



# Sd.Kfz.251/20 Ausf.D "UHU"



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In later part of WWII, especially after D-Day, the Allied owned overwhelming air superiority, resulting destructive loss to the German ground troops, and making them difficult to maneuver in daylight. As a result, the German Army had to develop night vision equipment to enable the troop to maneuver at night.

Although infrared night vision equipment projects started in 30s, however development was discontinued due to unsatisfied quality in initial stages. The first infrared search light and BIWA (Bildwandler - image converter), which converted the infrared image into a visible reproduction, unit was mounted unto V Tank in 1943. Nevertheless, its efficiency range was only 500 meters. To take the advantage of Panzer's KwK42 75mm/L70 main gun, the Germany Army mounted a large infrared search light onto the Sd.Kfz.251 half track vehicle, resulting Sd.Kfz.251/20 "Uhu", to assist the tank.

The infrared search light was converted from a 60mm anti-aircraft search light, and its efficiency range was up to 1500 m. The projector was able to rotate 360 degrees, and can be folded into the vehicle when moving.

The Sd.Kfz.251/20 'Uhu' had a crew of 4. Usually the Uhu used the FuG5 radio unit equipped in the vehicle to command night vision enabled V Tanks, and operated with the Sd.Kfz.251/1 'Falke', which also had night vision capability. An order of 600 "Uhu" was issued on August 1944. However there were only around 60 of them saw in action by the end of the war.

第二次世界大戦の後期、特にノルマンディ上陸作戦以降になると、制空権は完全に連合軍に握られてしまい、ドイツ地上軍は甚大な損害を被るとともに、日中の行動が困難となってしまった。そのためドイツ陸軍は、夜間の行動を可能にする暗視装置の開発の必要に迫られる事となる。

赤外線暗視装置の開発計画は、1930年代に始まっていたものの、初期の段階から満足な結果が得られなかったために開発は中断されていた。最初の赤外線投射器と受像機は、1943年にV号戦車に搭載されたが、その有効距離は500mに過ぎなかった。V号戦車の70口径75mm砲を優位に活用するため、大型の赤外線投射器をSd. Kfz. 251半装軌車輛に搭載してV号戦車の活動を助ける、Sd. Kfz. 251/20「ウーファー(梟)」が開発されることとなったのである。

この大型赤外線暗視投射器は、60cmの対空探照灯を改造して作られ、有効距離は1500mに引きあげられていた。投射器は360度の周囲に向けることが可能で、移動時には基部を折りたたんで車輛に収容された。

Sd. Kfz.251/20「ウーファー」は、4名の乗員で操作され、戦車に射撃の指示を行うためにFuG5無線機が装備され、同じく暗視装置を装備したSd. Kfz. 251/1「ファルケ(鷹)」とともに運用されることとなっていた。1944年8月には、600輛の「ウーファー」の生産指示が出されたが、終戦までにおよそ60輛が生産されるにとどまった。

盟軍在西歐開闢第二戰場後,密集的空中攻擊讓德軍地面部隊蒙受重大打擊,德軍在白晝時部隊的行動與作戰益發顯得困難,因此夜間行動成為當時不得不然的選擇,夜視裝備頓時成為前線急需的資材。

雖然早在1930年代德國就已經著手在紅外線夜視設備的開發,但最初的品質未達要求許多研究計畫也因此暫緩,1943年起嘗試在V號戰車上配備紅外線探照燈與影像接收裝置,但由於探照燈的有效距離僅約500公尺,為了充分發揮戰車的射程,於是在Sd.Kfz.251半履帶運輸車後方的圓形基座上加裝了紅外探照燈,成為紅外線投光車"夜梟"(UHU Sd.Kfz.251/20),以做為戰車的輔助,紅外線探照燈是以60釐米防空探照燈進行改裝的,改裝後紅外線的有效投射距離提高到1500公尺,投光器在車內能夠做360度的旋轉,車輛行進時還能夠將投光器摺疊收納進車內。

"夜梟"的乘員共有4人,通常由一輛"夜梟"藉由車內的FuG 5型無線電指揮5輛具夜戰能力的V號戰車,及同樣具夜視能力的運兵型Sd.Kfz.251/1 "鷹"(Falke)一齊行動。1944年的8月獲得了600輛"夜梟"的生產命令,最終總產量卻僅達約60輛的程度,在大戰結束之前投入了實戰。

### 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 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. 將貼紙剪下泡入清水中約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擦拭水份
6. 待其自然乾燥後即完成

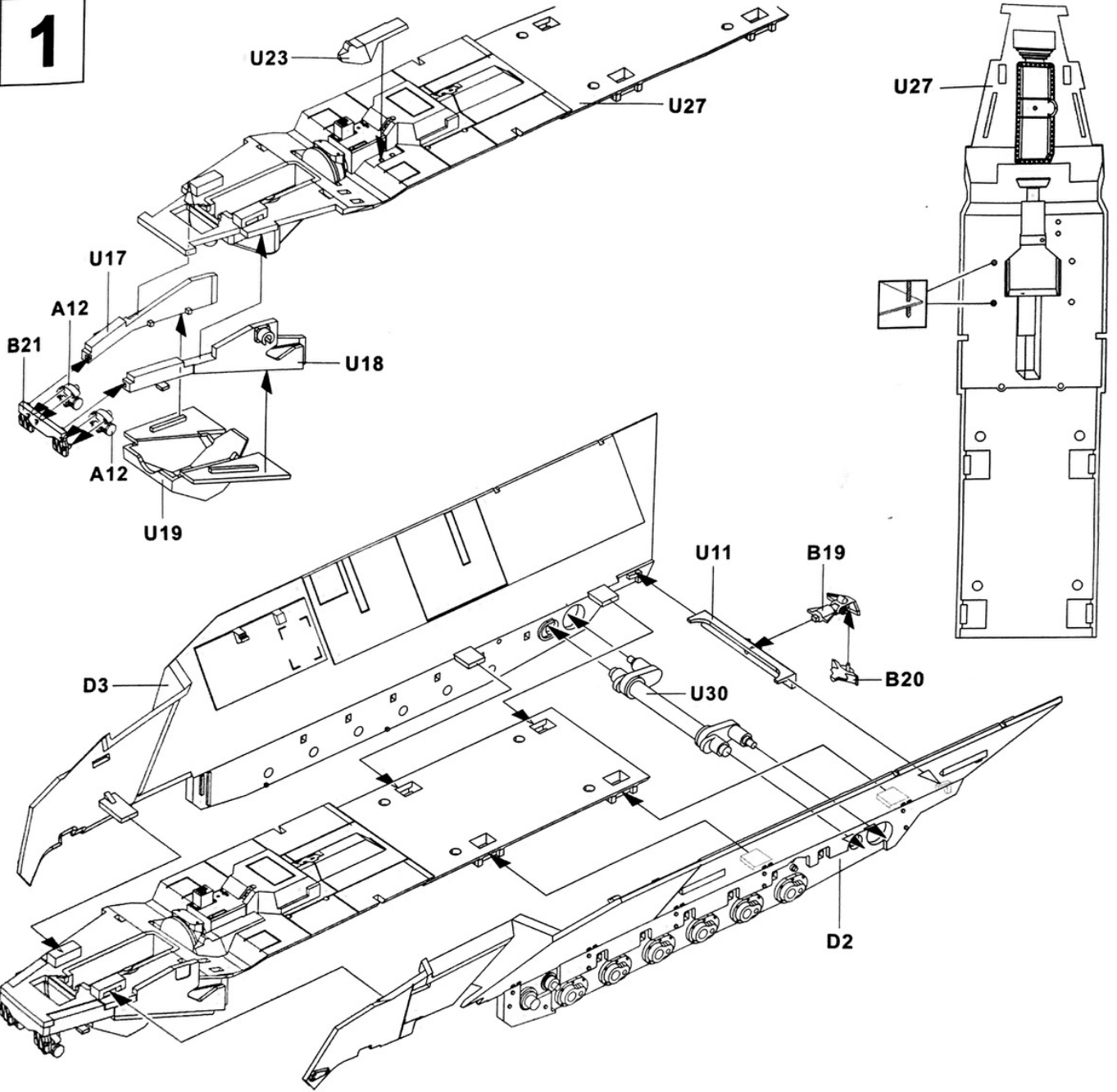
### Color list: 塗料表

Color	Brand	GSI Creos (Gunze Sangyo)			Humbrol	Revell	Life Color
		Hobby Color	Mr. Color	Mr. Color Spray			
Wood brown	木棕	H-37	C-43	J-43	34	05	UA085/ UA125
Dark green	深綠	H-36/H-405	C-70	J-70	149	363	UA083
Dark yellow	深黃	H-79	C-39	J-39	83	16	UA081
Steel	黑鐵	H-18	C-28	J-28	53	91	LC76
Tire black	輪胎黑	H-77	C-137		85	302	LC02
Red brown	紅褐	H-47	C-41	J-44	160	383	UA082
Metallic green	亮綠	H-89	C-77	J-77	131	364	
Red	紅	H-3	C-3	J-3	19	31	LC56
Flat white	消光白	H-11	C-62	J-62	34	05	LC01
RLM02 Gray	灰	H-70	C-60		92	79	UA071
Aluminium	鋁		C-218		27001-6	99	

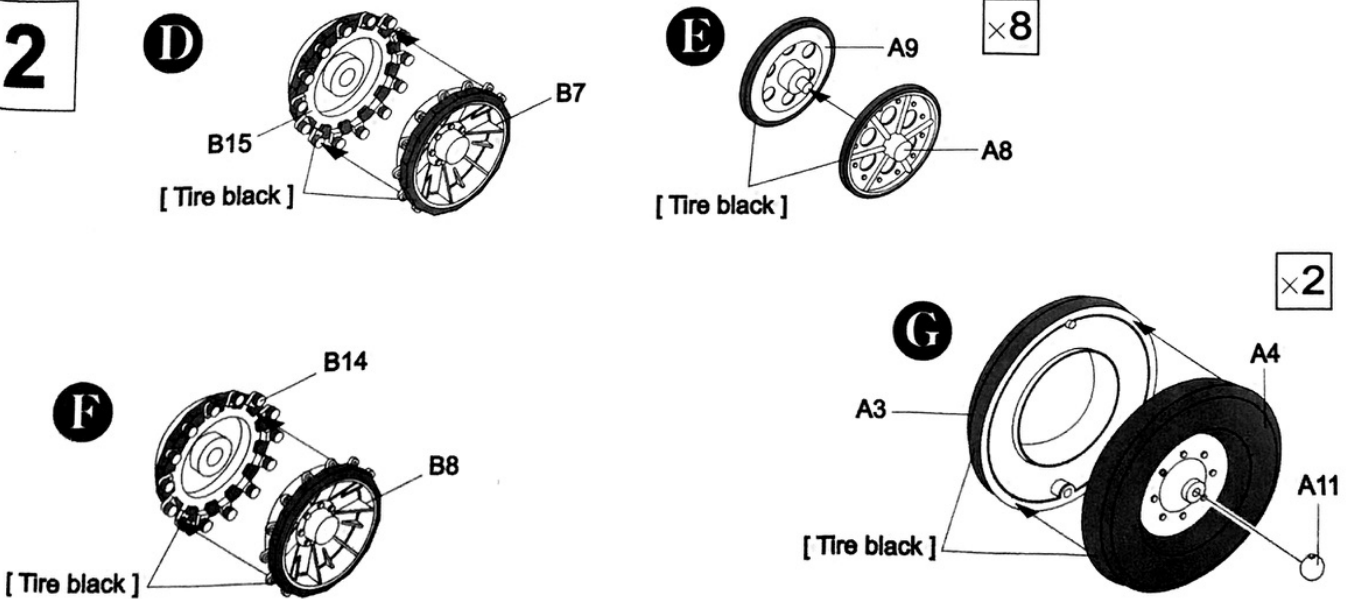
### AFV CLUB Sd.Kfz.251 track set (workable)

