

BRITISH MAIN BATTLE TANK CHALLENGER

The first production Challengers were delivered to the British Army early in 1983. They were built by the Royal Ordnance Factory at Leeds, in West Yorkshire, England, and the Challenger is the latest in a long line of famous battle tanks produced in Leeds which include the Chieftain, Centurion and Conqueror.

The Chieftain was designed by the Fighting Vehicles Research and Development Establishment (later known as the Military Vehicles and Engineering Establishment) late in the 1950's and entered service in 1967. More than 800 Chieftains were built for the British Army both at Leeds and the Vickers factory located near Elswick, England. Having completed production for Britain, the factories were kept busy with orders from overseas governments,

Iran alone ordering over 2,000 different variants, and Kuwait ordering 143. Since its introduction in 1967 the Chieftain has been kept up to date and continually modified to remain an effective weapons system.

Project FV4030 (Chieftains for Iran) called for 1,300 M.B.T.'s which were improved Chieftains. The Iranians had already been delivered 187 FV4030/1 when the New Revolutionary Government cancelled all orders in February 1979. FV4030/2, called the "Shir Iran 1", was well advanced and over 100 of these M.B.T.'s were to be delivered to Iran in 1980. The much improved specifications included new engines and gear boxes and much greater performance.

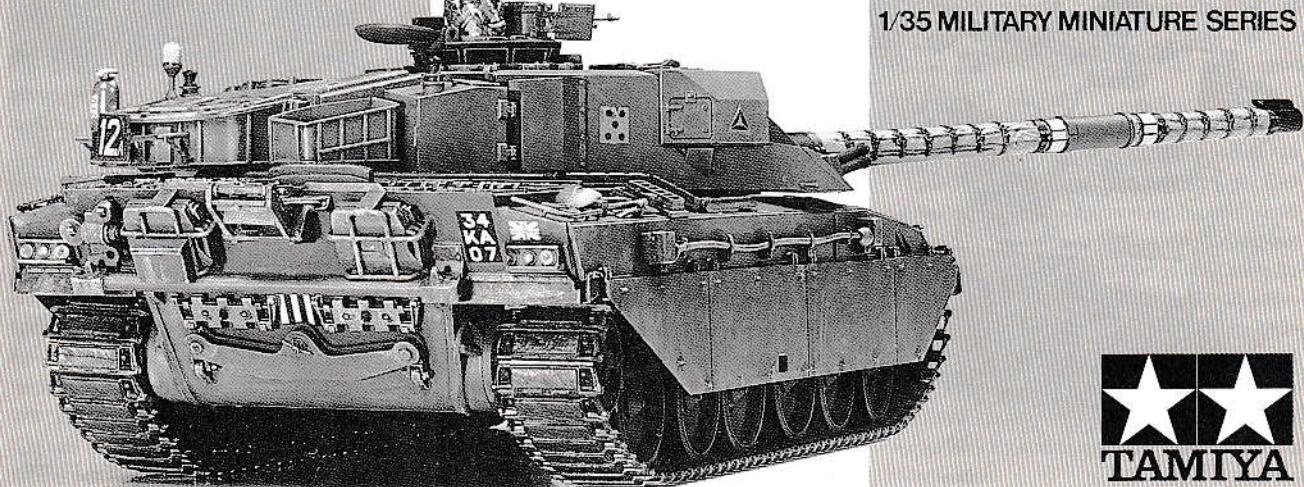
When the order was cancelled the tanks were modified and sold to the Jordanian government and

renamed "The Khalid". Jordan received 278 Khalids with deliveries beginning in 1980.

The original Iranian order was to be in three phases and during 1977 seven prototypes of the FV4030/3 were produced. This variant, "The Shir Iran II", used Chobham armour and had a completely re-designed hull and turret, and since much of the research and development plus tooling had been paid for by the late Shah of Iran it seemed prudent to use this as a basis for further development of a new M.B.T. for the British Army during the 1980's. Originally, the successor to the Chieftain for the British Army was to be developed jointly with the government of West Germany, and was known as the F.M.B.T. (Future Main Battle Tank).

Because of the high expense involved and the differing tank philosophies between the two countries the plan was abandoned and replaced by the national M.B.T.80 program, which in turn, because of expense, was terminated in 1981. In July 1980 the British Minister for Defence stated in the House of Commons "It is now clear that the M.B.T.80 cannot be available until the early 1990's, and in order to meet the threat a much earlier enhancement of

1/35 MILITARY MINIATURE SERIES



1/35 MM チャレンジャー (英版)



Photo: M. Toko

British Army armoured capabilities is required. I have, therefore, decided to bring into service by the mid 1980's a new tank known as 'Challenger.' This was the FV4030/4, a modified variant of the "Shir Iran II", and the British government ordered 240. The General Staff Requirement for the Challenger stated that the M.B.T. should have increased agility, availability at an early date, and compatibility with the European railway system. The Challenger has a hull and turret of Chobham armour and it is believed to have the highest degree of protection of any tank in the world today.

For at least three years before the Minister for Defence made his announcement about the Challenger, the NATO powers had been much concerned about the increasing sophistication of the T72 and T64 tanks then appearing in great numbers in most Warsaw pact countries. Initially it was thought that the Chieftain

and their crews qualitative superiority could, in spite of small numbers, overcome this threat; however, it was soon realized that these T64/T72 tanks with the new 125mm high velocity fin stabilized ammunition presented a very dangerous potential. The U.S.A. had the M1 Abrams well on the way and the West Germans had the Leopard II, so for many reasons, not just cost, it was decided to go ahead with the Challenger.

The Challenger M.B.T. is one of the most advanced armoured fighting vehicles in the world today. Modern technology has enabled outstanding improvements in firepower, protection and mobility, meeting the tough demands of today's battle conditions. It was a logical development of the Chieftain M.B.T. and embodies substantial advances in all areas of tank design. It is powered by a Rolls-Royce CV12 diesel engine, producing 1200BHP, which is coupled to an automatic

hydrostatic transmission to form an integral power pack of high performance. The exceptionally accurate L11 120mm rifled gun, together with laser range finding and two-axis gun stabilization provides day or night sighting and the wide range of separate charge ammunition renders it capable of defeating any tank in service today. The highly advanced fire control system provides the highest first round hit probability under the widest range of battle conditions. The Challengers incorporation of Chobham armour provides it with an exceptionally high level of protection against all forms of anti-tank weapons. In addition, particular attention has been paid to improving hull protection against mine attacks. Crew consists of a commander, driver, loader and gunner. A cupola mounted 7.62 calibre L37A2 machine gun and a coaxial 7.62 calibre TKL8A2 machine gun provide secondary armament. It also has two clusters of 5 smoke dischargers providing 1800 MLS coverage.

* * *

Anfangs 1983 wurden die ersten Challenger's an die britische Armee geliefert. Wie auch die bekannten Chieftain's, Centurion's und Conqueror's wurden diese Panzer von der Firma Royal Ordnance Factory in Leeds, West Yorkshire, England hergestellt. Der Chieftain wurde bereits in den 50er Jahren geplant und wurde 1967 in Dienst gestellt, mehr als 800 Panzer wurden in Leeds und bei den Vickers Werken in Elswick, England gebaut. Nach Ausführung des englischen Armee-Auftrages, wurden ausländische Regierungen mit diesem Panzer beliefert, der Iran bestellte allein 2000 Stück in verschie-



