

T34/76 RUSSIAN TANK

1943 PRODUCTION MODEL

1/35 MILITARY MINIATURE SERIES

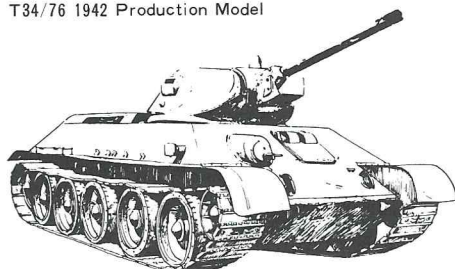


By courtesy of Akira Kikuchi

In November 1942 when a huge number of T-34 tanks of the Russian Fifth Tank Army were rushing southward to spell death to the German Sixth Army which had been fighting severely in the Stalingrad area, labourers in the Kirov Tank Arsenal of Chelyabinsk in the Urals far to the east of the battlefield were giving claps and cheers to a new style T-34 tank which was leaving the Arsenal to make a trial run in the field.

The new tank looked a little different from the original T-34 which had been mass-produced in the Kirov Tank Arsenal. The new model mounted a tall and smart hexagonal turret, while the existing production model had a flat turret with low silhouette. Here lay the most noticeable

T34/76 1942 Production Model



difference in appearance between them. This seemed to show that for the Russians the day of lying down to ward off the attack of the enemy was over and the opportunity of standing up to launch a counterattack already arrived. The T-34 embodying the whole mental energy of engineer Koshkin who died of illness was

taken over after his death by engineers including A.A. Morozov and N.A. Kucherenko and from the summer of 1942 onward further improved by young engineer V.V. Krylov.

The T-34 improvement team with Krylov as leader took charge of remodelling the T-34 on a priority principle on the basis of battle information transmitted from the front and vivid experience and requests of tank crew.

There were few tank men who grumbled about the armour of the T-34. Russian tank crew spoke in praise of the powerful 76.2 mm gun and the diesel engine which did not catch fire or blow up when being bombed. Many of them, however, requested to enlarge the carrying capacity of ammunition and fuel.

Engineer Krylov improved the T-34 naturally on the basis of lessons learned from actual fighting and reviewed the overall construction of the tank to facilitate mass production.

To facilitate the construction of the tank body, Krylov adopted block welding sequence, in which automatic electric welding was widely used, and only half-completed body block was to be constructed in the assembly line. The process later proved to be very effective in repairing T-34 tanks bombed and abandoned in the field.

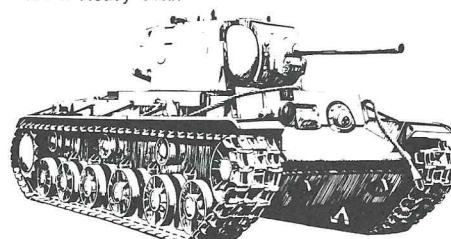
Improvement was also carried out in the V2 diesel engine which could be referred to as the heart of the T-34 tank. The diesel engine, completed in 1935 and already used for seven years, had sufficient reliability but often developed some troubles when producing its maximum power under severe conditions in the field. After careful analysis of this point, the T-34 improvement team found out that most of such

engine troubles were caused by the transmission and unsatisfactory air cleaner.

The air cleaner was immediately replaced with a two-stage type which consisted of two dust ejectors, two dust collectors and one air filter. The transmission, one of the weak points found in the T-34, was improved into a Western-style mechanical one rather than being simplified. While the existing transmission was of the four-speed type, the improved one gave five speeds. As the result of these efforts, the T-34 improved in controllability and tractive force as well as it became easier to change gears.

The T-34 improvement team directed their best effort to the new turret. The cast-steel turret of the 1942 production model accommodated two men, but it was too low in silhouette and was not comfortable for them to be in. Since the main gun could not be depressed by an angle of more than 3°, it was impossible to fire at

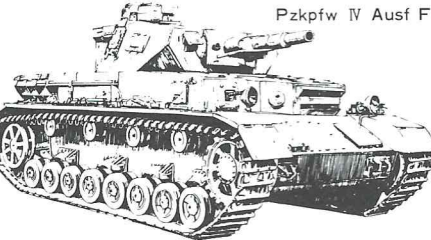
KV-I Heavy Tank



the enemy in front when the tank was climbing up slopes. In addition, it was difficult to fire at low-silhouette German anti-tank guns in the far distance.

