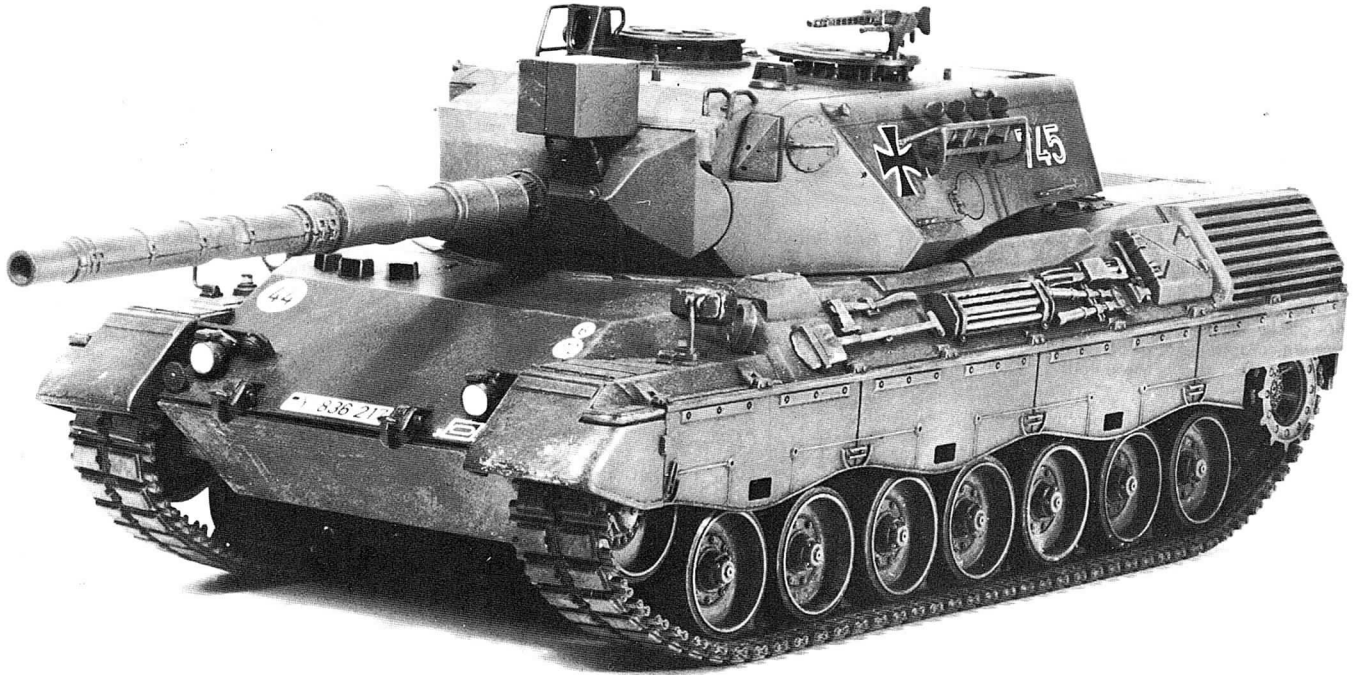


# WEST GERMAN TANK LEOPARD A4

## TAMIYA



On June 11, 1963, the National Defence Forces of West Germany showed their new main tank the Leopard to newsmen who had gathered at Munster, Nordrhein-Westfalen. Its appearance attracted much attention because it was the first West German tank developed after the war and was in competition with the French AMX 30 which was then seen as being the ideal for NATO Forces.

The Leopard tank with a combat weight of 40 tons, main armament of a 105 mm gun and maximum road speed of 65 km/h is rated as one of the strongest tank in the world with excellent fire power, protection and mobility. As a main battle tank, it is being used in seven countries including West Germany, Holland, Italy and Belgium.

Production is expected to exceed 7,000 units. The first production vehicle was completed at Krauss-Maffei's Munchen factory in September 1965. The final production model in the Leopard I series is the A4. The model A4 is characterized by having a new turret first used in the A3. This is made of new material with spaced armour. The A4 also has a fire control system with a hybrid electronic trajectory computer. Data from the commander's and gunner's sights are sent to the computer for the automatic control of the main gun. The commander has an all-weather panoramic sight utilizing infra red rays, whilst the gunner has a stereoscopic range finder with a laser. Both are stabilized. The fire control system has remarkably shortened the time gap between the discovery of the target and firing, and has much increased the rate of fire.

The models A4 and A3 have undergone modifications in the equipment of the new turret and other areas, their combat weight is about 42.4 tons. The engine is an MTU-MB 838Ca, M500-type 4-cycle 10-cylinder multi-fuel diesel, with a maximum output of 830 hp/2200 rpm. It was originally expected that mobility would be reduced by the increase of the weight, but in reality the mobility has not been affected. In the model A4, a new automatic gear box is used which, by its ease of operation and high efficiency, not only lessens the driver's fatigue but also improves climbing ability, acceleration, performance, fuel consumption, etc. The main armament is a Vickers L7A3 105 mm gun, and secondary armament consists of two 7.62 mm MG3 machine guns. The striking power, good protection by the spaced armour of the turret and excellent mobility and range of action of about 600Km make the Leopard A4 tank amongst the best and most effective in the world today.

It is easy to distinguish the A4 from the models A1 and A2 in the Leopard I series by the turret shape. The model A4 closely resembles the model A3, but the A4 differs from the A3 in being equipped with the Commander's panoramic sight. 250 units of the Leopard A4

have been manufactured since 1974: 122 of them for the West German National Defence Forces and 128 for the Canadian Army. The West German National Defence Forces plan to convert the earlier models in the Leopard I series into the model A4. The Leopard A4 and the new Leopard II will form the main strength of the West German tank forces in the future.

\* \* \*

Der neue deutsche Kampfpfanz "Leopard" wurde am 11. Juni 1963 in Munster der Presse vorgestellt. Dieser erste Panzer, der in Deutschland nach 1945 hergestellt wurde, fand grosse Beachtung und stand in grosser Konkurrenz zu dem AMX 30 der Franzosen, der tur die Nato vorgesehen war. Der Leopard mit 40 Tonnen Kampfgewicht, 105 mm Kanone und 65 km Std auf der Strasse, erwies sich als hervorragend in Feuerkraft, Bewegungsmoglichkeit und in der straken Panzerung. Das erste Fahrzeug wurde im September 1965 bei Krauss-Maffei Munchen fertiggestellt. Dem Leopard A1 folgten die Serien A2, A3 und das letzte Modell, der A4. Der A4 hat den Turm des A3, jedoch mit neuem Panzermaterial. Ein elektronischer Schussbahnberechnungscomputer wurde eingebaut; nach Eingabe der Daten vom Kommandanten und Richtschutzen, erfolgt die Kanoneneinstellung automatisch. Der Kommandant hat eine Allwetter Rundblickautomatik mit Infrarot-Nachtsichtgerat.

