司旗下的凱迪拉克汽車分公司，利用當時正處於開發中途的M41輕型坦克底盤，研製一款搭載波佛斯M2A1 雙聯裝40mm高射砲的對空自走砲。年底前完成了自走砲的試作車，但基於生產時程與成本的考慮，原本設計中的射控雷達稍後被取消，1953年十月獲得陸軍採用，正式被命名為M42。

M42採用無頂蓋的敞開式砲塔，光學式瞄準具，砲塔能做360°的旋轉。每門火炮每分鐘能射擊120發砲彈，對於次音速低空飛行器與地面輕裝甲車輛及掩體等目標的攻擊尚稱有效。1956年二月為發動機增設了燃油噴射系統，因此而增加了20%的續航距離，經此改裝後的型號成為M42A1。

德國在二次世界大戰戰敗後由盟軍佔領，僅允許保留小規模的國境防衛隊及掃雷艇部隊，此時東西兩陣營的冷戰對抗已有隱然成形之勢。1949年德國分裂為東西兩個國家，1955年西德重新建立武裝。最初進入德國防空部隊的是二戰期間便已在美軍服役的M16半履帶對空自走砲，1956年起，總數達496輛的M42A1也陸續進入了西德防空部隊的陣營，持續服役至1979年，後來為獵豹防空自走砲車所取代。

### Illustration:圖示說明



### Method For Applying Decals:

1. Clean Model Surface With Wet Cloth.
2. Cut Out Of Decal Sheet And Dip Them In Warm Water For 15 Seconds.
3. Place it on proper position on model.
4. Slide off base paper leaving decals On Model With Wet Finger Tip.
5. Move Decals To Exact Position, Push Out Excess Water Under Decal With Soft Cotton Cloth.
6. When Decals Get Dry Then Complete.

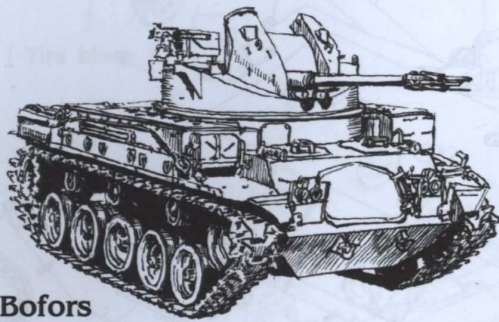
### 水貼紙使用說明:

1. 將模型表面擦乾淨
2. 將貼紙剪下泡入溫水中浸泡約15秒
3. 將泡濕之貼紙取出置於欲貼處旁
4. 用指尖輕推貼紙表面使其滑出底紙
5. 將貼紙調整至適當位置並輕輕拭水份
6. 待其自然乾燥後即完成

### Color list: 塗料表

Color	Brand	Gunze Sangyo			Humbrol	Revell	Lifecolor
		Hobby Color	Mr.Color	Mr.Color Spray			
Black	黑	H2	C2	J2	21	7	LC52
Brass	黃銅	H9	C9	J9	54	92	LC75
Bright blue	寶藍	H93			73		LC06
Green	綠	H6	C6	J6	3		LC63
Flat white	消光白	H11	C62	J62	34	05	LC01
Olive drab(2)	橄欖綠	H78	C38	J38	66	46	UA106
Orange	橘	H14	C59		18	30	LC55
Red	紅	H3	C3	J3	19	31	UA90
Bronze green	青銅綠		TC10				
Silver	銀	H8	C8	J8	11	90	LC76
Steel	黑鐵	H18	C28	J28	53	91	LC65
Leather brown	皮革棕		TC11				
Tar black	瀝青	H12	TC12	J33	33	8	LC02
Tire black	輪胎黑	H77	C33+C62		85	302	LC02
Wood brown	木棕	H37	C43		169		UA301
Flat black	消光黑	H12	C33	J33	33	8	LC02

# 40mm anti-aircraft gun



## M42 Bofors

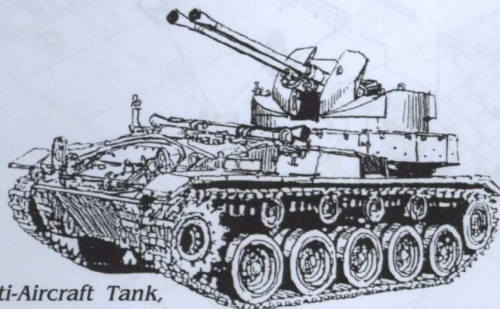
Developed to replace M19, adopting M41 chassis; AA guns mounted on the turret.

**M42 in Vietnam war**  
Participated in North Vietnam airborne missions. (B-52 bombing offensive and M42 continuous fire power support were the most feared by North Vietnam Squadron Leaders /Officers)



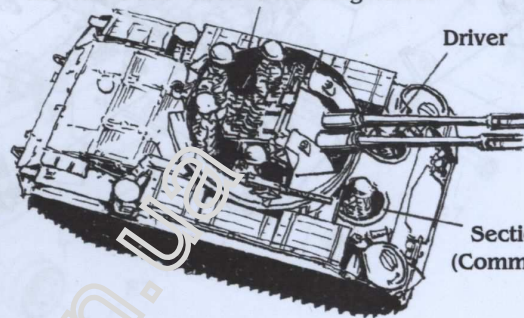
## M42 personnel arrangement

Squad leader, gun pointer and cannoners standby in the full 360o circle traversing turret.



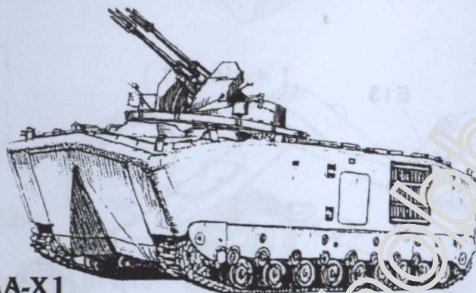
## M19

M19 Anti-Aircraft Tank, adopting M24 Chaffee chassis and twin 40mm Bofors guns. They saw combat in Korean War.



Driver

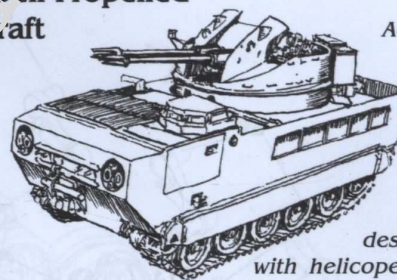
Section Leader (Communication)



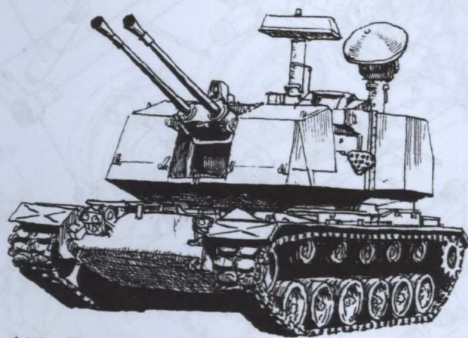
## LVT-AA-X1

An experimental vehicle, combining LVT-PS and M42 hull & turret. Yet by this time US has dominated air supremacy, therefore development on anti aircraft became lukewarm.

## XM166 Self-Propelled Anti-Aircraft system



Adopting M548 40mm Anti-Aircraft guns, Xm166 was an experimental vehicle, designed to deal with helicopters and tanks.



## M247 Sergeant York

Developed in 1970s, based on the M48 Patton tank, with new twin radar-directed Bofors 40 mm rapid-fire guns. It is found insufficient to confront fast jets, hence cancellation of the project.

## Bofors 40mm quadruple mount guns

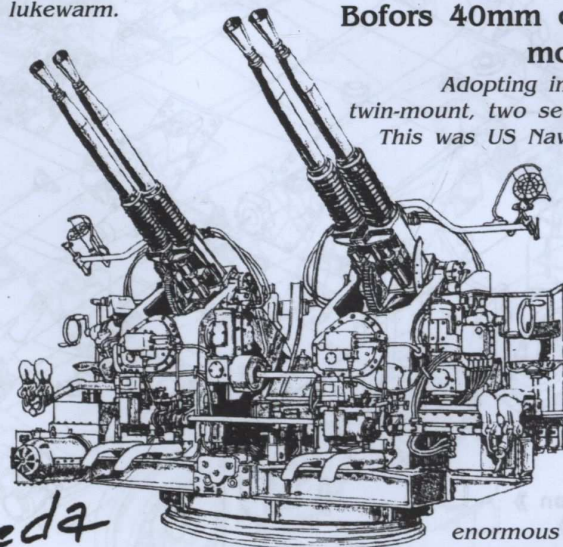
Adopting improved and twin-mount, two sets as a unit. This was US Navy's standard anti-aircraft weapon, in WWII.

By using proximity fuse, rate of fire can go up to 640 round per minute.

This system provided

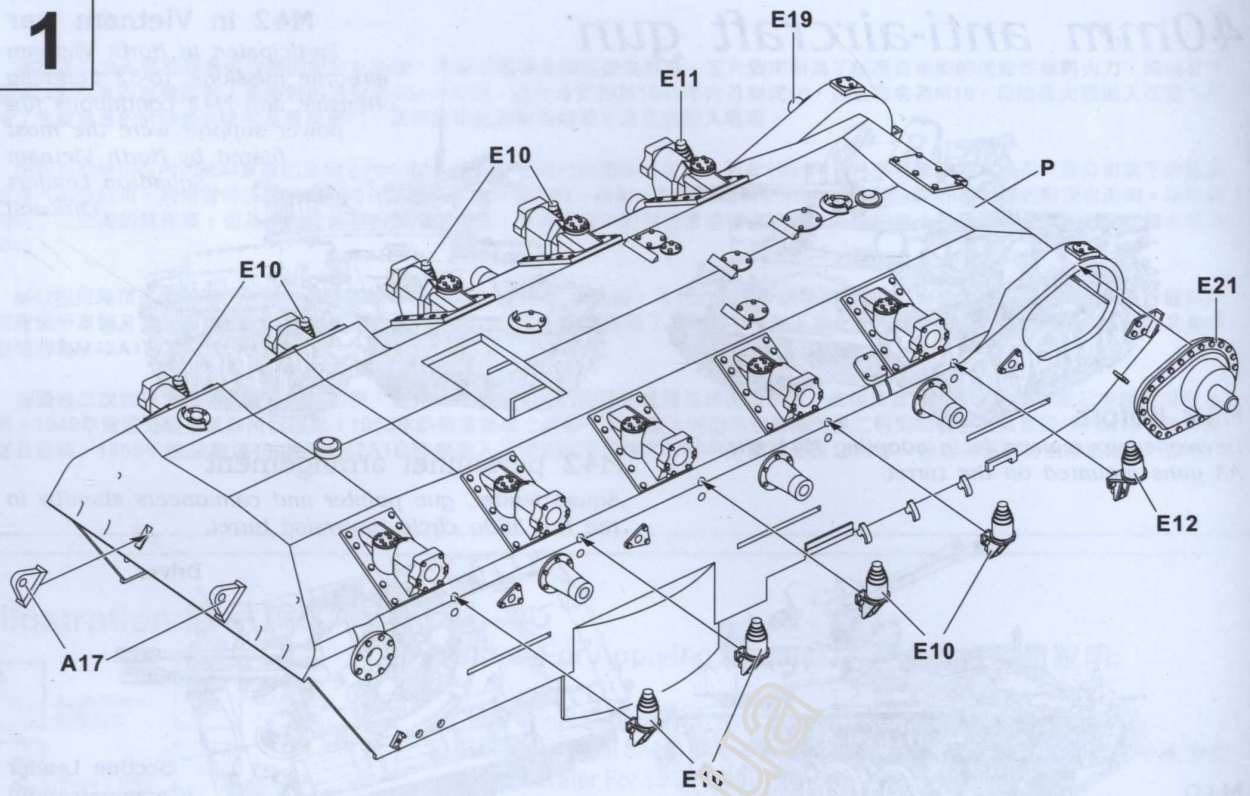
enormous contribution in the Pacific Theater.

It equips with water-cooling system.

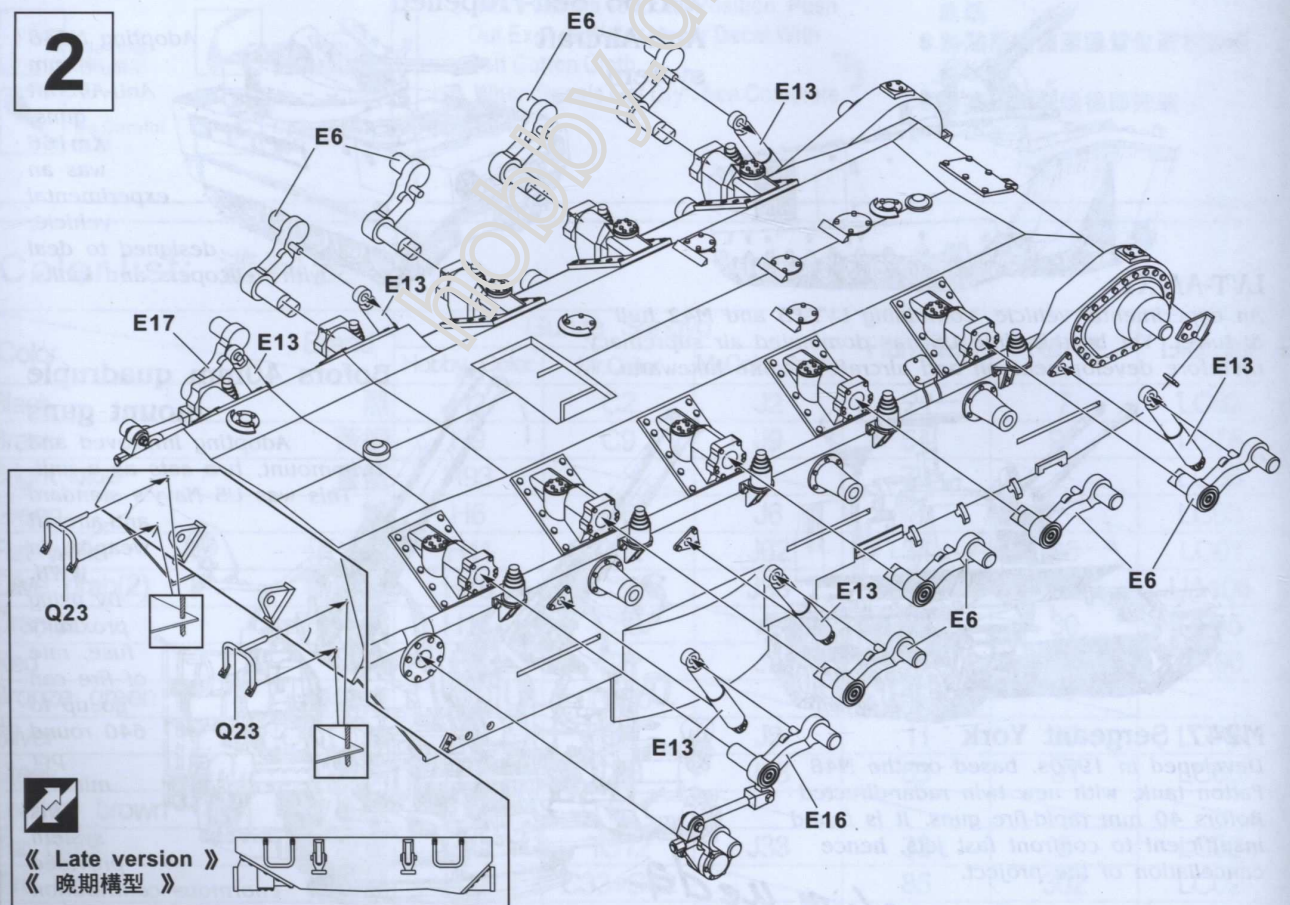


*Shin.ueda*  
上田 信

1



2





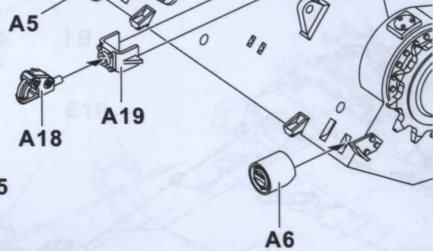
5

《 Early version 》  
《 初期構型 》

[ Black ]



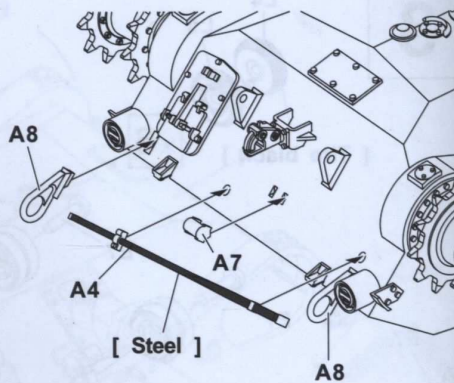
[ Black ]



[ Red ]



[ Black ]



[ Steel ]



《 Late version 》  
《 晚期構型 》

Q6



A18

A19

Q6



[ Red ]