Photo: HQ RACC, Bovington Camp, England



Photo: HQ RACC, Bovington Camp, England

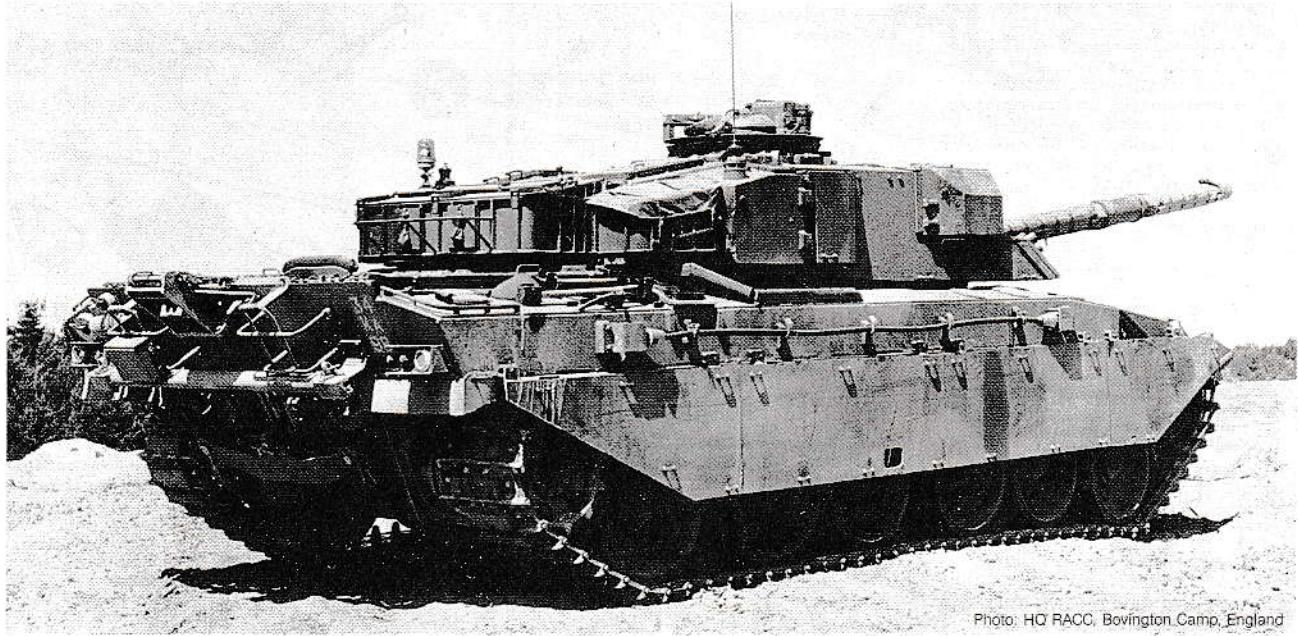


Photo: HQ RACC, Bovington Camp, England

denen Ausführungen, Kuweit bestellte 143. Seit seiner Einführung 1967 wurde der Chieftain immer auf dem neuesten Stand der Technik gehalten und entsprechend verbessert. Als bereits 187 FV4030/1 an den Iran geliefert waren, annulierte die dortige Revolutions-Regierung alle bestellten Panzer im Februar 1979. Nun sollte das Projekt FV4030/2 (genannt Shir Iran II) in Angriff genommen werden und 100 Stück davon sollten 1980 an den Iran ausgeliefert werden. Die verbesserte Ausführung hatte neue Motor, neue Getriebe und eine viel bessere Leistung. Als der Auftrag annulliert wurde, wurden die Panzer wiederum verbessert und nach Jordanien verkauft. Ab Anfang 1980 erhielt Jordanien 278 "The Khalid". Der ursprüngliche iranische Auftrag war in drei Phasen und 1977 wurden sieben Prototypen FV4030/3 gebaut. Der Shir Iran II hat-

te Chobham Panzerung, eine komplett neue Wanne und Turm, und obwohl die meisten Kosten für Entwicklung und Werkzeuge vom letztem Schah bezahlt waren, wurde damit ein neuer Panzer für die britische Armee für die 80er Jahre geschaffen. Nachdem das Vorhaben, den neuen Panzer gemeinsam mit anderen europäischen Ländern, herzustellen an den Kosten und anderen Punkten scheiterte, gab der britische Verteidigungsminister im July 1981 bekannt, dass das Projekt 4030/4, ein besserer Shir Iran II, als Challenger mit 240 Einheiten, in die Produktion genommen wird. Der Challenger hat eine Wanne und einen Turm aus Chobham-Panzerung und dürfte einer der Panzer sein, die am meisten Schutz der Besatzung geben. Die Nato hatte in den letzten Jahren starke Be- fürchtung wegen der Überlegenheit der T72 und

T64 der Warschauer Pakt Staaten, die USA hatten den Abrams M1, die Westdeutschen den Leopard II, und so wurde der Challenger als dringend für England benötigt.

Angetrieben wird der Challenger mit einem Rolls-Royce DV12 Diesel, 1200 PS automatisches Getriebe. Eine L11 Kanone mit 120 mm, Laser Ziel-suchgerät und 2 Axial Kanone für Tag und Nacht-einsatz. Das aussergewöhnlich gute Feuerleitsystem verspricht höchste Treffsicherheit in allen Kampf-lagen. Die Besatzung besteht aus dem Kommandanten, dem Fahrer, dem Schützen und dem Lade-schützen. Auf dem Turm ist ein 7,62 cal L37A2 MG. montiert und coaxial 7,62 cal TKL8A2 MG. ist zu-sätzlich eingebaut, außerdem sind noch zwei Wer-fer für je 5 Rauchraketen - zum eigenem Schutz - vorhanden.



★ Study the instructions and photographs before commencing assembly.
★ You will need a sharp knife, a screwdriver, a file and a pair of pliers.
★ Use cement sparingly. Use only enough to make a good bond.
★ Apply cement to both parts to be joined.
★ Make sure to ventilate room, when you use cement and paints.

This mark denotes paint color, with color names and numbers for Tamiya Acrylic Paints and Tamiya Paint Markers. Page 12 has detailed painting instructions; however, some parts should be painted prior to model's completion, and these are called out during assembly.

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

★ Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abzwicken.

★ Teile vor Kleben zusammenhalten, auf genauen Sitz achten. Nicht zuviel Klebstoff verwenden. Kleine Teile hält man mit Pinzette fest.

★ Abziehbilder vorsichtig von der Unterlage im Wasser abschieben, auf richtigen Sitz achten und gut trocknen lassen.

★ Der Basterraum sollte bei Verwendung von Farben und Klebstoff gut gelüftet sein.

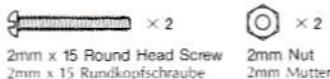
★ Dieses Zeichen zeigt die Farbe und Farbnummer der Tamiya Acrylfarben und Paint Marker.

UNUSED PARTS NICHT BENÖTIGTE TEILE

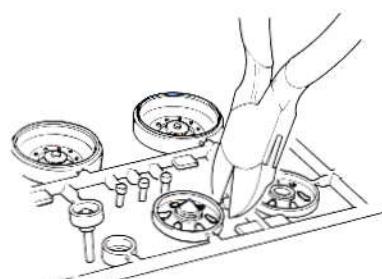
One of each is not used, A1, A3, A6, A7, A9, A10, A26.
Eines davon wird nicht benötigt.



2 NUT & SCREW SHOWN FULL SIZE SCHRAUBE UND MUTTER IN ORIGINALGRÖSSE

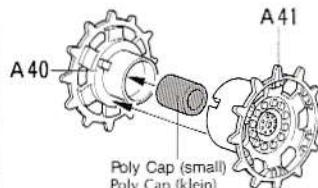


CUTTING OFF PARTS
Do not break parts away from sprue, but remove them carefully with a cutting tool.

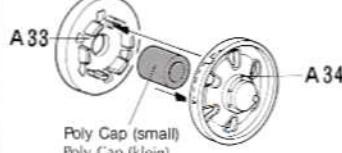


1 WHEELS RÄDER

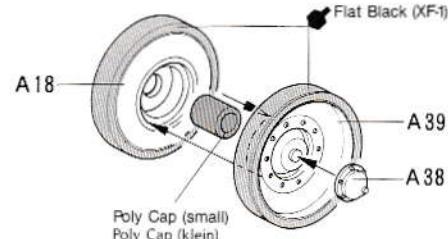
«Drive Sprocket» ★ Make 2 sets.
«Kettenantriebsrad» ★ 2 Satz machen



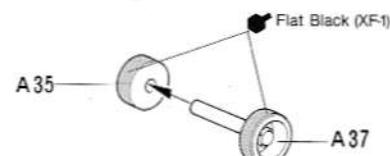
«Idler Wheel» ★ Make 2 sets.
«Spannrad» ★ 2 Satz machen.



«Road Wheel» ★ Make 12 sets.
«Laufrad» ★ 12 Satz machen.



«Support Roller» ★ Make 4 sets.
«Kettentragrolle» ★ 4 Satz machen.



2 ASSEMBLY OF LOWER HULL 1 WANNE 1

2mm x 15 Round Head Screw

★ Fix firmly.

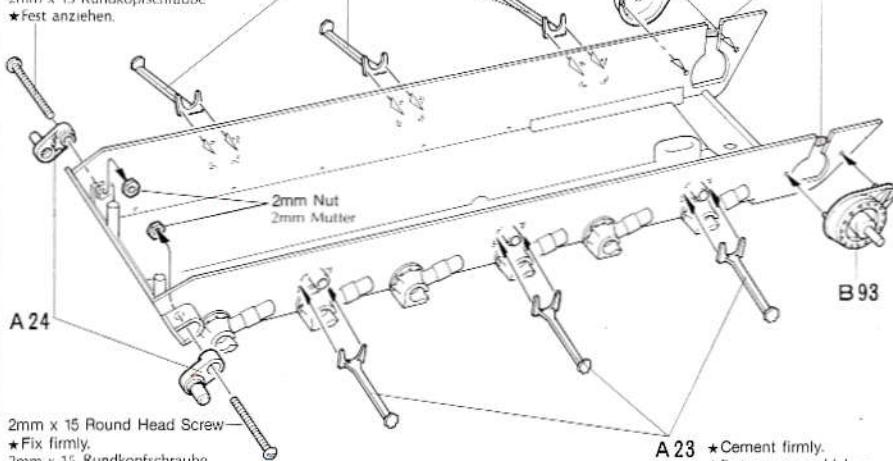
2mm x 15 Rundkopfschraube

★ Fest anziehen.