Der Richtschutze hat jetzt einen Raumbild-entfernungsmesser mit Laser.

Die Zeit zwischen Zielsprache und Feuer wurde durch die obig beschriebene Technik verkurt und dadurch konnte die Schussfolge wesentlich erhoht werden.

Durch die Verbesserungen in den Modellen A3 und A4 wurde zwar das Kampfgewicht auf 42,4 Tonnen gebracht, die Beweglichkeit jedoch nicht beeintrachtigt. Das neue Automatikgetriebe des A4 verbesserte die Steigrahtigkeit, Beschleunigung, Ausdauer und den Spritverbrauch bei geringerer Belastung des Fahrers. Die Kanone ist eine Vickers L7A3 105 mm, zwei MG's mit 7,62 Kaliber sind eingebaut. Der Motor ist ein MTU-MB 838 PS bei 2200 Umdrehungen, der Aktionsradius betragt ca 600 Kilometer.

Der Leopard A4 unterscheidet sich vom A3 nur durch die Turm-Rundblickoptik, von den A1 und A2 durch die Form des Turmes.

Seit 1974 wurden 122 Fahrzeuge tur die Bundeswehr, 128 tur die kanadische Arme, hergestellt. Der Kampfpfanz "Leopard" A4 gehort ohne Zweifel zu den besten Kampfpanzern der Welt. 7000 Fahrzeuge der Leopard-Serie wurden bis jetzt hergestellt und stehen in 7 Landern im Einsatz.

Die Bundeswehr plant, die ersten A1 in A4 umzubauen. Der Leopard A4 wird in Verbindung mit dem neu in Erprobung stehendem Leopard II die Hauptstreitmacht der Bundeswehr in der Zukunft sein.





★ Be sure to read the following instruction carefully before starting assembly work.

★ You will need a sharp knife, a screwdriver and a pair of pliers.

★ Do not break parts away from sprue, but cut off carefully with a pair of pliers.

★ Use cement sparingly. Use only enough to make a good bond. Apply cement to both parts to be joined.

● This mark shows the colour.

★ Vor Beginn die Bauanleitung studieren und den Nummern nach die Elemente zusammensetzen.

★ Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abwickeln, Teil vor Kleben zusammenhalten, auf genauen Sitz achten. Nicht zuviel Klebstoff verwenden. Kleine Teile hält man mit Pinzette fest.

● Zeichen für Bemalung.

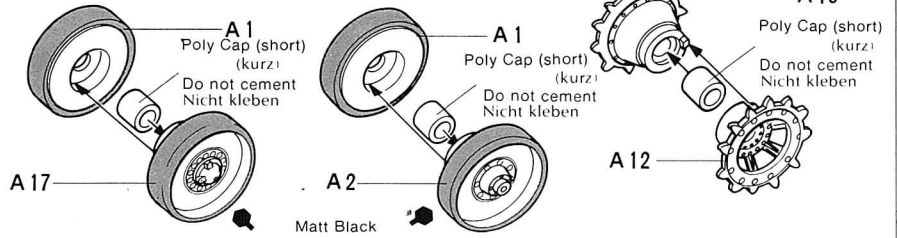
Do not break parts away from sprue, but cut off carefully with a pair of pliers. Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abwickeln.

## 1 Construction of Wheels Zusammenbau der Räder

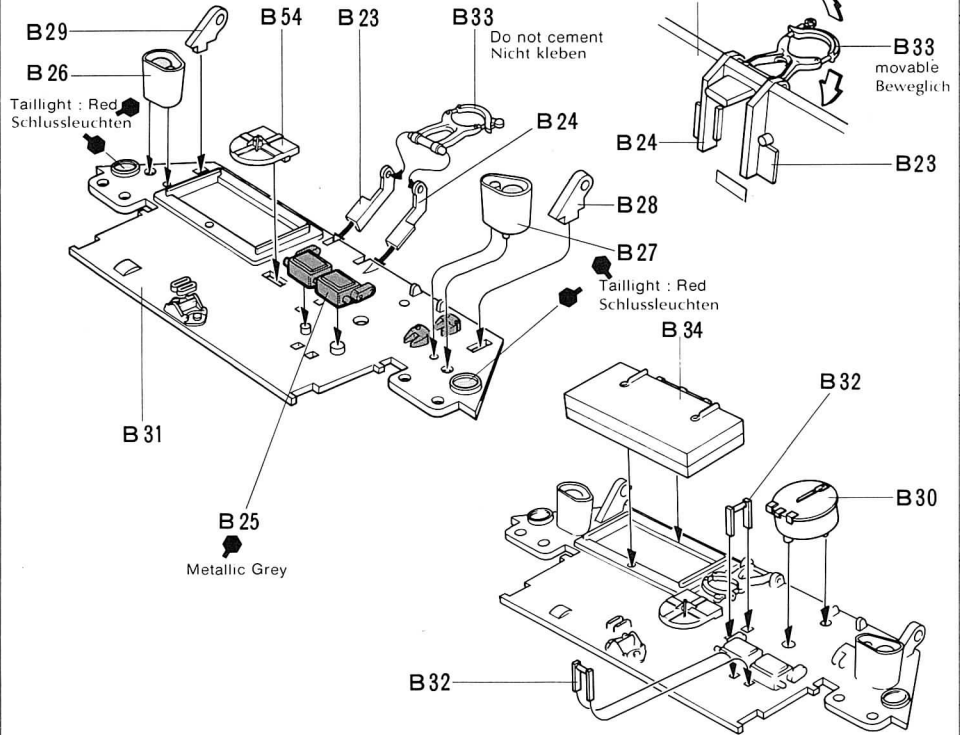
« Idler Wheel » Make 2 sets  
« Leitrad » 2 Satz