Q7



Q7



Only to Bundeswehr  
只限德國聯邦軍

H33

[ Flat white ]

Q16



Q16

[ Orange ]

[ Red ]



B57



A8

A4

[ Steel ]

A7

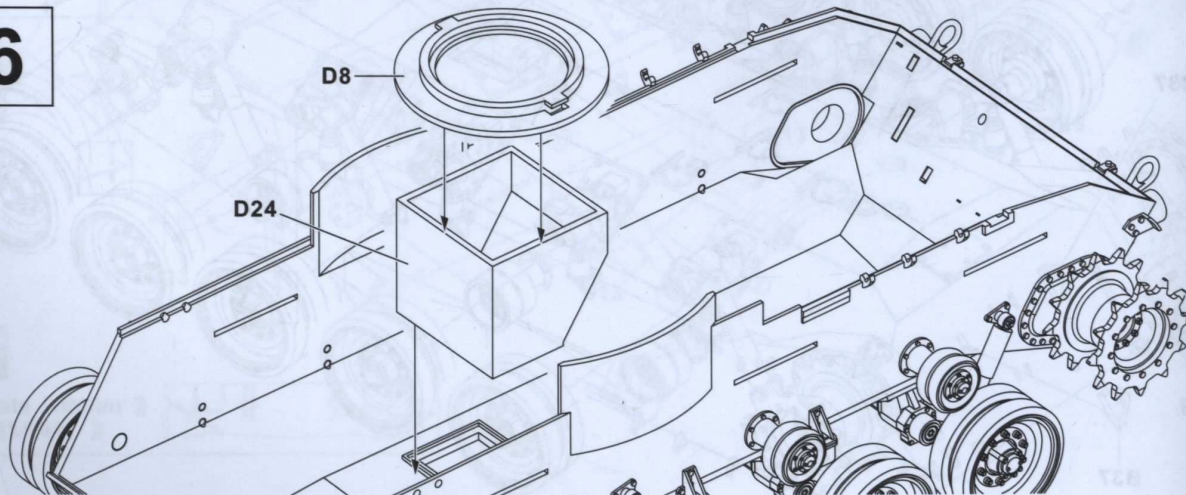
B57

A8

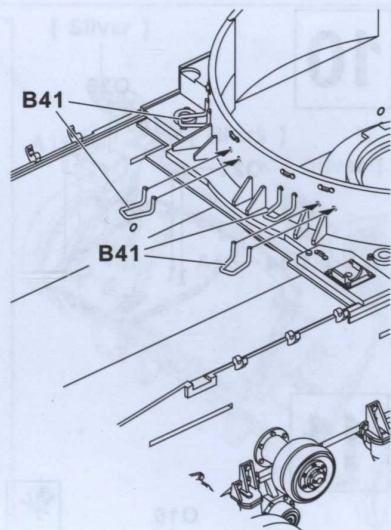
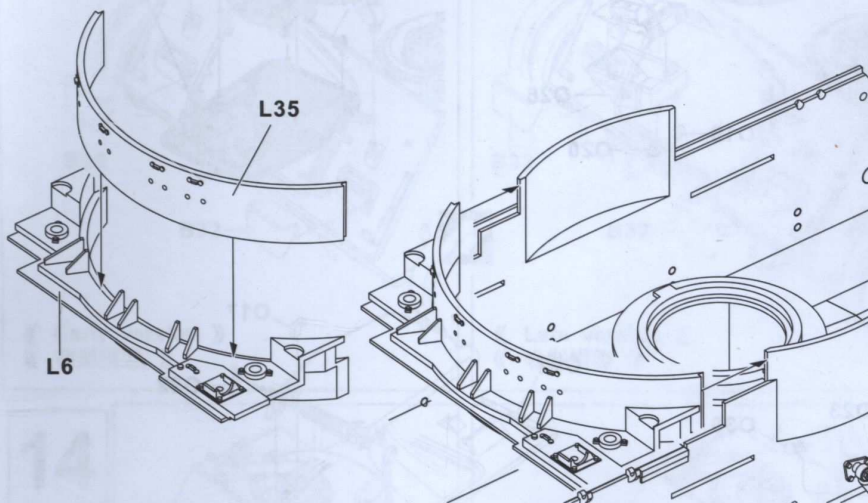
6

D8

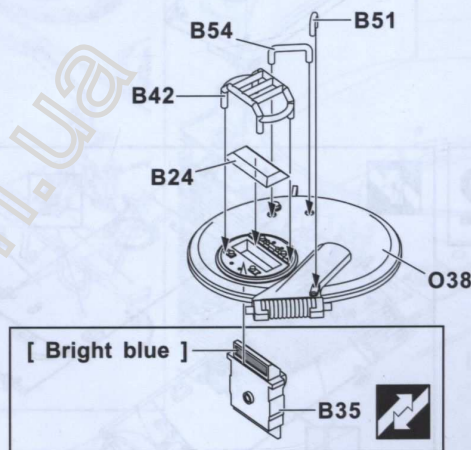
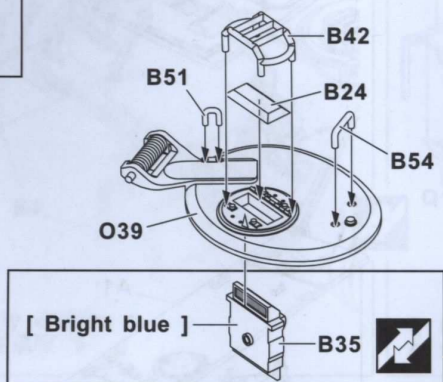
D24



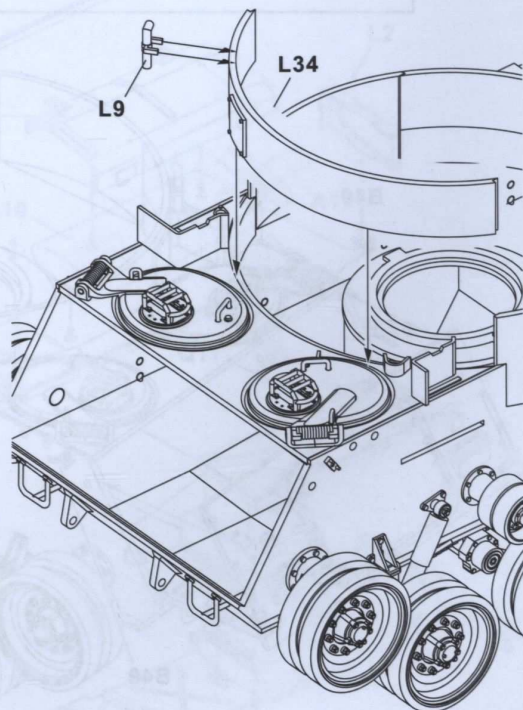
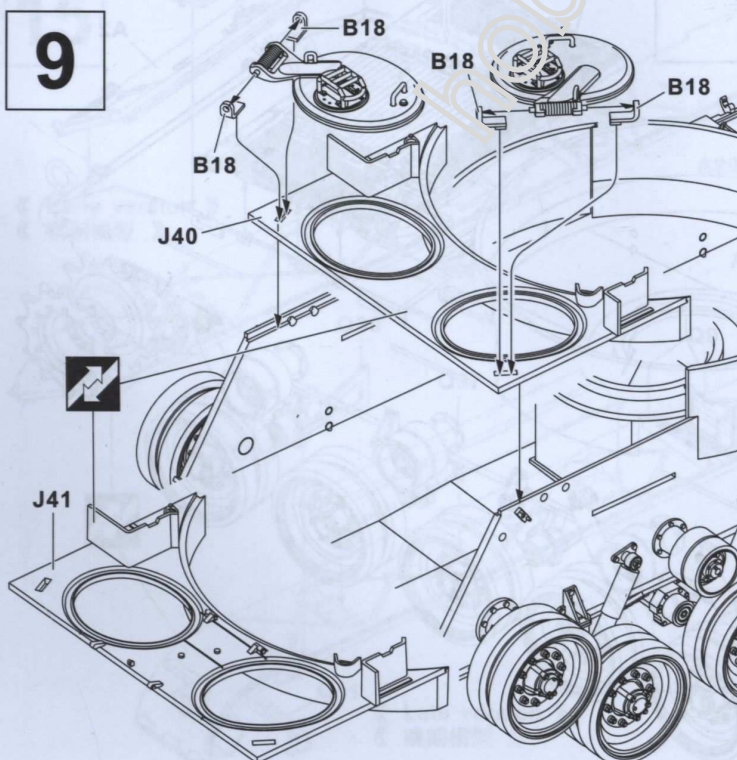
7



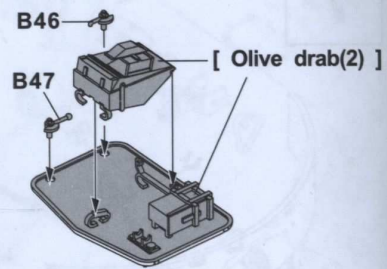
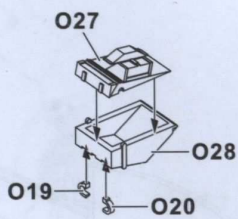
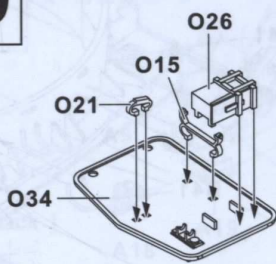
8



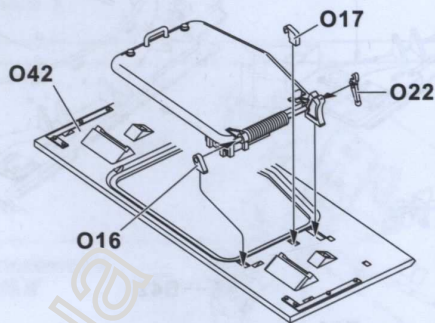
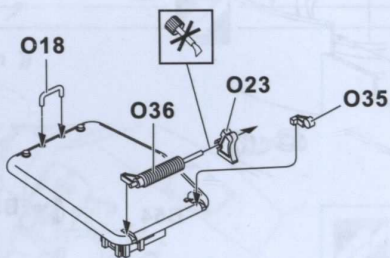
9



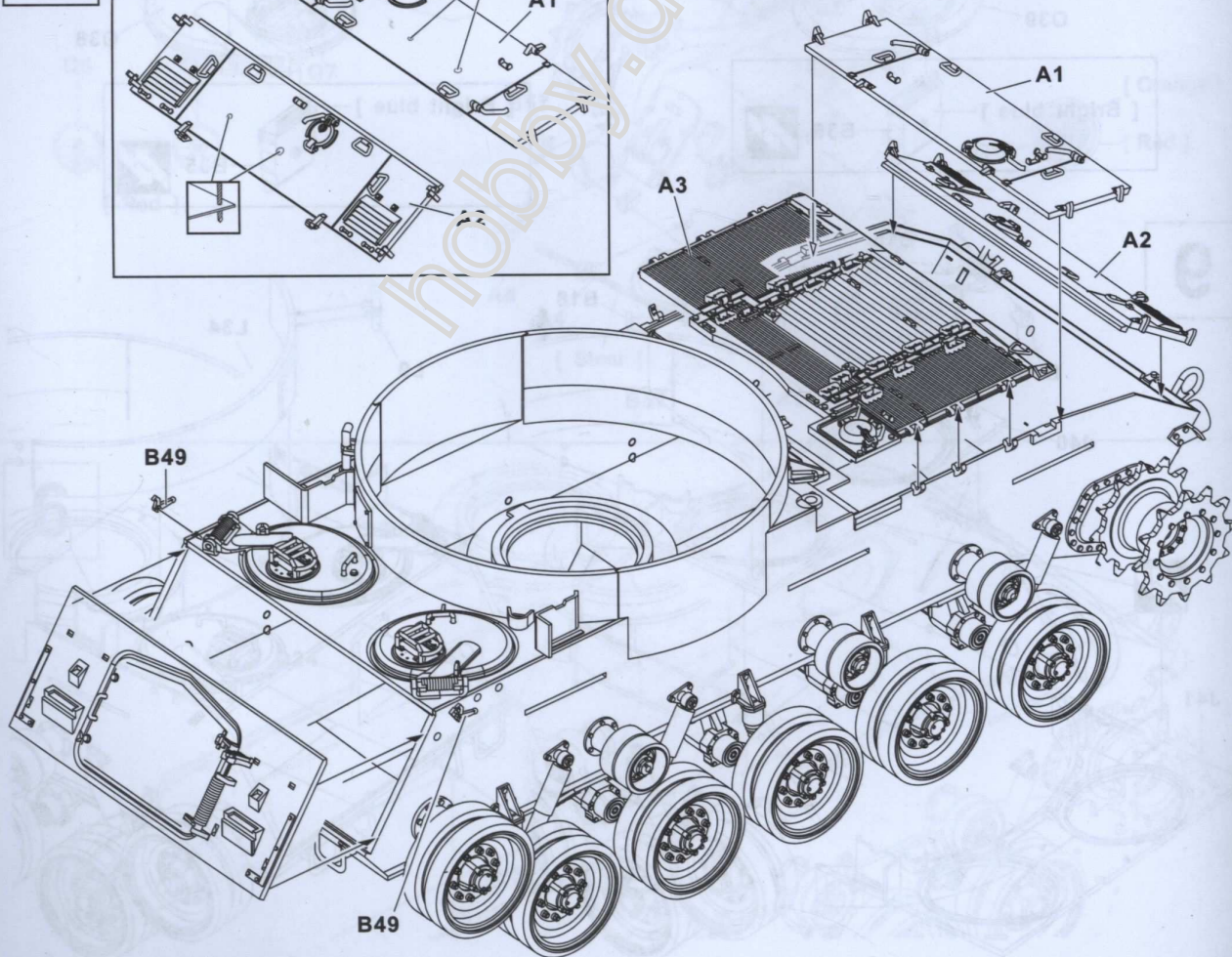
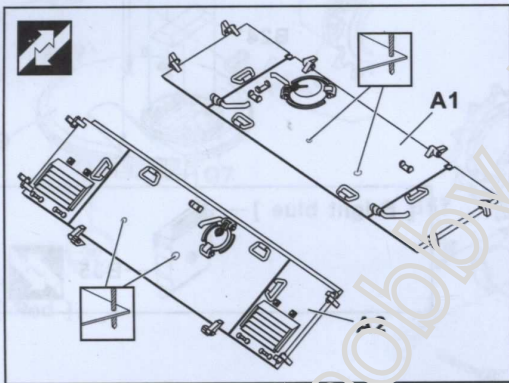
10



11

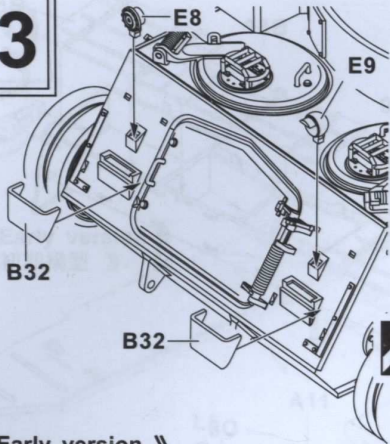


12

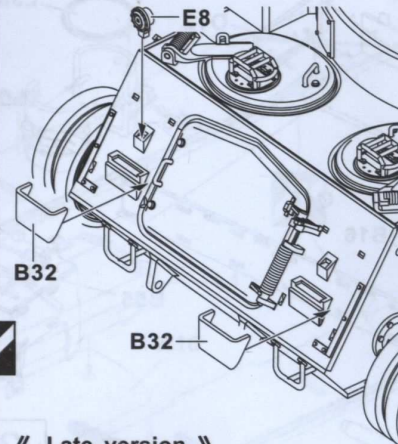




13

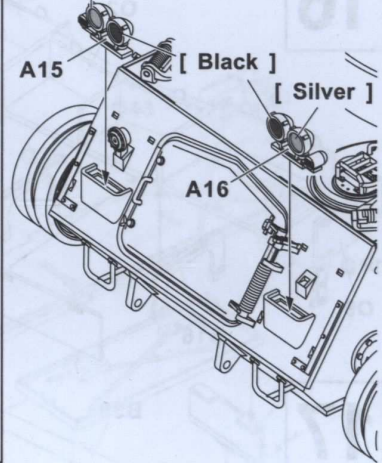


《 Early version 》  
《 初期構型 》

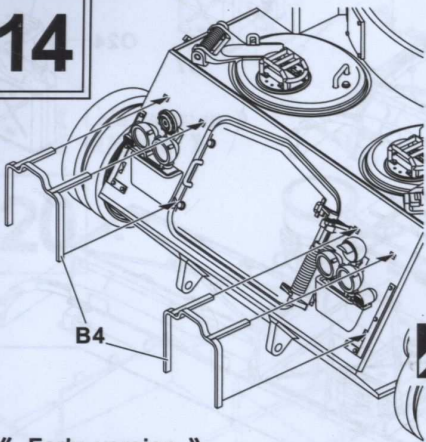


《 Late version 》  
《 晚期構型 》

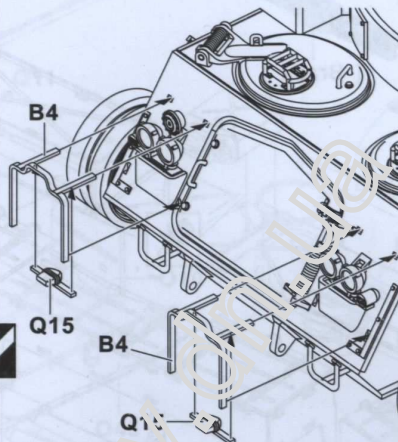
[ Silver ]