	Early-modle AF 35044		Late-modle AF 35069		Latest-modle (Steel type) AF 35070		Latest-modle (Rubber type) AF 35081
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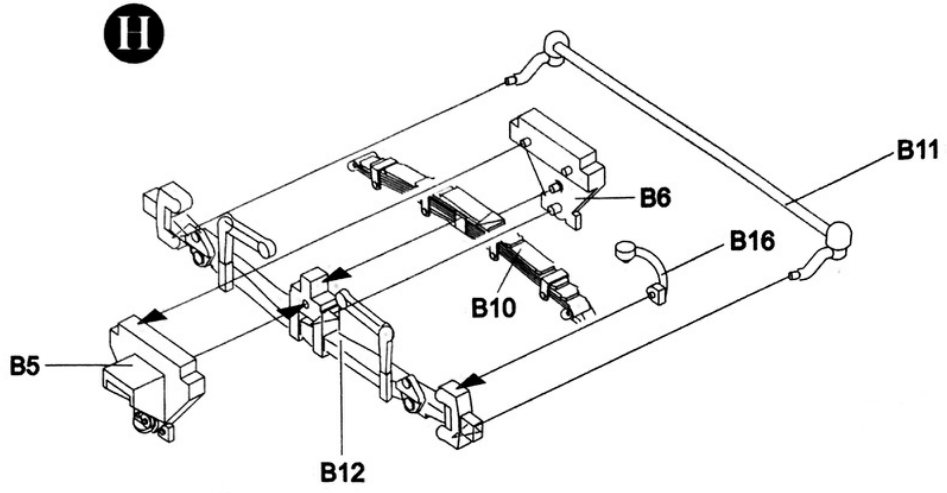
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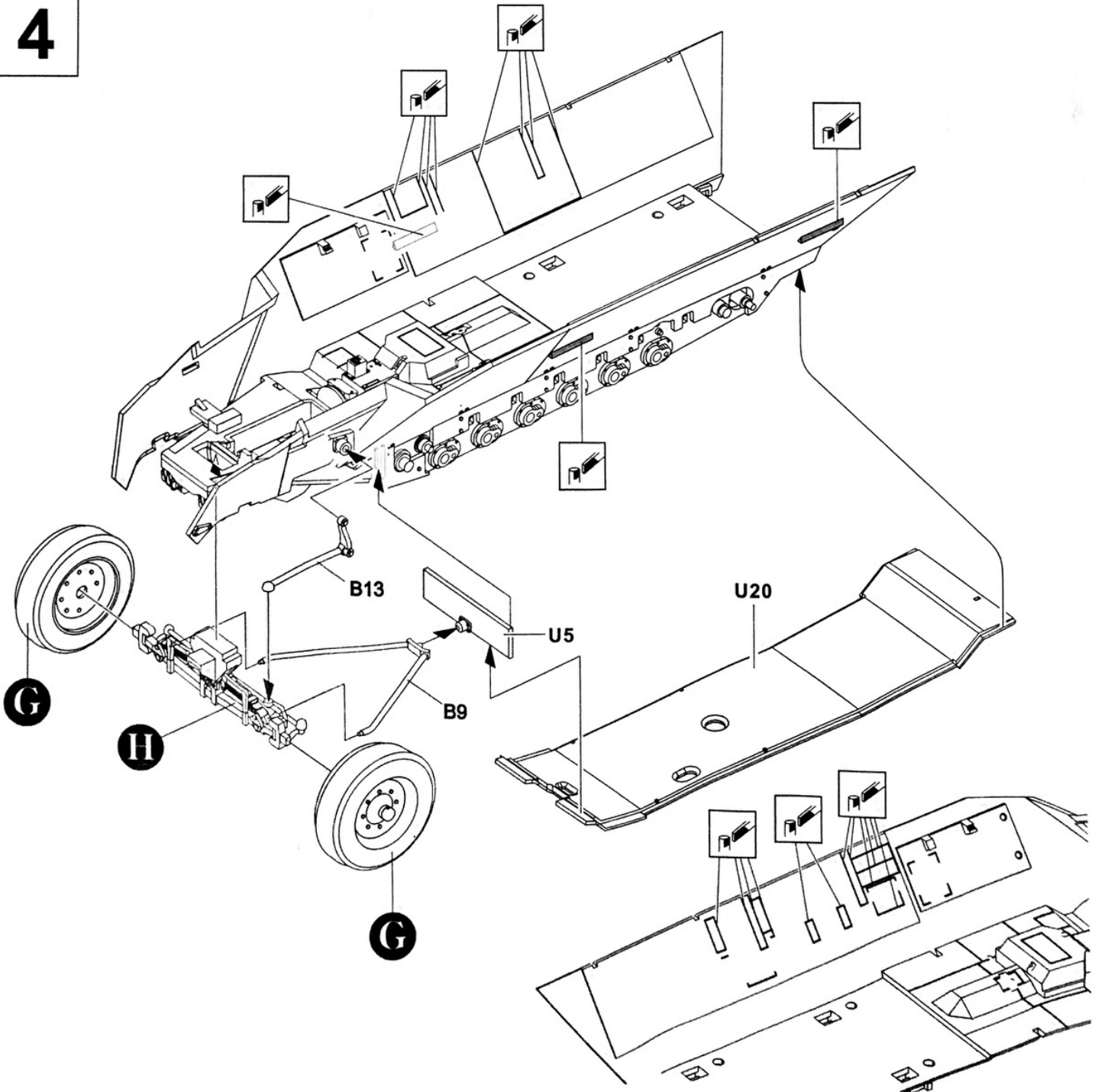
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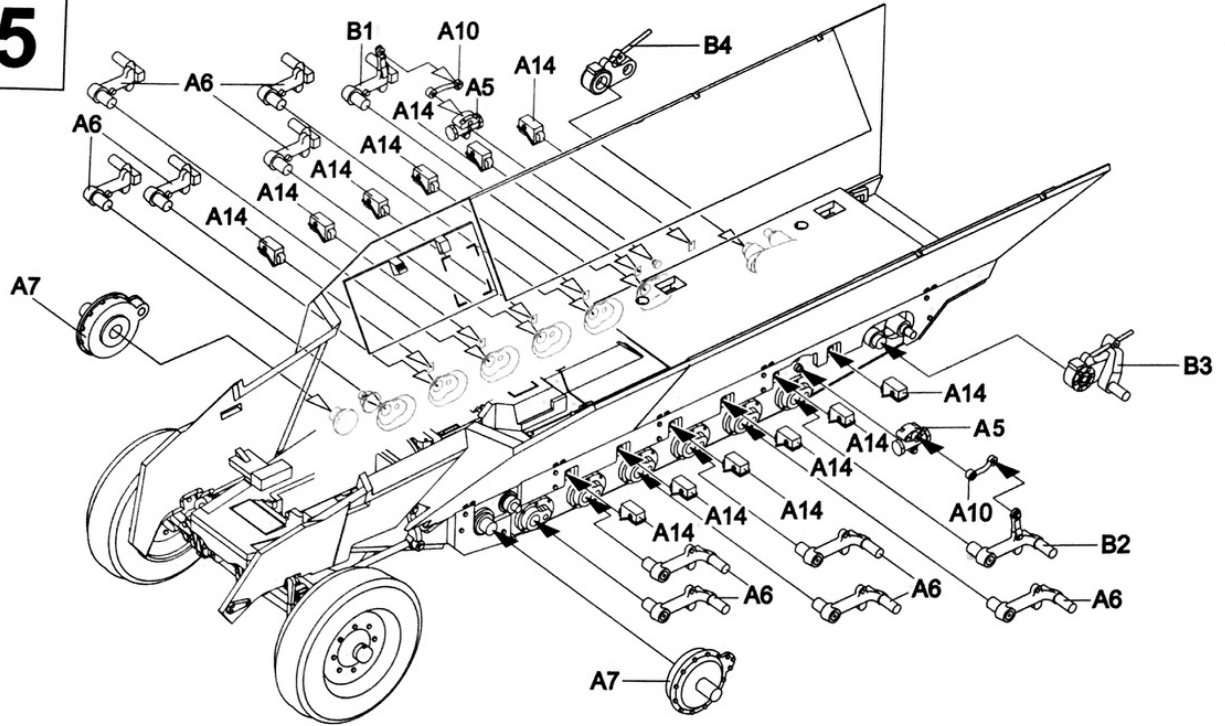
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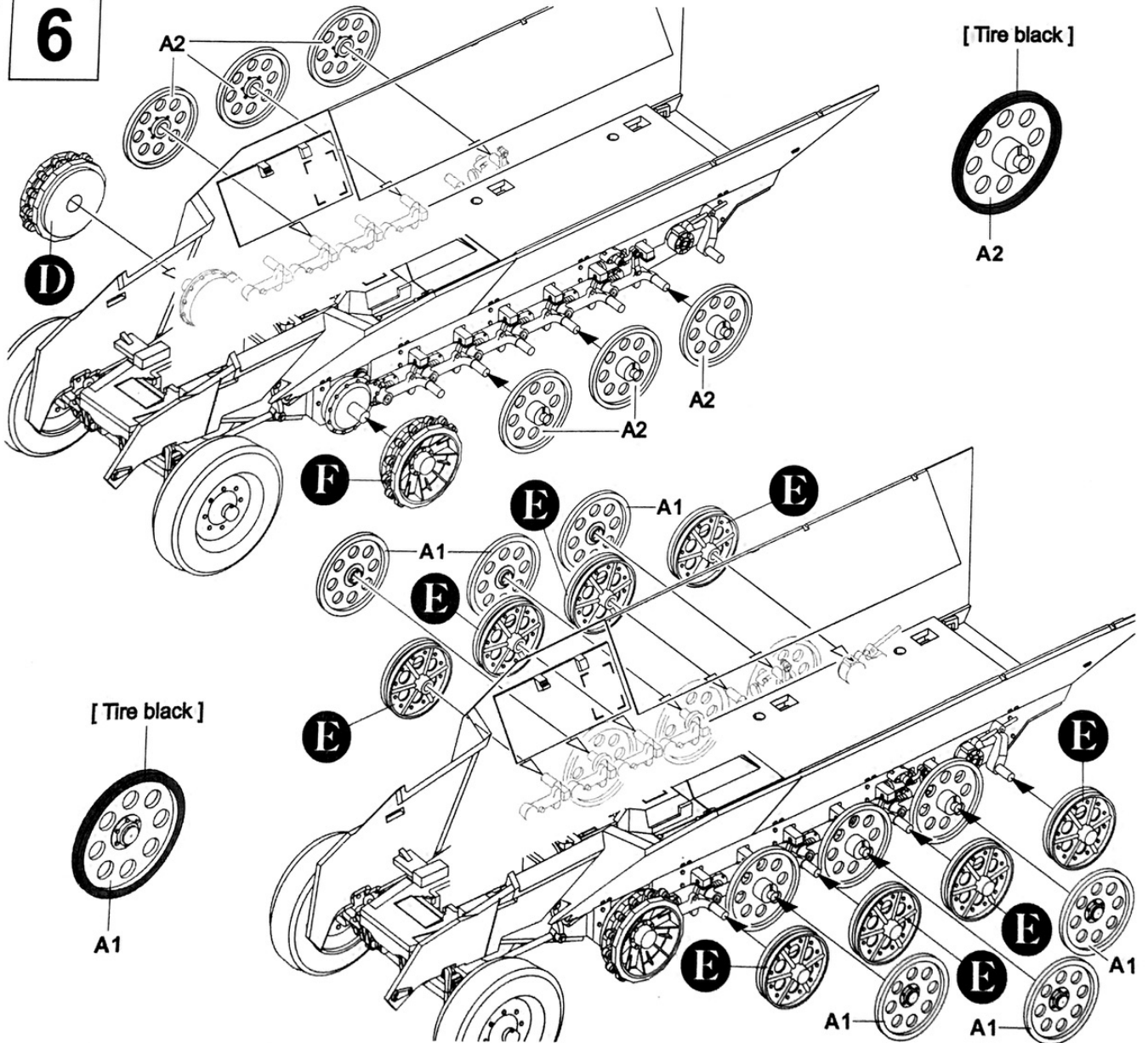
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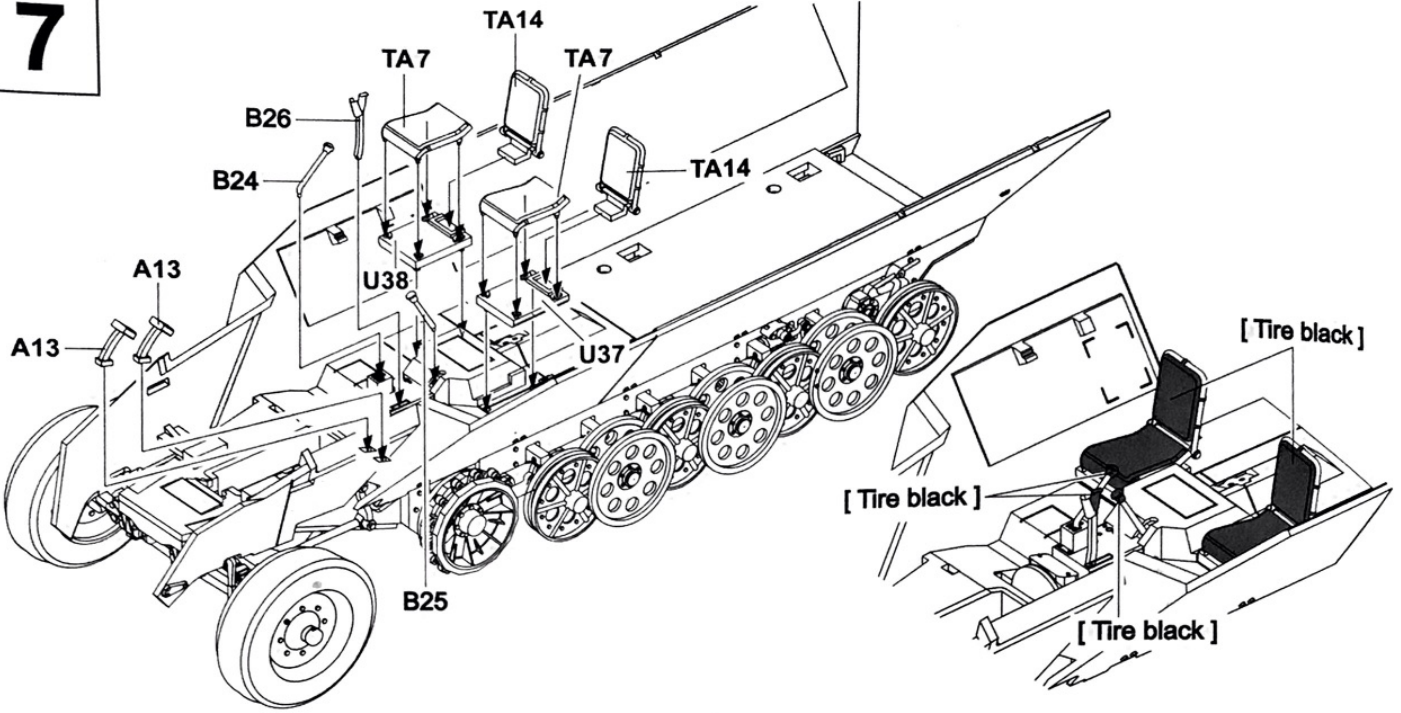
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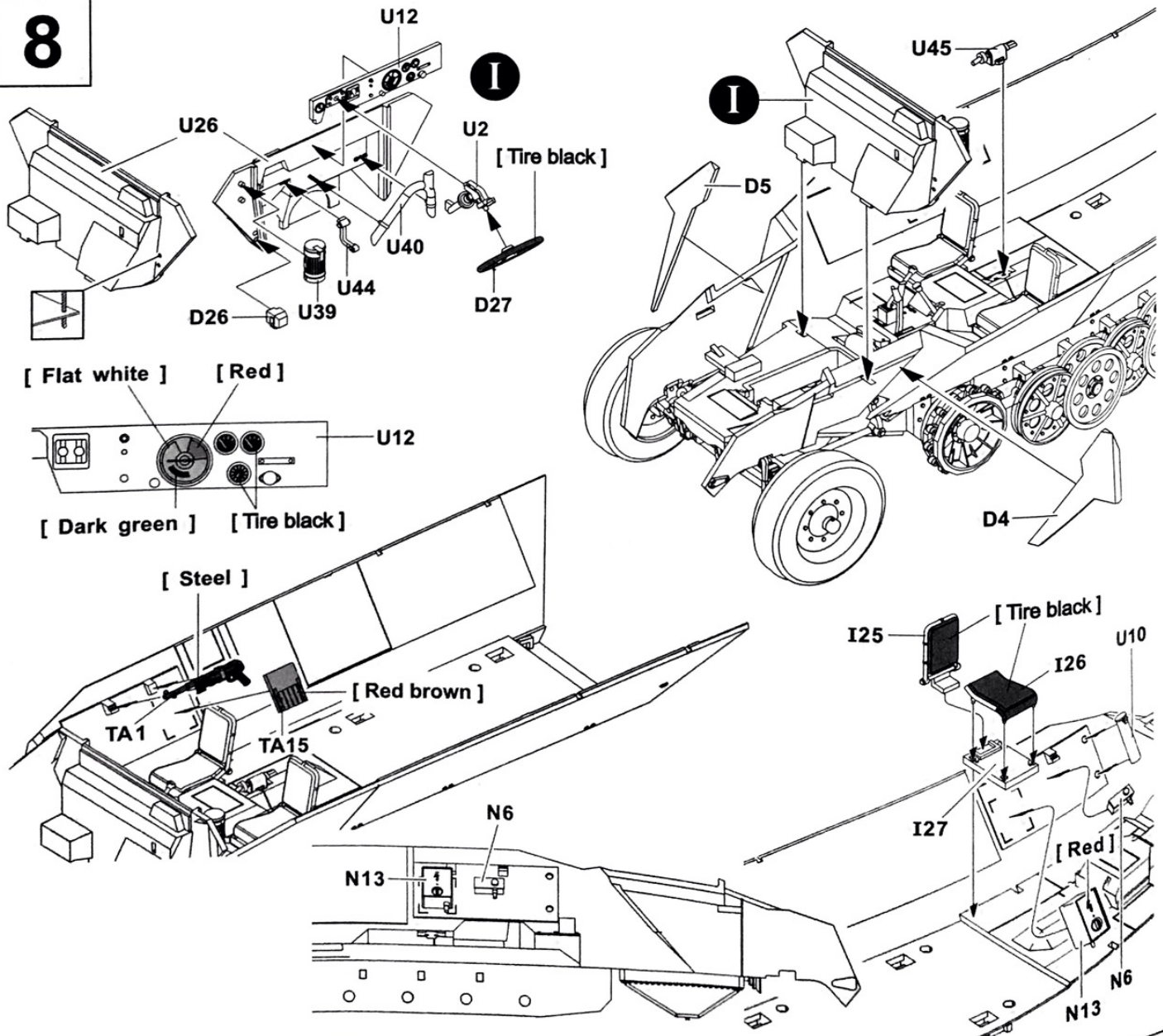
