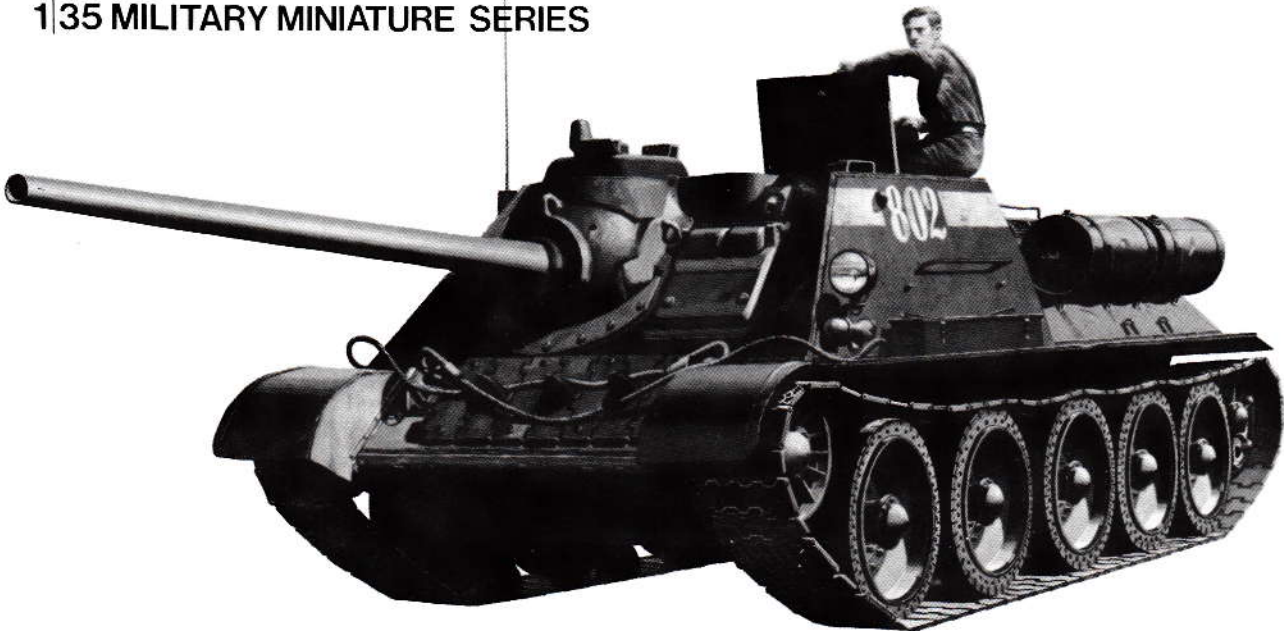


# SU-85 RUSSIAN TANK DESTROYER

## 1/35 MILITARY MINIATURE SERIES



In the German-Soviet war which began with the German surprise attack, the Russians were forced to fight under great difficulty and disadvantage from the start. The Germans made fierce attacks by the "blitzkrieg" tactics which had been polished on the basis of experience in their French campaign, and their soldiers worked with the precision of machinery and acted as promptly as hounds. The Germans carried out so to speak pincer operations with their panzer units as the main body and set a huge iron ring against the Russians. The collapse of communication system, confusion of command net and loss of the air superiority increased damage to the Russian ground troops.

There were two German weapons which gave the most indelible impression on Russian soldiers. One of them was the U-78 Stuka which had already proved itself to be an effective dive bomber in the French campaign. Planes of this type saturated Russian targets while diving steeply and skimming over the ground with a whirr that sounded like a "shriek in hell". The other was the Sturmgeschuetz III which destroyed Russian *tochkas* one after another to support infantry units. The Russians were not without tanks similar in use to the German Sturmgeschuetz. They had the KV-II heavy tank which was nicknamed "Gigant" by German infantrymen. Because this tank was too heavy to make quick movement and had a very high silhouette, however, it could not steal near enemy positions to destroy them. In addition, the number of this type were so small as to concentrate their powerful 152 mm gun fire sufficiently on the target.

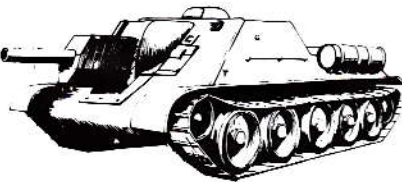
After checking the German advance in front of Moscow, the Russians formed early in 1942 a plan for the mass production of tanks and guns for counteroffensive. Of all tanks to be produced under the plan, about 70% were T-34 mediums and the remaining 30% consisted of KV-I heavy tanks and light tanks. Guns to be produced consisted of "small calibre" (76.2 mm) guns, "medium calibre" (85-100 mm) guns and "large calibre" (122 mm) guns. These weapons were to be immediately sent to the battlefield in large quantities.

Judging from this plan, the Russians must have already expected in those days to mount the 122 mm, 100 mm or 85 mm gun on the chassis of the T-34 tank. As they knew the

power of the German Sturmgeschuetz by reports from the front, the Russians naturally crystallized their own idea of assault guns. The Soviet Union's first assault gun to be produced was a self-propelled gun with 122 mm howitzer called "SU-122". The "SU" (or "Cy" in Russian letters) is an abbreviation for Russian "Samokhodnaya Ustanovka" which means "self-propelled gun". The Russians called such turretless tanks by the general name of self-propelled gun.

The SU-122 self-propelled gun was designed by engineer E.W. Silnitschikov with the assistance of F.F. Petrov, the king of Russian gun designers, who had designed the 122 mm gun. This was an excellent howitzer and called "M-30S" by the Russians. It had a range of

SU-122



11,800 m, muzzle velocity of 515 m/sec and rate of fire of 5 or 6 rounds/min. The SU-122 self-propelled gun was similar in shape to the German Sturmgeschuetz III armed with the short-barrelled 75 mm gun. With projecting bulky recoil mechanism, the SU-122 did not look well at all. The final production model, however, had the forceful Russian style with polished semi-spherical recoil mechanism and shields employed instead of the previous unshapely ones.