« Road Wheel » Make 14 sets  
« Lauräder » 14 Satz

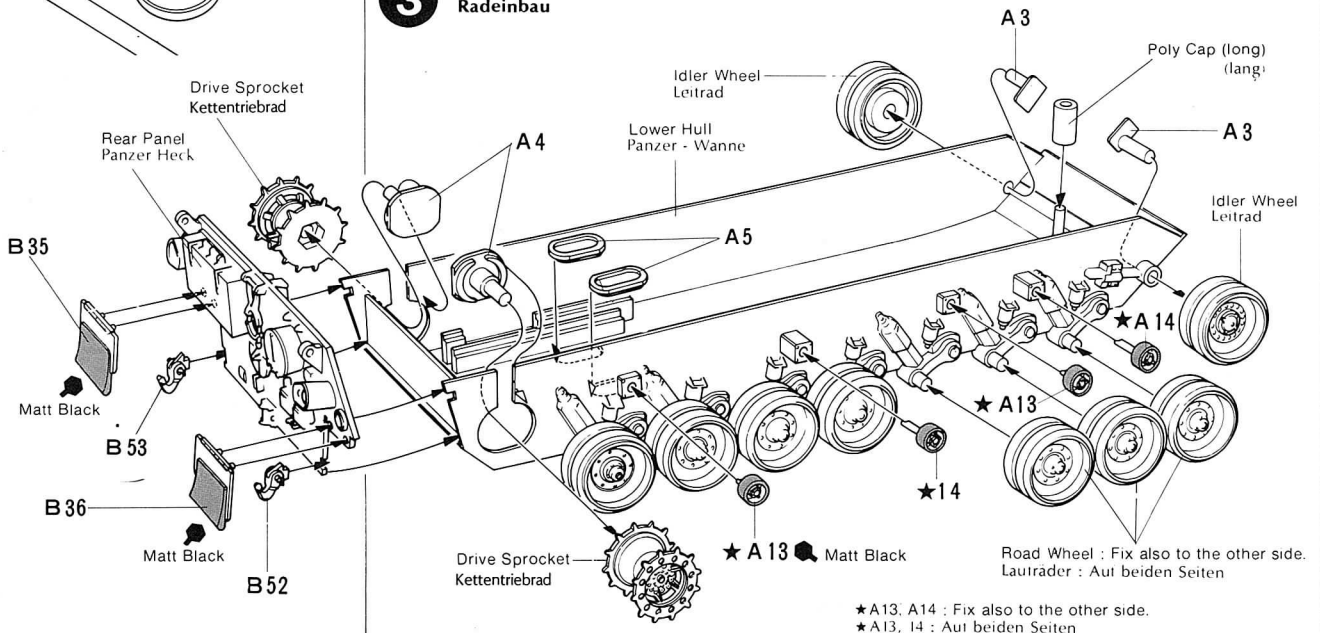
« Drive Sprocket » Make 2 sets  
« Kettentriebrad » 2 Satz



## 2 Rear Panel Panzer - Heck

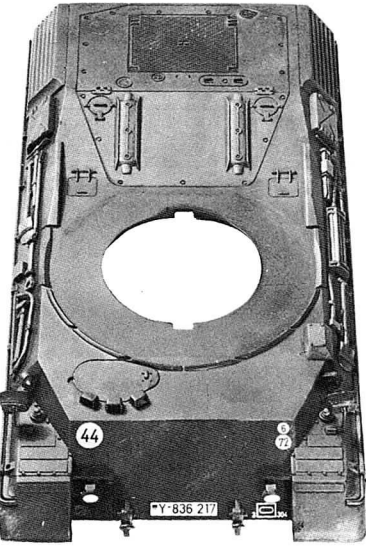


## 3 Fixing of Wheels Radeinbau

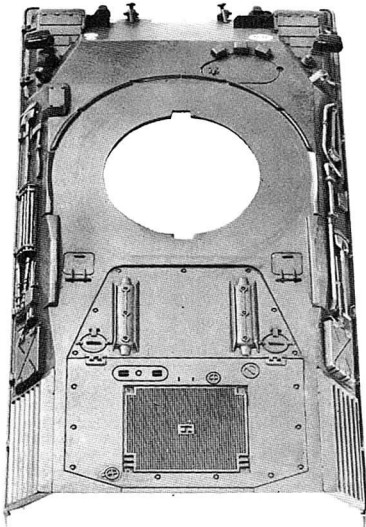


★ A13, A14 : Fix also to the other side.  
★ A13, 14 : Aut beiden Seiten

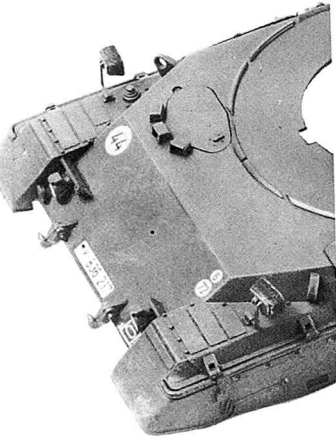
**4** << Upper Hull 1 >>  
<< Panzer Oberteil 1 >>



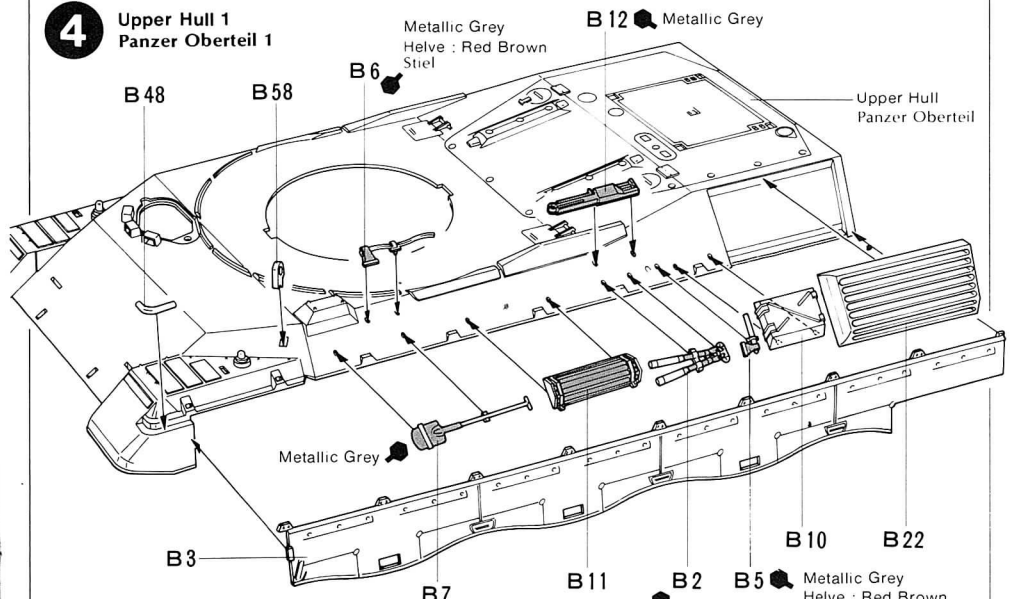
**5** << Upper Hull 2 >>  
<< Panzer Oberteil 2 >>