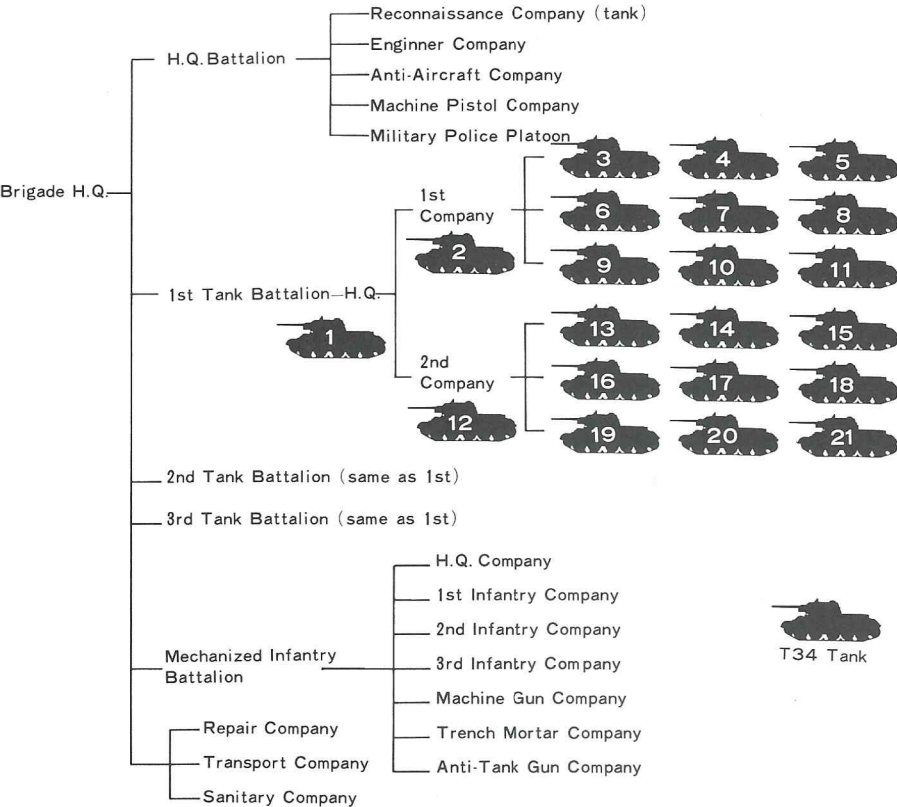
Krylov removed these disadvantageous points without much changing the low silhouette of the T-34 tank. He changed the process of constructing the turret from casting to automatic electric welding of steel plates stamped out by a large press.

The large hexagonal turret made it easier to operate the powerful 76.2 mm gun 41.2 calibres long and increased its maximum depression angle to 5°. Components such as engine parts and even small screws were made interchangeable with those of the KV-1 heavy tank etc. to facilitate exchange and repair in the field. Although road wheels with rubber tyre were used in the 1942 production model, due to the shortage of rubber, new cast-steel wheels were developed and used in quantities in the new model equipped with the hexagonal turret. The unpopular large commander's hatch used in the original T-34 was replaced with two round hatches, which underwent further improvements. A new commander's cupola was used in T-34 tanks manufactured from the summer of 1943 onward. This was a simple cupola and had peep slits with thin bullet-proof glass, while the commander's cupola then used in the German Pzkwf IV tank had shuttered peep holes with bullet-proof glass. German soldiers called the T-34 tank "Mickey Mouse", for the tank looked like Mickey Mouse, American cartoon character, when the two hatches were opened.