14

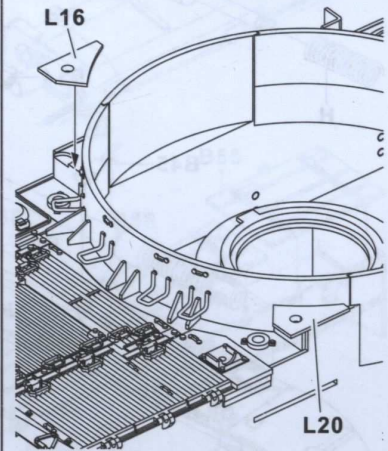


《 Early version 》  
《 初期構型 》



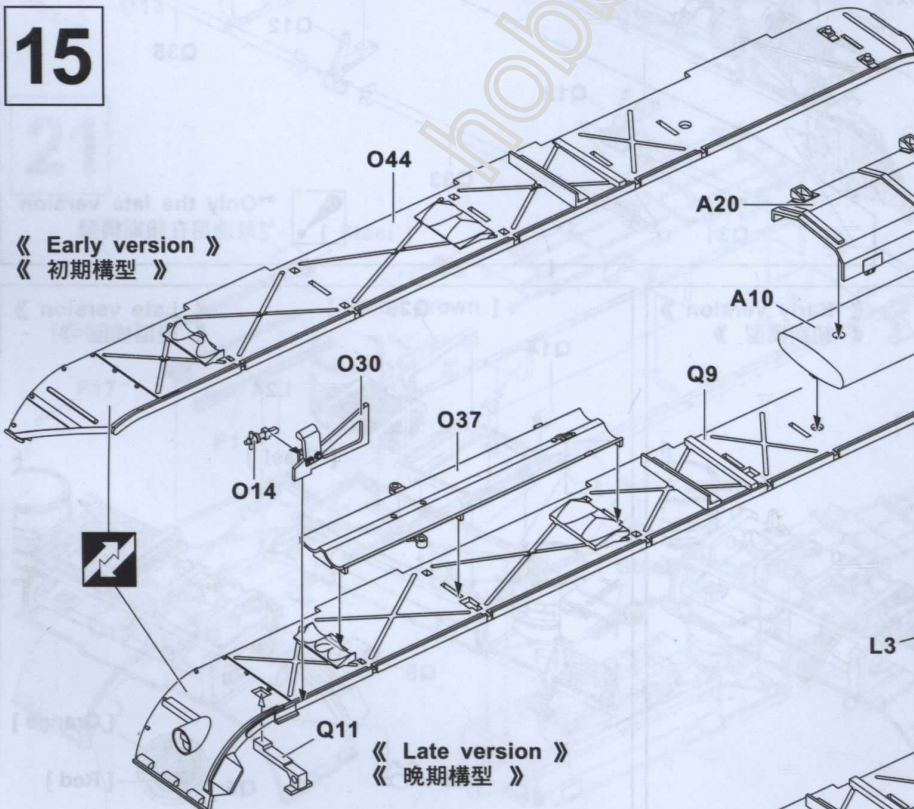
《 Late version 》  
《 晚期構型 》

L16

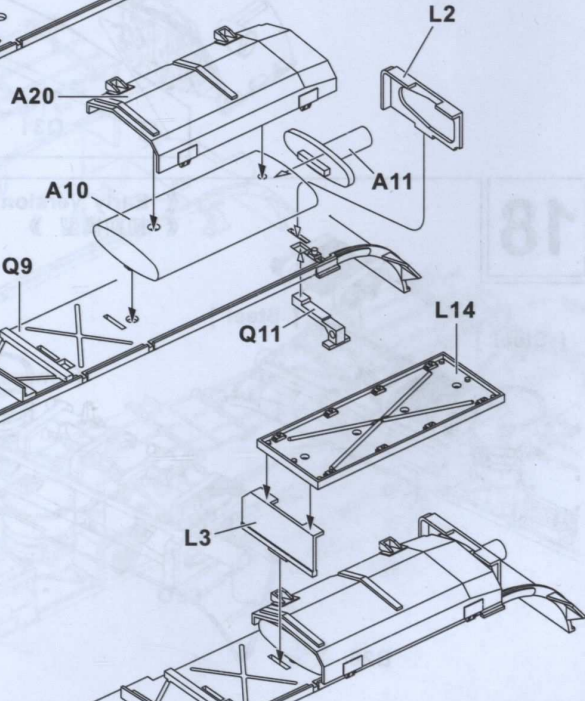


15

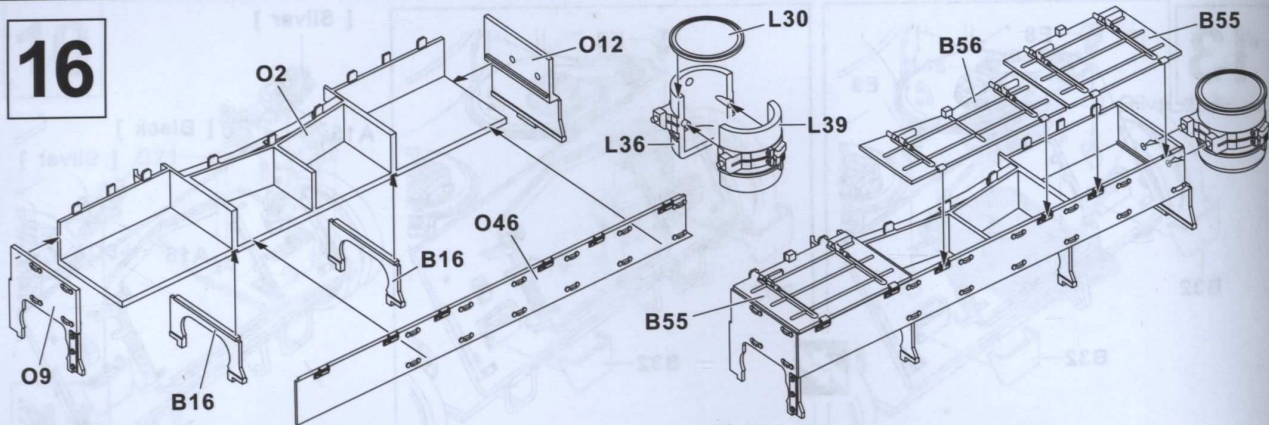
《 Early version 》  
《 初期構型 》



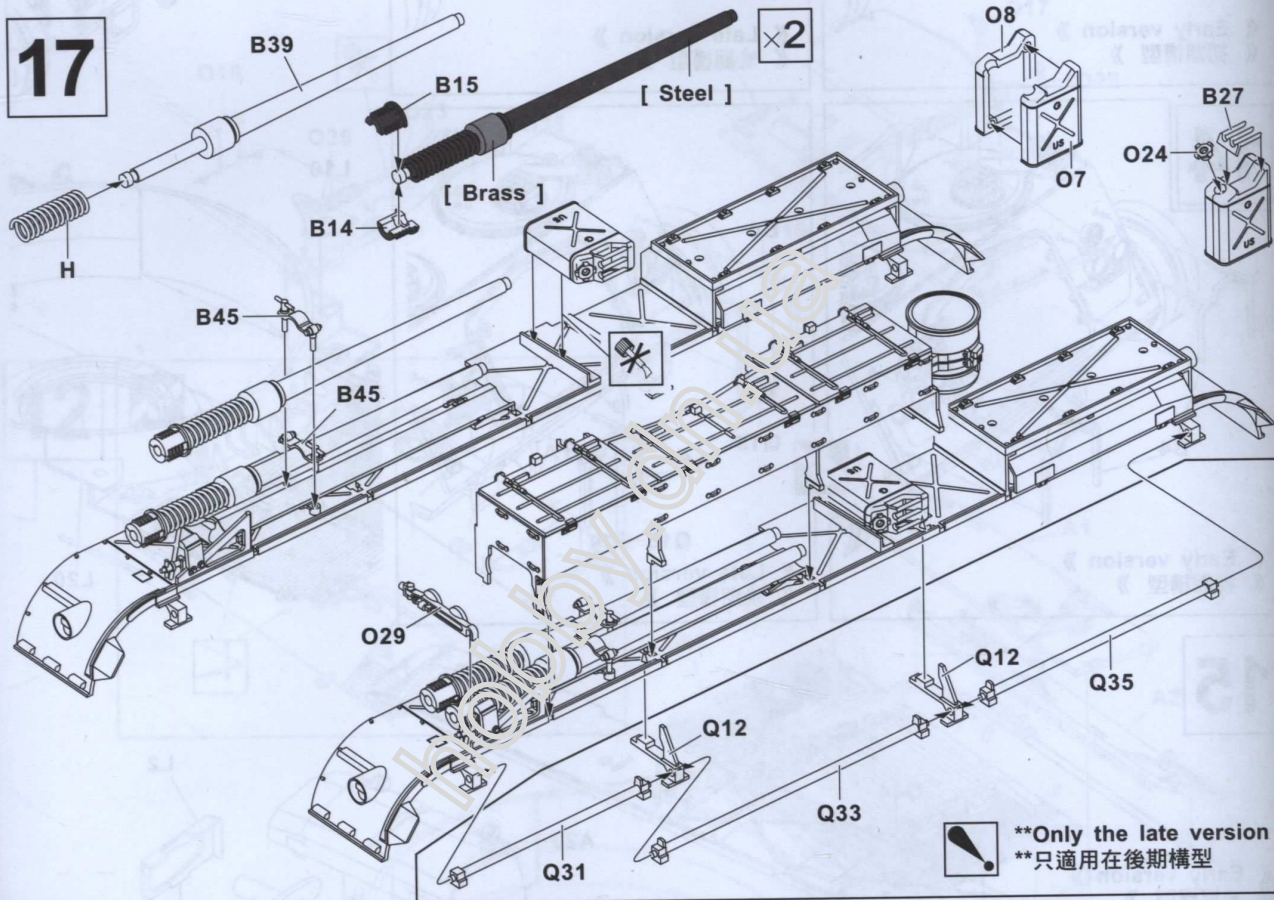
《 Late version 》  
《 晚期構型 》



16

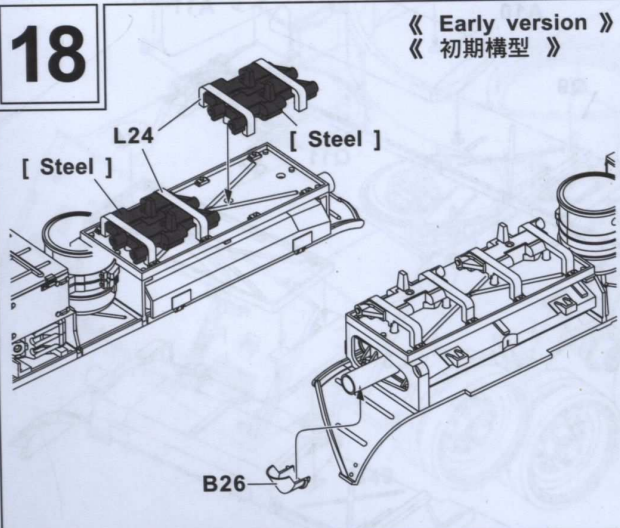


17

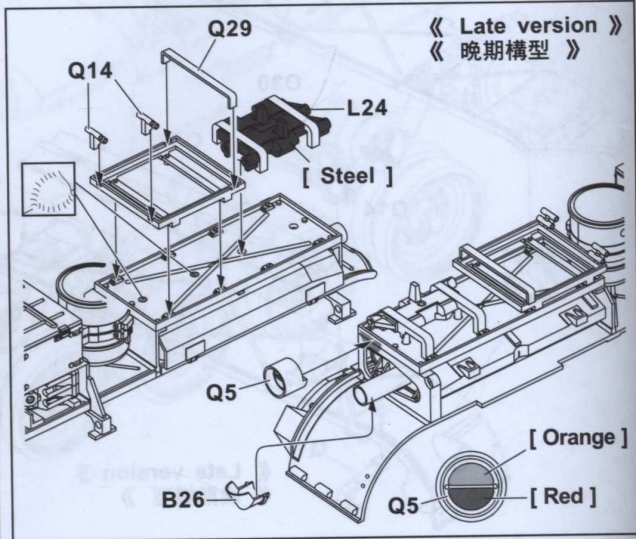


! \*\*Only the late version  
\*\*只適用在後期構型

18



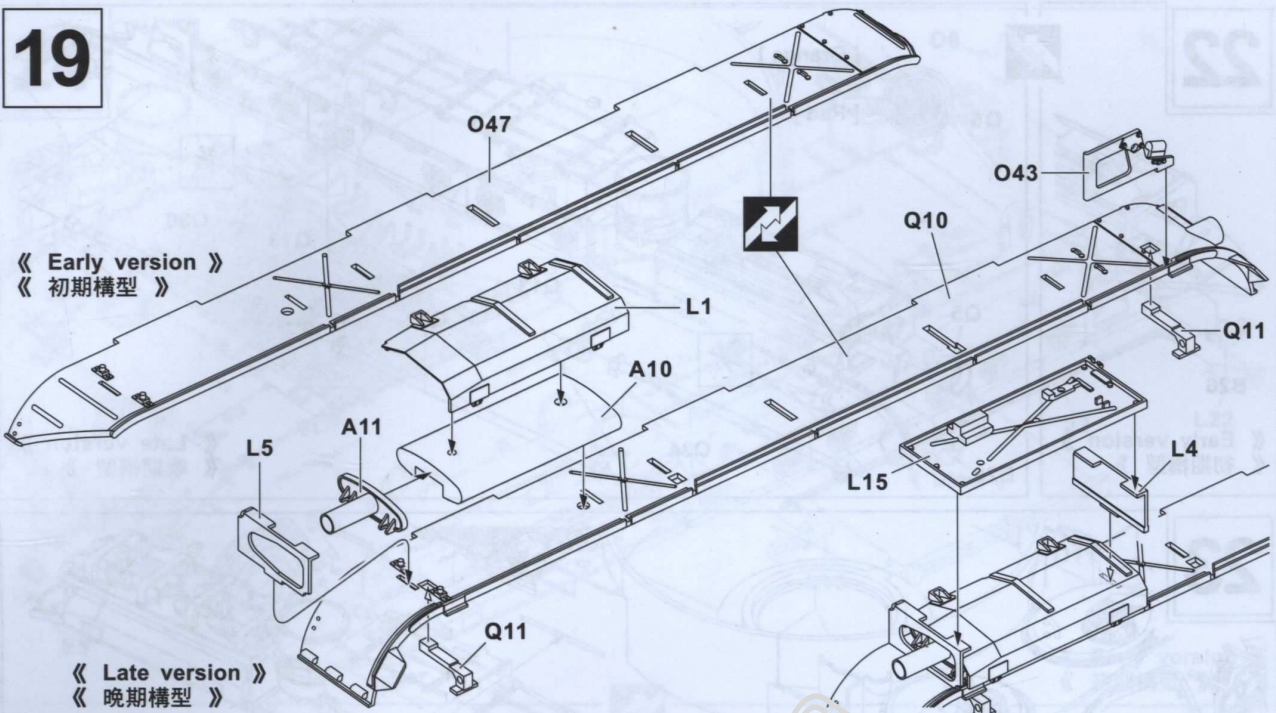
《 Early version 》  
《 初期構型 》



《 Late version 》  
《 晚期構型 》