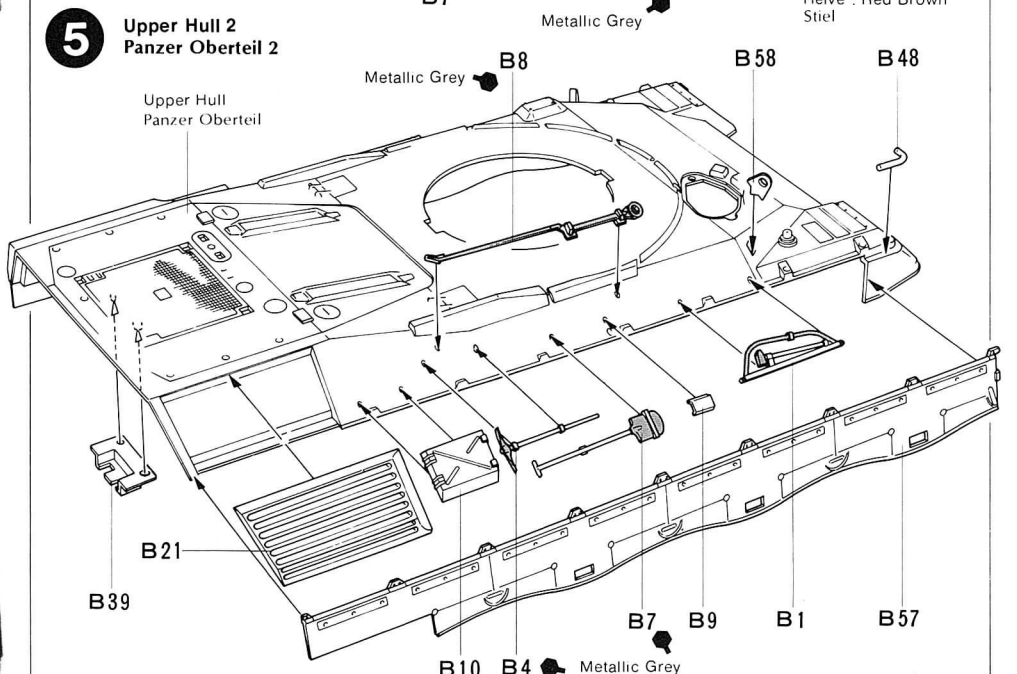
**6** << Upper Hull - Front >>  
<< Panzer Oberteil - Front >>



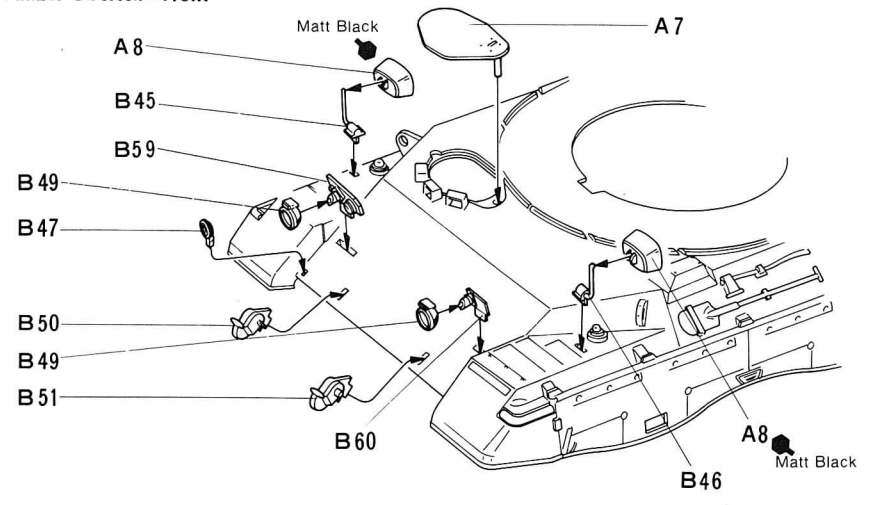
**4** Upper Hull 1  
Panzer Oberteil 1



**5** Upper Hull 2  
Panzer Oberteil 2

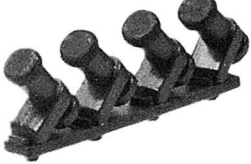


**6** Upper Hull - Front  
Panzer Oberteil - Front

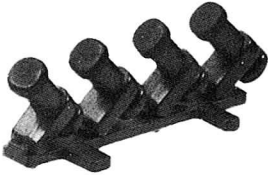


**7** << Turret A >>  
<< Turmteile A >>

<< Smoke Discharger (left) >>  
<< Rauch - Nebelpatronen (links) >>



<< Smoke Discharger (right) >>  
<< Rauch - Nebelpatronen (rechts) >>

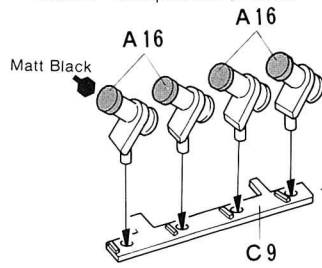


<< Machine Gun >>  
<< Maschinengewehr >>

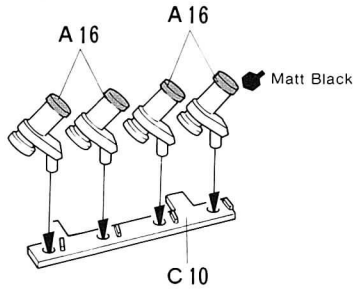


**7** Turret A  
Turmteile A

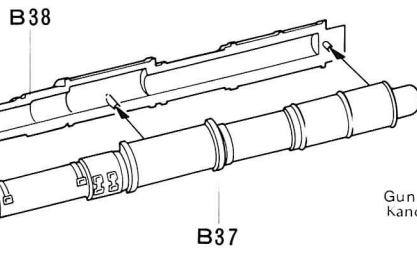
<< Smoke Discharger (left) >>  
<< Rauch - Nebelpatronen (links) >>



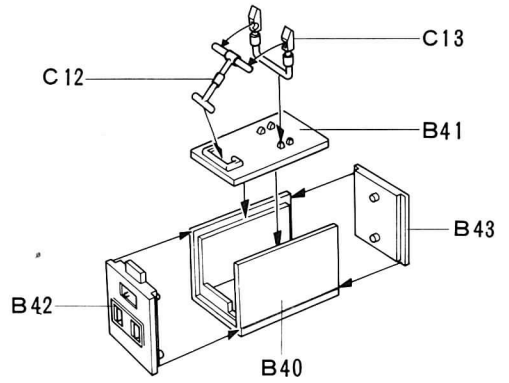
<< Smoke Discharger (right) >>  
<< Rauch - Nebelpatronen (rechts) >>