The SU-122 self-propelled gun first saw action in the Battle of Kursk in the summer of 1943. SU-122's, then forming a part of Russian artillery, took part in the recapture of Orel to the north of Kursk and in the subsequent pursuit actions.

Meanwhile, in the *kombinat*, called "Tankograd", of tank production plants near the Ural Mountains, engineers with L.S. Troyanov and S.N. Machonia as the leaders were designing a new self-propelled gun which was to mount a long-barrelled (51.5 calibres long) 85 mm gun instead of the 122 mm howitzer. The 85 mm gun was an anti-tank weapon remodelled

from the anti-aircraft gun D-5 designed by Petrov in 1939.

The remodelling was made by Petrov himself and the gun was named "D-5S-85A". It is very interesting to note that the new self-propelled gun named "SU-85" was the very same as the German heavy tank VI Tiger in mounting a remodelled version of anti-aircraft gun. That is, the German Tiger carried a tank gun remodelled from the 88 mm anti-aircraft gun, the last trump card that the Germans used against Russian heavy tanks. With 9.02 kg armour-piercing rounds, the D-5S-85A tank gun had a muzzle velocity of 792 m/sec and was powerful enough to penetrate 100 mm vertical armour plate at a distance of 1,000 m. It had a field of fire of 20 degrees in azimuth and from minus 5 degrees to plus 25 degrees in elevation. The rate of fire is said to have been 8 to 10 rounds/min. The crew consisted of 4 men. The commander was in the protuberant cupola on the frontal right and could see outside through the rotating periscope and vision slits. The cupola was later replaced by the hatch type with cylindrical vision holes that was seen on T-34/76 tanks of 1943 and later models.

The gunner was at the left of the gun and the loader was behind the commander. The driver hemmed in by 85 mm ammunition sat on the forward left side as before.

Thus, the SU-85 self-propelled gun was a powerful anti-tank weapon worthy of being called tank destroyer or Jagdpanzer in German rather than self-propelled gun. The Russian masterpiece self-propelled gun SU-85 was not in time for the decisive battle near Kursk. It first saw service in the pursuit action in December 1943 after the liberation of Kiev and confronted the German medium tank Panther and heavy tank Tiger.

The Russians incorporated 21 vehicles of this type into the self-propelled artillery battalion under direct control of the corps and 31 into the self-propelled artillery regiment under direct control of the tank army, so that the commanders could use them at their will.

In mid 1944, the SU-85 gave place to the SU-100 self-propelled gun, the last model in the SU series, that carried the 100 mm gun on the T-34 chassis. After that, the SU-85 self-propelled gun continued service as part of the tank battalion.



# PARTS

## A PARTS

1. Cylinder Tank Upper
2. Cylinder Tank Lower
3. Rear Grill-R
4. Rear Grill-L
5. Periscope Cover-R
6. Periscope Cover-L
7. Rear Panel
8. Tool Box-A
9. Tool Box-B
10. Muffler
11. Engine Grill
12. Unnecessary
13. Towing Hook
14. Unnecessary
15. Cylinder Tank Parts
16. Muffler Cover
17. Antenna Mount
18. Handrails
19. Unnecessary
20. Spare Tracks-A
21. Shaft Stopper
22. Unnecessary
23. Unnecessary
24. Light
25. Final Gear Cover
26. Driver's Hatch
27. Unnecessary
28. Spare Tracks-B
29. Driver's Hatch Parts
30. Wire Ropes
31. Unnecessary