A 23 ★ Cement firmly.
★ fest zusammenkleben.

B 94

★ Cut away.
★ Abschneiden



3 ASSEMBLY OF LOWER HULL 2 WANNE 2

Idler Wheel ★ Press on.
Spannrad ★ Aufpressen.

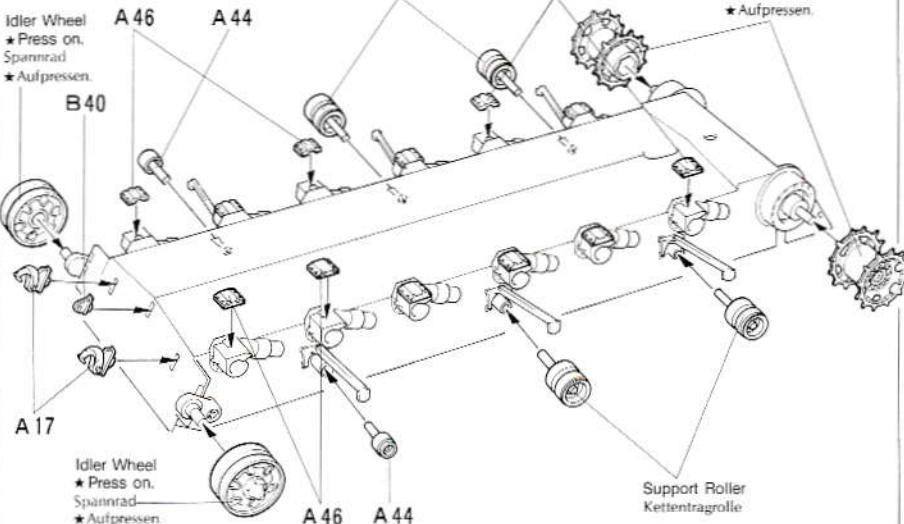
A 46

B 40

Support Roller
Kettentragrolle

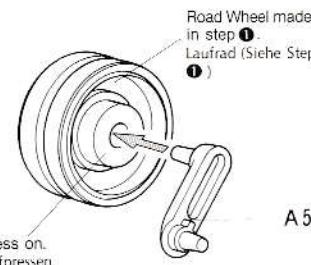
A 46

Drive Sprocket
★ Press on.
Kettenantriebsrad
★ Aufpressen.



4 ATTACHING SUSPENSION ARMS RADAUFGÄNGUNG

★ Make 12 sets.
★ 12 Satz machen.

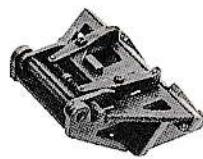


★ Press on.
★ Aufpressen

Do not cement wheels, just press on.
Die Laufräder nicht ankleben,
nur aufpressen.

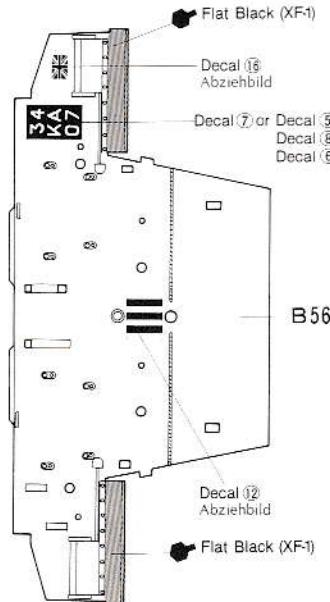


5 GUN TRAVEL LOCK STAY ROHRLAGERBOCK

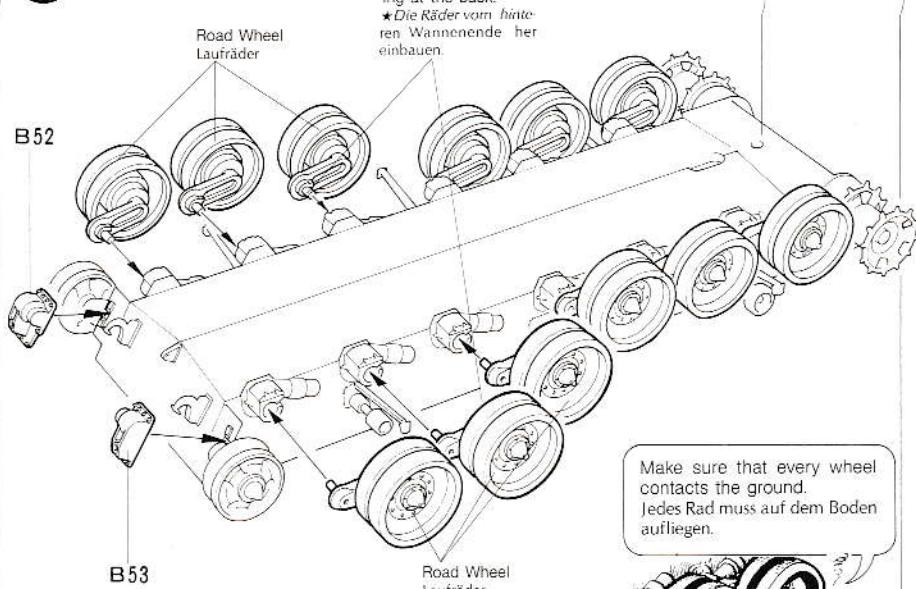


6 MARKING OF REAR PANEL MARKIERUNG DER HECKPLATTE

Refer below for marking of panel. Do this before assembly.
Vor Zusammenbau - unteres Bild studieren.



4 ATTACHING ROAD WHEELS EINBAU DER LAUFRÄDER



★ Cement road wheels and arms to hull starting at the back.
★ Die Räder vom hinteren Wannenende her einbauen.

★ Die Räder vom hinteren Wannenende her einbauen.

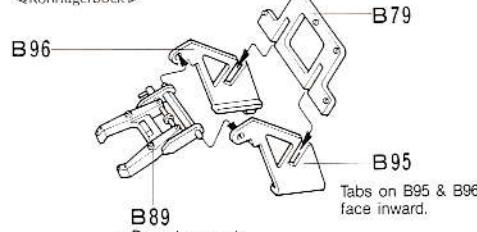
Lower Hull
Wanne

Make sure that every wheel contacts the ground.
Jedes Rad muss auf dem Boden aufliegen.



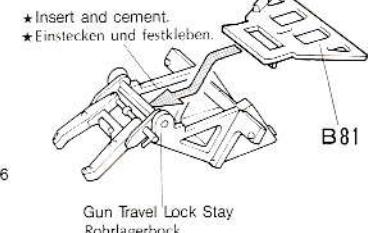
5 ASSEMBLY OF GUN TRAVEL LOCK STAY ZUSAMMENBAU DES ROHRLAGERBOCKES

«Gun Travel Lock Stay»
«Rohrlagerbock»



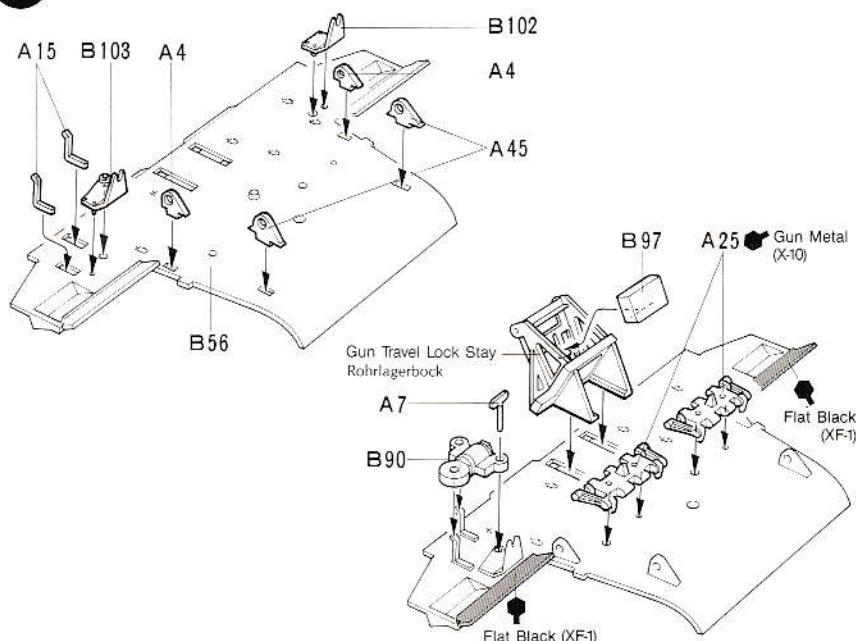
B89
★ Do not cement.
★ Nicht kleben.