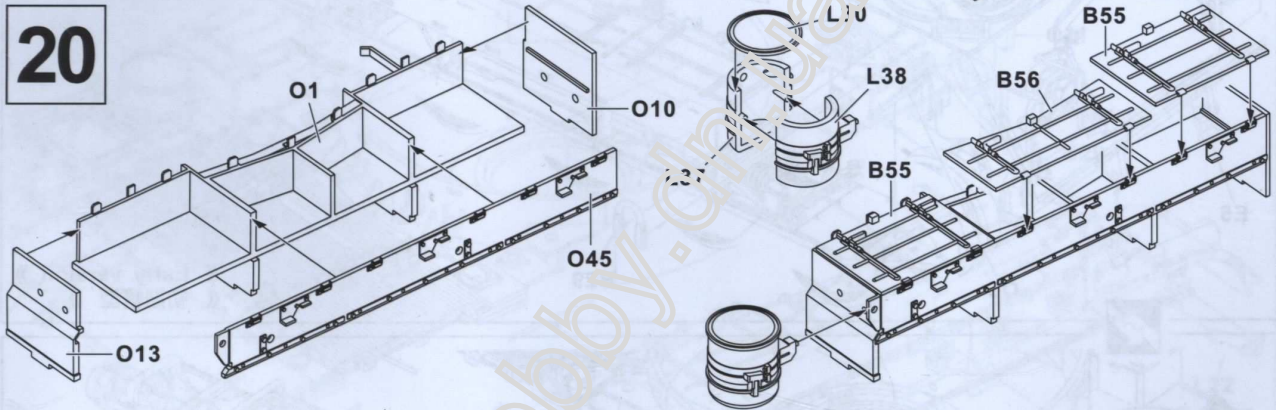
19

《 Early version 》  
《 初期構型 》

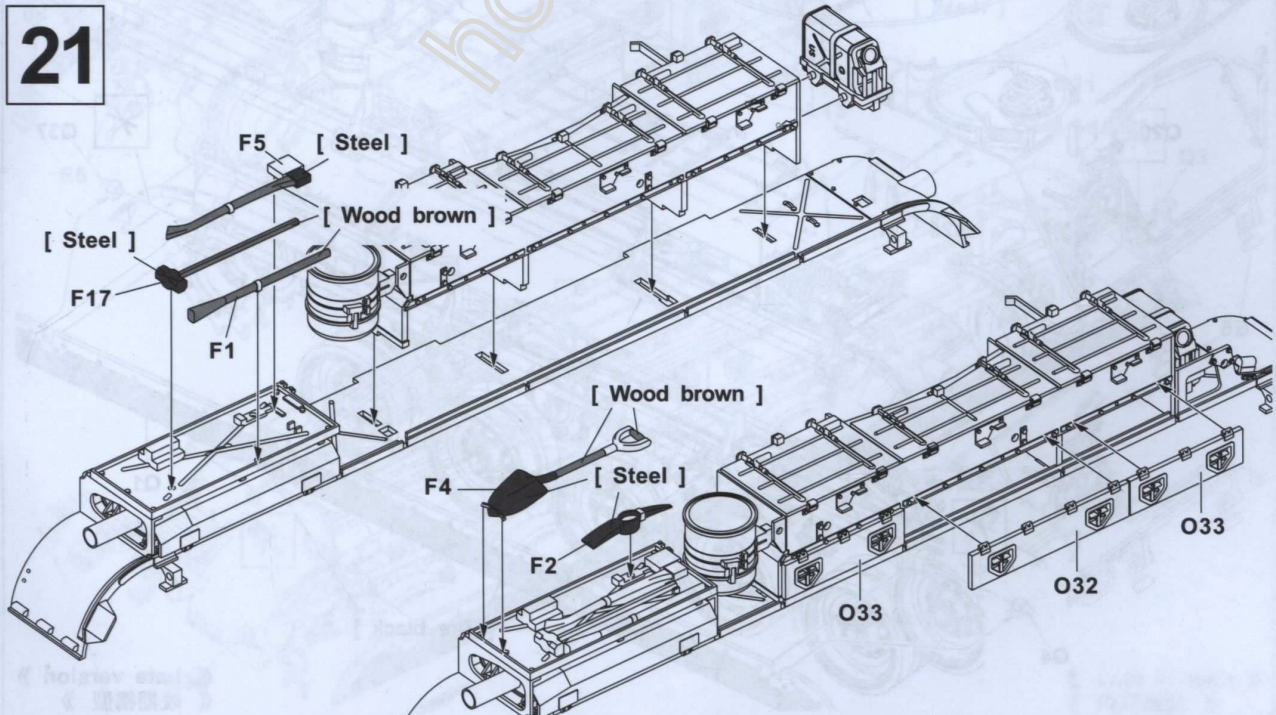


《 Late version 》  
《 晚期構型 》

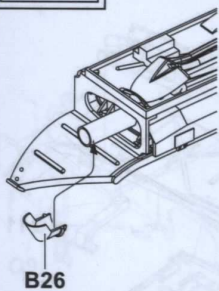
20



21



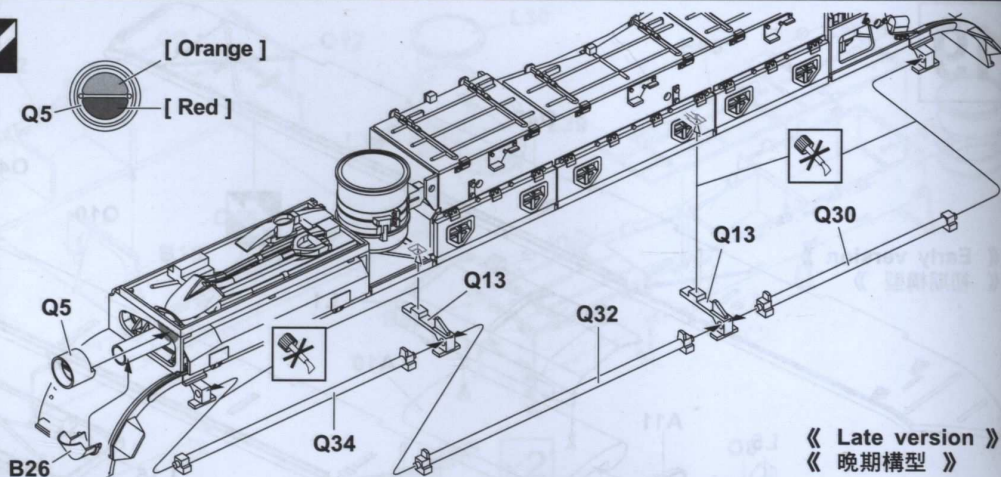
22



B26

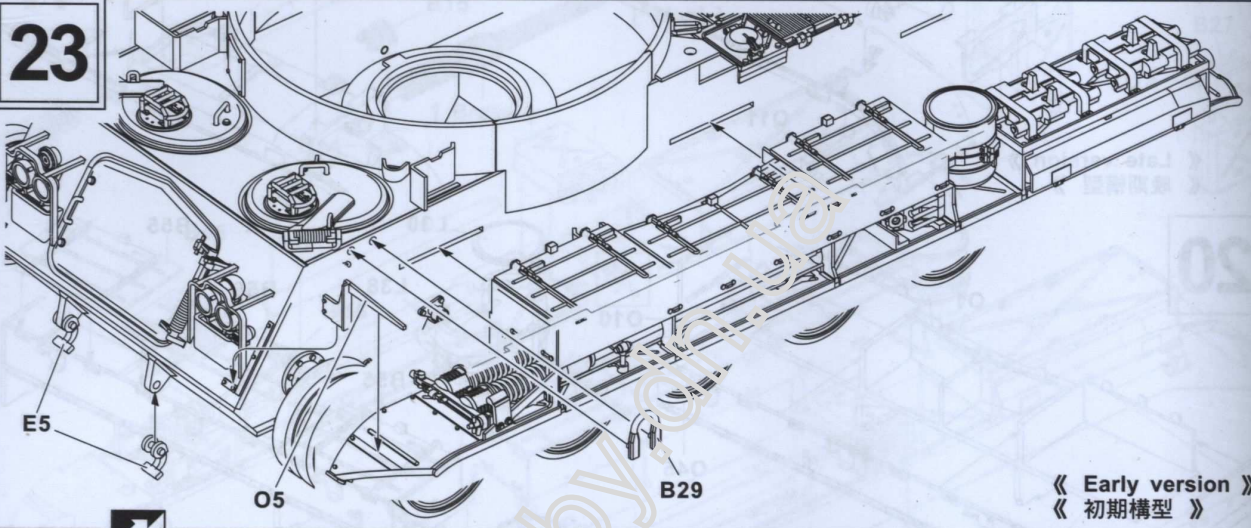
《 Early version 》  
《 初期構型 》

[ Orange ]  
Q5 [ Red ]



《 Late version 》  
《 晚期構型 》

23

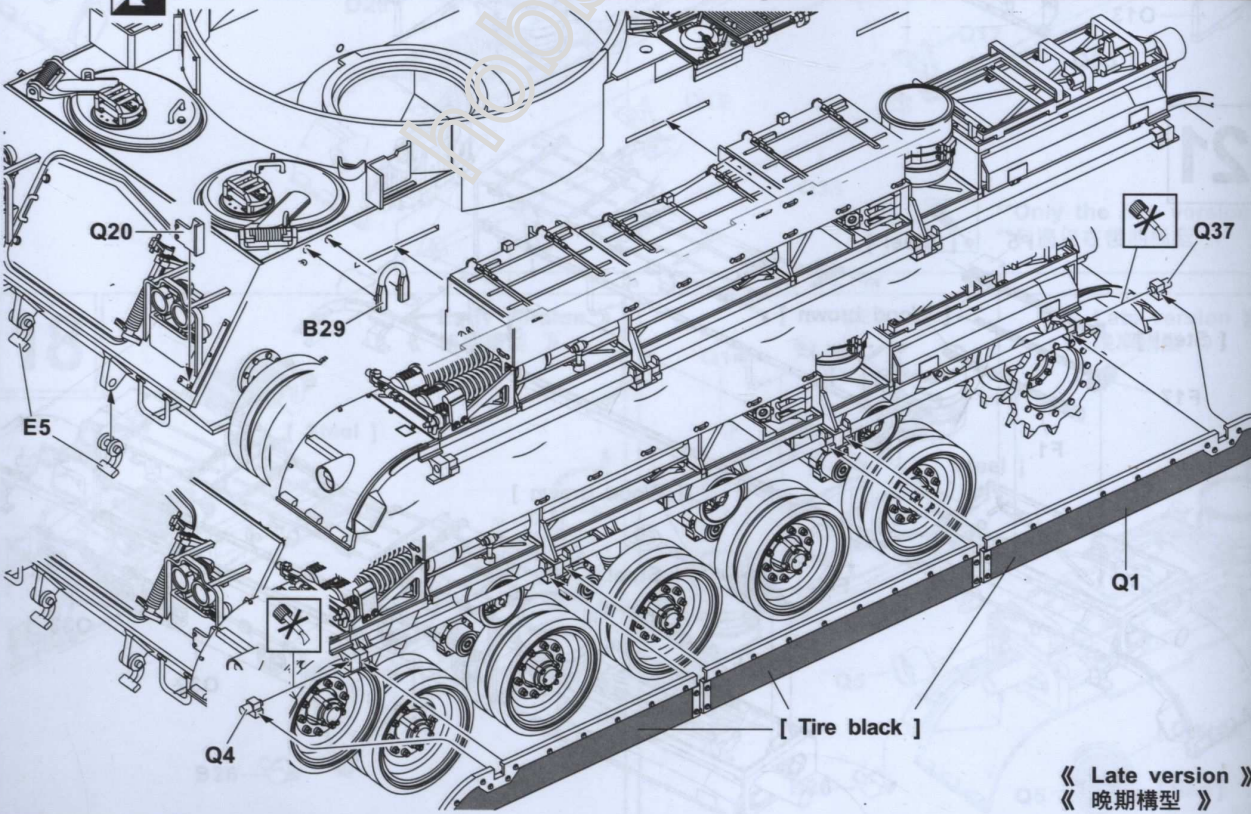


E5

O5

B29

《 Early version 》  
《 初期構型 》



Q20

B29

E5

Q4

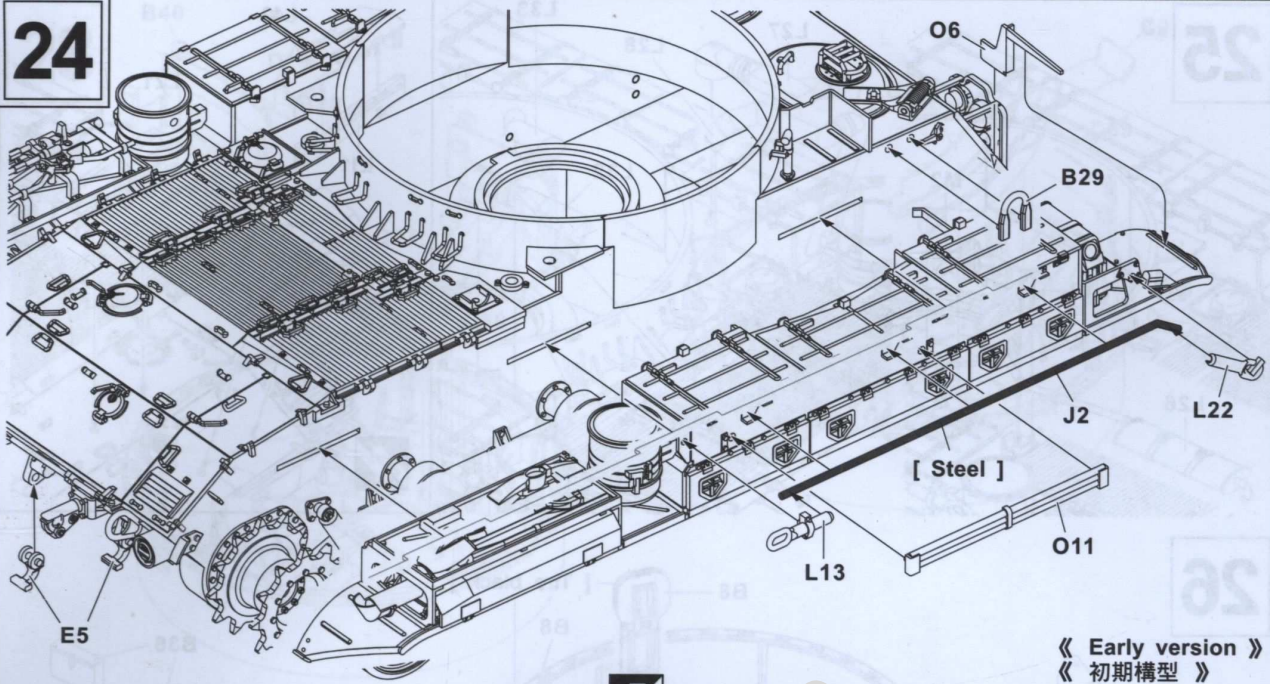
Q1

Q37

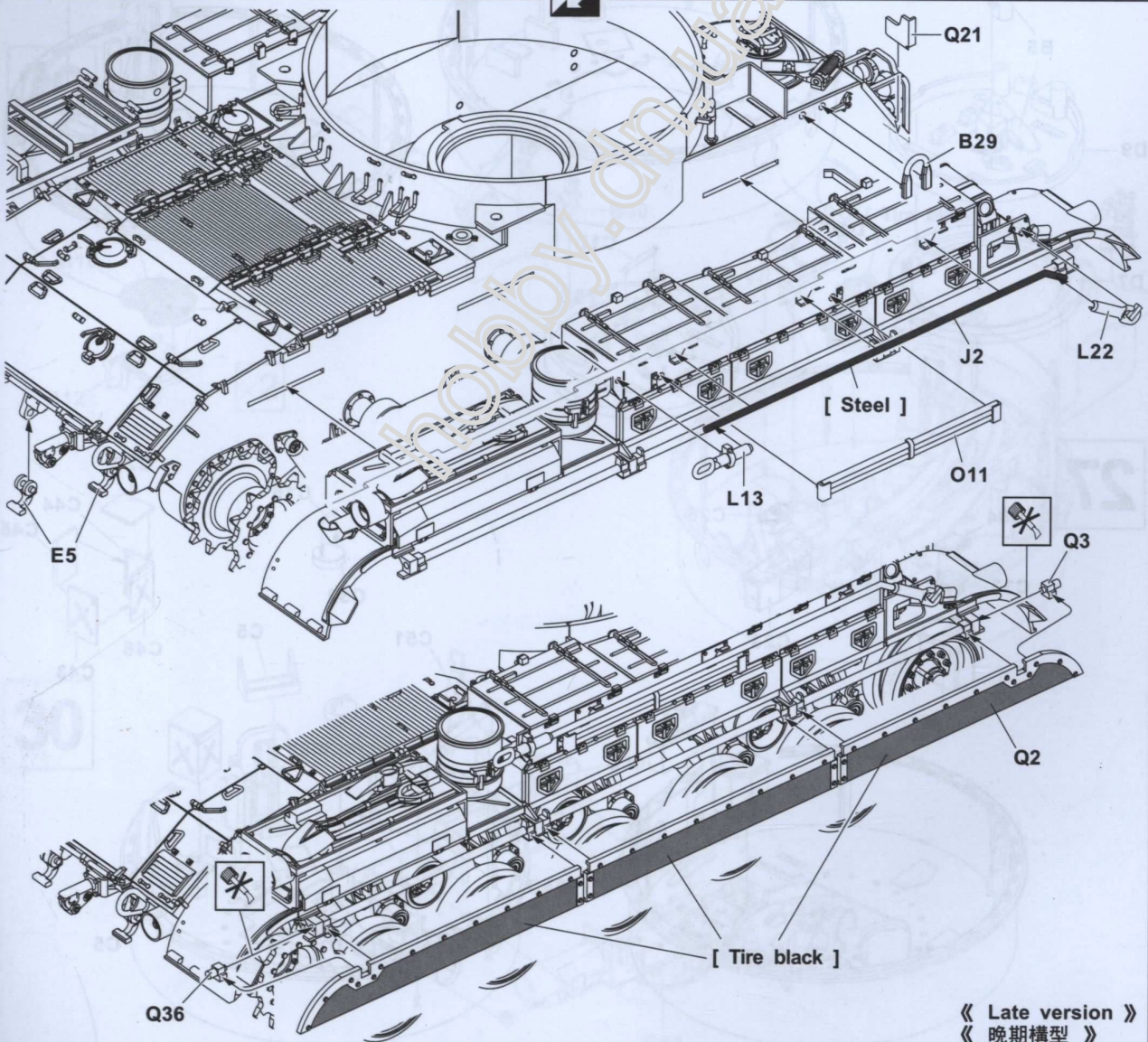
[ Tire black ]