## B PARTS

1. Road Wheel Cap
2. Sprocket Wheel Cap
3. Body Stopper
4. Idler Wheel Cap
5. Unnecessary

## C PARTS

1. Road Wheel-A
2. Road Wheel-B
3. Idler Wheel-A
4. Sprocket Wheel-A
5. Sprocket Wheel-B
6. Idler Wheel-B

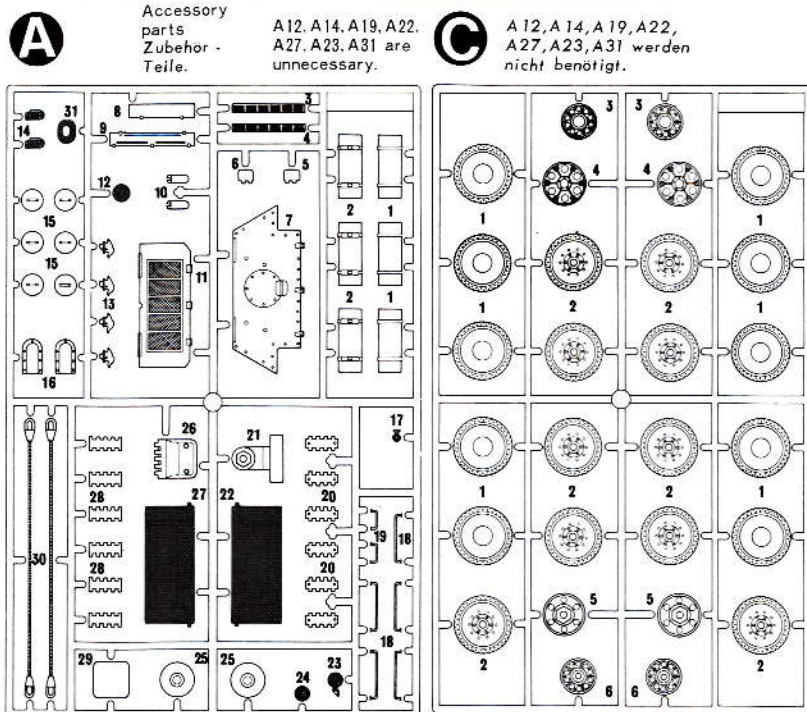
## D PARTS

1. Gun Barrel Part
2. Cylinder Tank Parts
3. Gun Barrel
4. Cover Hinge
5. Outer Ball Mount
6. Inner Ball Mount
7. Ball Mount Holder
8. Ball Mount
9. Cover
10. Gun Shield
11. Gun Shield Base
12. Cylinder Tank Upper
13. Cylinder Tank Lower
14. Rear Panel
15. Shovel
16. Blanket
17. Spare Tracks
18. Pistol Port
19. Vision Port
20. Tool Stay
21. Periscope
22. Holster
23. Horn
24. Loader's Hatch
25. Commander's Hatch-B
26. Commander's Hatch-A
27. Periscope Cover
28. Front Armour Plate
29. Roof
30. Track Spikes
31. Light Cover
32. Figure Body
33. Figure Hand-R
34. Figure Hand-L
35. Figure Leg
36. Stopper

Accessory  
parts  
Zubehör -  
Teile.

A12, A14, A19, A22,  
A27, A23, A31 are  
unnecessary.

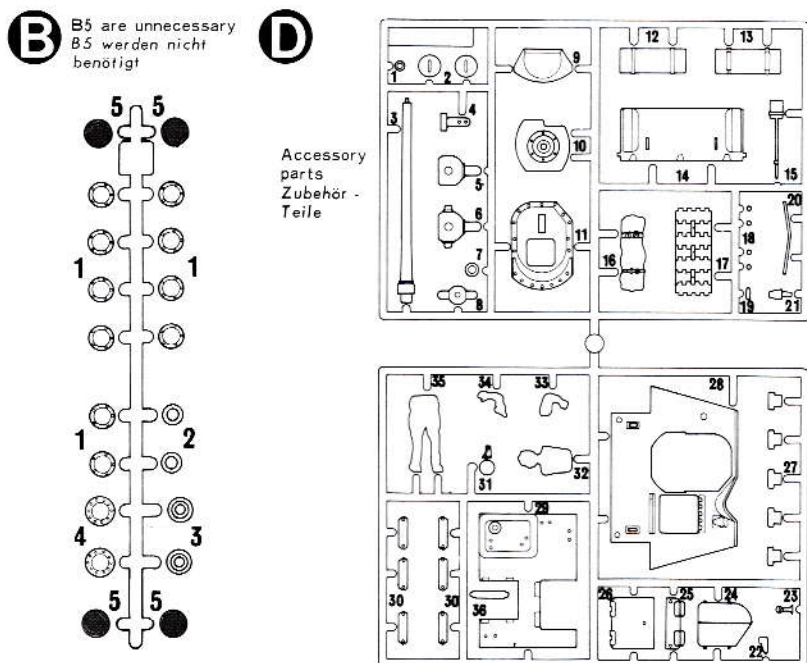
A12, A14, A19, A22,  
A27, A23, A31 werden  
nicht benötigt.



B5 are unnecessary  
B5 werden nicht  
benötigt

D

Accessory  
parts  
Zubehör -  
Teile



Read Before Assembly  
Erst lesen - dann bauen.

★Study the instructions before you start assembly. Make sure of parts shape and area to be cemented before you apply cement.

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

This mark denotes number for Tamiya Paint Colors. See also page 8.

★Vor Beginn die Bauanleitung studieren. Die Teile nach Bauabschnitten zusammenbauen. Teile nicht vom Spritzling brechen - abschneiden oder abzwicken, vor Kleben zusammenhalten - auf Passung achten.

★Nicht zuviel Klebstoff verwenden. Kleine Teile mit Pinzette halten.

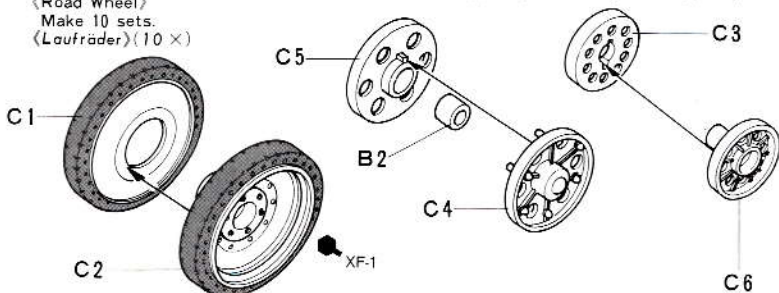
★Abziehbilder vorsichtig im Wasser abschieben, auf richtigen Sitz achten und gut trocknen.

## 1 Construction of Wheels Zusammenbau der Räder

(Road Wheel)  
Make 10 sets.  
(Laufräder) (10 ×)

(Drive Sprocket)  
Make 2 sets.  
(Kettentrittrad) (2 ×)

(Idler Wheel)  
Make 2 sets.  
(Leitrad) (2 ×)