«Finishing Gun Travel Lock Stay»
«Endmontage des Rohrlagerbockes»

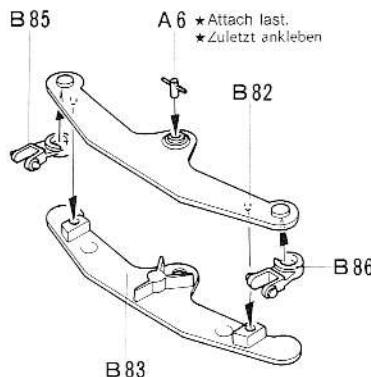


★ Insert and cement.
★ Einstcken und festkleben.

6 ASSEMBLY OF REAR PANEL 1 ZUSAMMENBAU DER HECKPLATTE

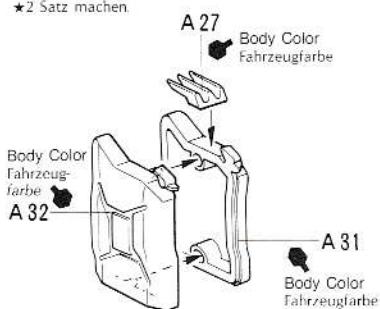


7 TOW HOOK SCHLEPPHAKEN



JERRY CAN KANISTER

★ Make 2 sets.
★ 2 Satz machen



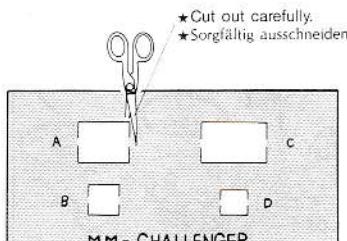
Take a break, and let some fresh air in the room!

Etwas Pause und frische Luft in den Raum lassen, schadet nichts.

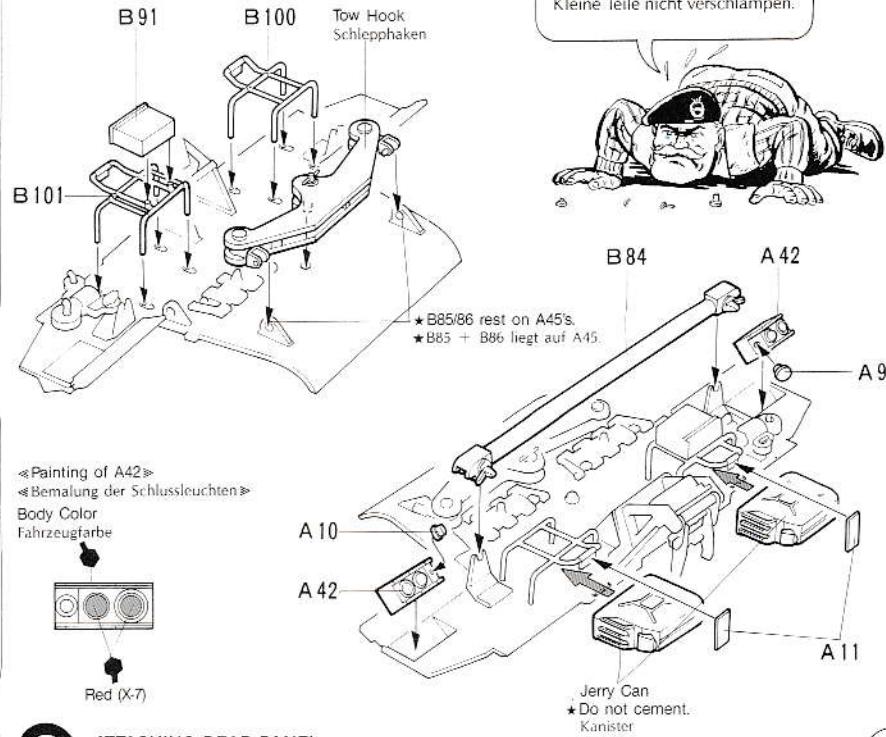


9 TRANSPARENT PART TRANSPARENTE TEIL

Cut out transparent part as shown.
Wie gezeigt ausschneiden.



7 ASSEMBLY OF REAR PANEL 2 HECKPLATTE

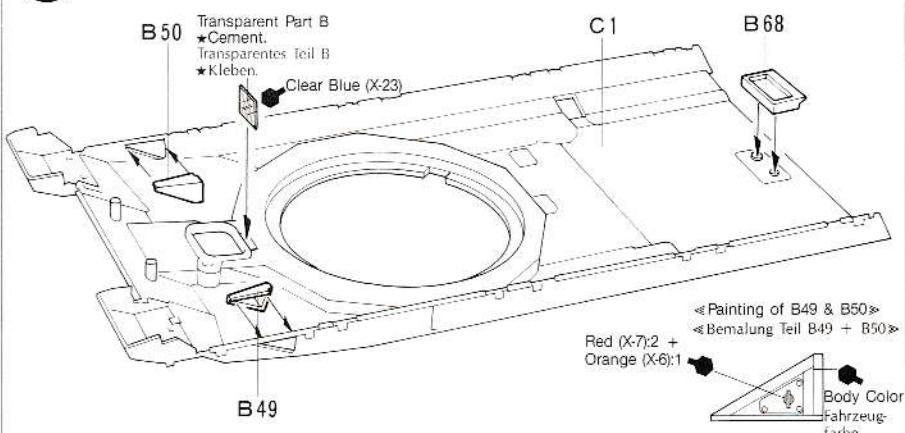


8 ATTACHING REAR PANEL ANBAU DER HECKPLATTE

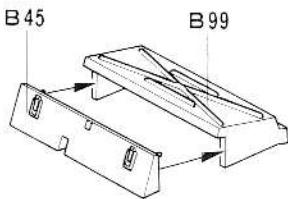
★ Fix with cellophane tape until cement has set.
★ Nach dem Kleben hält man Teil mit Tesafilm zum Trocken zusammen.

Rear Panel
★ Cement firmly.
Heckplatte
★ Fest ankleben.