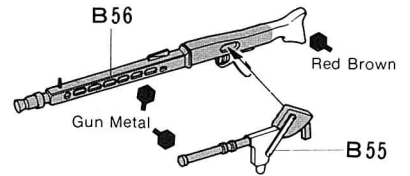
<< Gun Barrel >>  
<< Kanone >>



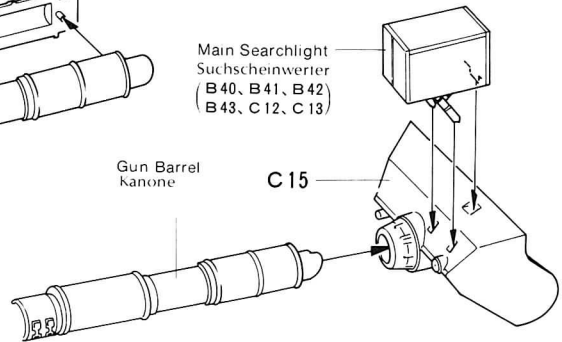
<< Main Searchlight >>  
<< Suchscheinwerfer >>



<< Machine Gun >>  
<< Maschinengewehr >>

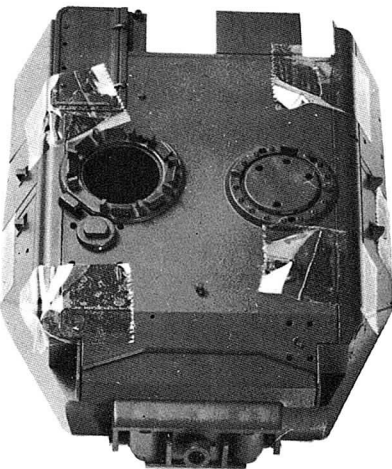


<< Loading Section >>  
<< Rohrblende >>



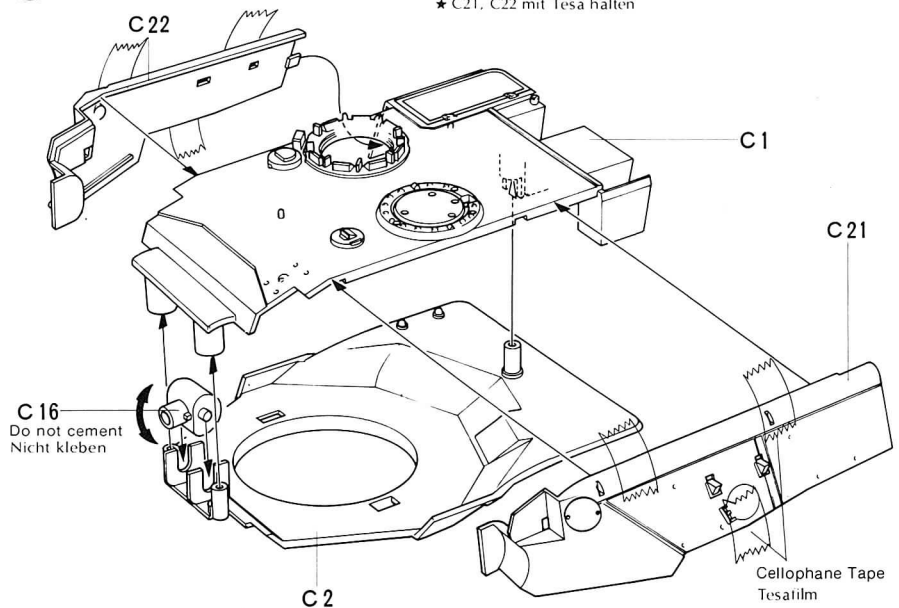
**8** << Turret B >>  
<< Turmteile B >>

C 16 : Do not cement but just insert  
C 16 : Nicht kleben, nur einstecken



**8** Turret B  
Turmteile B

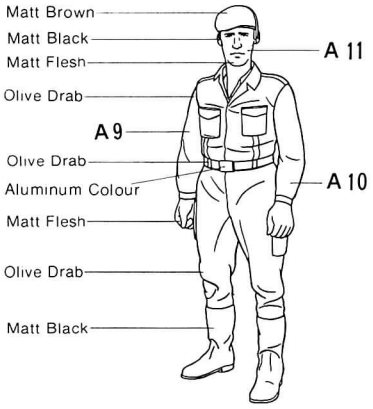
\* C 21, C 22 : Fasten with cellophane tape temporarily  
\* C 21, C 22 mit Tesa halten



**9** << Fixing of Turret Parts 1 >>  
 << Einbau der Turmteile 1 >>

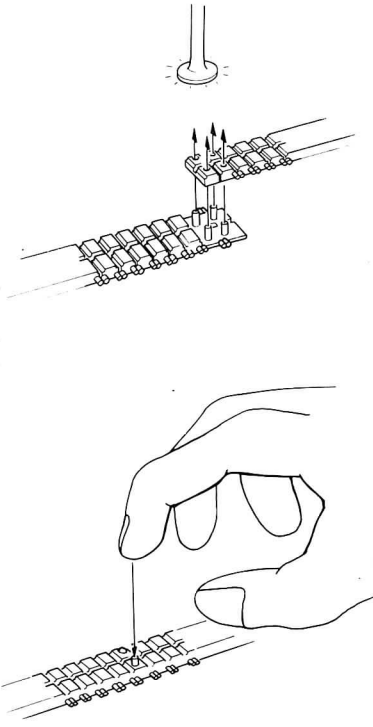
B17, 18 : Do not cement but just insert  
 B17, 18 : Nicht kleben

<< Painting of Figure >>  
 << Männchenbau >>

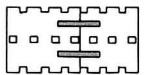


<< How to make Tracks >>  
 << Kettenmontage >>

★ Melt pin heads with a heated screwdriver blade etc. Immediately after that, press pin heads.  
 ★ Zapfen mit heissem Schraubenzieher anschmelzen. Sofort Zapfen gerade pressen.