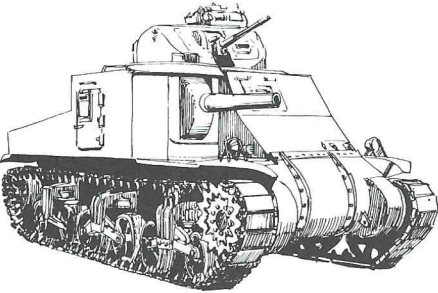


Pzkwf IV Ausf F

Formation of Russian Tank Brigade (as of 1942)



M3A3

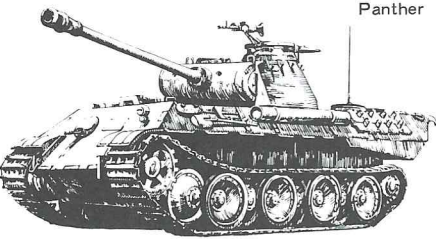


Removed on the basis of battle experience were unnecessary things such as the pistol port on the sides of the turret and the large observation port. Peep holes remained but were changed to slits. Thus the tall turret became simpler and smarter in appearance.

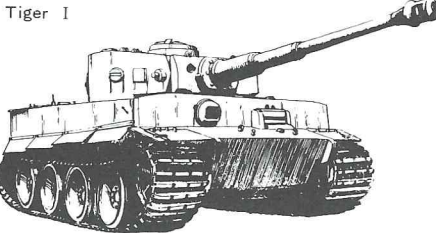
Due to the improvements and the addition of standard equipment, the T-34 inevitably increased in weight. While the 1942 production model had an equipped weight of 28 tons, the 1943 production model weighed no less than 30.9 tons. The latter, however, still had the same high performance as the former. The T-34 compared very favourably with German and American main tanks of those days in the ratio of power to weight (horsepower per ton) as in the following:

- Russian T-34 — 16.3 hp/t
- German Pzkwf IV Ausf F — 13.6 hp/t
- American M3A3 with diesel engine — 7.6 hp/t

These figures show how excellent was the Russian T-34 tank in mobility. The new T-34 tank was generally called "T-34 /76 Tank 1943 Model" after the year 1943 in which it was remodelled. In "Operation Citadel", the last huge-scale offensive assumed by the Germans against Kursk in the summer of 1943, T-34 tanks of 1943 model staged severe tank-to-tank fighting against new



Panther



Tiger I

and powerful German tanks such as the "Panther" and "Tiger". In the Prokhorovka area, T-34 tanks of 1943 model in the 181st Guard Tank Brigade under the Russian Fifth Tank Army fought against Tiger tanks of the picked German SS Tank Divisions "Adolf Hitler" and "Das Reich", and this was the largest-scale tank-to-tank fighting ever staged during the WWII. If the T-34 tank of 1942 model could be called "Stalingrad", the excellent 1943 model well claimed the name of "Kursk".



T-34 Tank

PARTS

(A PARTS)

1. Cylindrical Tanks (Upside)
2. Cylindrical Tanks (Underside)
3. Rear Intake (Right)
4. Rear Intake (Left)
5. Periscope Cover (Left)
6. Periscope Cover (Right)
7. Rear Panel
8. Tool Box (A)
9. Tool Box (B)
10. Exhaust Pipes
11. Hull Rear Cover
12. Machine Gun Mount
13. Towing Hook (A)
14. Towing Hook (B)
15. Cylindrical Tank Covers
16. Exhaust Pipe Covers
17. Antenna Base
18. Hull Handrails (A)
19. Hull Handrails (B)
20. Spare Tracks (A)
21. Front Adjustment Part
22. Rear Panel for Display
23. Light (A)
24. Light (B)
25. Final Gear Covers
26. Driver's Hatch
27. Unnecessary
28. Spare Tracks (B)
29. Driver's Hatch Part
30. Wire Ropes
31. Unnecessary

(B PARTS)

1. Road Wheel A Caps
2. Drive Sprocket Caps
3. Hull Joint Part
4. Idler Wheel Caps
5. Road Wheel B Caps

(C PARTS)