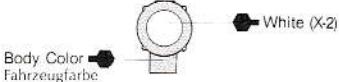
9 ATTACHING INSIDE PARTS OF UPPER HULL INNENTEILE DER OBEREN WANNE



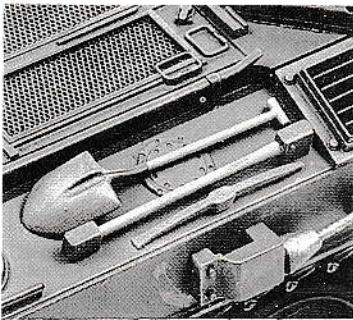
10 TOOL CASE
WERKZEUGKASTEN



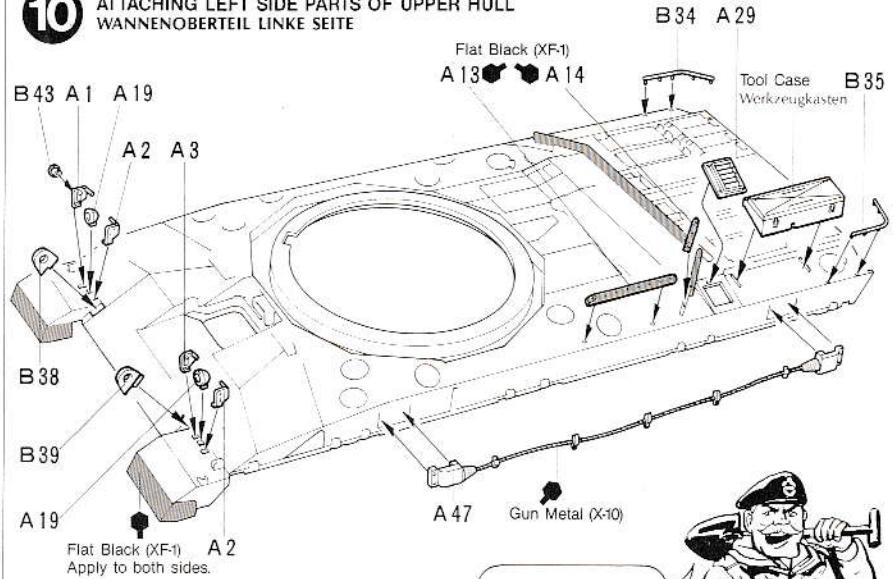
PAINTING OF A19
BEMALUNG VON A19



11 ATTACHING RIGHT SIDE PARTS
TEILE DER RECHTEN SEITE



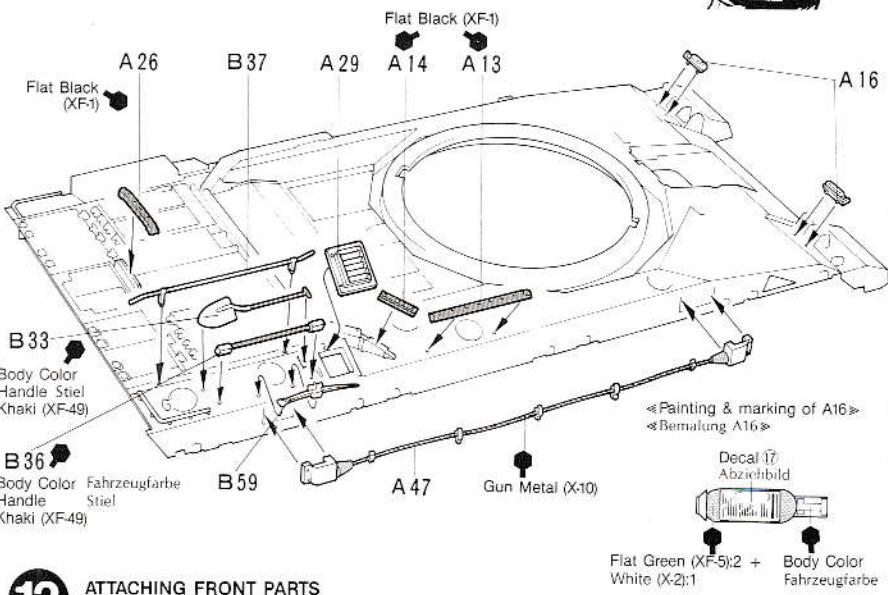
10 ATTACHING LEFT SIDE PARTS OF UPPER HULL
WANNENOBERTEIL LINKE SEITE



Fix tools in their proper places.
Das Werkzeug an die richtige Stelle.



11 ATTACHING RIGHT SIDE PARTS OF
UPPER HULL
WANNENOBERTEIL RECHTE SEITE

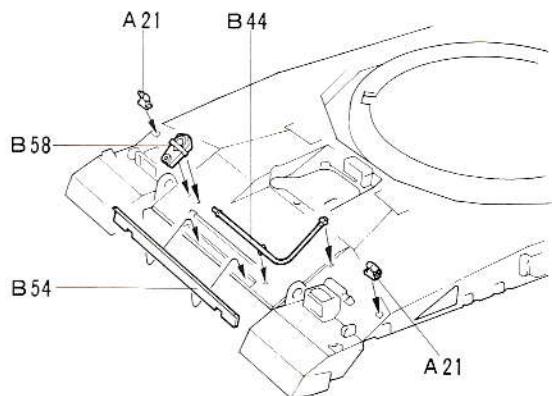
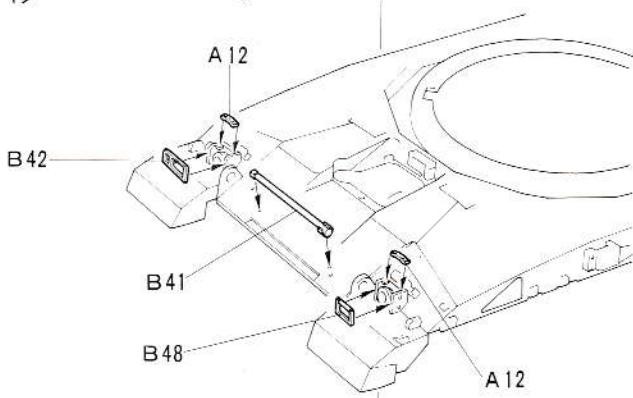


«Painting & marking of A16»
«Bemalung A16»

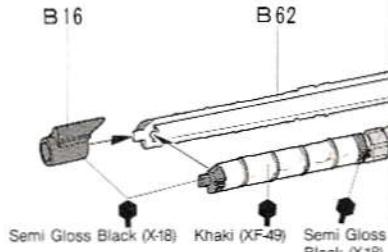


Decal I7
Abziehbild
Flat Green (XF-5):2 +
White (X-2):1
Body Color
Fahrzeugfarbe

12 ATTACHING FRONT PARTS
EINBAU DER FRONTEILE



13 MAIN GUN KANONENROHR

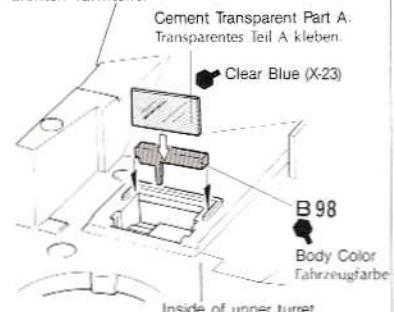


NUT & SCREW SHOWN FULL SIZE
SCHRAUBE UND MUTTER IN
ORIGINALGRÖSSE



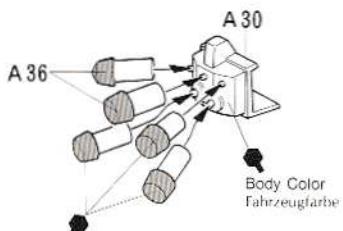
14 ATTACHING PERISCOPE EINBAU DES SEHROHRES

Attach B98 and Transparent Part A by turning over upper turret.
Finbau B98 und Transparent Teil A bei umgedrehten Turmteile.



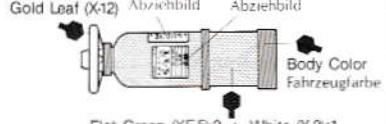
15 SMOKE DISCHARGER NEBELWERFER

★ Make 2 sets.
★ 2 Sätze machen.



PAINTING & MARKING OF B73 BEMALUNG UND MARKIERUNG VON B73

Gold Leaf (X-12) Decal (8) Abziehbild Decal (9) Abziehbild

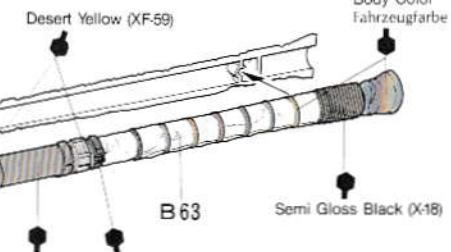


TAMIYA COLOR CATALOGUE

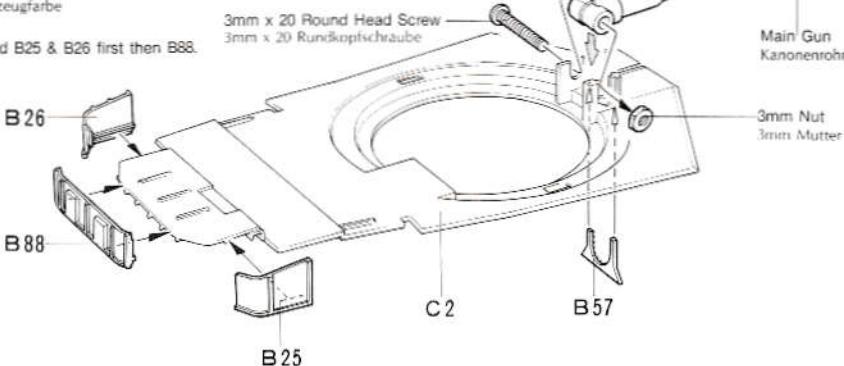
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13

ASSEMBLY OF LOWER TURRET ZUSAMMENBAU TURMUNTERTEIL



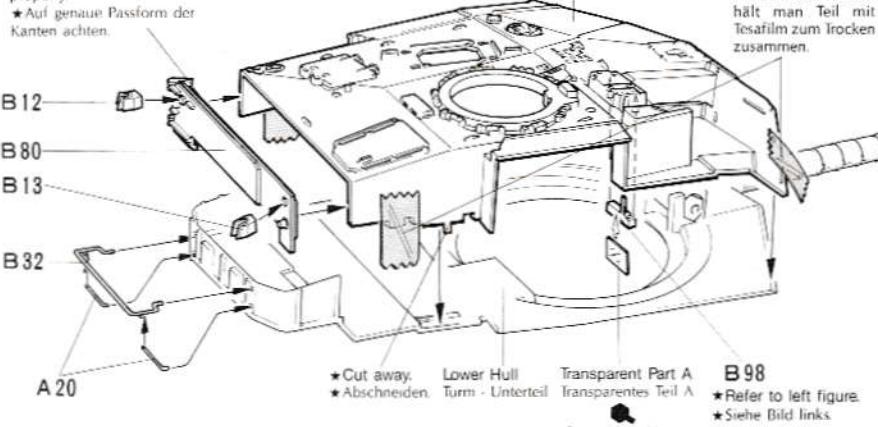
* Add B25 & B26 first then B88.