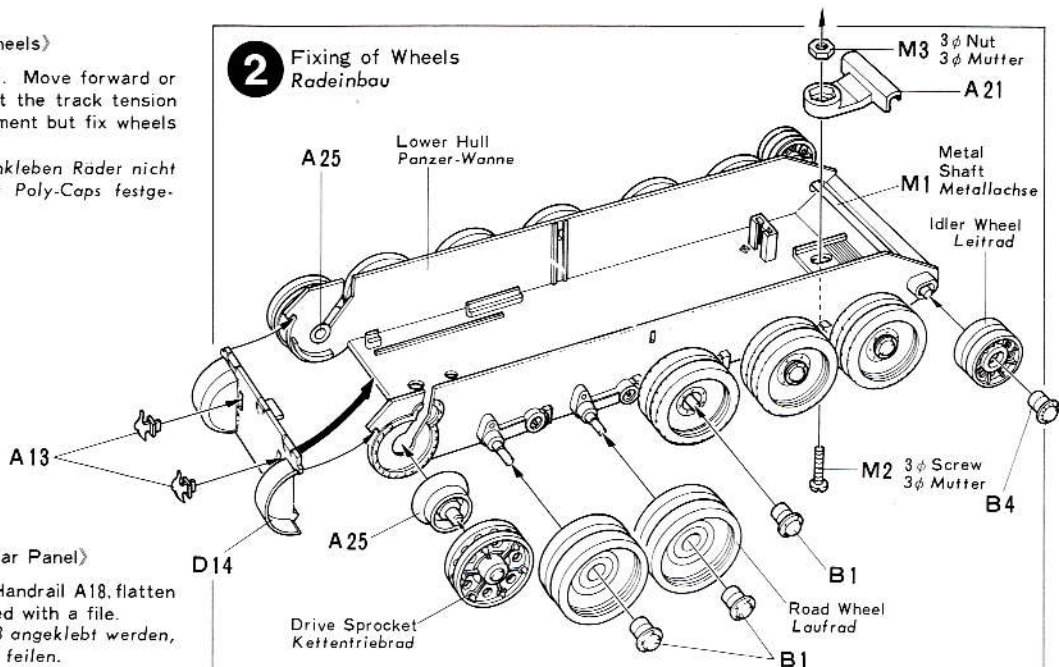


## 2 (Fixing of Wheels)

Do not cement A21. Move forward or backward to adjust the track tension and fix. Do not cement but fix wheels with Poly Caps.

Teil A 21 nicht einkleben Räder nicht kleben, werden mit Poly-Caps festgedrückt.

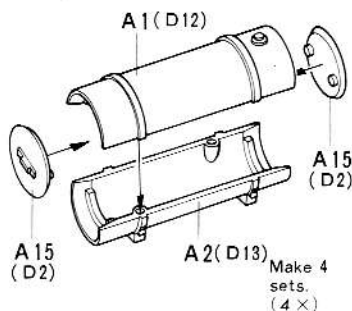
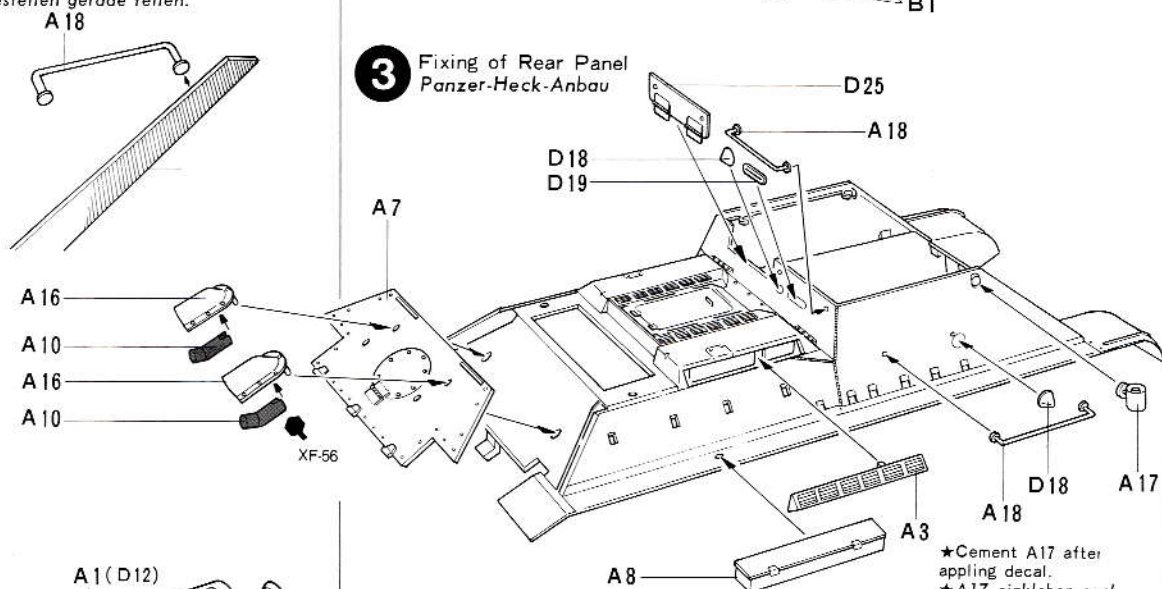
## 2 Fixing of Wheels Radeinbau



## 3 (Fixing of Rear Panel)

Before cementing Handrail A18, flatten area to be cemented with a file. Wo Haltebügel A 18 angeklebt werden, Klebestellen gerade feilen.