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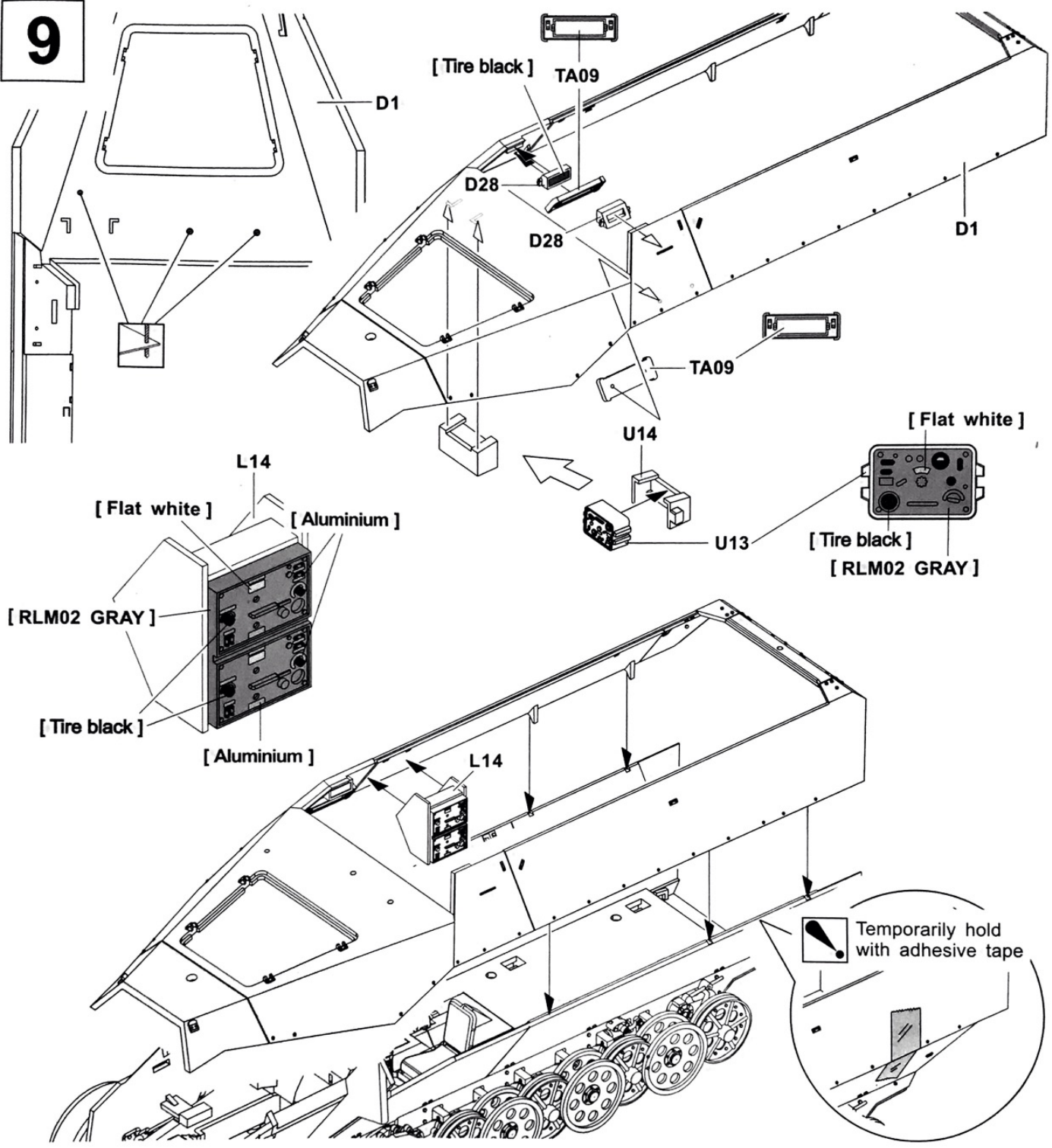
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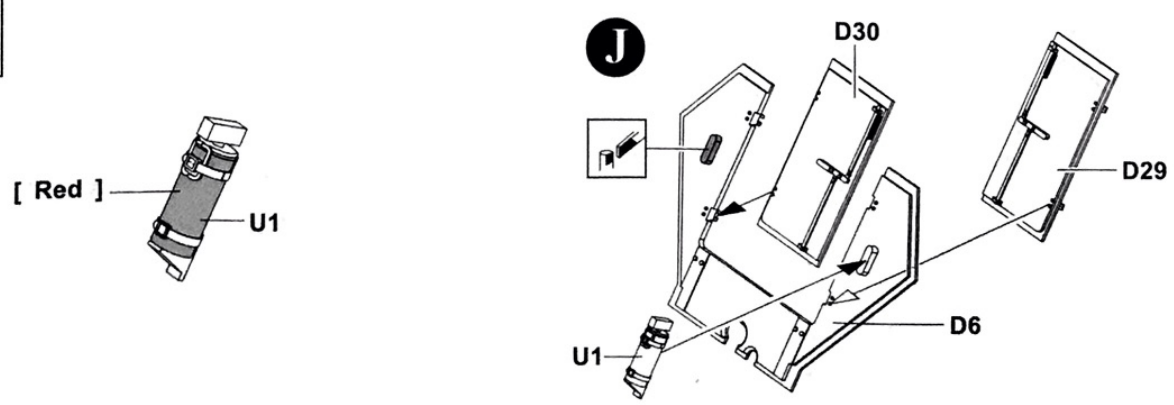
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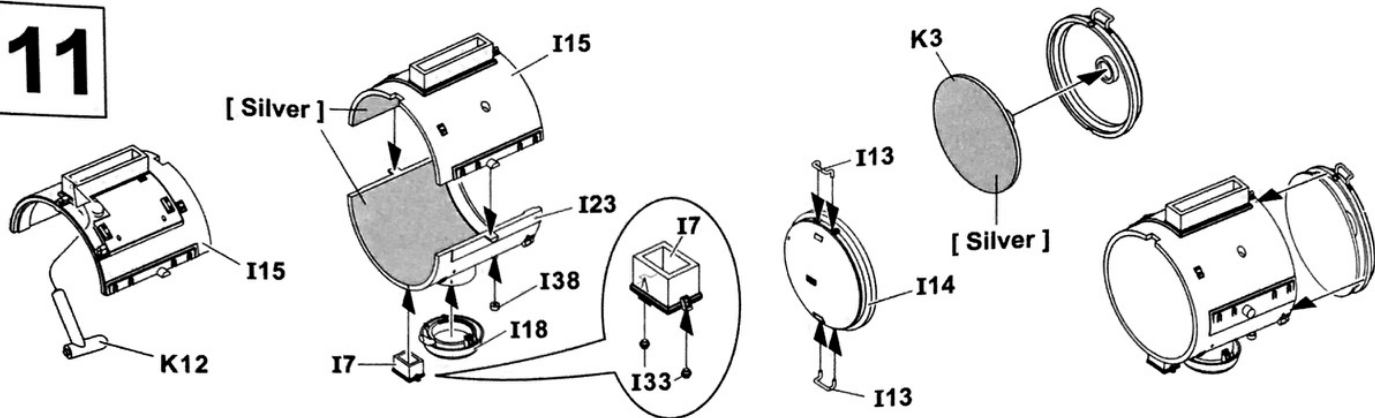
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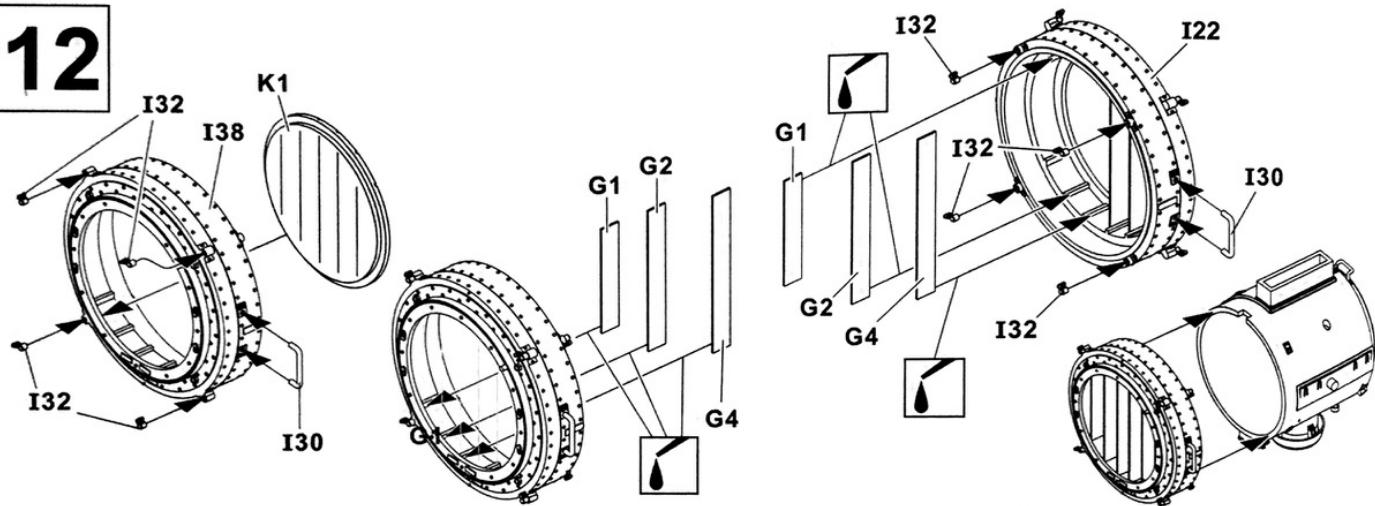
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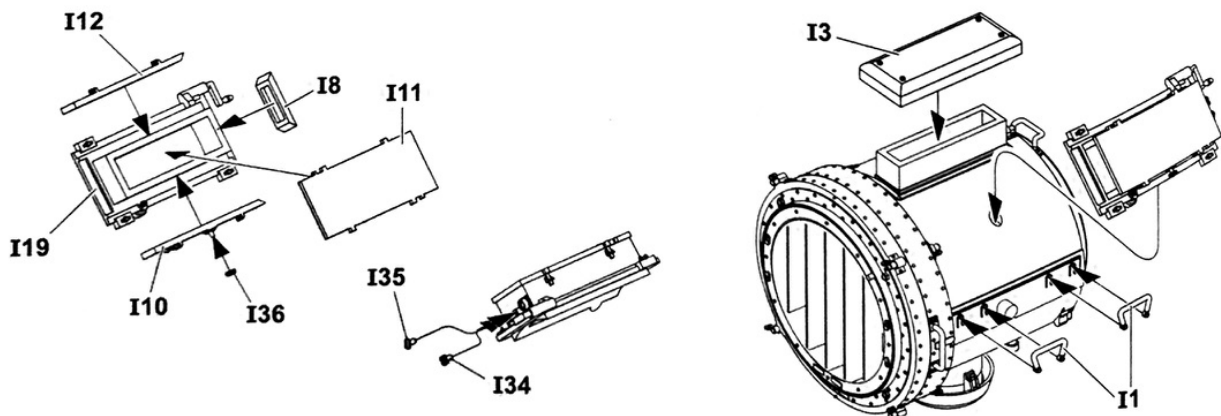
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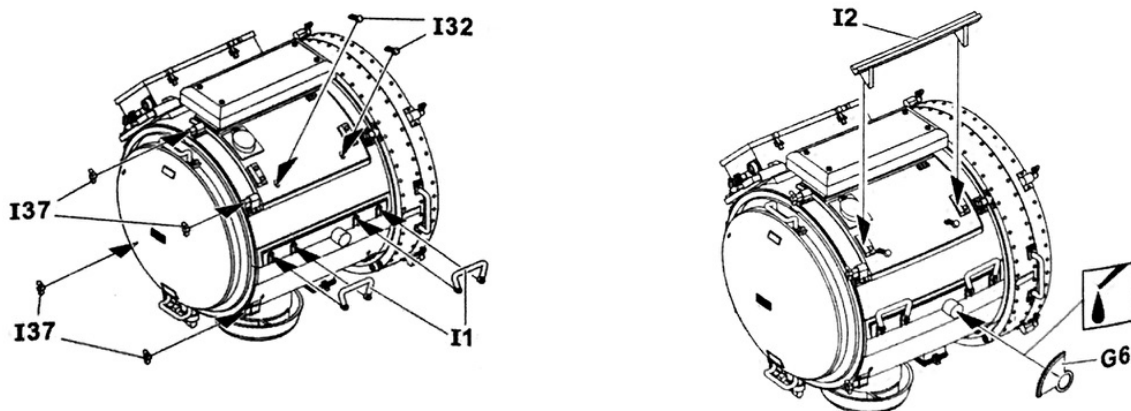
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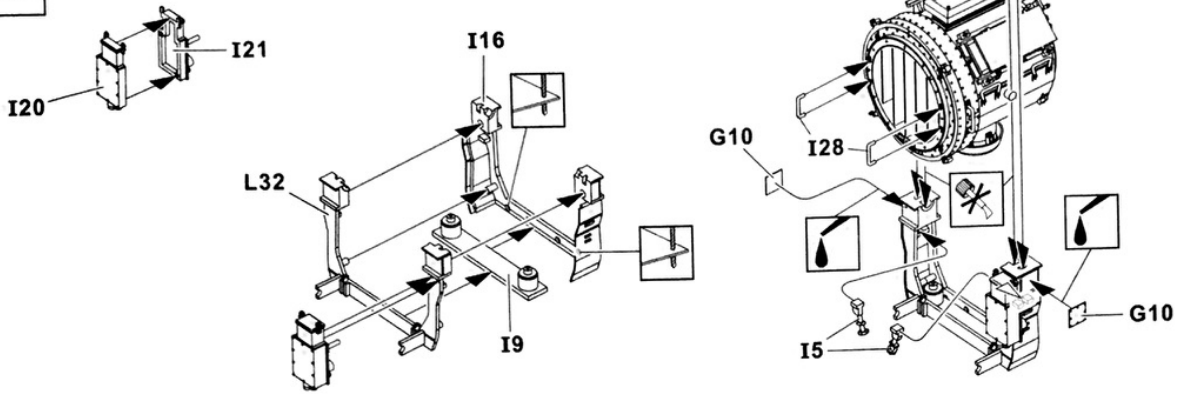