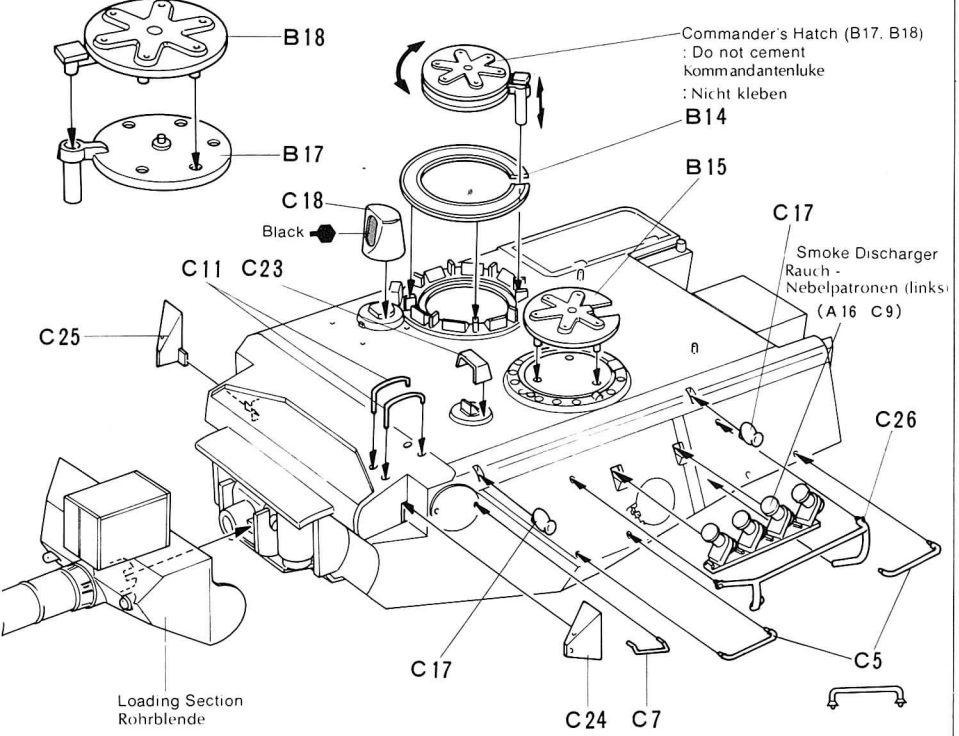


★ Repair or strengthen the joint with using thread or staples  
 Ketten evtl. mit Heftklammer "flicken"  
 Siehe Bild.



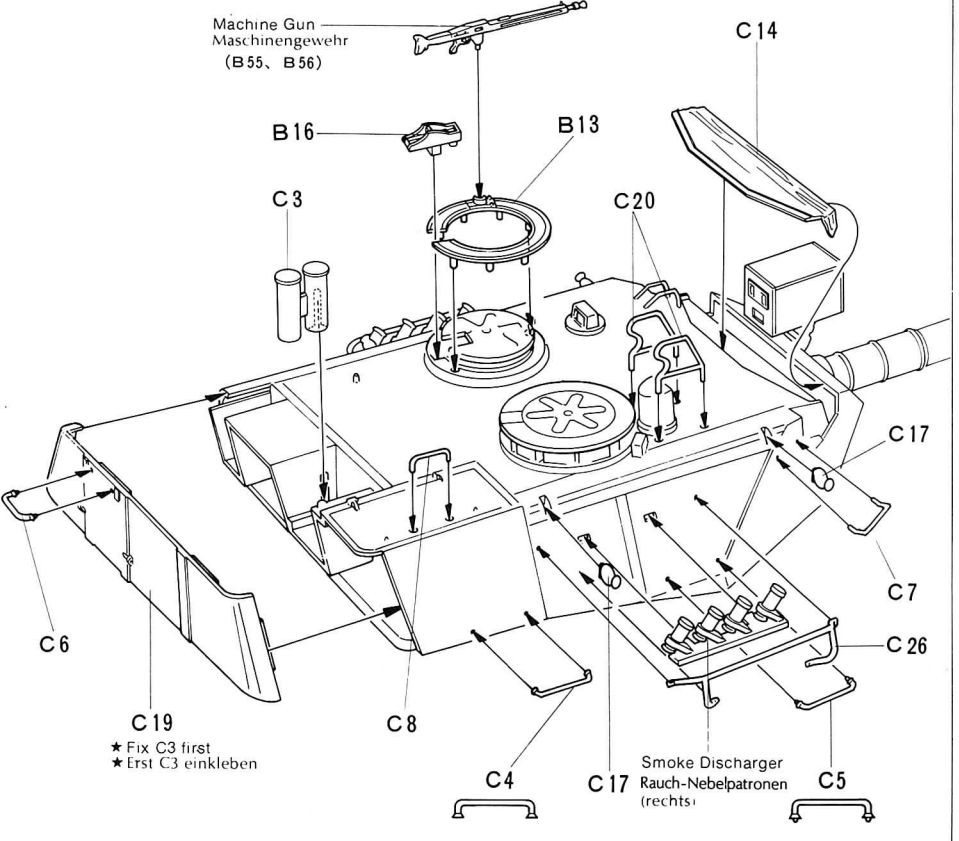
**9** Fixing of Turret Parts 1  
 Einbau der Turmteile 1

<< Commander's Hatch >>  
 << Kommandantenluke >>



**10** Fixing of Turret Parts 2  
 Einbau der Turmteile 2

★ Do not fix C14 when the Gun Barrel is to be moved  
 ★ Abdeckung C14 nicht einbauen, wenn Kanonenrohr beweglich sein soll.



★ Fix C3 first  
 ★ Erst C3 einkleben

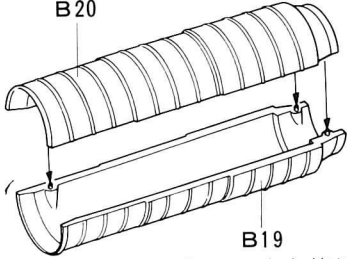
**11** << Completion >>  
<< Endmontage >>

The Leopard Tank can ford up to 4m water when it is fitted with a Conning Tower.

Mit aufgesetztem Kommandoturm kann der Leopard bis zu 4 m tauchen.

<< Conning Tower >>  
<< Kommandoturm >>

B20



B19

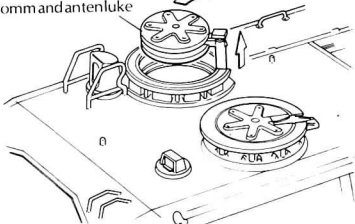
<< How to open the Commander's Hatch >>

<< Kommandantenluke >>

Pull it in the direction of arrow and turn.

Hochziehen und in Pfeilrichtung drehen.