## 3 Fixing of Rear Panel Panzer-Heck-Anbau

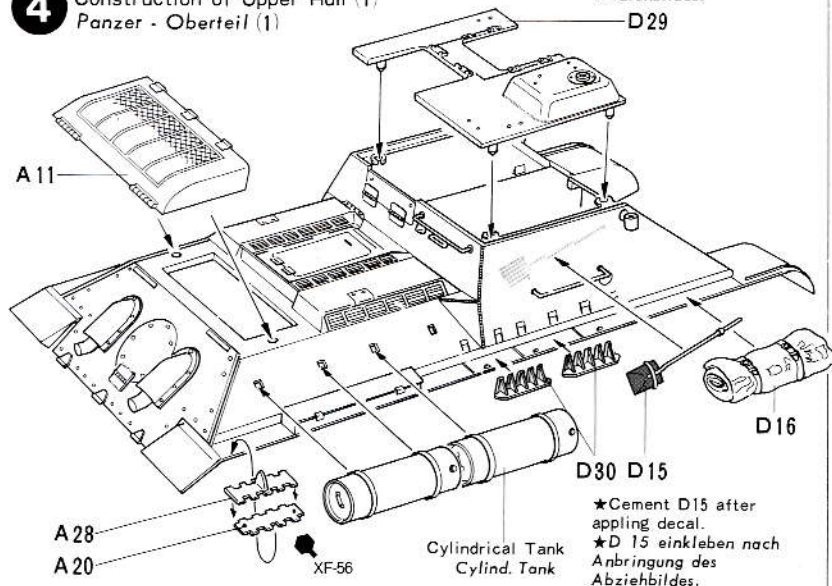


## 4 (Construction of Upper Hull (1))

Blanket D16, Shovel D15, Track Attachment D30, Spare Track A28, A20 are accessories. Fix them where you prefer.

Zubehör D16, D15, D30, A28, A20 wie im Bild gezeigt ankleben.

## 4 Construction of Upper Hull (1) Panzer - Oberteil (1)



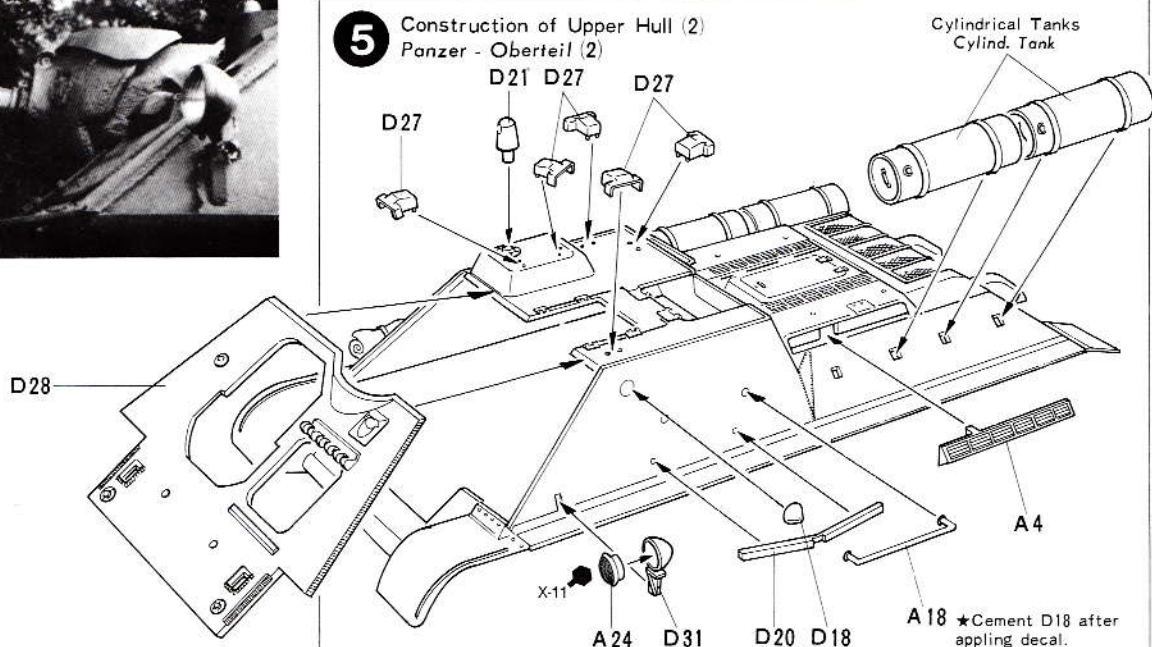
★Cement A17 after applying decal.  
★A17 einkleben nach Anbringung des Abziehbildes.

★Cement D15 after applying decal.  
★D 15 einkleben nach Anbringung des Abziehbildes.

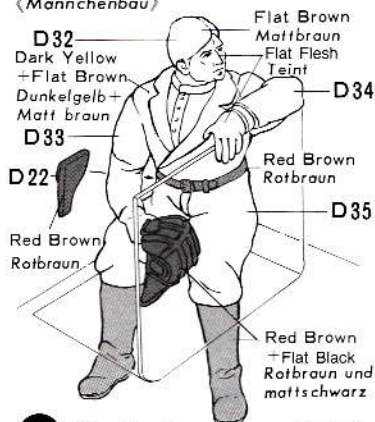




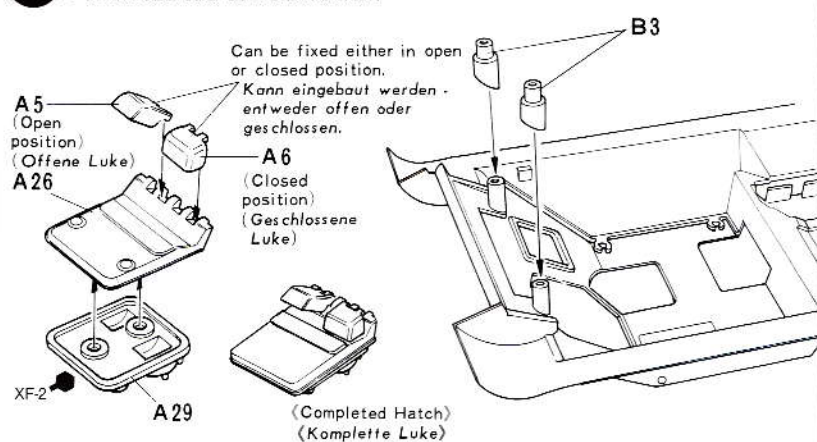
## 5 Construction of Upper Hull (2) Panzer - Oberteil (2)