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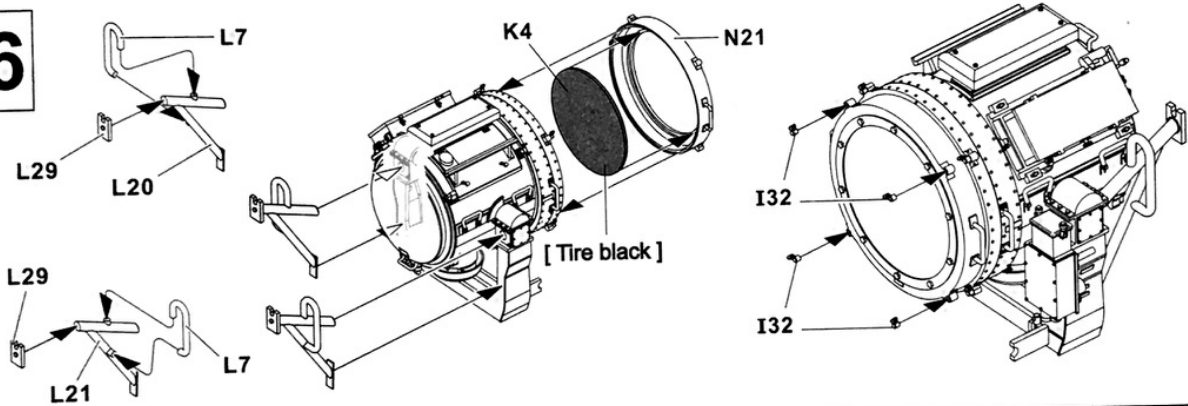