14

ATTACHING UPPER TURRET ZUSAMMENBAU DES OBEREN TURMTEILES

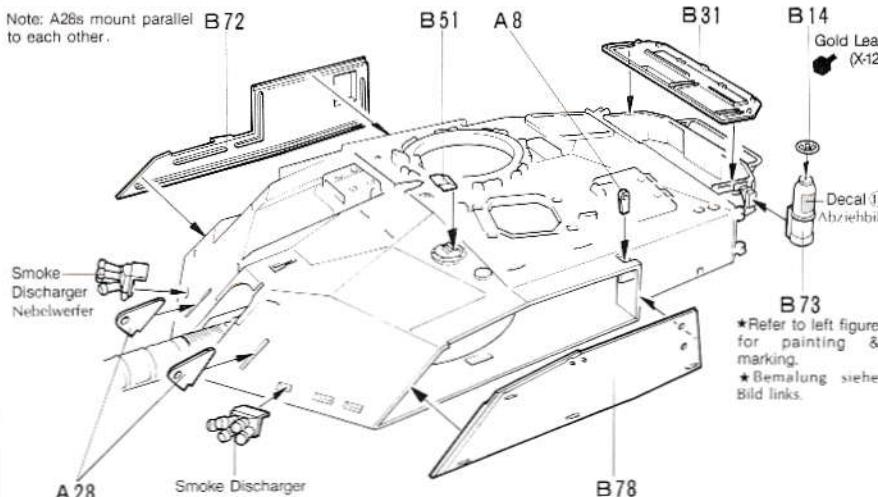
★ Make sure the edges match properly.
★ Auf genaue Passform der Kanten achten.



15

ATTACHING TURRET SIDE PANELS TURM - SEITENTEILE

Note: A28s mount parallel to each other.



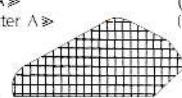
The main gun is secured by screw & nut. Tighten firmly.
Das Kanonenrohr wird mit Schraube und Mutter gesichert.
Mutter fest anziehen.



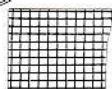
17 TRIMMING OF MESH ZUSCHNEIDEN DER DRAHTGITTER

Cut mesh as shown below. Note mesh pattern.
Drahtgitter wie unten gezeigt, zuschneiden.

«Mesh A»
«Drahtgitter A»
(Full size)
(Volle Größe)



«Mesh B»
«Drahtgitter B»



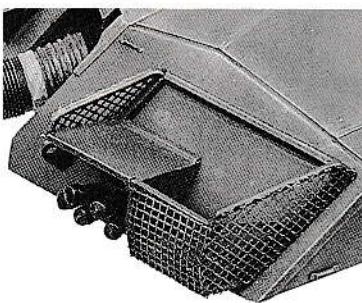
«Mesh C»
«Drahtgitter C»



Refer to the figure above and trim mesh with a pair of scissors.
Siehe Bilder oben. Drahtgitter mit Schere zuschneiden.



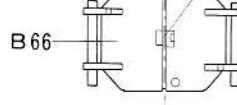
CAMOUFLAGE NET BIN TARNNETZ-KORB



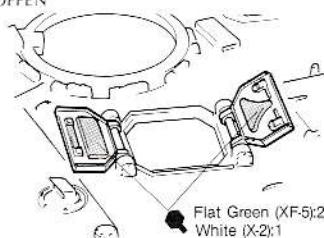
18 LOADER'S HATCH LADESCHÜTZEN-KLAPPE

When making the loader's hatch operable, split B66 as shown below.
Wenn Ladeschützen-Klappe zum öffnen sein soll, dann B66 in der Mitte durchschneiden.

*Cut here.
★ Hier durchschneiden.



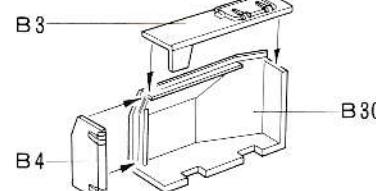
OPEN
OFFEN



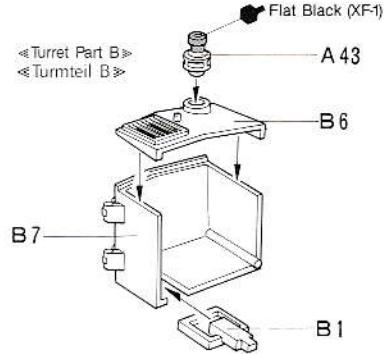
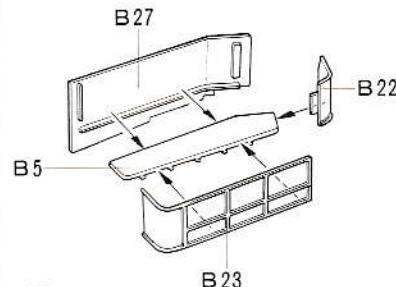
Flat Green (XF-5)2 +
White (X-2)1

16 TURRET PARTS TURMTEILE

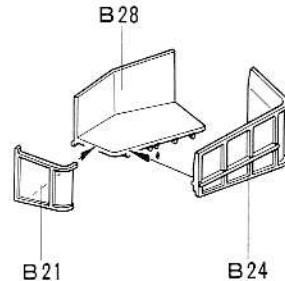
«Turret Part A»
«Turmteil A»



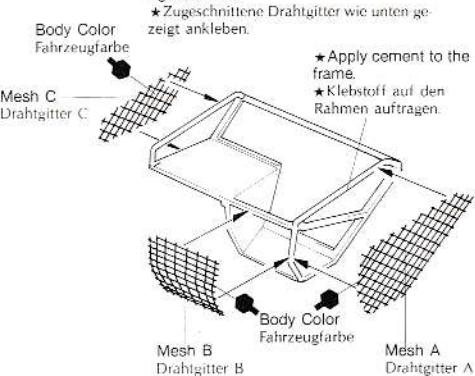
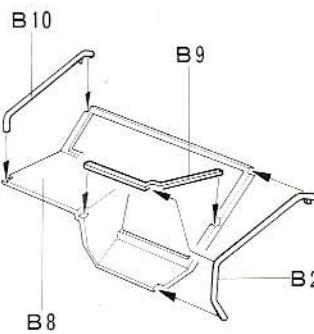
«Turret Part C»
«Turmteil C»



«Turret Part D»
«Turmteil D»

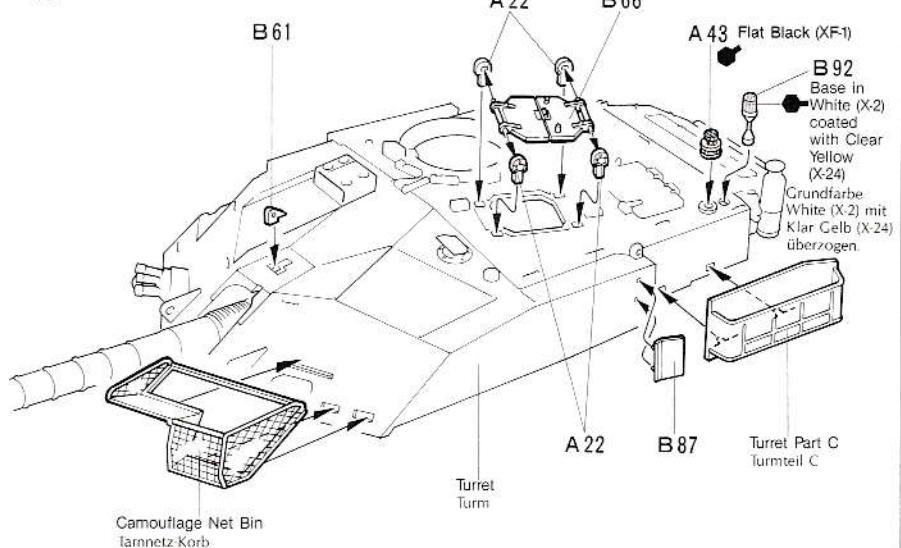


17 ASSEMBLY OF CAMOUFLAGE NET BIN ZUSAMMENBAU DES TARNNETZ-KORBES

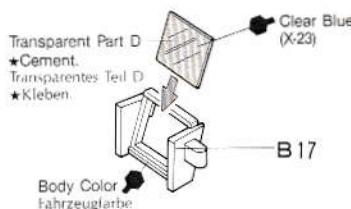


18 ATTACHING UPPER LEFT SIDE PARTS OF TURRET EINBAU DER LINKEN TURMTEILE

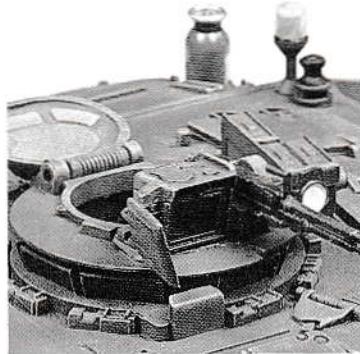
*Can be made operable.
★ Kann auch zum öffnen gebaut werden.