Commander's Hatch  
Kommandantenluke

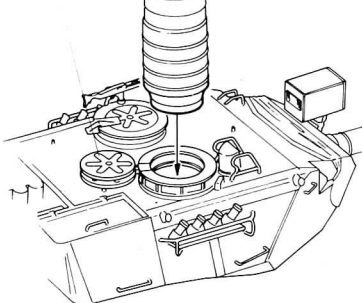


<< Fixing of Conning Tower >>  
<< Einbau des Kommandoturm >>

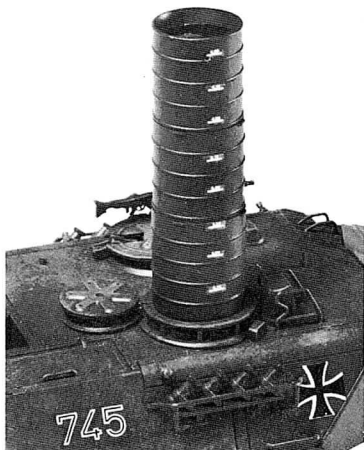


Conning Tower  
Kommandoturm

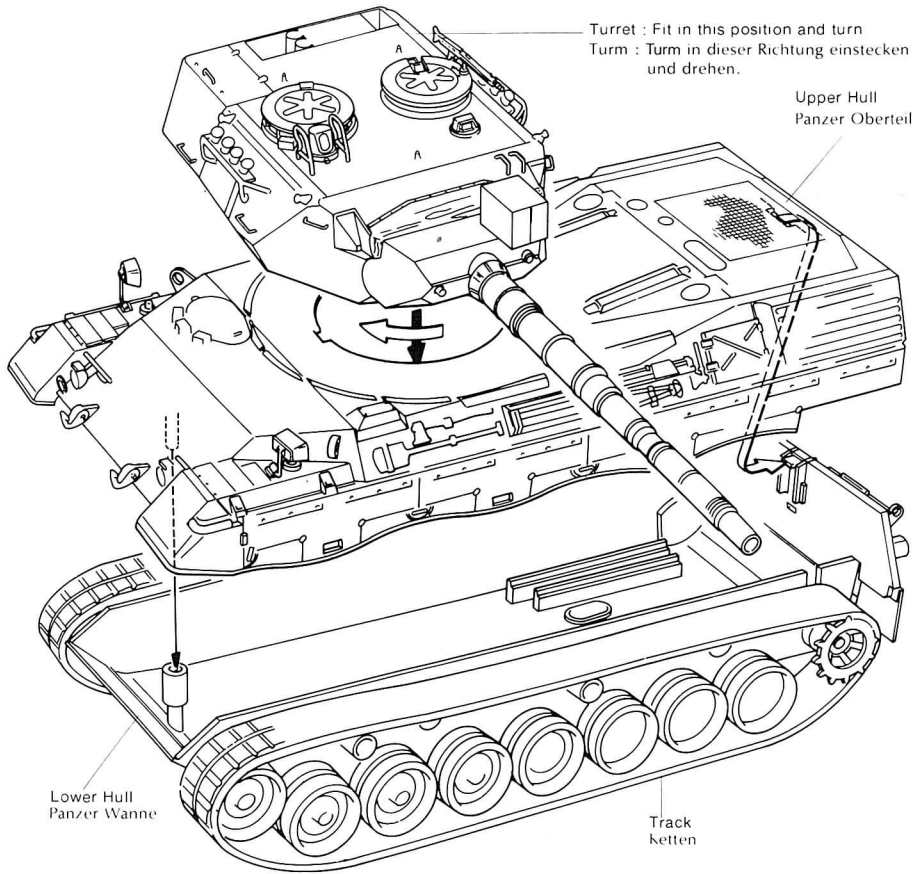
Commander's Hatch  
Kommandantenluke



<< Conning Tower >>  
<< Kommandoturm >>

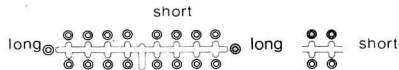


**11** Completion  
Endmontage

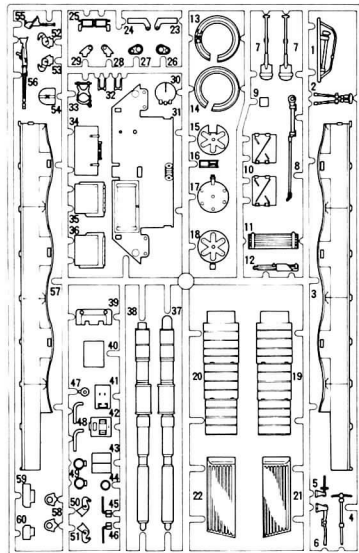


**PARTS**

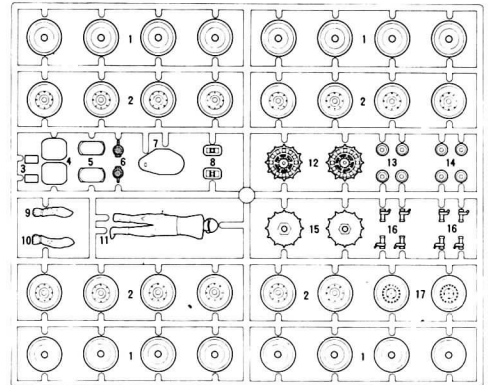
Upper Hull  
Lower Hull  
Track  
Poly Cap



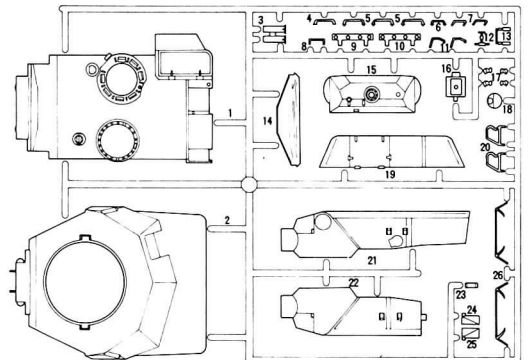
**B PARTS**



**A PARTS** Not used: 6



**C PARTS**



# PAINTING



# APPLYING DECALS

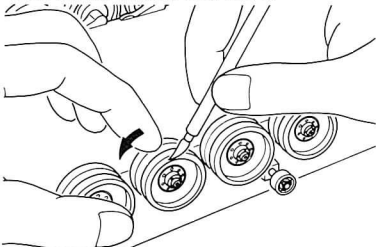
Da die Farben unter der englischen Bezeichnung zu erhalten sind, geben wir nur die englischen Namen an. **Keine Farben auf Nitrobasis verwenden !!** Wir übernehmen keine Haftung für Schäden die durch falsche Farbenwahl entstehen. **Nur Farben verwenden, die für Polystyrol Plastik geeignet sind.**

### << Painting of Leopard Tank >>

The standard painting of a Leopard Tank is a single olive drab colour. In case of a new vehicle just out of factory line, the whole vehicle except for a machine gun and a pair of tracks is sprayed in this colour.

### << Bemalung >>

Beim Verlassen der Fabrik sind alle Deutschen Bundeswehr Leopard olive drab bis auf Ketten und MG's.



### << Weathering >>

Soiling is a good way to make the model look more like a real military vehicle. Soil on real vehicles varies according to the land, season, etc. The model can be soiled for instance by dipping the brush in paint, removing most of the paint by means of wastepaper and then rubbing the brush on the model: or by pouring paint which has been diluted with solvent. Work out your own ways and use them accordingly.

### << Verdeckte Bemalung >>

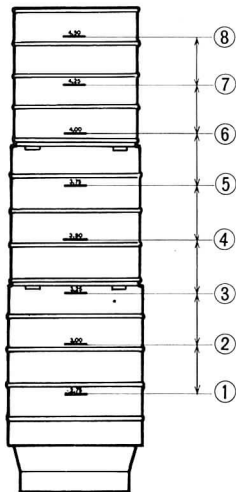
Das Fahrzeug kann auch mit Spezial-Sprays realistischer gemacht werden. Es gibt Schnee-Lehm und Dreckspray, je nach Hintergrund oder Diarama.