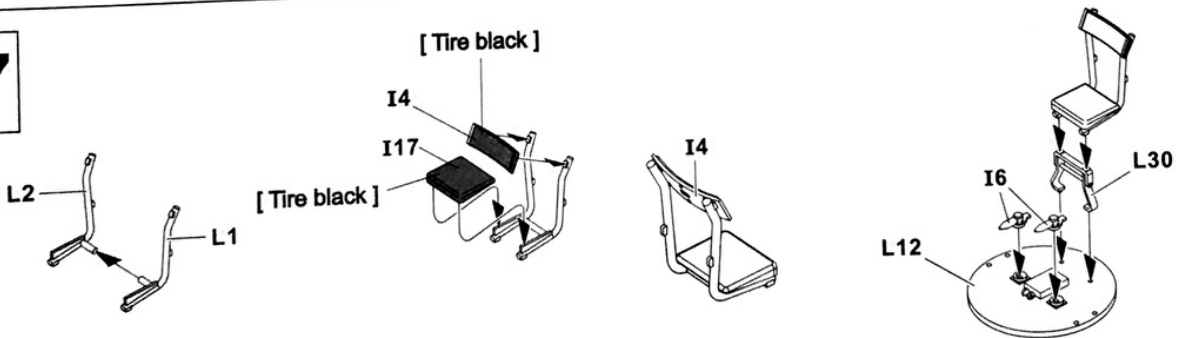
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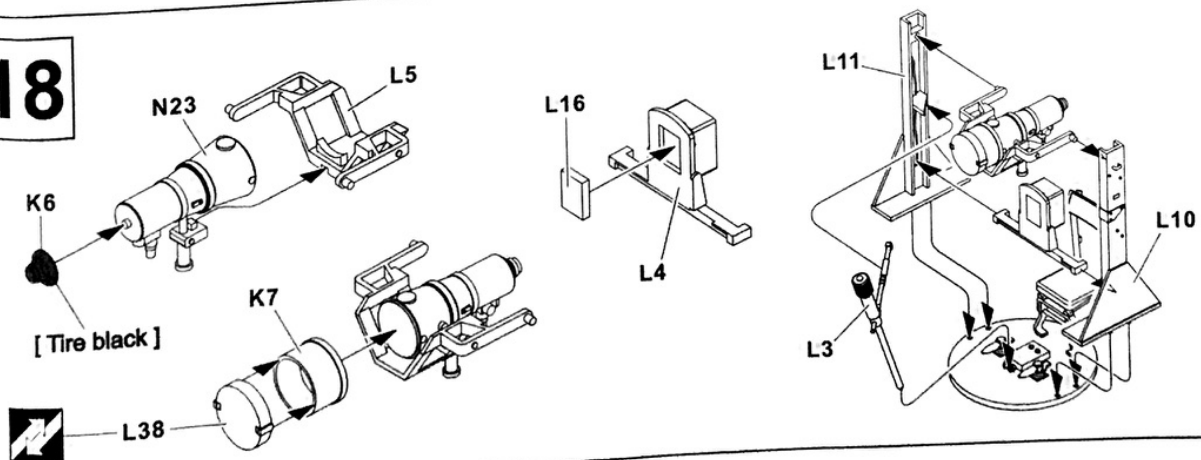
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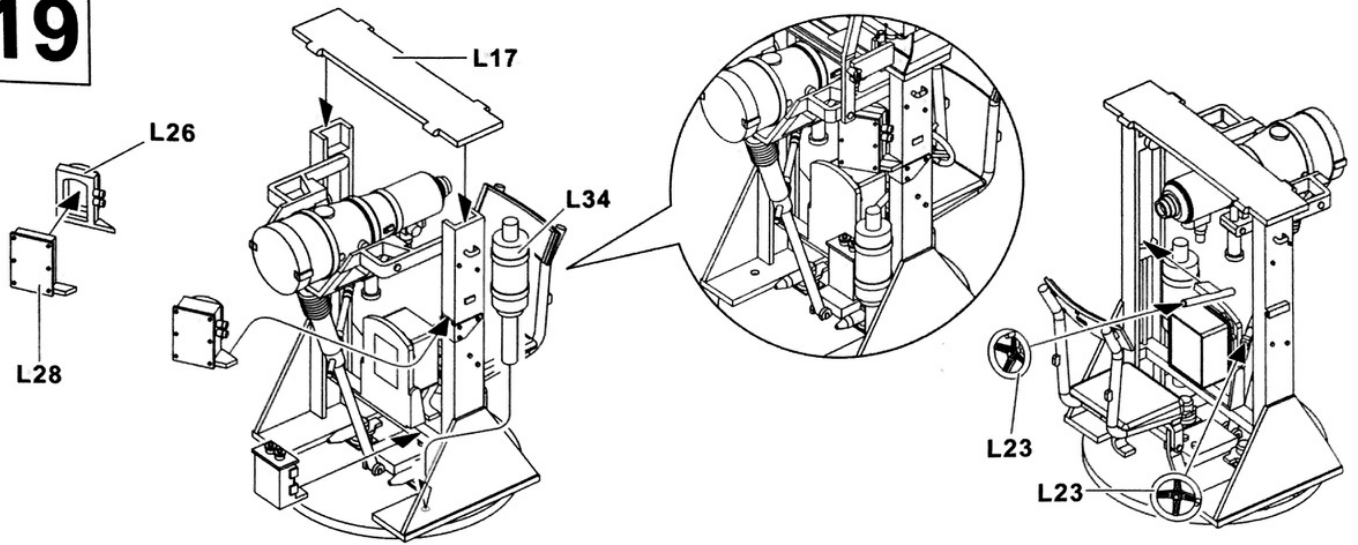
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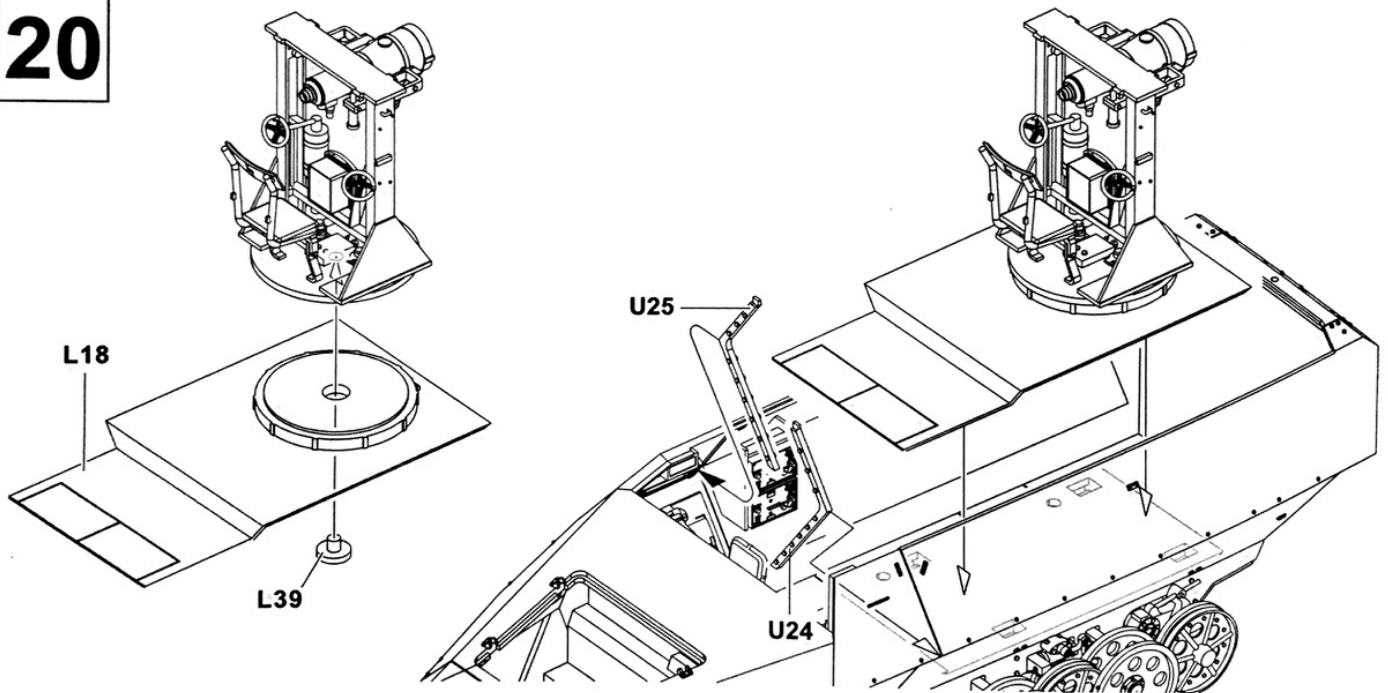
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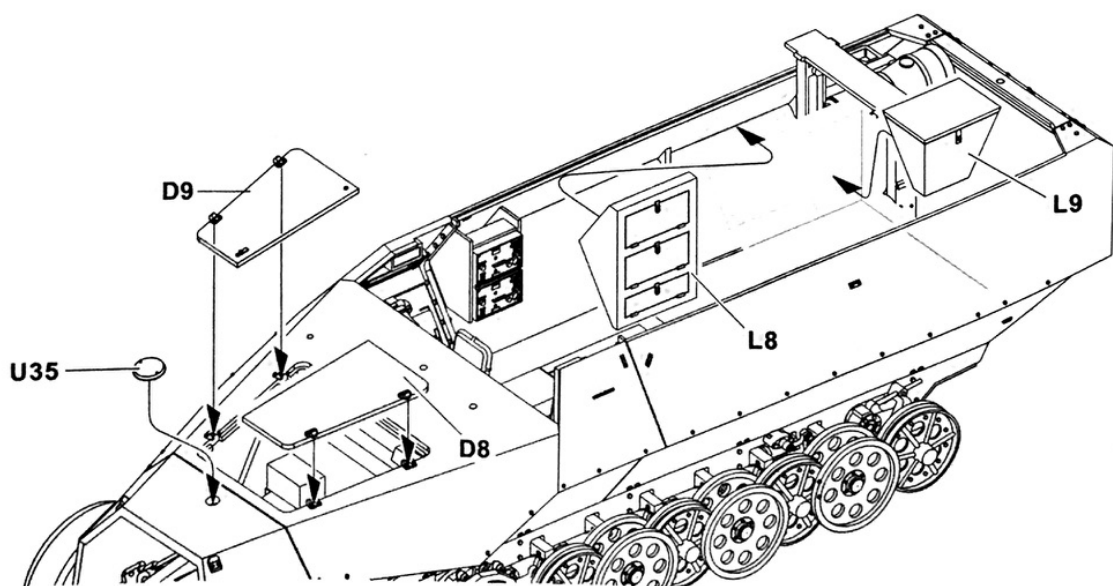
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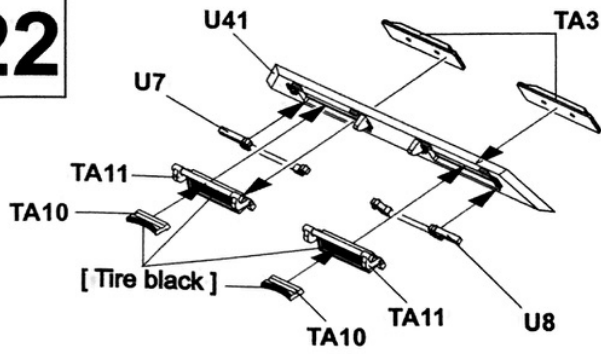
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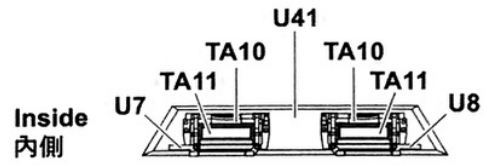
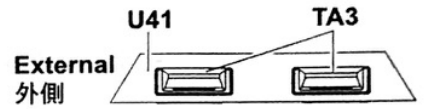
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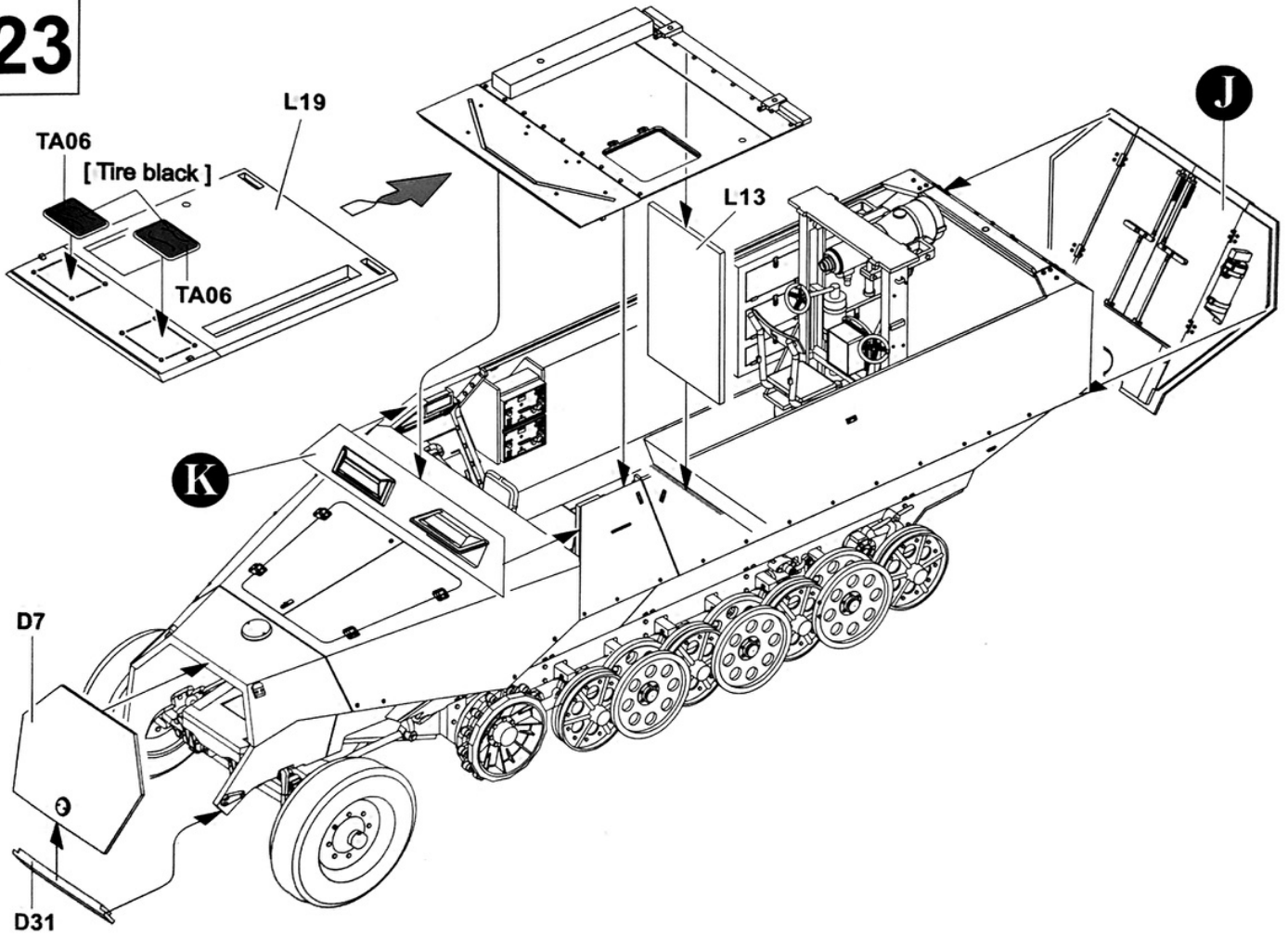
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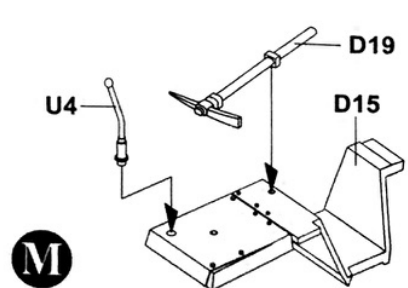
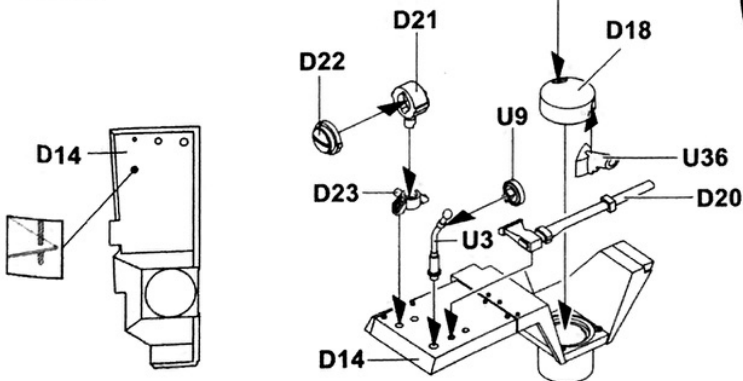
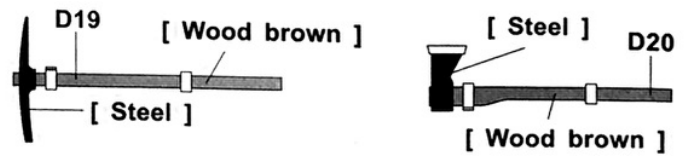