## Construction of Figure (Männchenbau)

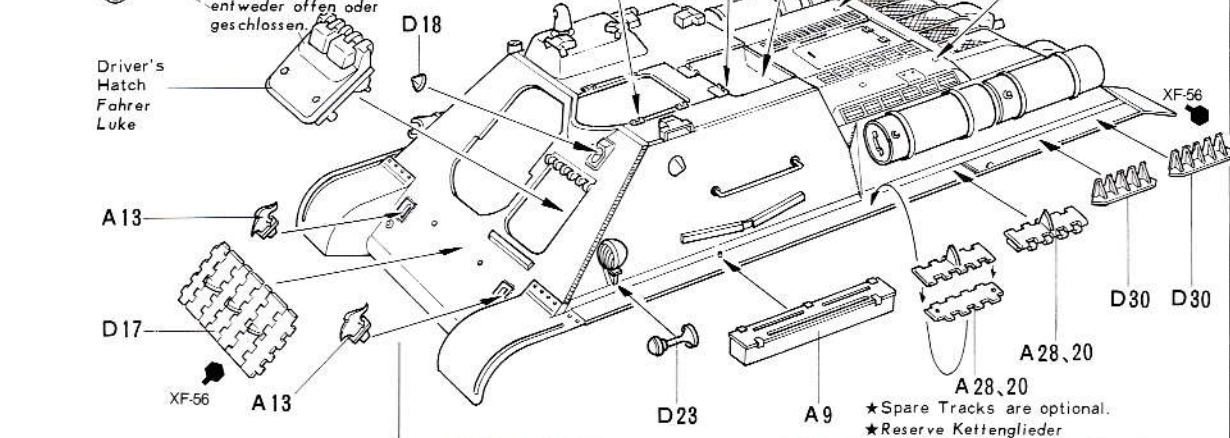
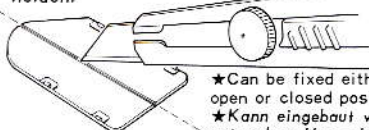


## 6 Construction of Driver's Hatch and Upper Hull Inside Fahrerluke und oberes Innenteil

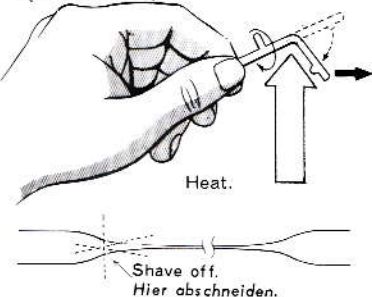


## 7 Construction of Upper Hull (3) Panzer - Oberteil (3)

★If you prefer to fix Hatch D24 in an open position, cut it with a sharp knife as shown below.  
Soll die Fahrerluke offen eingebaut werden, dann angegebenes Stück abschneiden.



# (How to Make Antenna) (Antennenbau)

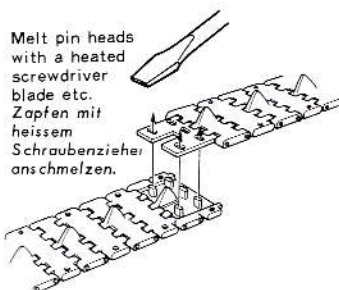


D1

★Prepare about 15 cm long runner. Heat the center while revolving. When it begins to melt, stop heating and stretch slowly. Hold it and cool about 15 seconds. Cut one 6 cm-long piece.  
★Be careful in handling a flame to avoid fire or injury.

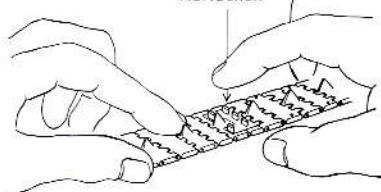
★Ein Stück vom Spritzling über Kerze gerade biegen. Dann in der Mitte im Drehen erhitzen. Wenn das Plastik schmilzt, nicht weiter erhitzen und langsam auseinanderziehen und ca. 15 Sec. abkühlen. 6 cm abschneiden.

## (Construction of Tracks)



Immediately after that, press pin heads.  
★Sofort Zapfen gerade pressen.

Flatten.  
Abflachen

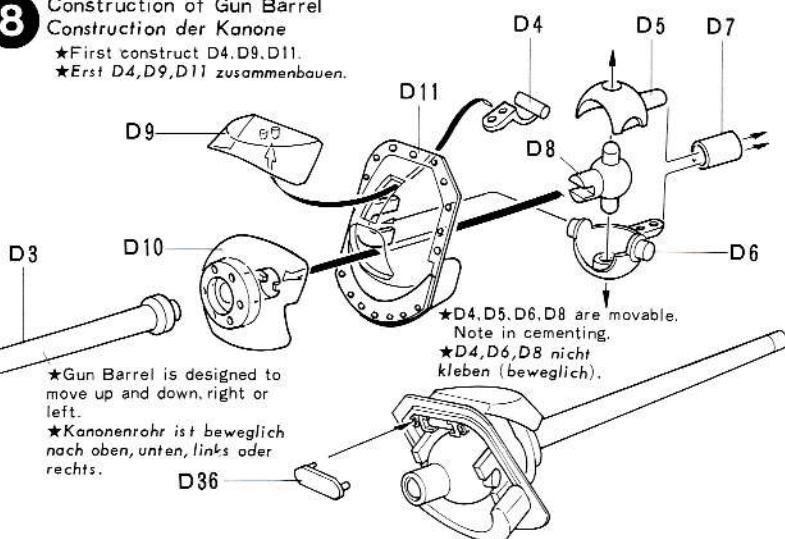


(Fixing of Wire Ropes)  
Wire Ropes should be fixed as shown in the photo at right. After deciding what shape to be formed, bend them gradually while warming.