20 PERISCOPE SEHROHR

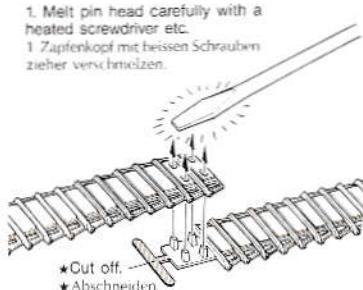


SELECT PERISCOPE COVER IN CLOSED OR OPEN POSITION
SEHROHR-DECKEL OFFEN ODER GE-SCHLOSSEN, AUSWÄLLEN.

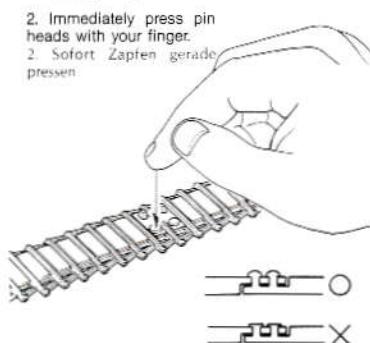


21 TRACK CONSTRUCTION KETTENMONTAGE

1. Melt pin head carefully with a heated screwdriver etc.
1 Zzapfenkopf mit heißen Schrauben zieher verschmelzen.



2. Immediately press pin heads with your finger.
2. Sofort Zapfen gerade pressen



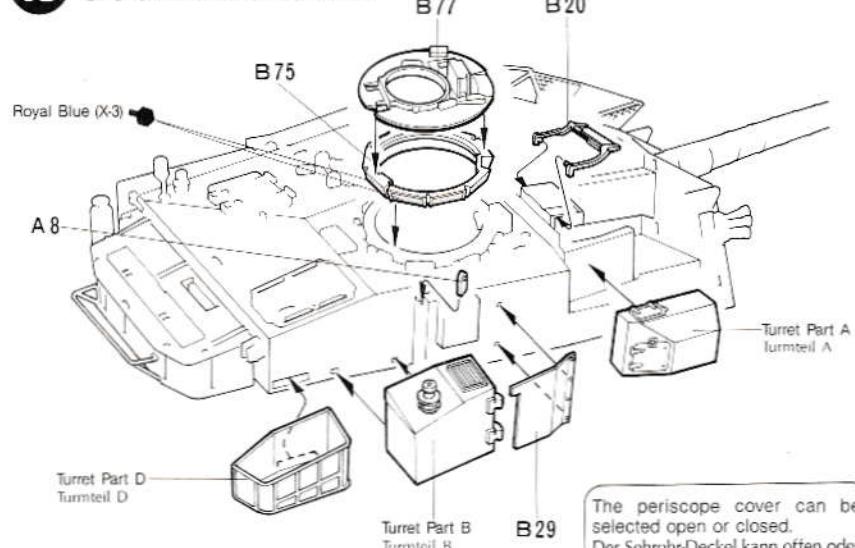
If track is broken, strengthen with staples or thread.

Bei Kettenbruch mit Heftklammern oder Draht flicken.

Staple here.
Hier mit Draht heften.

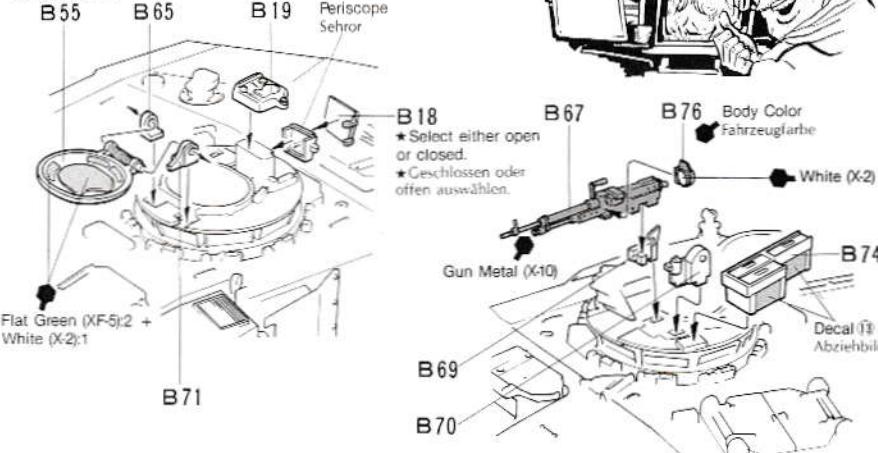


19 ATTACHING RIGHT SIDE PARTS OF TURRET EINBAU DER RECHTEN TURMTEILE



20 ASSEMBLY OF CUPOLA TURMKOPPEL - TEILE

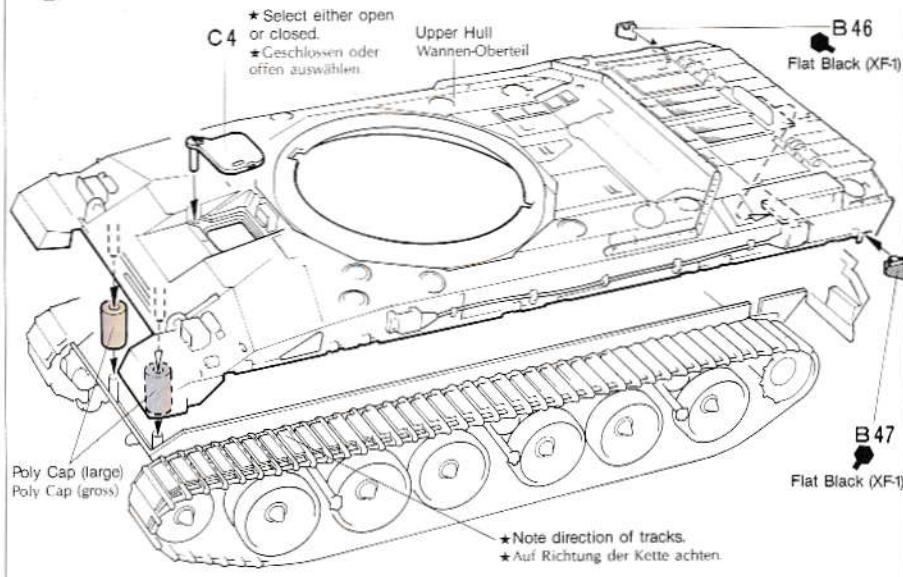
★ Do not cement.
★Nicht kleben.



21 ATTACHING UPPER HULL EINBAU DES WANNEN-OBERTEILES

C4

★ Select either open or closed.
★Geschlossen oder offen auswählen



22 COMMANDER KOMMANDANT

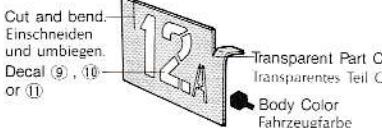


NUMBER PLATE

Slit about 3mm as shown below and bend.

NUMMERN PLATTE

Ca. 3mm einschneiden und umbiegen.



THE MATCHING OF VEHICLE SERIAL NUMBER & DIVISION ASSIGNED FAHRZEUG SERIEN NUMMER UND DIVISIONS-ZEICHEN

- | | |
|----------------|-------------|
| 34 KA07 | 12 A |
| 34 KA10 | 1 A |
| 34 KA95 | 1 B |

Tamiya Farbkatalog in deutscher Sprache

Letzte Neuheiten von Autos, Booten, Tanks und Schiffen. Im neuen Tamiya-Katalog in deutscher Sprache sind alle Modelle, ob Motorisierte, Ferngesteuerte oder Museum-Qualitäts-Modelle, farbig Abgebildet. Katalog erhältlich in Ihren nächsten Modellbaugeschäft.