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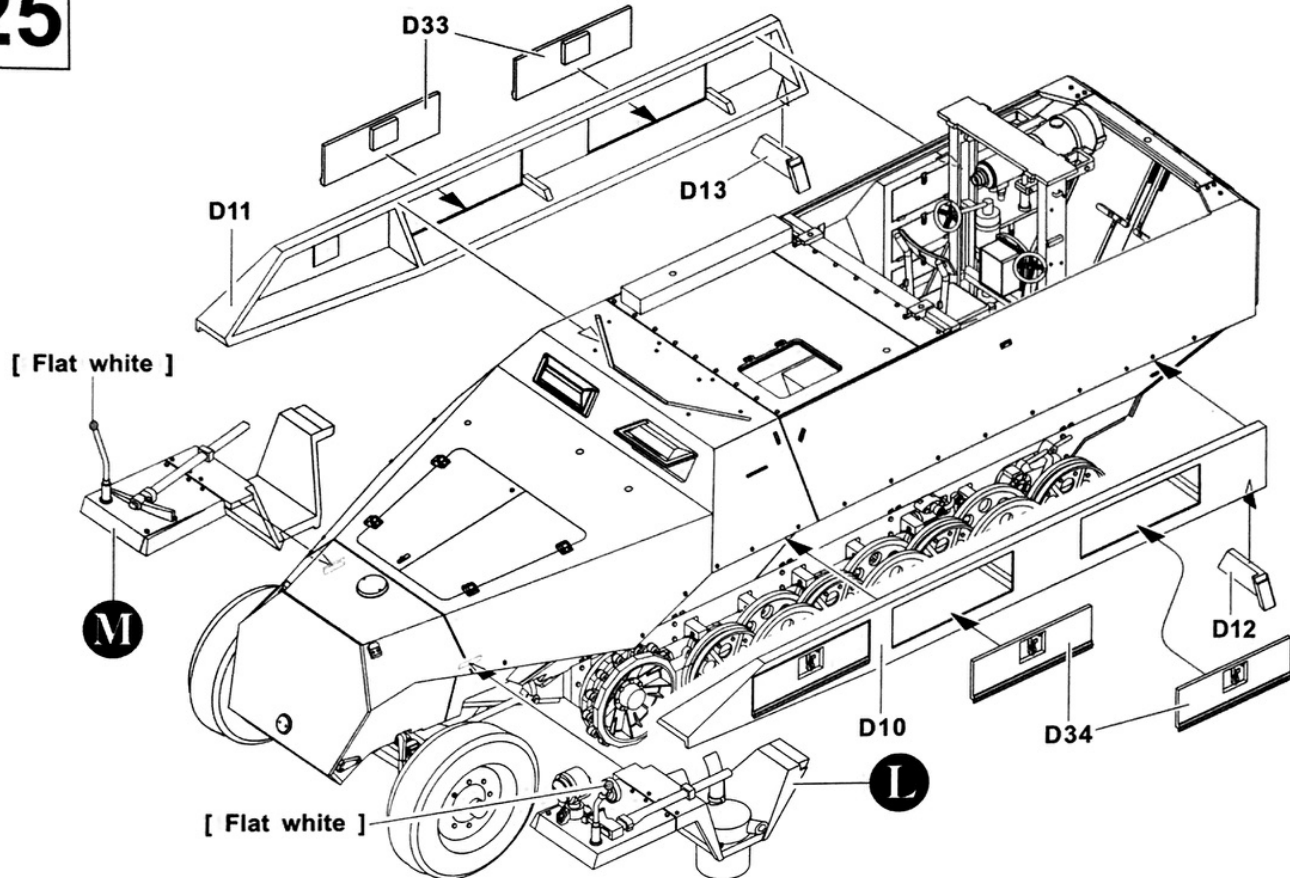