《 Late version 》  
《 晚期構型 》

24

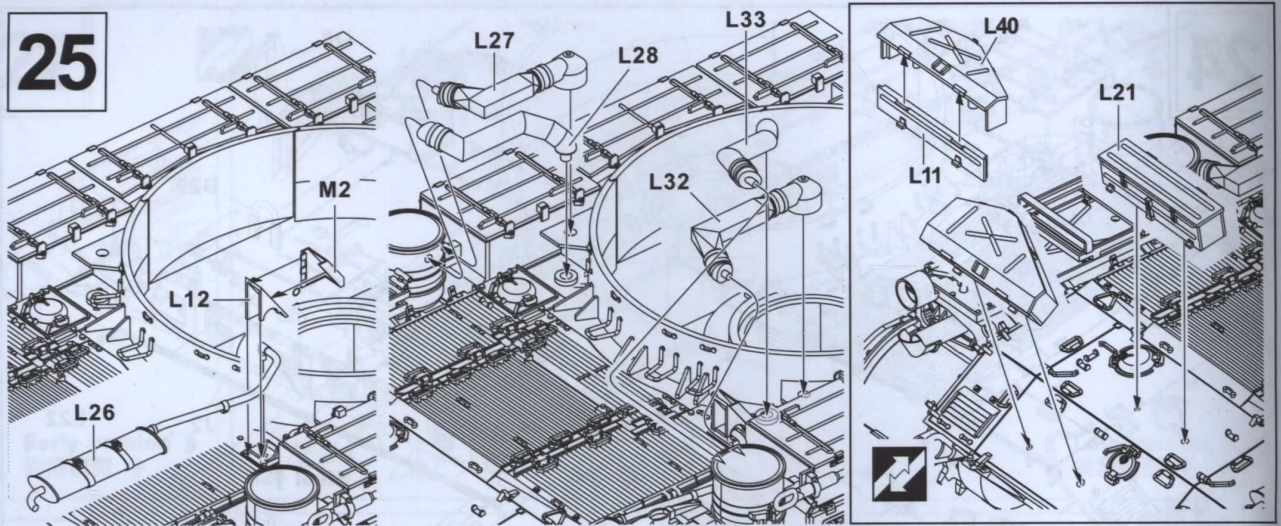


《 Early version 》  
《 初期構型 》

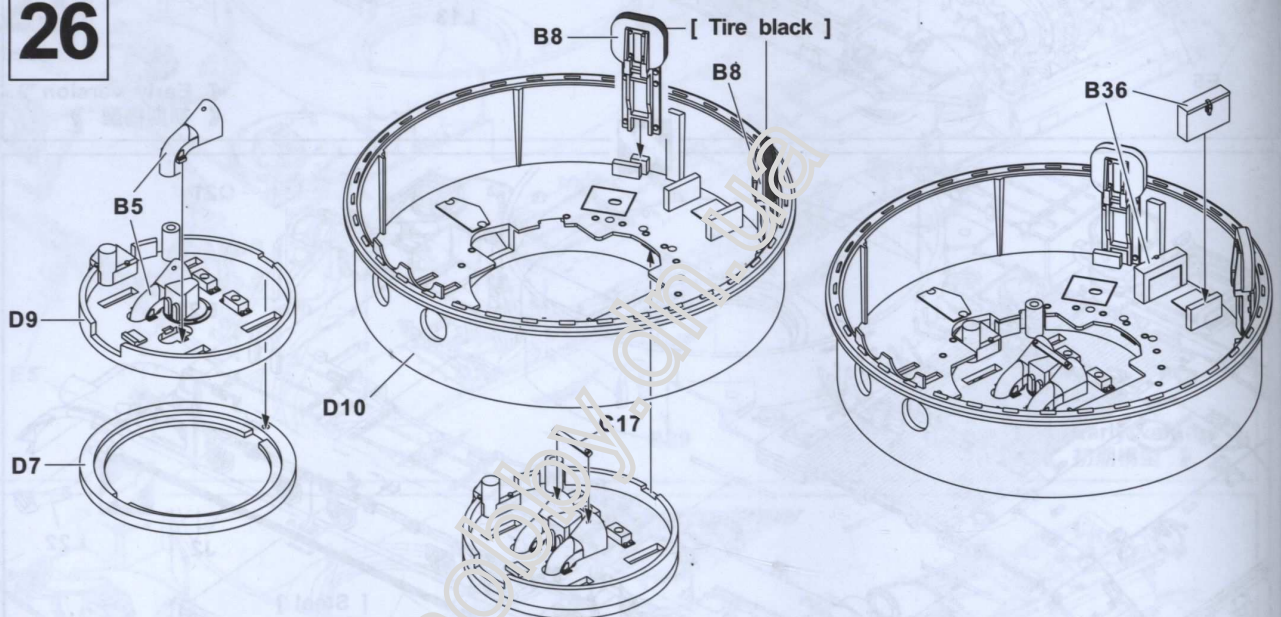


《 Late version 》  
《 晚期構型 》

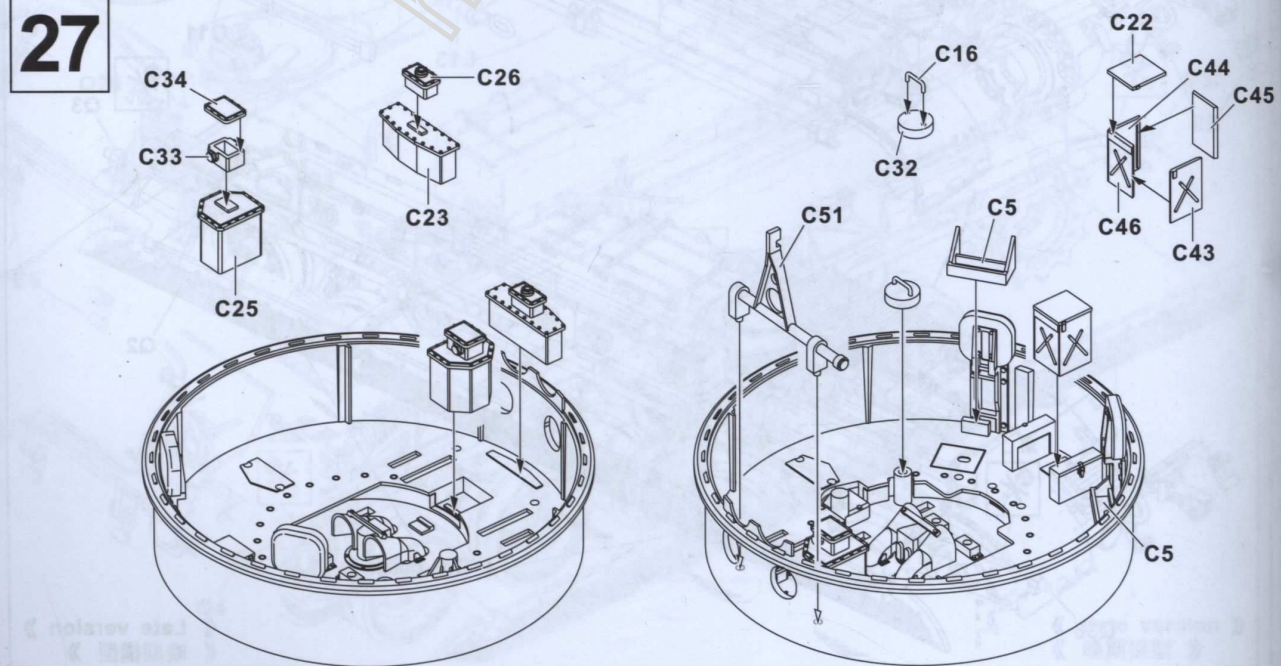
25



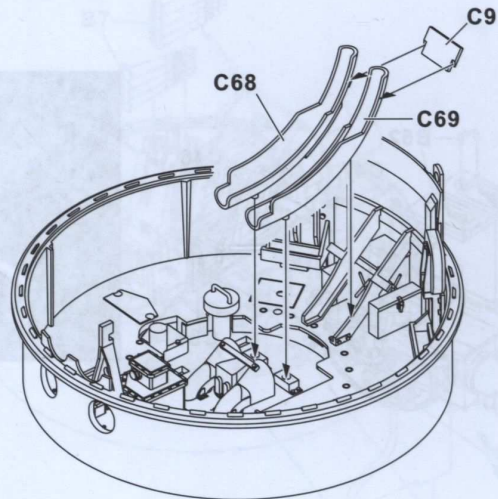
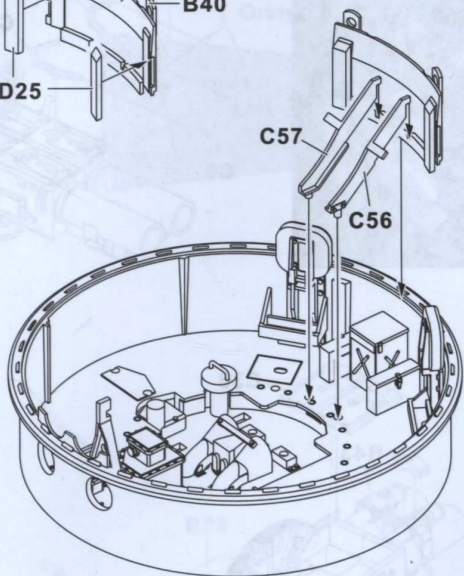
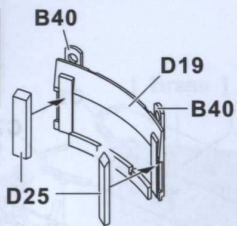
26



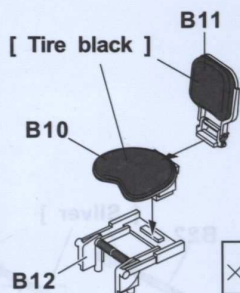
27



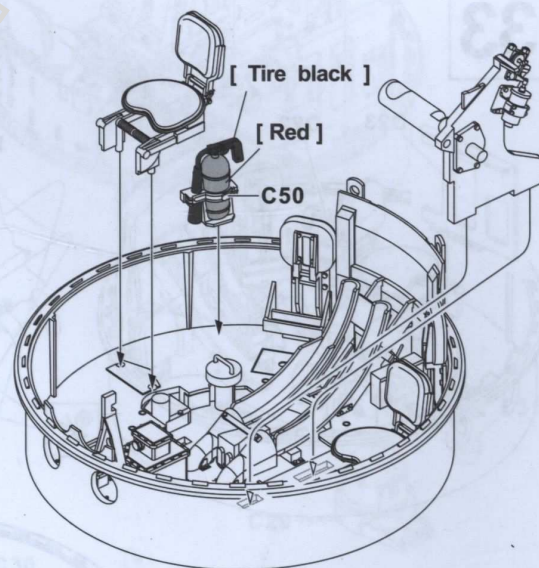
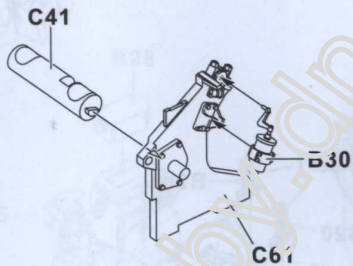
28



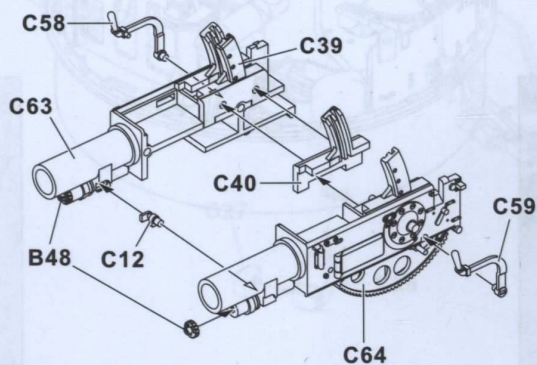
29



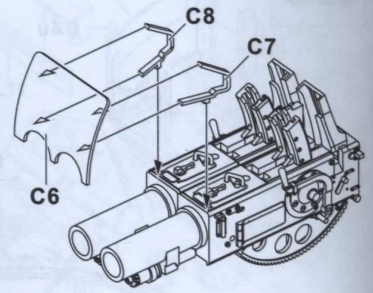
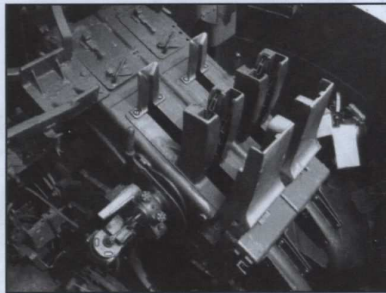
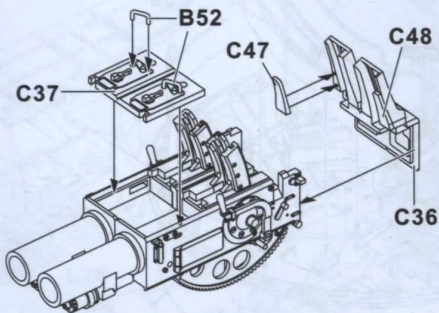
×2



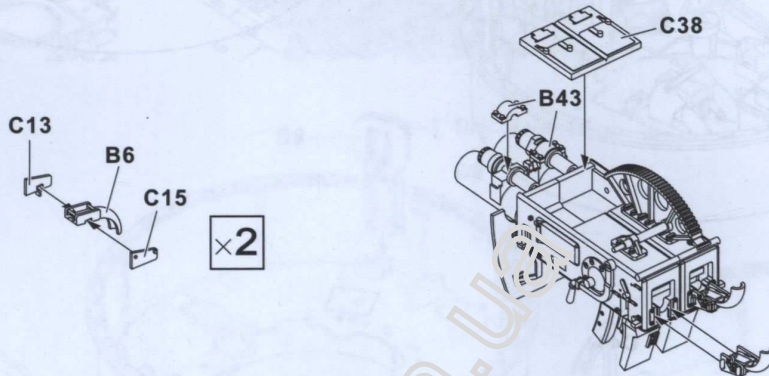
30



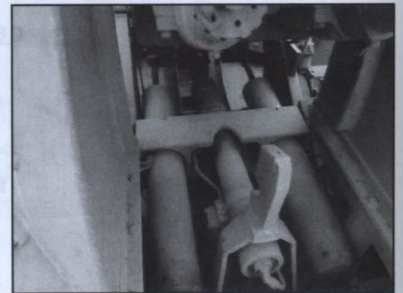
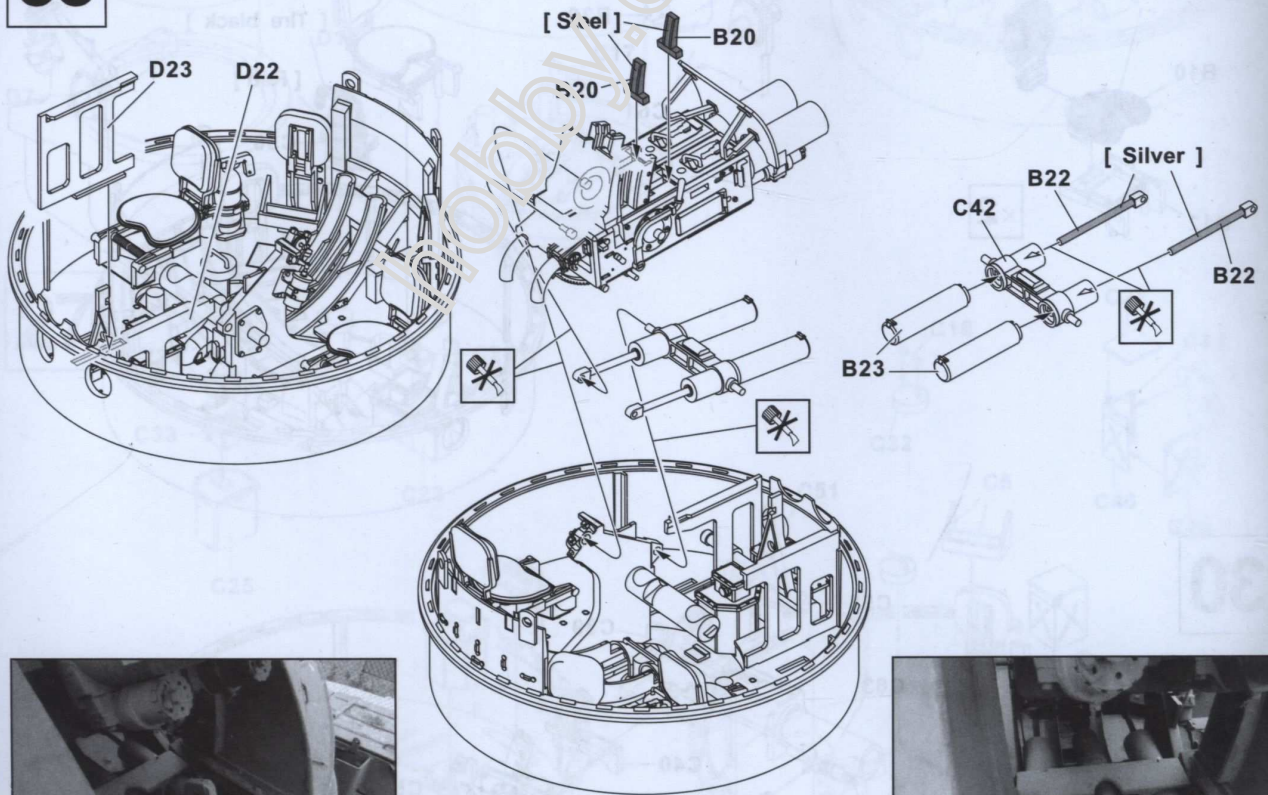
31