BUILD A COLLECTION OF TAMIYA
1/35 SCALE MODELS

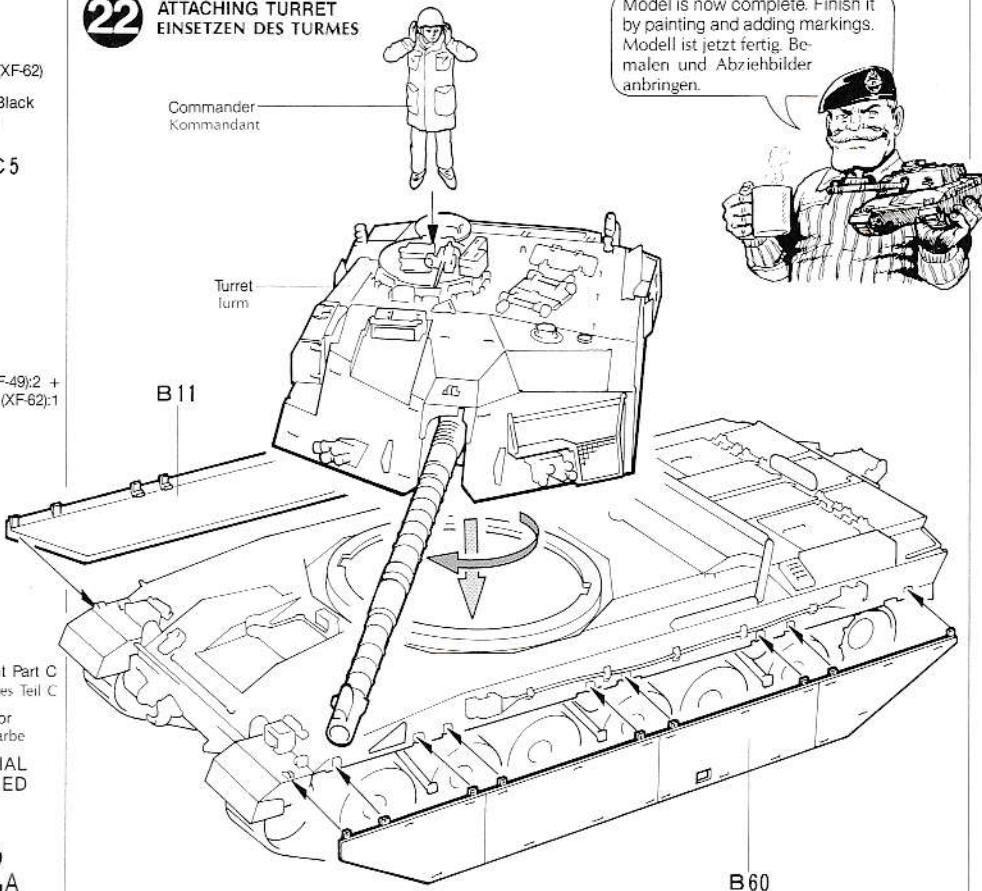
1/35 U.S. MODERN ARMY INFANTRY SET



1/35 CHIEFTAIN MK.5 BRITISH TANK



22 ATTACHING TURRET EINSETZEN DES TURMES



Model is now complete. Finish it by painting and adding markings. Modell ist jetzt fertig. Bemalen und Abziehbilder anbringen.



«Gun Travel Lock»

«Rohrlagerbock»

Used to protect the main gun when not in use.

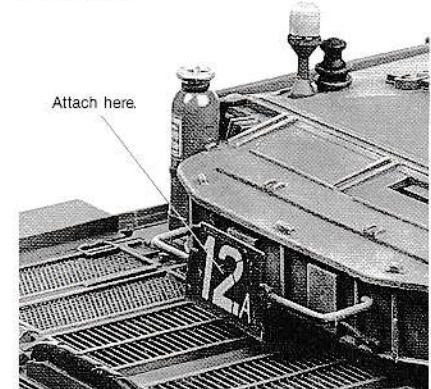
Mit dem Rohrlagerbock wird das Rohr gehalten, wenn nicht im Einsatz.



«Number Plate»

«Nummern Platte»

Indicates division code. Divisions-Zeichen

COLOR SCHEMES FOR WINTER UNIFORM CAMOUFLAGE
FARBANGABEN FÜR WINTER - TARNUNIFORM



PAINTING

PAINTING THE CHALLENGER

When delivered from the factory the Challenger is in basic overall matt olive green. When required for maximum concealment, the tank maybe camouflaged with black covering about 1/3 of the tank and the remaining 2/3 in green. As there is no set pattern for camouflage different patterns will be seen. During winter a splotchy overall white wash is sometimes adopted to blend with the snow. Figure and detail painting is called out during construction and should be done at that time.

BEMALUNG DES CHALLENGER

Ab Fabrik wird der Challenger in einer matten, olivegrünen Farbe geliefert. Zur Tarnung kann der Challenger mit ca. 1/3 in schwarz und 2/3 in grün bemalt werden. Es gibt keine Schablone für das Tarnen, es wird je nach Gelände und Jahreszeit entsprechend ausgeführt. Figuren und Detail-Bemalung sind in der Bauanleitung angegeben und sollten je nach Step sofort gemacht werden.

COLORS REQUIRED:

FOLGENDE FARBEN WERDEN BENÖTIKT:

White	X2
Royal Blue	X3
Orange	X6
Red	X7
Gun Metal	X10
Gold Leaf	X12
Semi Gloss Black	X18
Clear Blue	X23
Clear Yellow	X24
Flat Black	XF1
Flat Green	XF5
Flat Brown	XF10
Flat Flesh	XF15
Khaki	XF49
Desert Yellow	XF59
Olive Drab	XF62

APPLYING DECALS



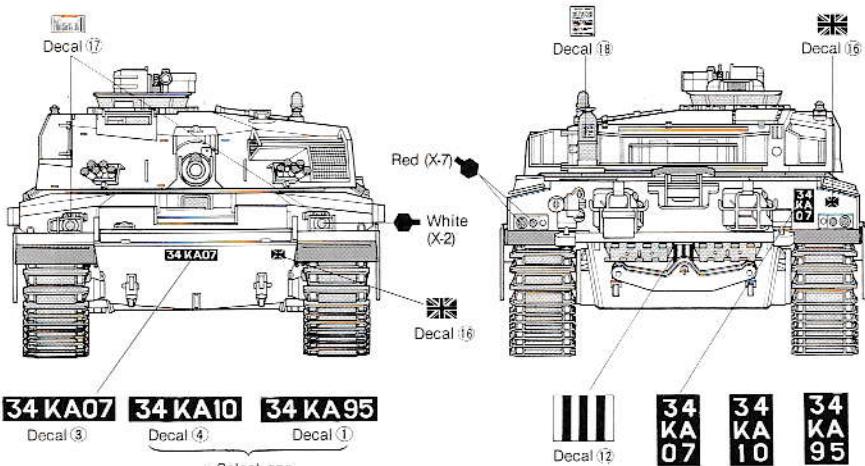
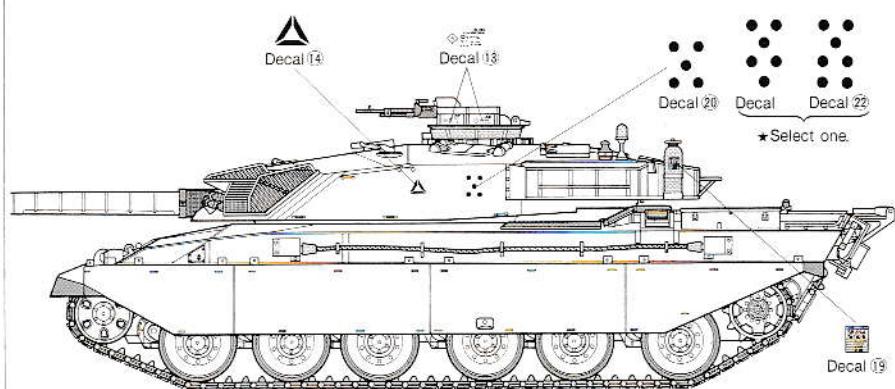
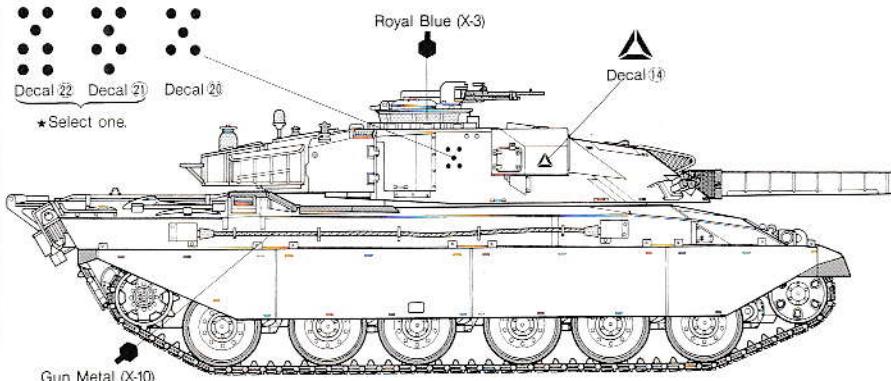
DECAL APPLICATION

- (1) Remove all dust, dirt and adhesive smears with a wet cloth before applying any decals.
- (2) The decal to be applied should be removed beforehand from the decal sheet. Cut off translucent film along colored parts.
- (3) Dip the decal in tepid water for about 10 seconds and then remove it onto a clean cloth. Be careful of over immersion to avoid loss of decal's adhesive.
- (4) Hold the backing sheet edge and slide the decal onto the model.
- (5) Wet the decal with a little water on your finger so that it can be moved more easily into position.
- (6) Press the decal down gently with a clean soft cloth to remove air bubbles and until all excess water has been fully absorbed. When a decal has to be applied to a surface which is uneven or curved, press the decal down with a hot towel so that the decal will fit the contours perfectly. Cut off the excess transparent portion around each decal. The decal must then not be touched until dry.

PAINTING AND MARKING OF CHALLENGER THE BRITISH ARMY OF THE RHINE IN W. GERMANY



Body Color: Dark Olive Green



U.K. MAINLAND DIVISION

★ Refer to box art.

Decals used

Decal (2)

Decal (6)

Decal (5)