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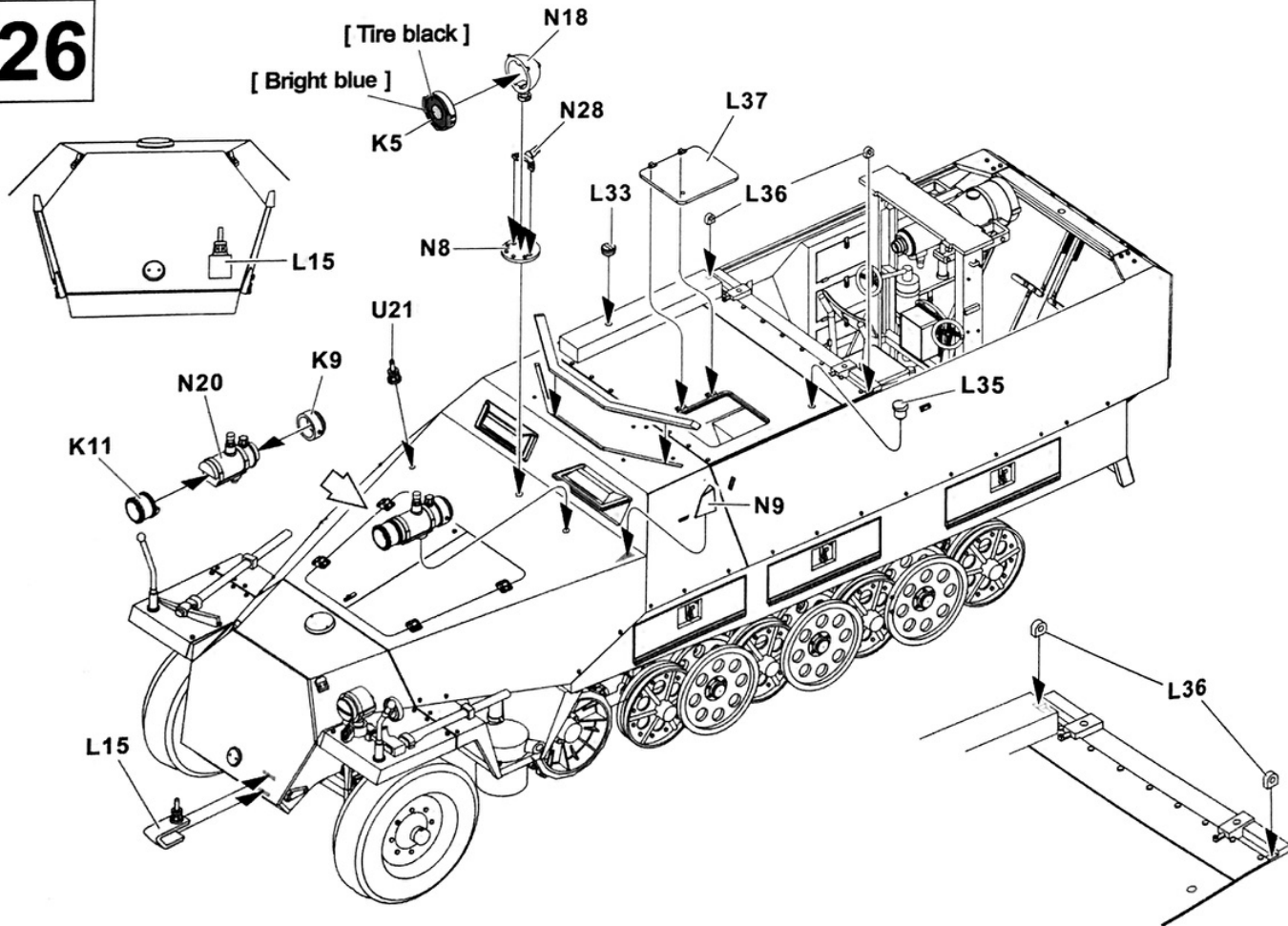
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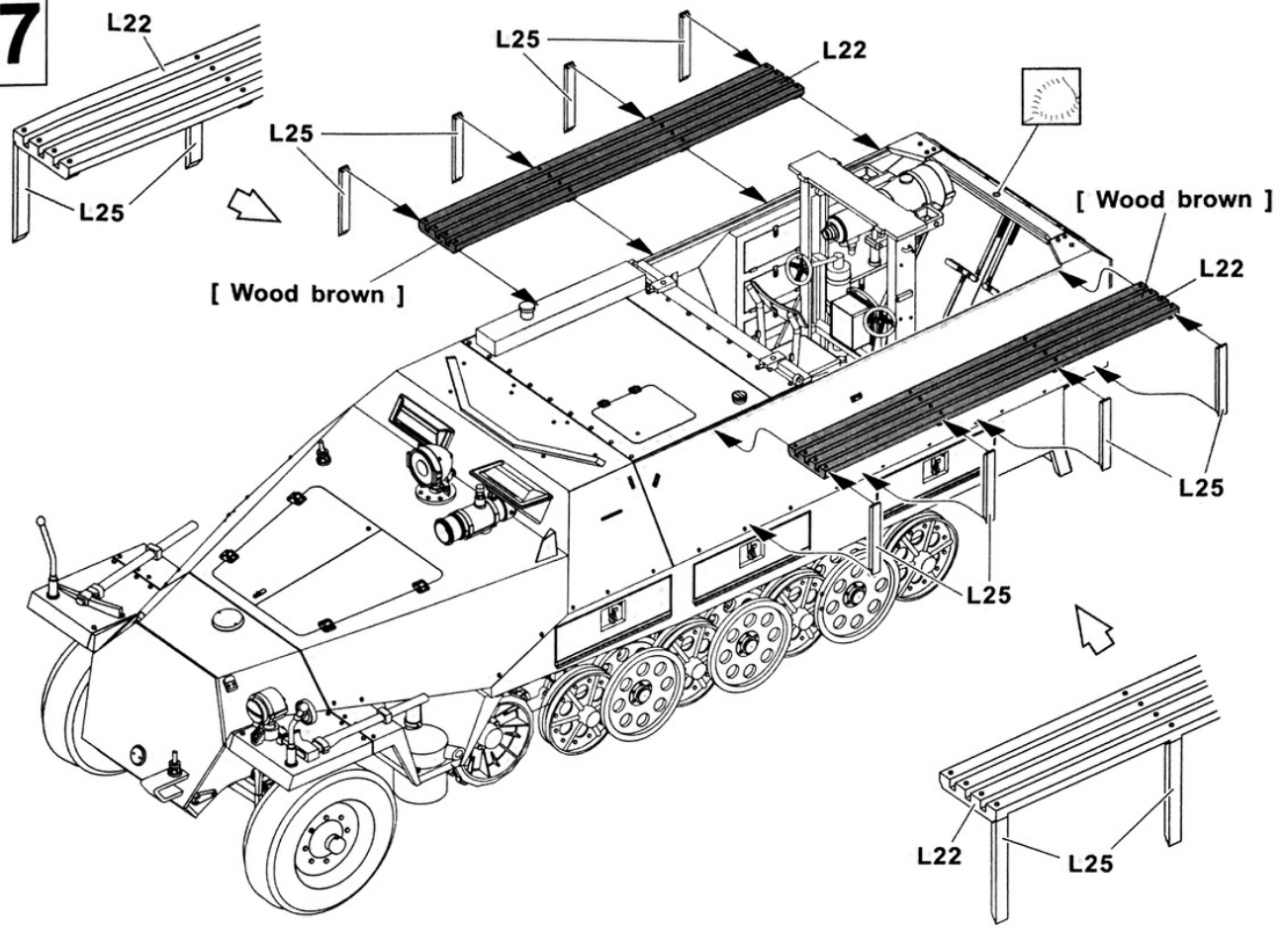
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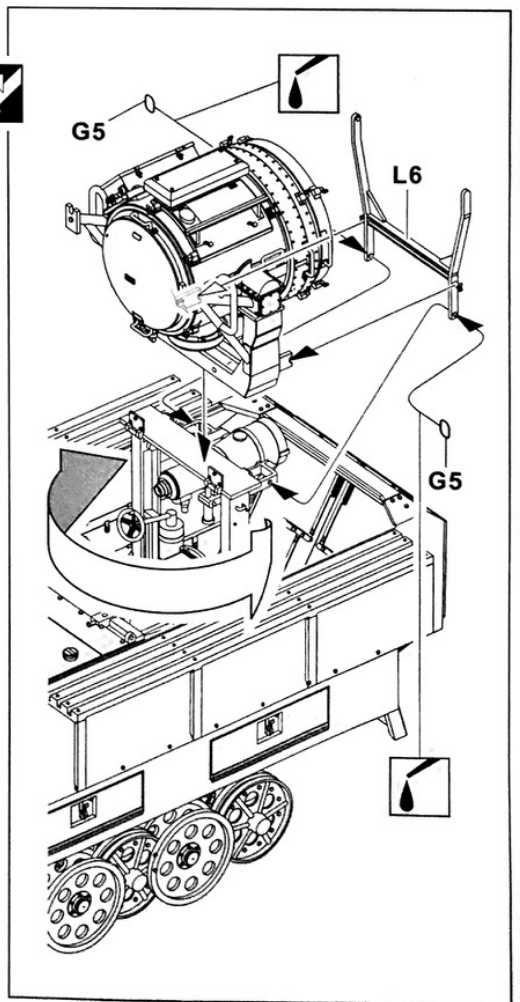
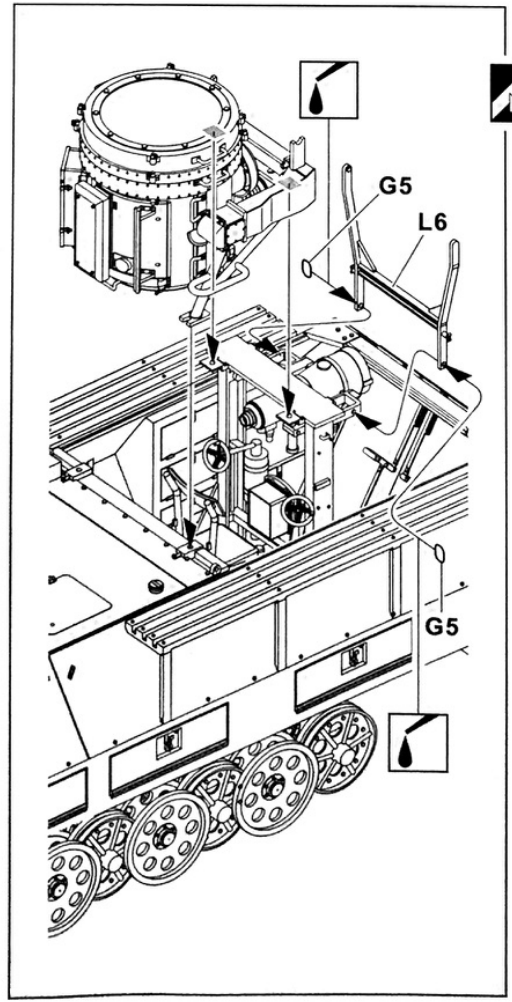
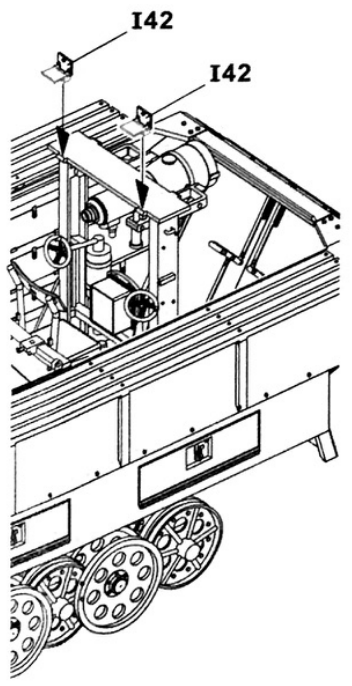
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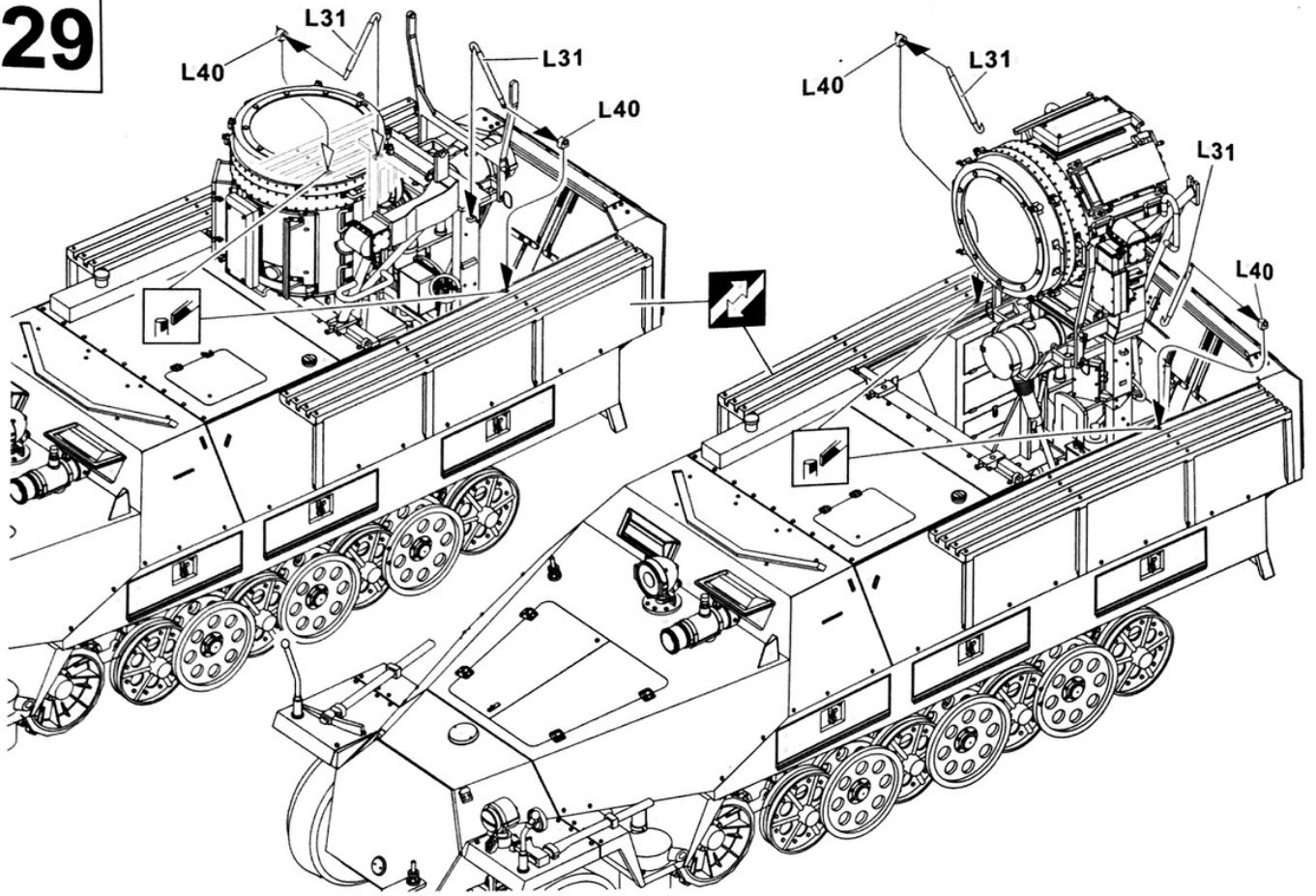
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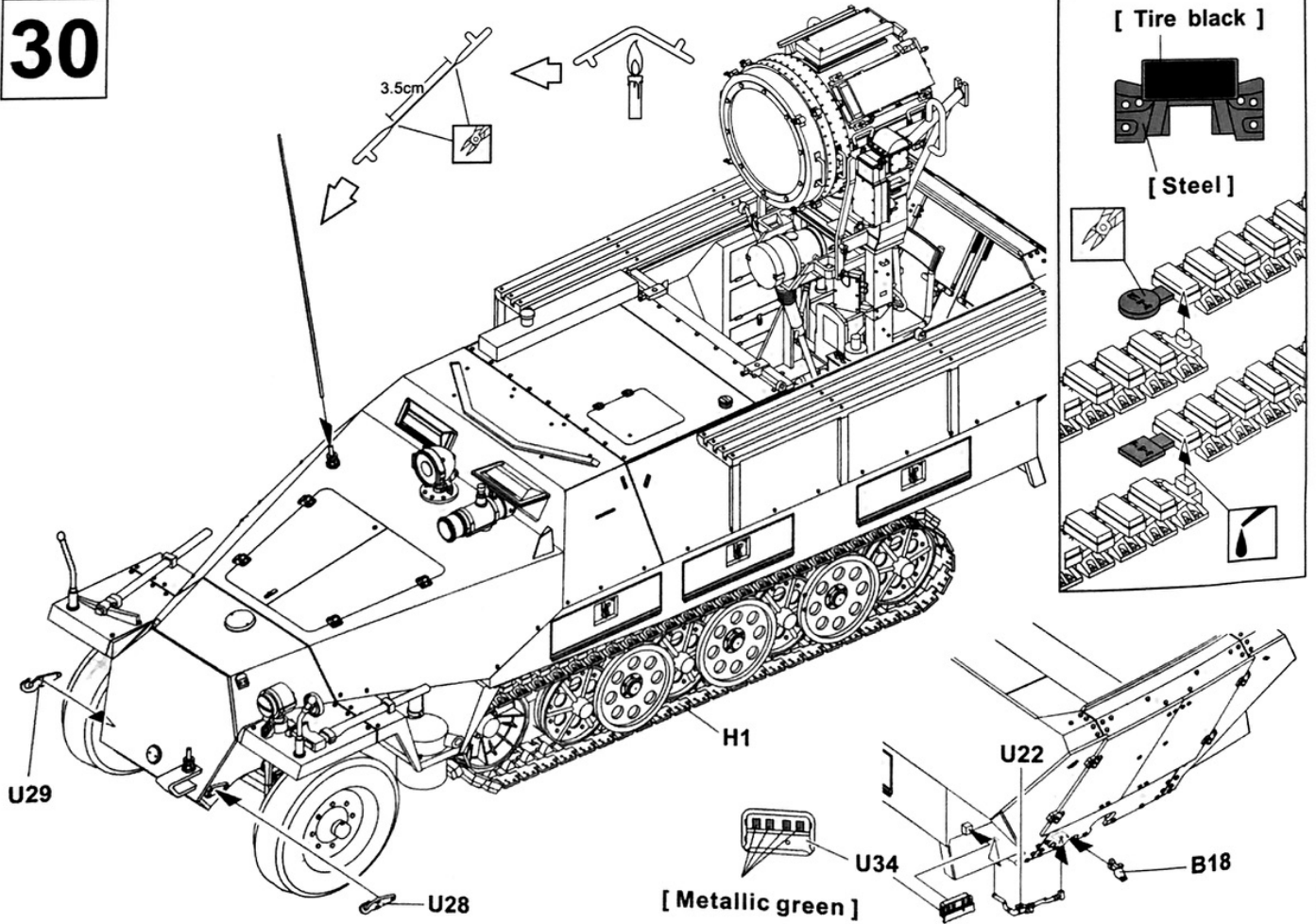
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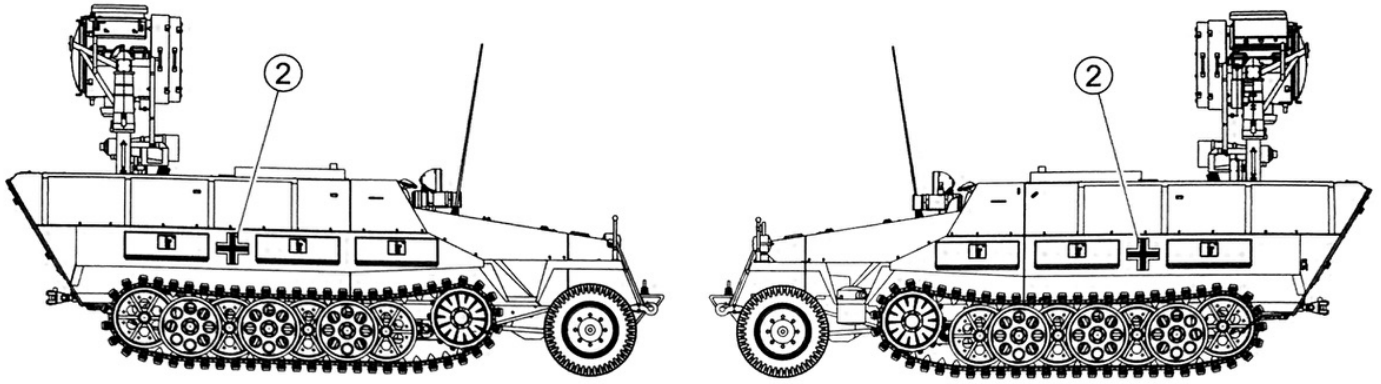
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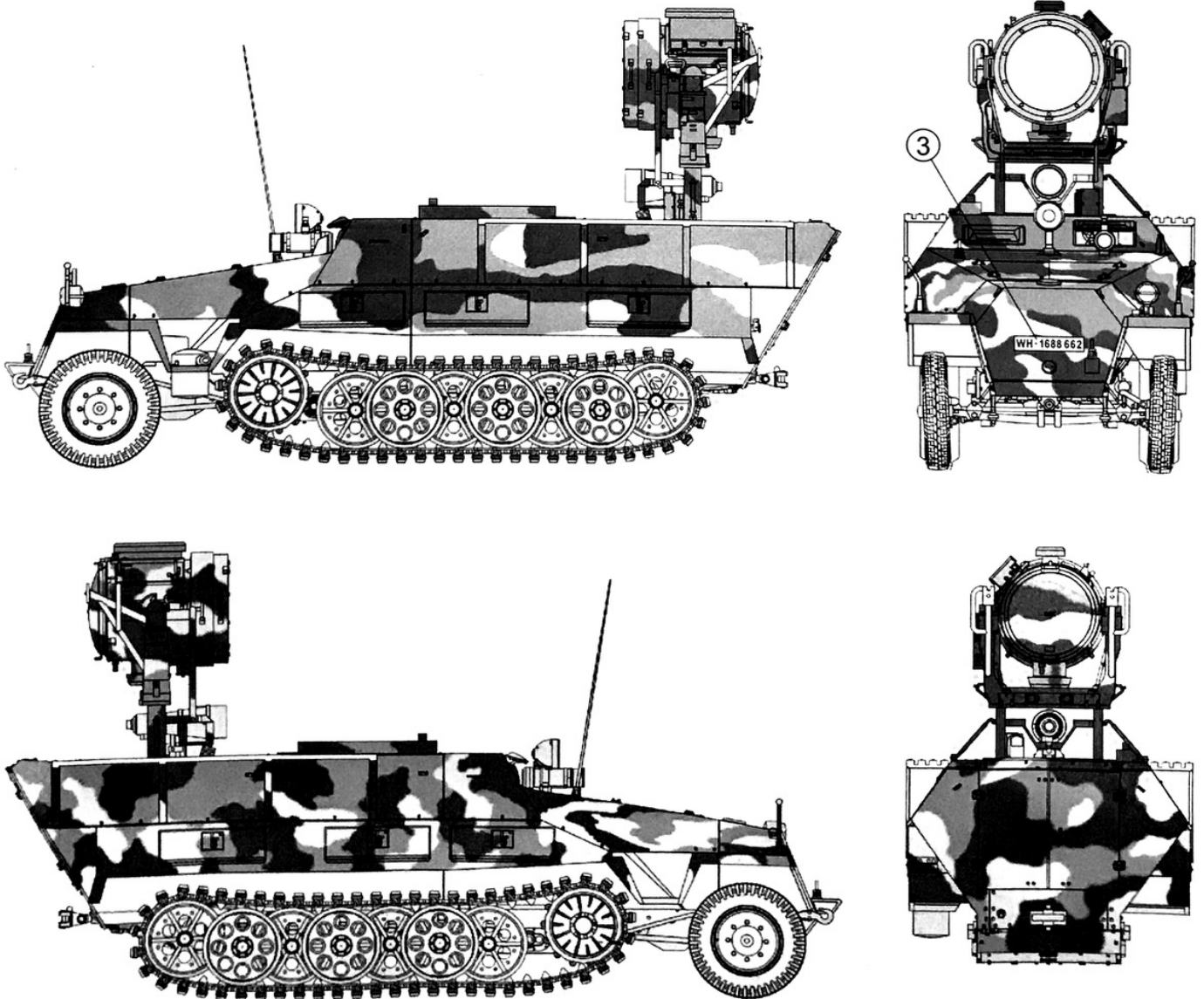
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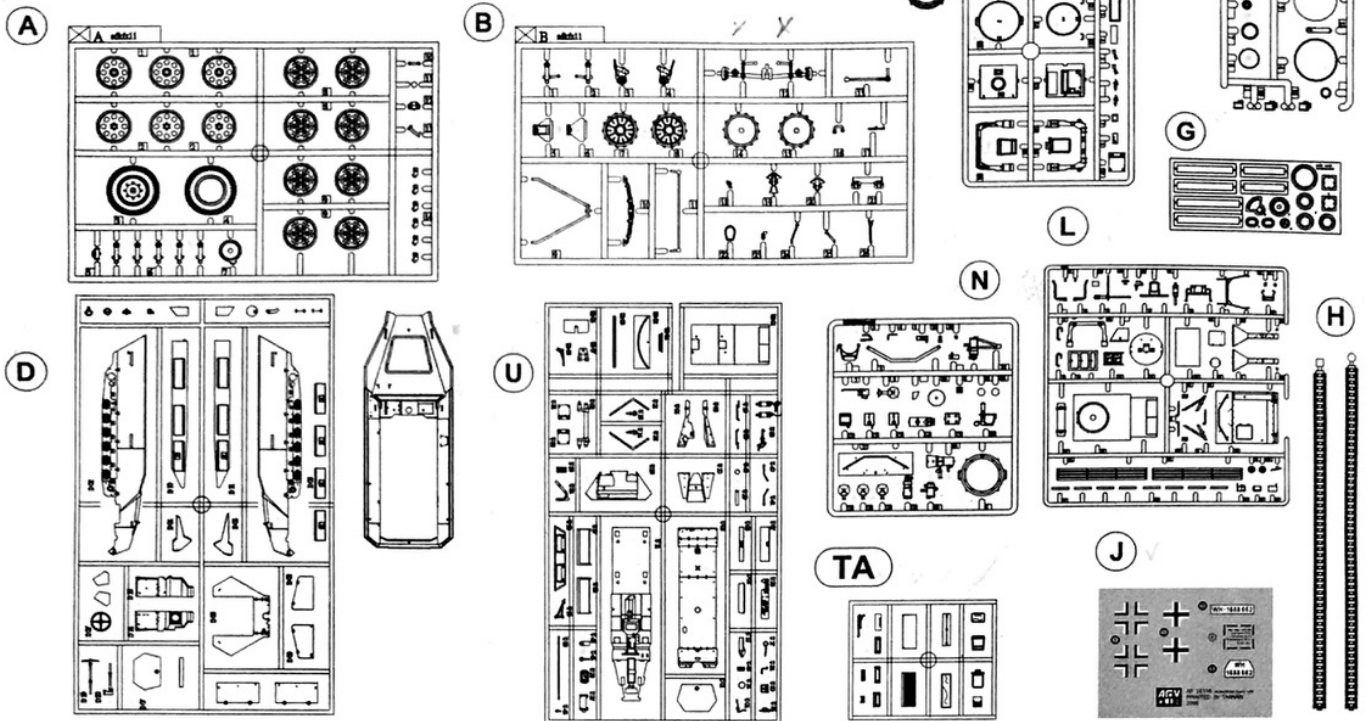
**A**  Body Color:  Dark Yellow