32

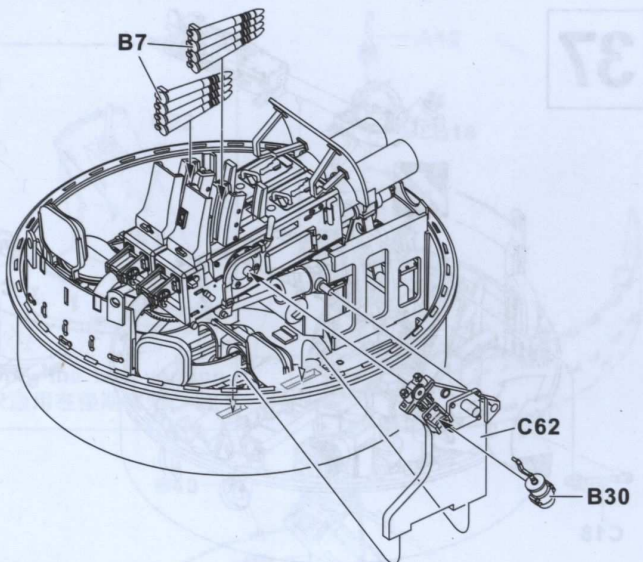
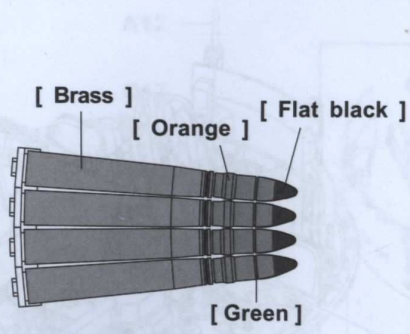


33

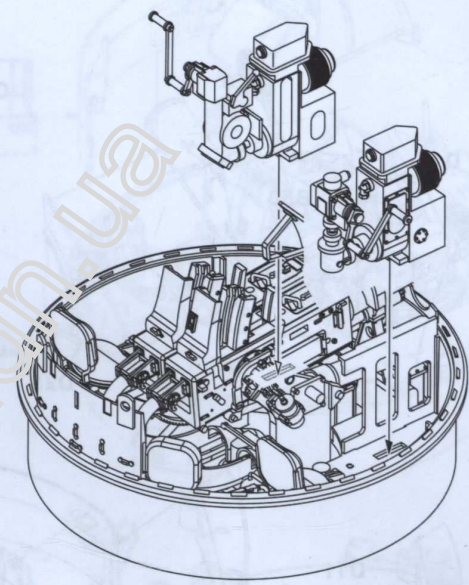
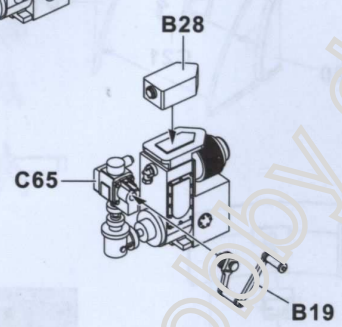
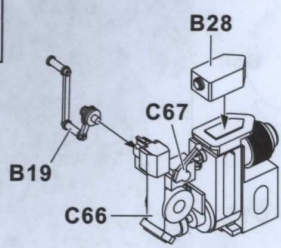




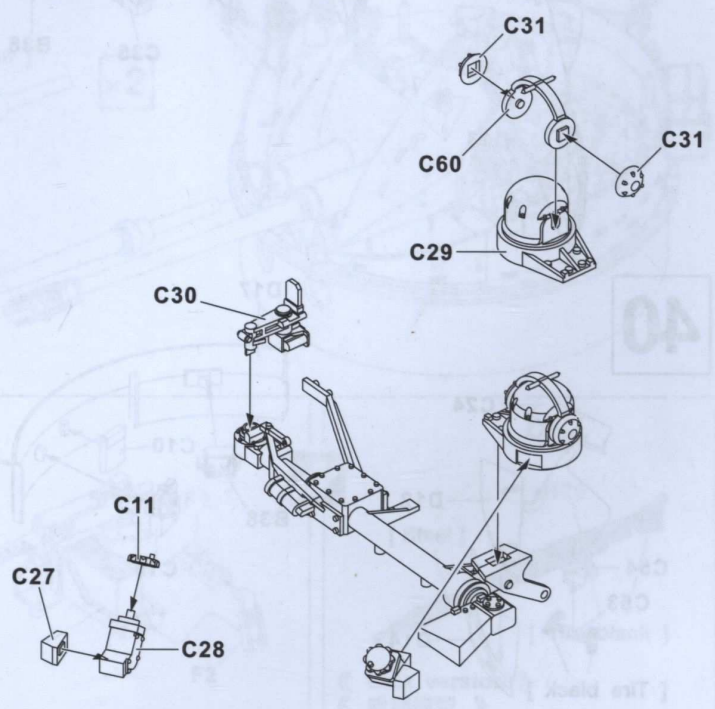
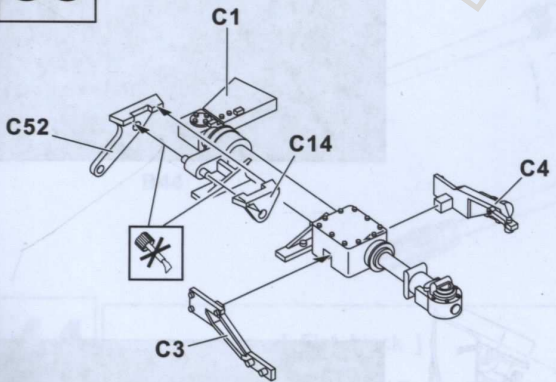
34



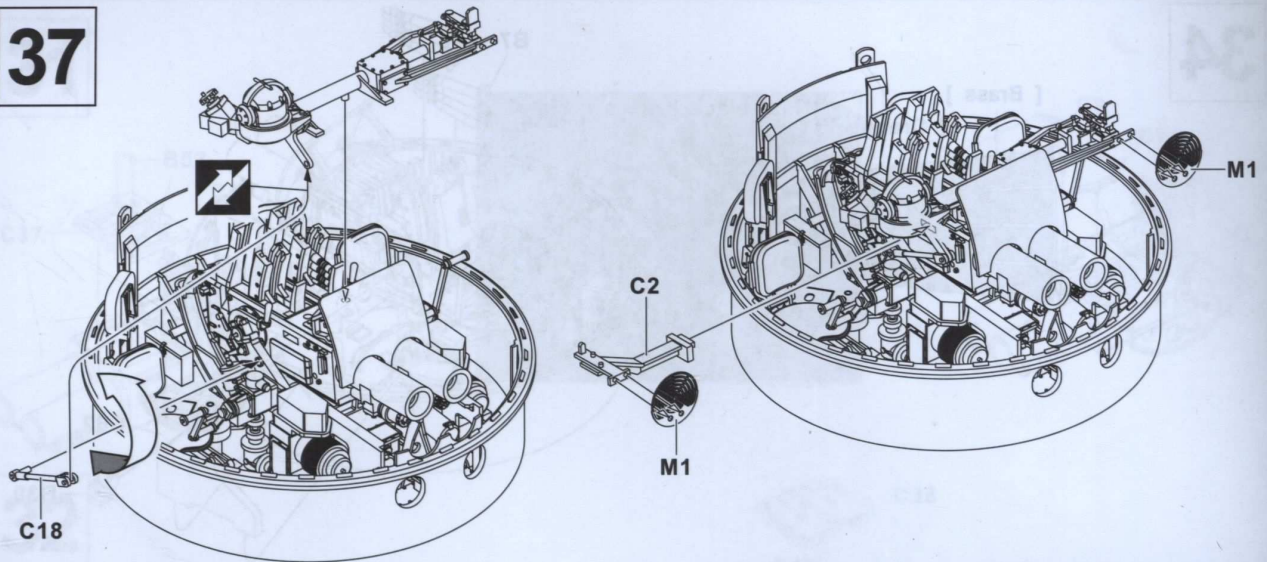
35



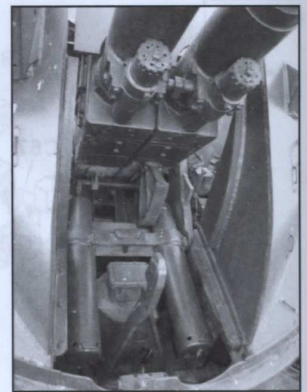
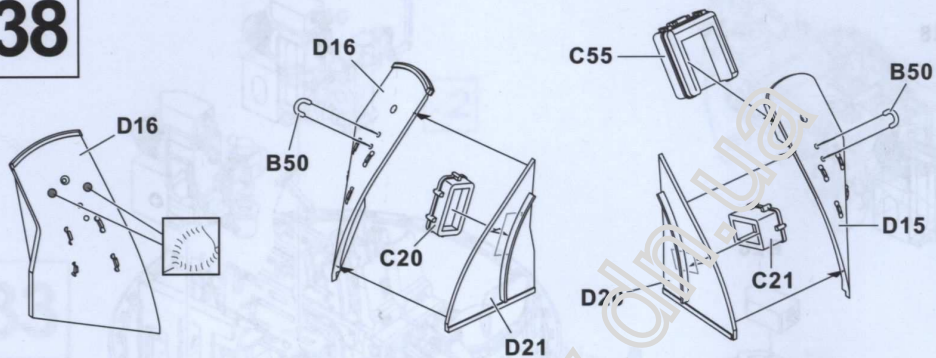
36



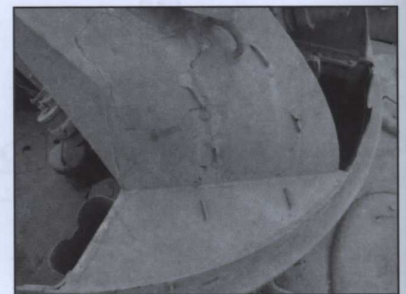
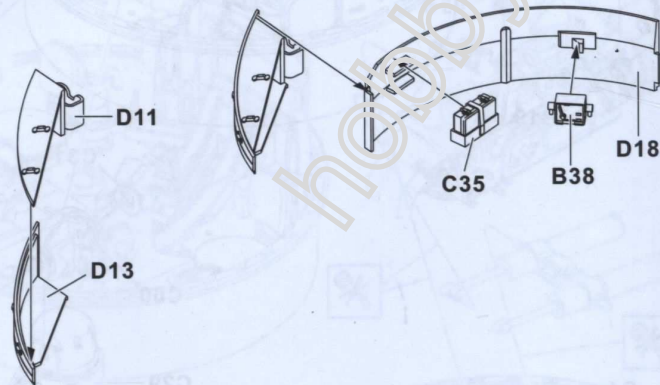
37



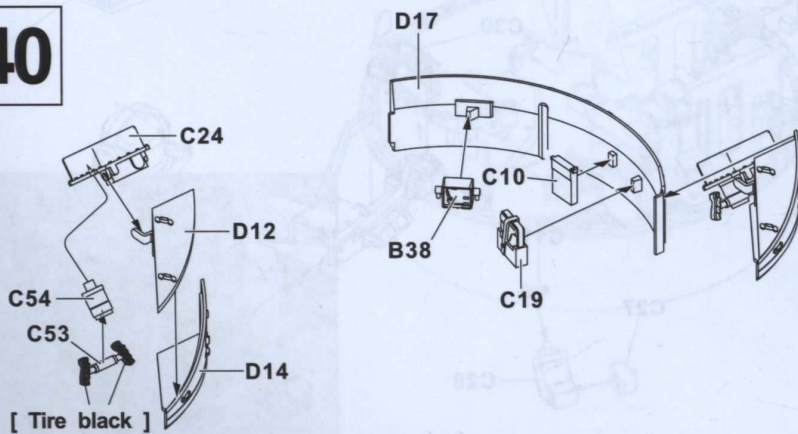
38



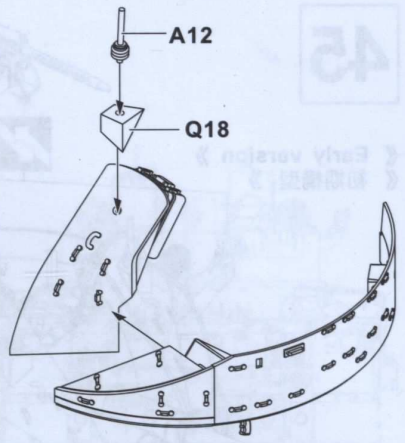
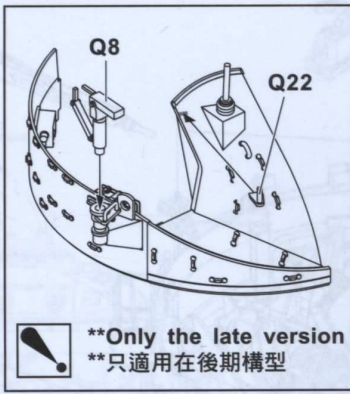
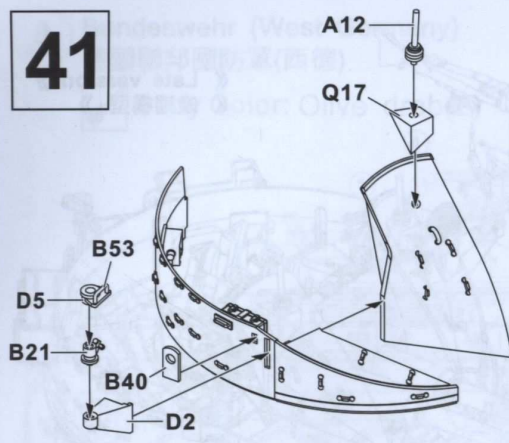
39



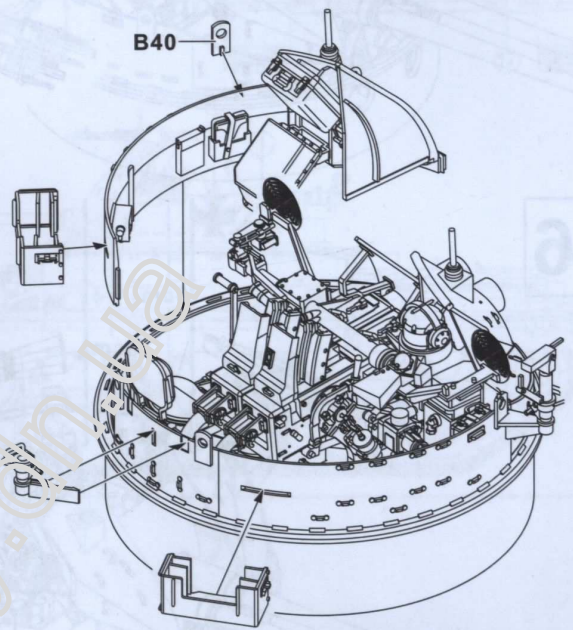
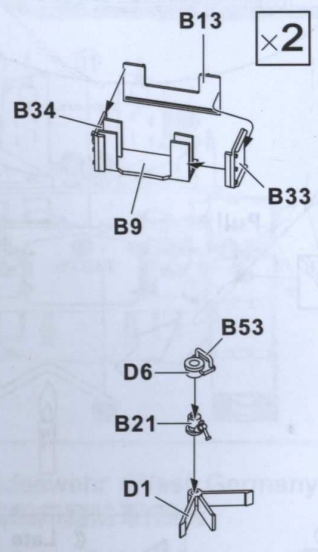
40