★Die Drahtseile sollen wie im Bild gezeigt angebracht werden. Biegung erfolgt durch Erhitzen.

## 8 Construction of Gun Barrel Construction der Kanone

★First construct D4,D9,D11.  
★Erst D4,D9,D11 zusammenbauen.



★D4,D5,D6,D8 are movable. Note in cementing.

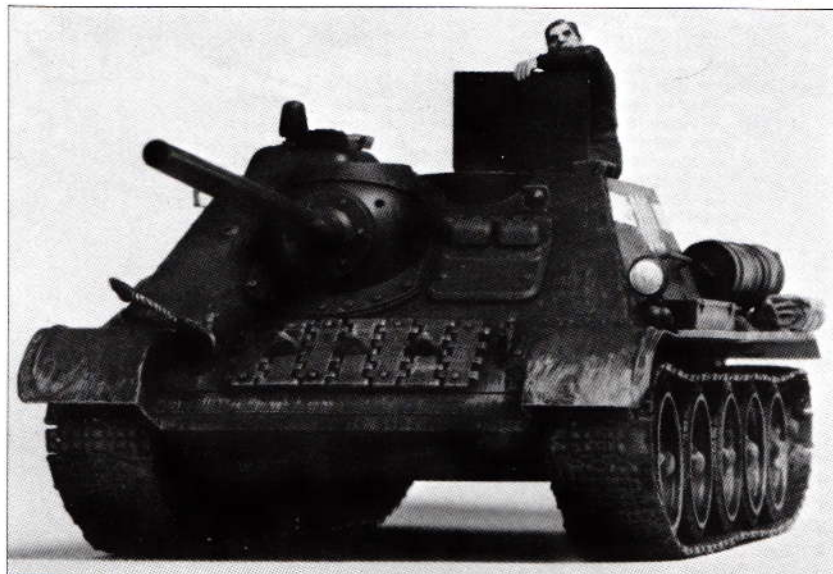
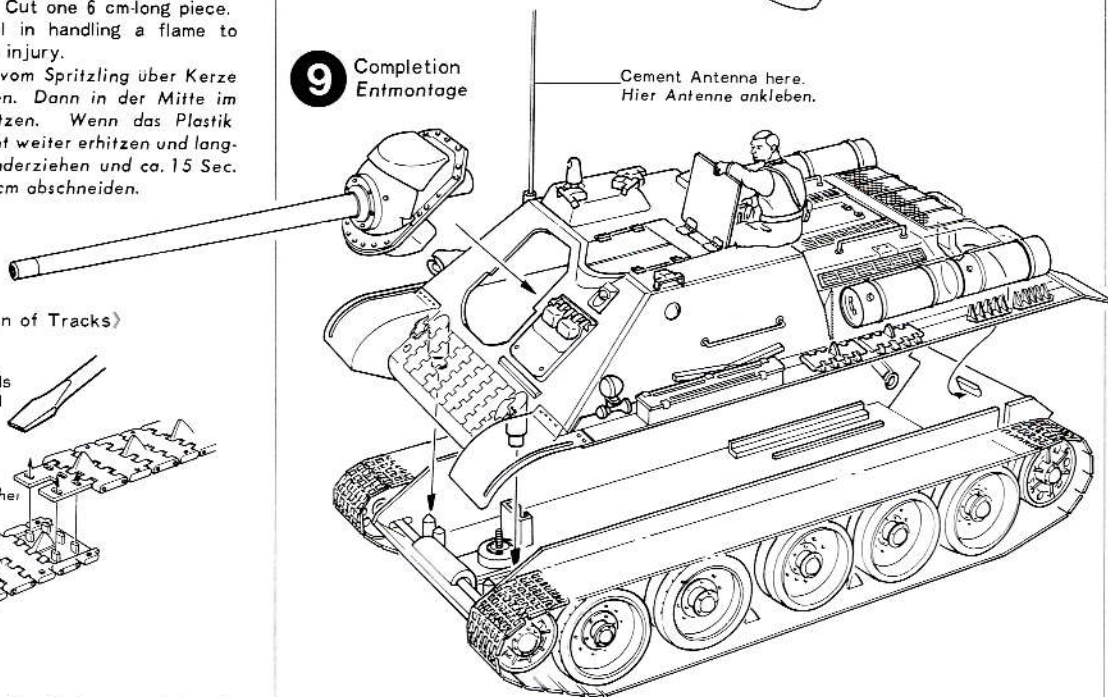
★D4,D6,D8 nicht kleben (beweglich).

★Gun Barrel is designed to move up and down, right or left.

★Kanonenrohr ist beweglich nach oben, unten, links oder rechts.

## 9 Completion Entmontage

Cement Antenna here.  
Hier Antenne ankleben.





# PAINTING



## APPLYING DECALS

### 《Painting of SU-85》

The SU-85s were over-sprayed in a single dark green colour, the standard scheme of the Russian tanks. And when the Russians advanced toward Berlin, the white stripe was added on the turret to identify friendly tanks. The camouflaged SU-85s were very rare, but in winter they all seemed to be appeared with white water-type paint overall as in case of other Russian tanks.

### 《Bemalung》

Die Standardbemalung der russischen Tanks war dunkelgrün. Der weisse Streifen am Turm diente der Erkennung. SU-85 in Tarnfarben waren selten, jedoch im Winter erfolgte weisse Bemalung.