**B**  Body Color:  Red Brown  Olive Green  Dark Yellow



# PARTS LIST 零件表



Parts :

<b>A</b> ————— 2	<b>G</b> ————— 1	<b>K</b> ————— 1	<b>TA</b> ——— 2
<b>B</b> ————— 1	<b>H</b> ————— 1	<b>L</b> ————— 1	<b>U</b> ————— 1
<b>D</b> ————— 1	<b>I</b> ————— 1	<b>N</b> ————— 1	<b>J</b> ————— 1

Parts not used. G: 5 · 7x2  
 不需使用的零件 K: 1 · 2x2 · 3 · 5x2 · 6 · 7 · 8 · 10x2  
 N: 1 · 2 · 3 · 4 · 5 · 7 · 10 · 11 · 12 · 13 · 14 · 15 · 16 · 17  
 · 18x3 · 19 · 20 · 21 · 22 · 23 · 24x2 · 25 · 26




## 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.

限台灣地區使用 For Taiwanese use only!

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

	<b>AF 35116</b> Sd.Kfz.251/20 Ausf.D 零件補充申請表	申請人 姓名 地址 電話 : : :																																						
	<table border="0"> <tr><td><input type="checkbox"/></td><td>A部品零件</td><td>NT\$ 280</td></tr> <tr><td><input type="checkbox"/></td><td>B部品零件</td><td>NT\$ 120</td></tr> <tr><td><input type="checkbox"/></td><td>D部品零件</td><td>NT\$ 180</td></tr> <tr><td><input type="checkbox"/></td><td>G部品零件</td><td>NT\$ 160</td></tr> <tr><td><input type="checkbox"/></td><td>H部品零件</td><td>NT\$ 160</td></tr> <tr><td><input type="checkbox"/></td><td>I部品零件</td><td>NT\$ 160</td></tr> <tr><td><input type="checkbox"/></td><td>K部品零件</td><td>NT\$ 160</td></tr> <tr><td><input type="checkbox"/></td><td>L部品零件</td><td>NT\$ 120</td></tr> <tr><td><input type="checkbox"/></td><td>N部品零件</td><td>NT\$ 120</td></tr> <tr><td><input type="checkbox"/></td><td>TA部品零件</td><td>NT\$ 120</td></tr> <tr><td><input type="checkbox"/></td><td>U部品零件</td><td>NT\$ 120</td></tr> <tr><td><input type="checkbox"/></td><td>J部品零件</td><td>NT\$ 120</td></tr> <tr><td></td><td>郵寄費</td><td>NT\$ 80</td></tr> </table>	<input type="checkbox"/>	A部品零件	NT\$ 280	<input type="checkbox"/>	B部品零件	NT\$ 120	<input type="checkbox"/>	D部品零件	NT\$ 180	<input type="checkbox"/>	G部品零件	NT\$ 160	<input type="checkbox"/>	H部品零件	NT\$ 160	<input type="checkbox"/>	I部品零件	NT\$ 160	<input type="checkbox"/>	K部品零件	NT\$ 160	<input type="checkbox"/>	L部品零件	NT\$ 120	<input type="checkbox"/>	N部品零件	NT\$ 120	<input type="checkbox"/>	TA部品零件	NT\$ 120	<input type="checkbox"/>	U部品零件	NT\$ 120	<input type="checkbox"/>	J部品零件	NT\$ 120		郵寄費	NT\$ 80
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