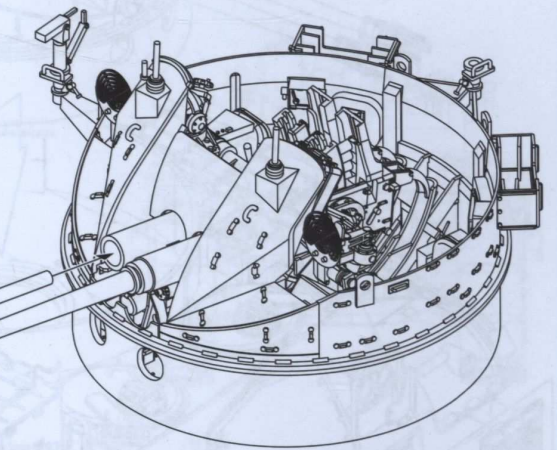
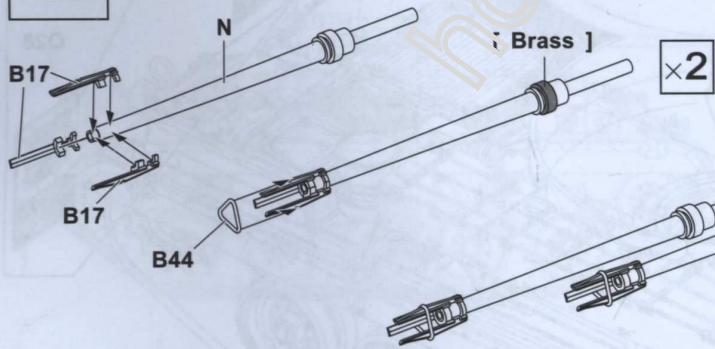
41



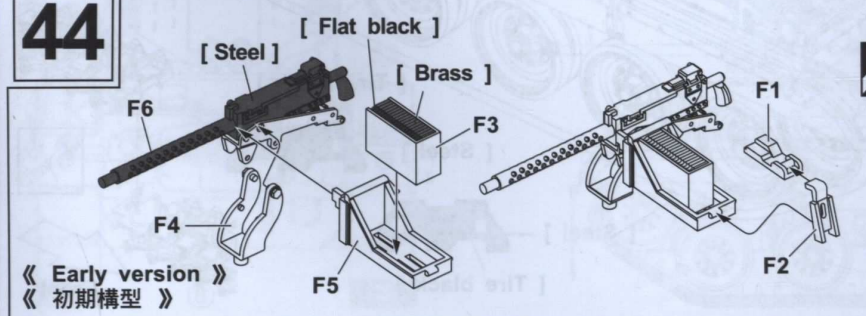
42



43



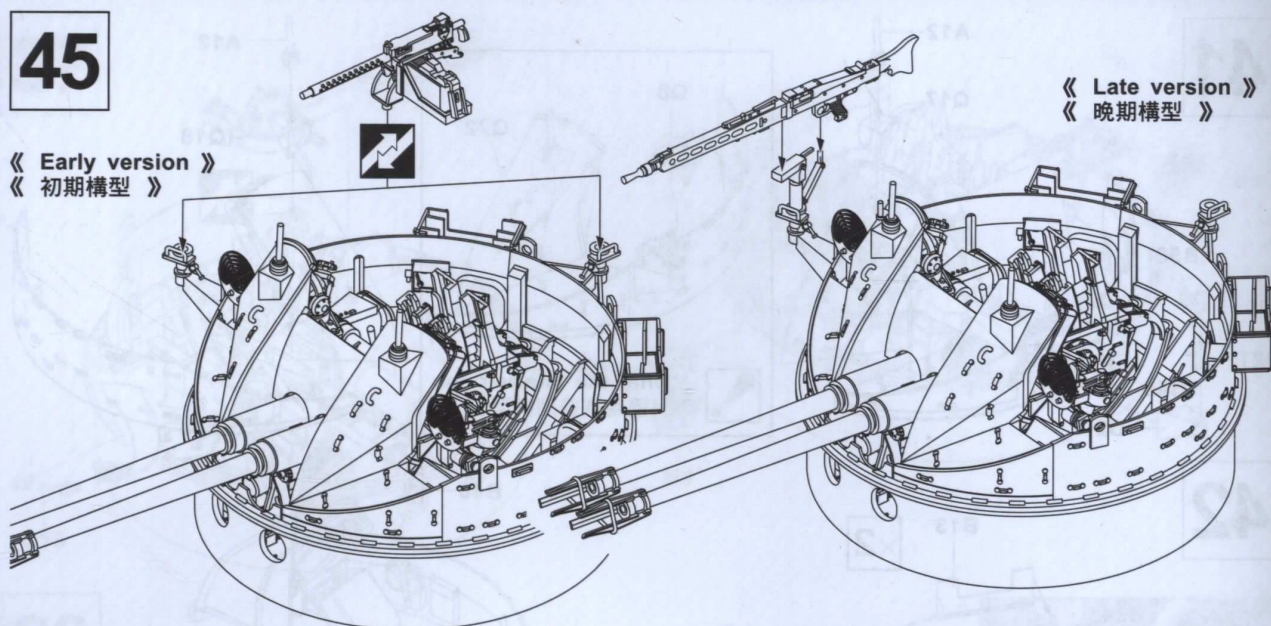
44



45

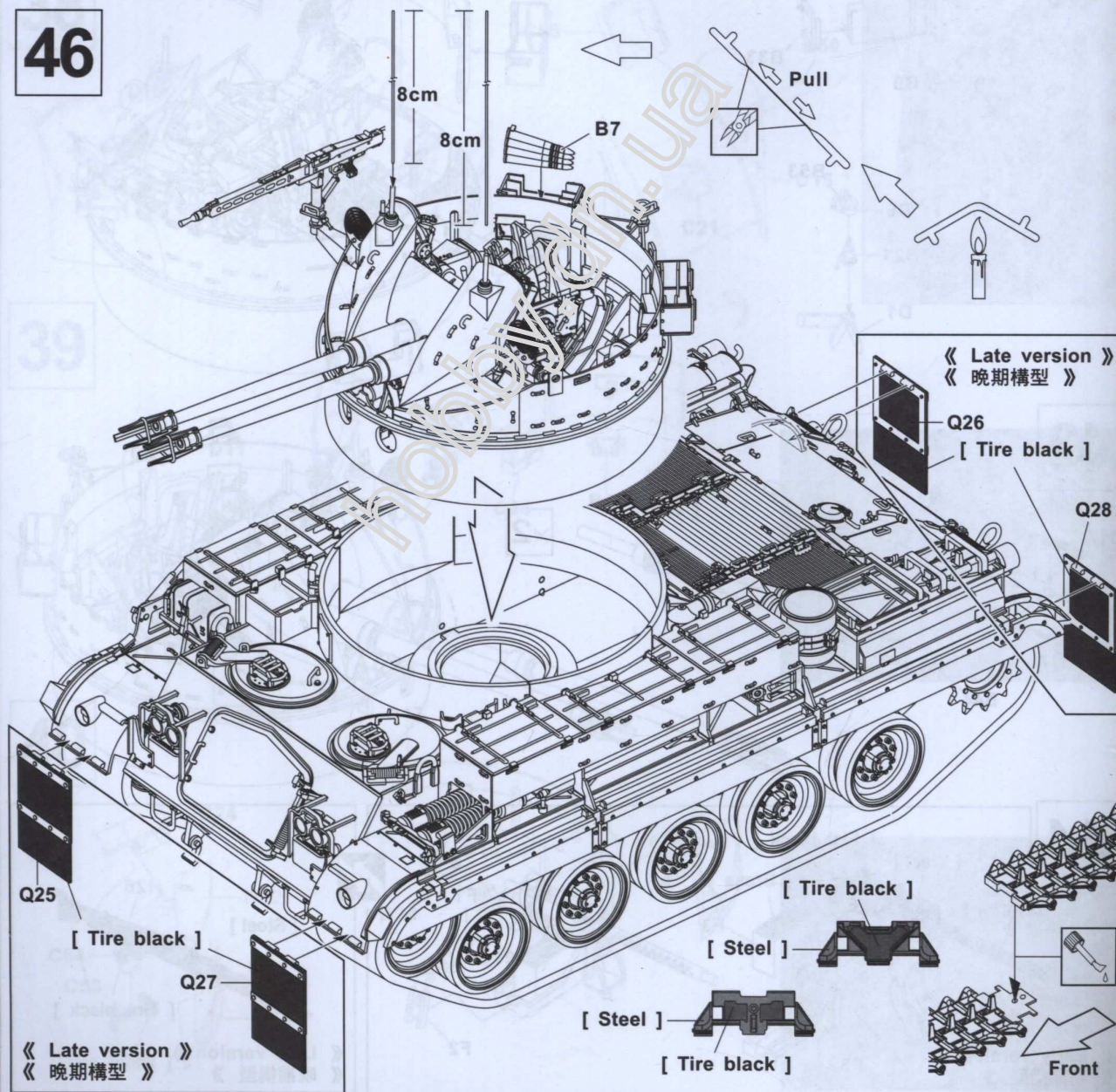
《 Early version 》  
《 初期構型 》

《 Late version 》  
《 晚期構型 》




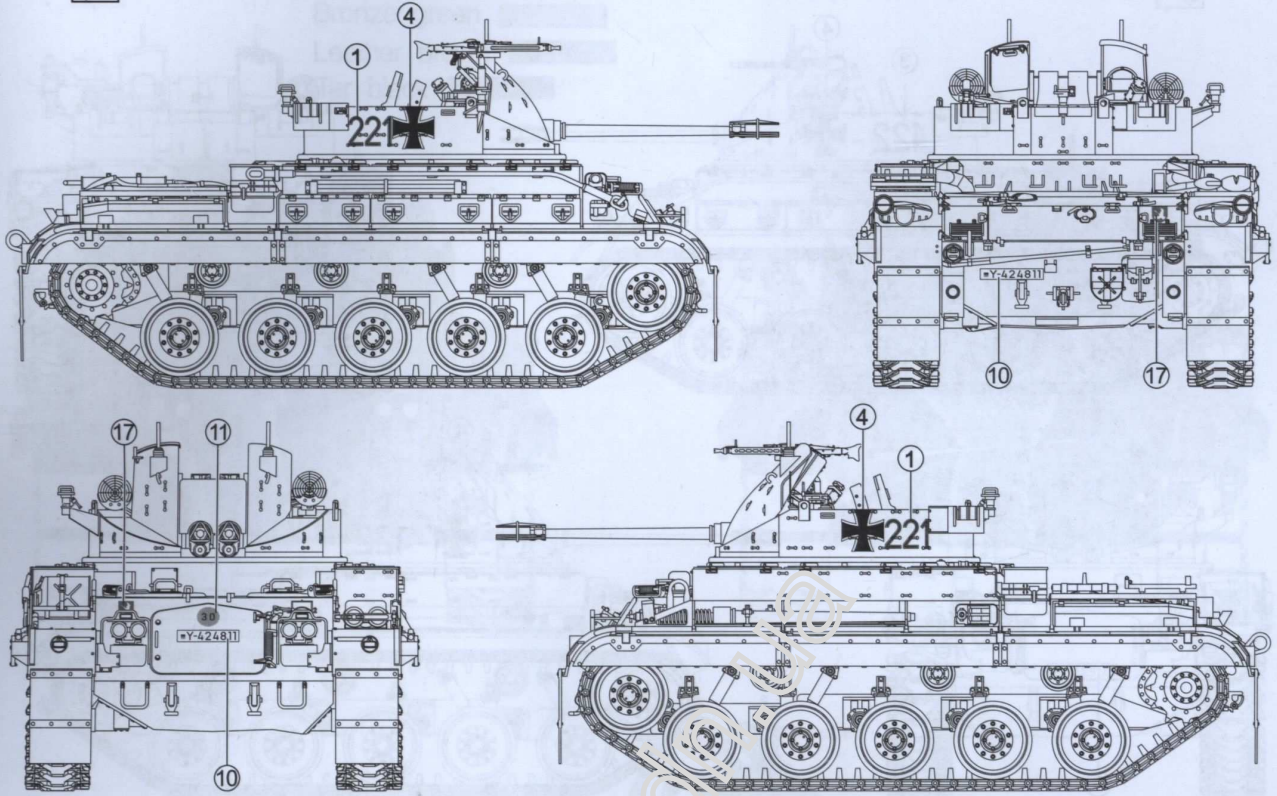
46

《 Late version 》  
《 晚期構型 》




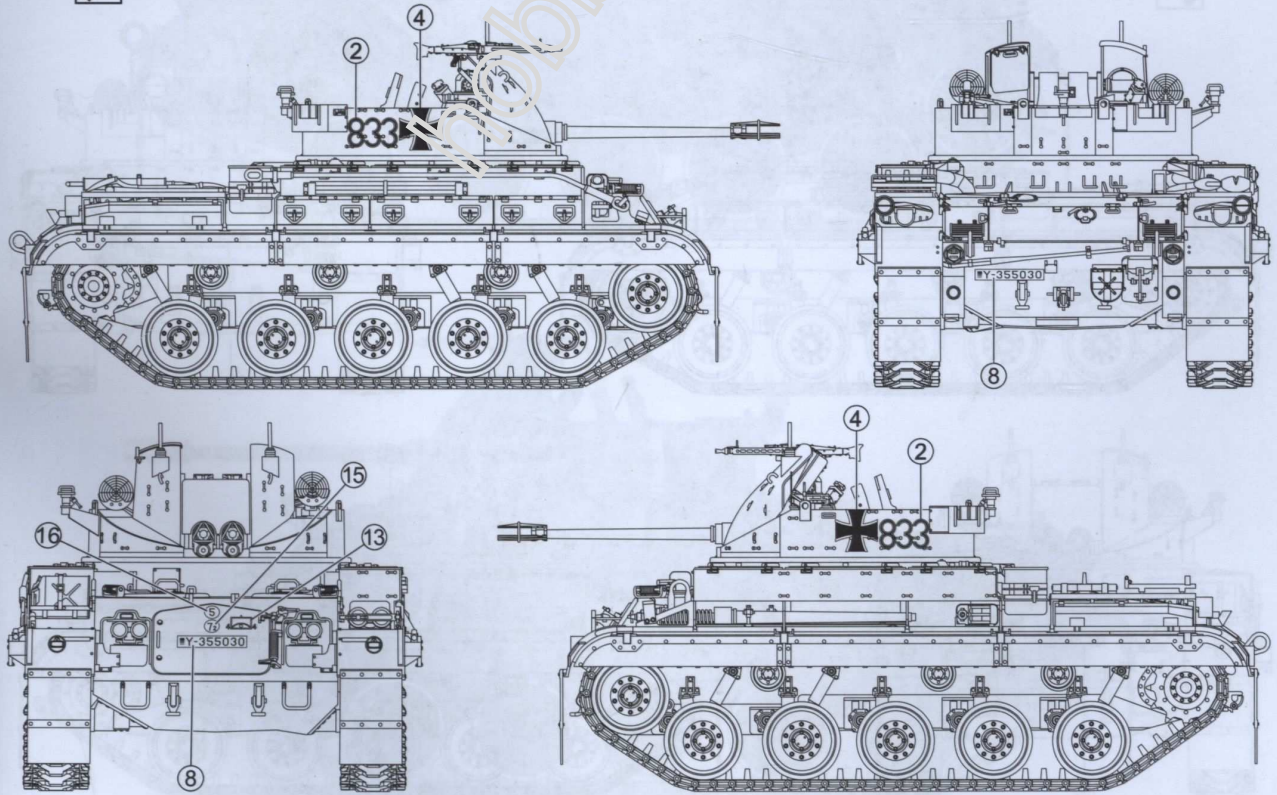
**A** Bundeswehr (West Germany)  
德國聯邦國防軍(西德)

 Body Color: Olive drab(2)