### COLORS REQUIRED

#### ERFORDERLICHE FARBEN

#### Tamiya Spray Paints

#### Tamiya Spray-Farben

TS-2 ..... Dark Green / Dunkelgrün

#### Tamiya Bottle Paints

#### Tamiya Farb-Flaschen

XF-1 ..... Flat Black / Matt schwarz

XF-2 ..... Flat White / Matt weiß

XF-10 ..... Gum Metal / Metall-grau

XF-15 ..... Flat Flesh / Fleischfarben/matt

XF-56 ..... Metallic Grey / Grau-metallic

XF-60 ..... Dark Yellow / Dunkelgelb

XF-61 ..... Dark Green / Dunkelgrün

XF-64 ..... Red Brown / Rotbraun

### 《Marking of SU-85》

Numbers applied to the SU-85 show the battalion and company which the tank belonged to, and its vehicle number. First digit is thought as to threaten enemy, pretending that a company owns hundreds of SU-85s. Some SU-85s were used by the Polish and Czechoslovak Armies.

### 《Markierung》

Die Nummern zeigten Battalion und Kompanie sowie Fahrzeugnummer. Einige SU-85 fuhren auch bei Polen und Tschechen.

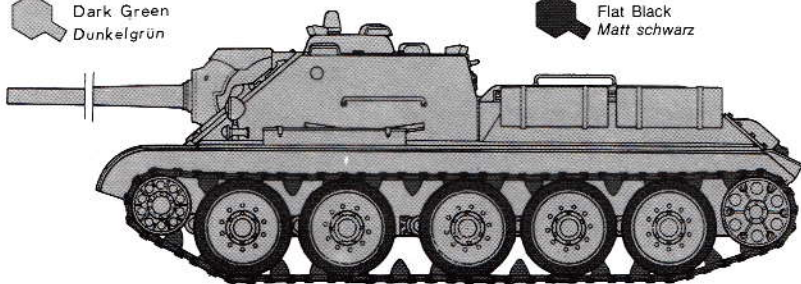
### 《Painting of SU-85》



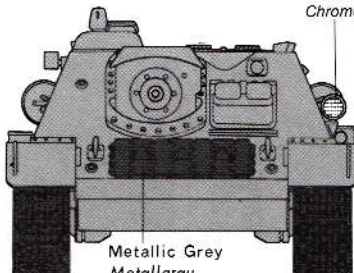
Dark Green  
Dunkelgrün



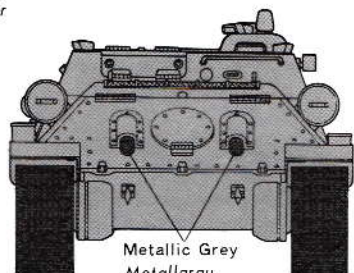
Flat Black  
Matt schwarz



Chrome Silver  
Chrome-Silber



Metallic Grey  
Metallgrau

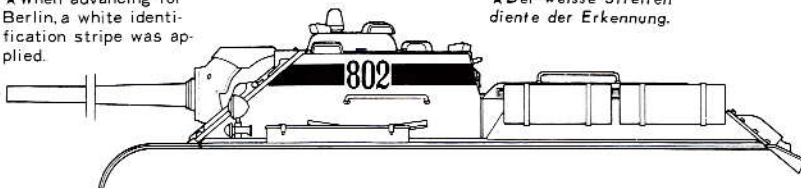


Metallic Grey  
Metallgrau

### 《Marking of SU-85》

★When advancing for Berlin, a white identification stripe was applied.

★Der weisse Streifen diente der Erkennung.



★Location of Number.

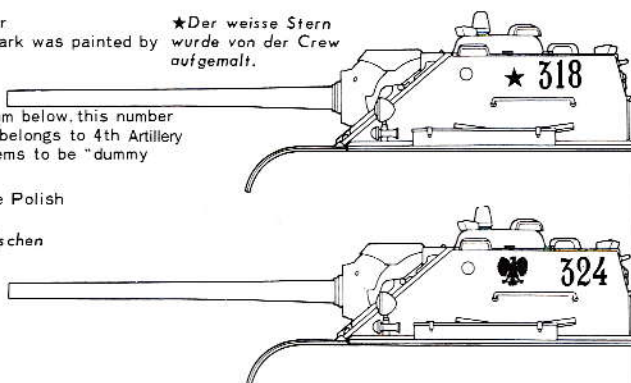
It seems that star mark was painted by tank crew.

★Der weisse Stern wurde von der Crew aufgemalt.

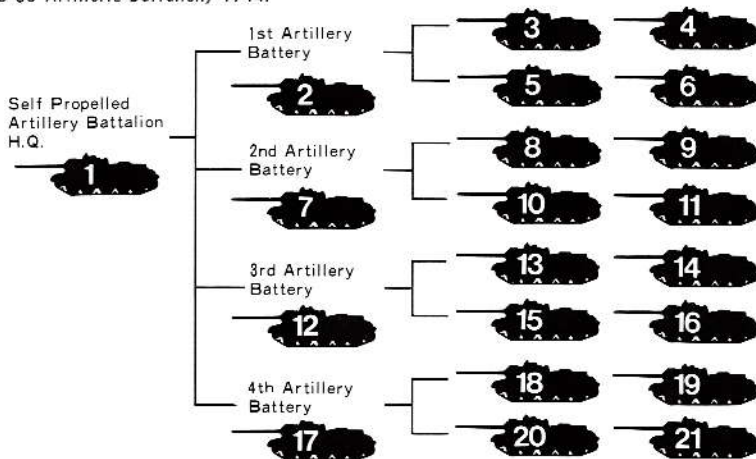
Seen from the diagram below, this number means that the tank belongs to 4th Artillery Battery, and "3" seems to be "dummy number".

Vehicle Used By The Polish Army

★Fahrzeug der polnischen Armee.



### Organization Of SU-85 Self-Propelled Artillery Battalion, 1944. 《SU-85 Artillerie Battalion》 1944.



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