### << Conning Tower (full size) >>

### << Kommandoturm (Originalgröße) >>

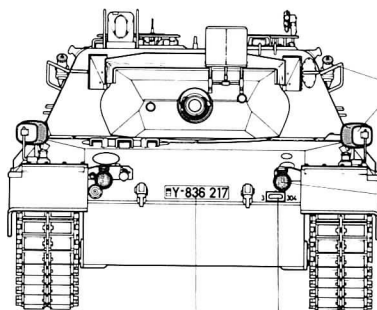
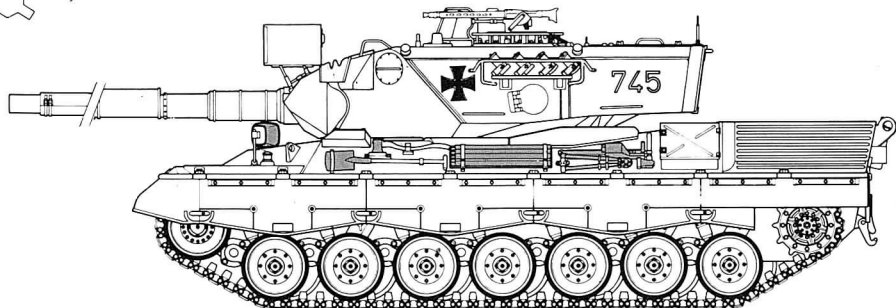
Apply decals 1 - 8 in the same width and in a row as illustrated below.

Abziehbilder 1 - 8 im gleichem Abstand wie unten gezeigt anbringen.



### << Marking - Example 1 >>

Body Colour : Olive Drab

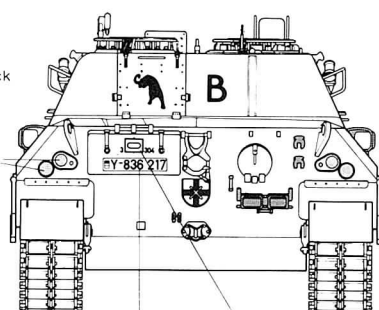


Matt Black

Red

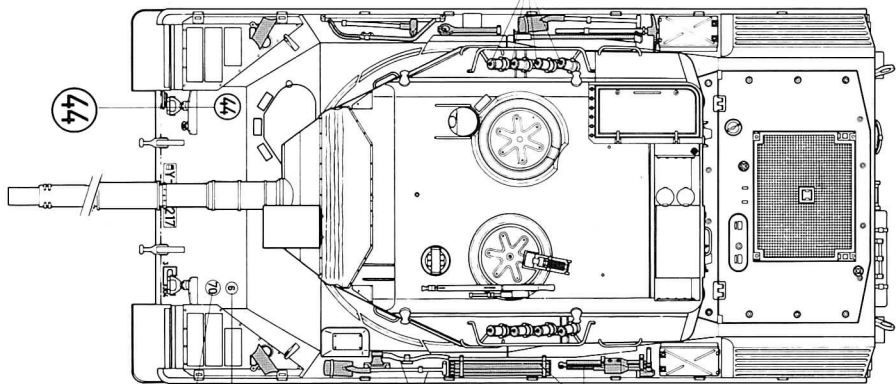
White

Y-836 217 304



Matt Black

Y-836 217 304

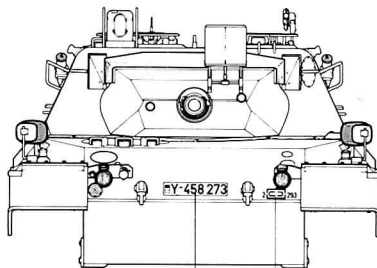
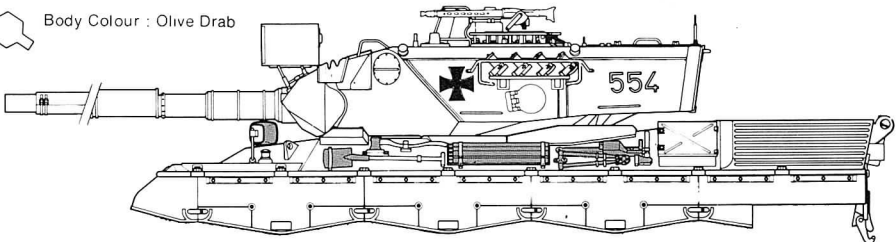


Red Brown

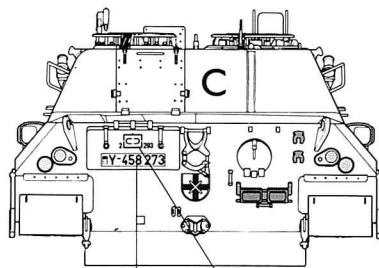
Metallic Grey

### << Marking - Example 2 >>

Body Colour : Olive Drab



Y-458 273 293



Y-458 273 293

# PAINTING

## << Marking - Example 3 >>

In the example of marking illustrated at right, flat earth camouflage is applied on a olive drab ground.

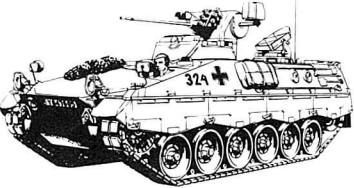
Als Tarnfarbe ist flat earth (matt Erde) auf dunkelgrünem Grund aufgetragen.

## << Colours to be used >> << Bemalung >>

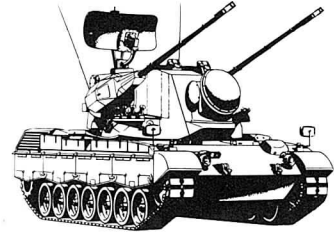
- Olive Drab
- Black
- White
- Red
- Gun Metal
- Matt Black
- Matt Brown
- Matt Flesh
- Metallic Grey
- Red Brown

## BUILD A COLLECTION OF TAMIYA 1/35 SCALE TANK

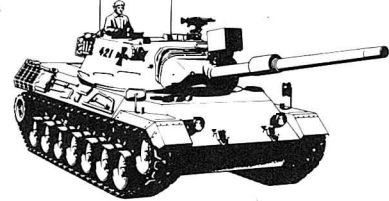
### WEST GERMAN MARDER



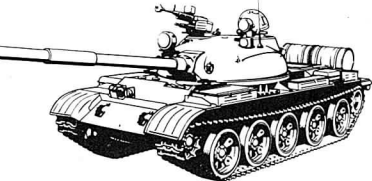
### WEST GERMAN FLAKPANZER GEPARD



### WEST GERMAN LEOPARD 1A1



### RUSSIAN T-62A TANK



### CHIEFTAIN MK5 BRITISH TANK



## << Marking - Example 3 >>