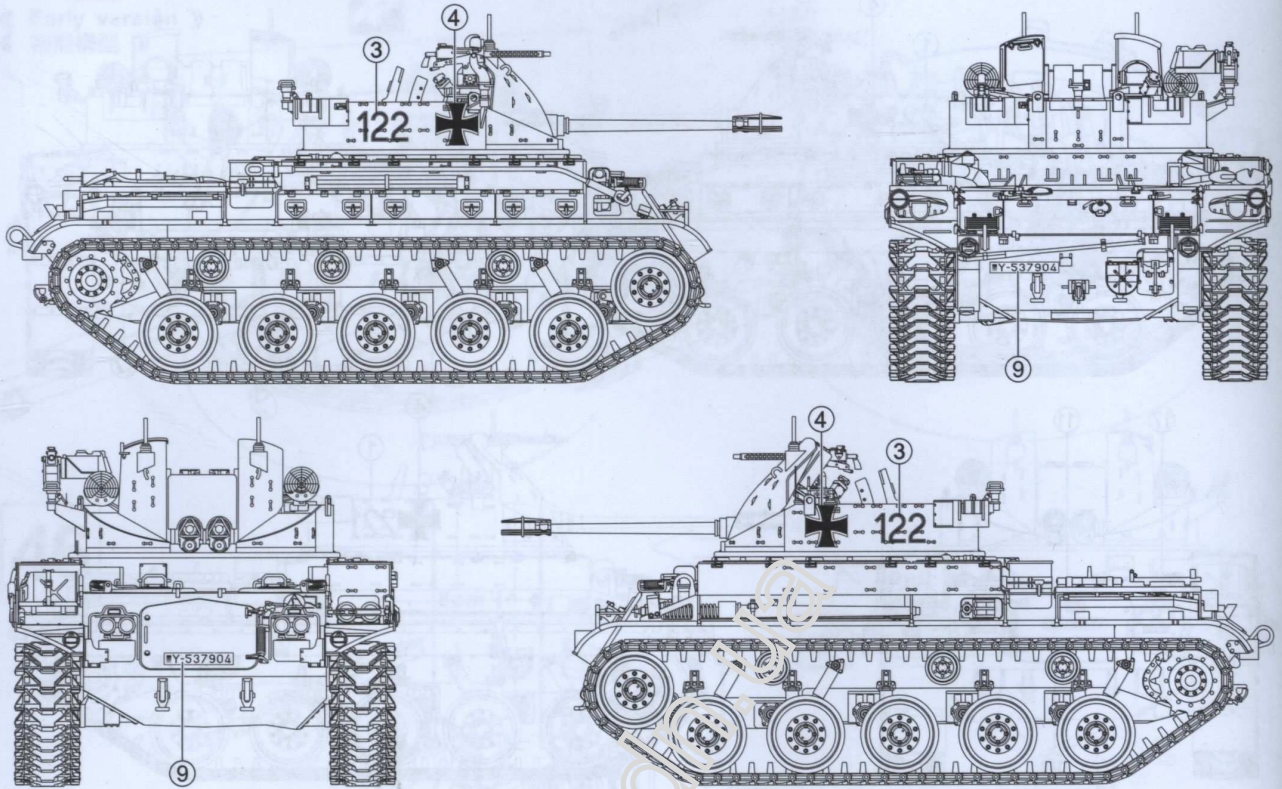
**B** Bundeswehr (West Germany)  
德國聯邦國防軍(西德)

 Body Color: Olive drab(2)




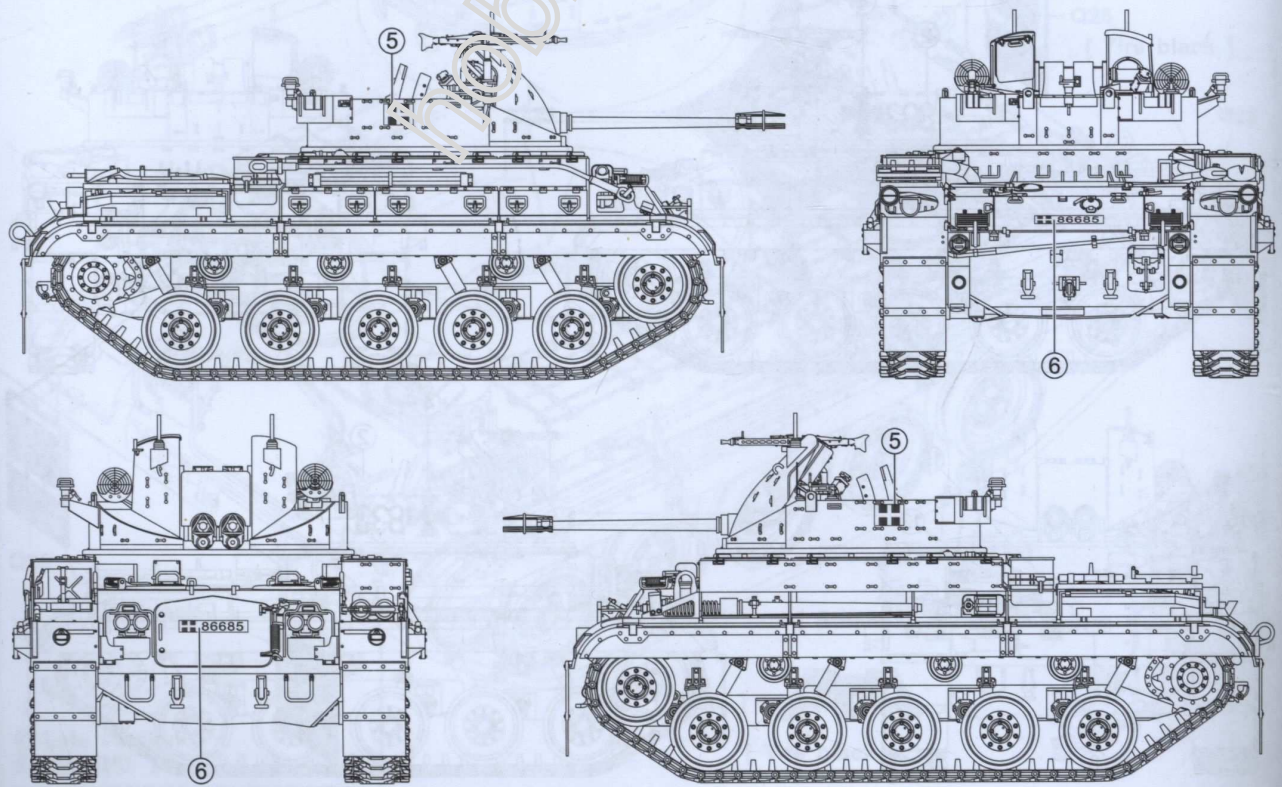
**C** Bundeswehr (West Germany)  
德國聯邦國防軍(西德)

 Body Color: Olive drab(2)


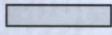
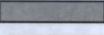




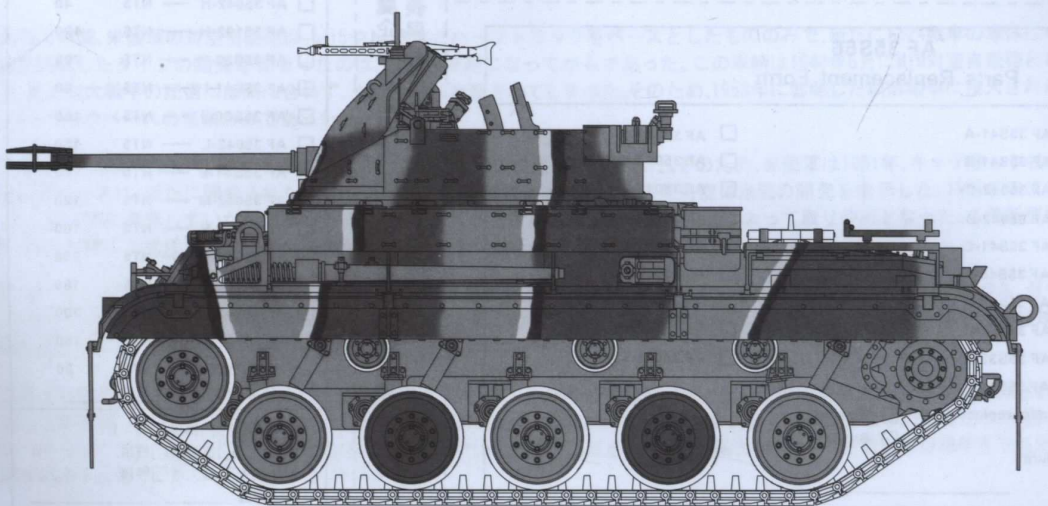
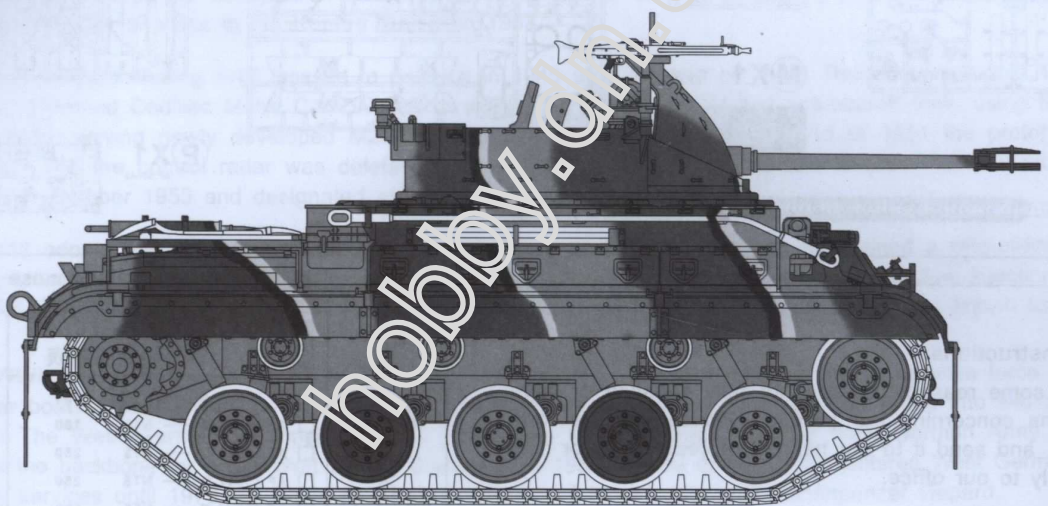
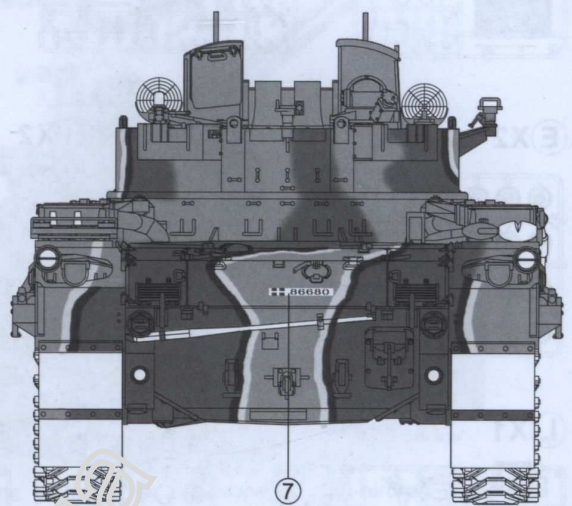
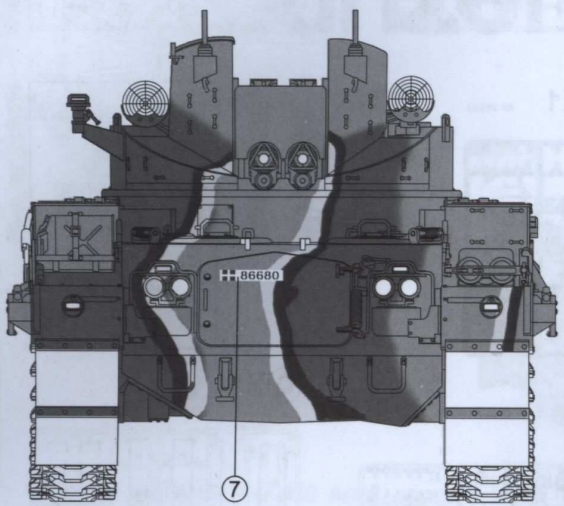
**D** Hellenic Army  
希臘陸軍

 Body Color: Bronze green

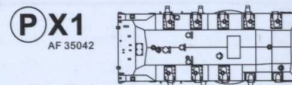
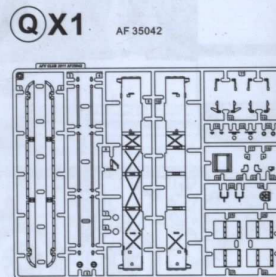
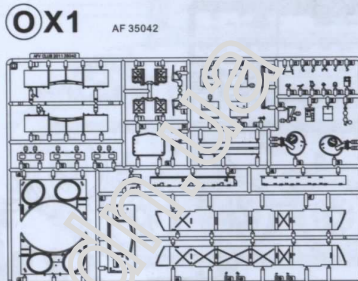
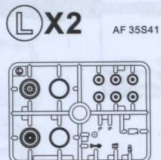
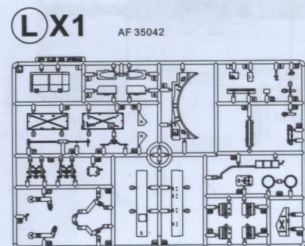
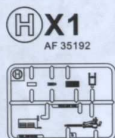
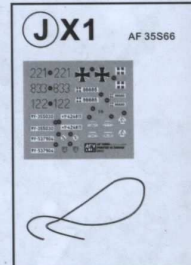
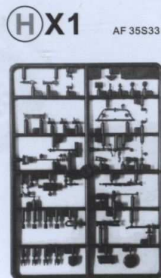
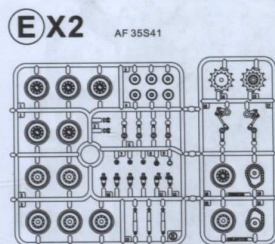
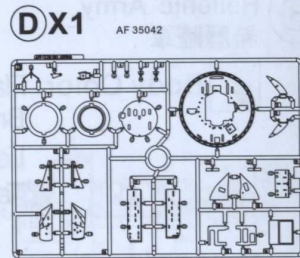
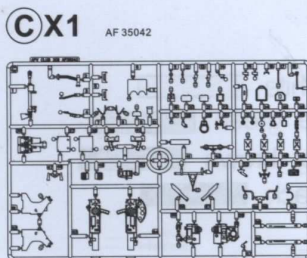
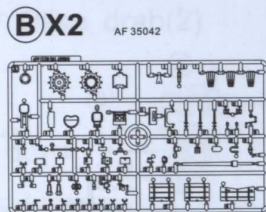
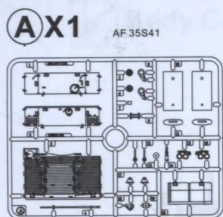


**E** Hellenic Army  
希臘陸軍

-  Body Color: Flat white 
- Bronze green 
- Leather brown 
- Tar black 



# PARTS LIST 零件表



## Instructions:

If for some reason, you are not fully satisfied or have questions concerning our product, please use the form provide, and send it to our nearest representative or mail it directly to our office.

We will deal with that A.S.A.P.



## AF 35S66 Parts Replacement Form

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> AF 35S41-A | <input type="checkbox"/> AF 35042-J |
| <input type="checkbox"/> AF 35S41-B | <input type="checkbox"/> AF 35042-K |
| <input type="checkbox"/> AF 35042-C | <input type="checkbox"/> AF 35042-L |
| <input type="checkbox"/> AF 35042-D | <input type="checkbox"/> AF 35042-M |
| <input type="checkbox"/> AF 35S41-E | <input type="checkbox"/> AF 35042-N |
| <input type="checkbox"/> AF 35S15-F | <input type="checkbox"/> AF 35042-O |
| <input type="checkbox"/> AF 35042-H | <input type="checkbox"/> AF 35042-P |
| <input type="checkbox"/> AF 35192-H | <input type="checkbox"/> AF 35042-Q |
| <input type="checkbox"/> AF 35S33-H | <input type="checkbox"/> AF 35041-T |
| <input type="checkbox"/> AF 35S41-I |                                     |

Reason for replacement:  Missing  
 Broken

Signature: \_\_\_\_\_

限臺灣地區使用 For Taiwanese use only!



## AF 35S66 零件補充申請表

申請人  
姓名 地址 電話

- |                                     |            |
|-------------------------------------|------------|
| <input type="checkbox"/> AF 35S41-A | NT\$ 160   |
| <input type="checkbox"/> AF 35042-B | NT\$ 180   |
| <input type="checkbox"/> AF 35042-C | NT\$ 250   |
| <input type="checkbox"/> AF 35042-D | NT\$ 250   |
| <input type="checkbox"/> AF 35S41-E | NT\$ 200   |
| <input type="checkbox"/> AF 35S15-F | NT\$ 80    |
| <input type="checkbox"/> AF 35042-H | NT\$ 40    |
| <input type="checkbox"/> AF 35192-H | NT\$ 120   |
| <input type="checkbox"/> AF 35S33-H | NT\$ 200   |
| <input type="checkbox"/> AF 35S41-I | NT\$ 80    |
| <input type="checkbox"/> AF 35S66-J | NT\$ 160   |
| <input type="checkbox"/> AF 35042-L | NT\$ 180   |
| <input type="checkbox"/> AF 35S41-L | NT\$ 120   |
| <input type="checkbox"/> AF 35042-M | NT\$ 120   |
| <input type="checkbox"/> AF 35042-N | NT\$ 160   |
| <input type="checkbox"/> AF 35042-O | NT\$ 280   |
| <input type="checkbox"/> AF 35042-P | NT\$ 180   |
| <input type="checkbox"/> AF 35042-Q | NT\$ 200   |
| <input type="checkbox"/> AF 35041-T | NT\$ 160   |
| +郵寄費                                | NT\$ 80    |
| (請填)總計                              | NT\$ _____ |

零件補充原因:(請於  打 )  
原包裝即  遺失或  毀損,  
製作途中  遺失或  毀損,  
其他原因 \_\_\_\_\_

總代理 戰鷹企業 客服部 收本公司將儘速為您處理。  
請將本表與該部品相同金額之郵政匯票一同寄至。