1. Road Wheels B Outside
2. Road Wheels B Inside
3. Idler Wheels Inside
4. Road Wheels A Inside
5. Road Wheels A Outside
6. Idler Wheels Outside
7. Drive Sprockets Outside
8. Drive Sprockets Inside

(D PARTS)

1. Cupola Hatch A
2. Cupola Hatch B
3. Episcopes
4. Ventilator
5. Cupola
6. Cupola Top Plate
7. Turret Hatches
8. Turret Top Plate (Early Type)
9. Turret Top Plate (Later Type)
10. Turret Upper
11. Turret Lower
12. Gun Mount
13. Gun Shield Rear
14. Gun Shield Right
15. Gun Shield Left
16. Gun Shield Front
17. Gun Tip
18. Pistol Port
19. Turret Hooks
20. Spare Tracks A
21. Spare Track B
22. Pent Roof
23. Gun Drum
24. Horn
25. Gun Barrel
26. Handrails C
27. Handrail D
28. Inspection Ports
36. Bases for Figures

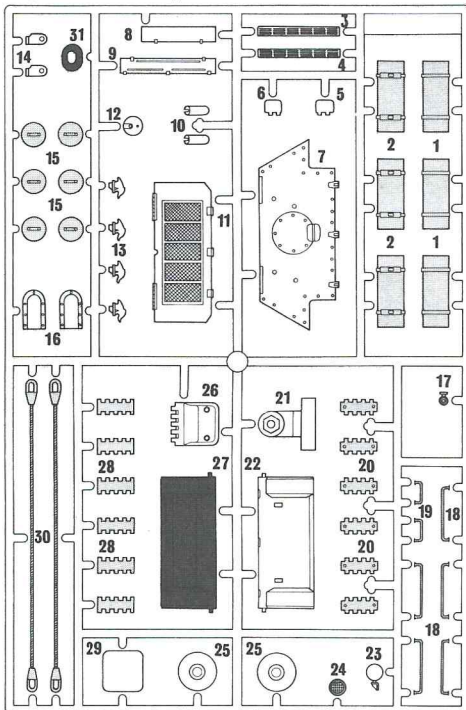
(E PARTS)

1. Road Wheel A Outside
2. Stowage Boxes
3. Track Attachment
4. Blanket Rolls
5. Driver's Left Arm
6. Driver's Right Arm
7. Driver's Body
8. Loading Section (Right)
9. Loading Section (Left)
10. Periscope
11. Driver's Figure Holder
12. Road Wheel A Inside
13. Hull Handrails (C)
14. Angular-Shaped Tank (C) (Left)
15. Angular-Shaped Tank (C) (Right)
16. Angular-Shaped Tank (A) (Left)
17. Saddle
18. Breech Protection Plate
19. Angular-Shaped Tank (A) (Right)
20. Angular-Shaped Tank (A) (Left)
21. Extra Welded-on Armour Plate
22. Tool Case
23. Shovel (B)
24. Shovel (A)
25. Logs

A

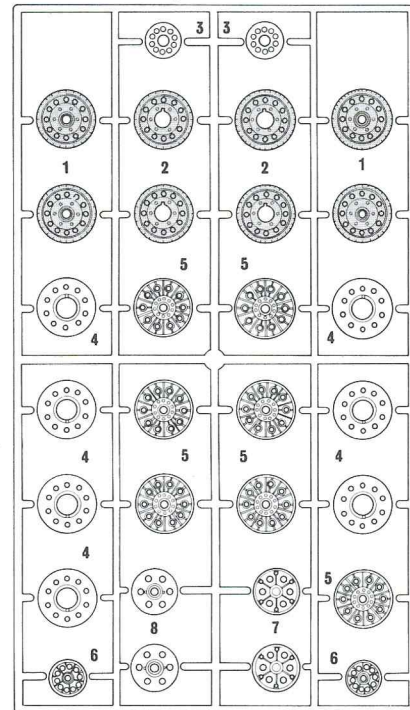
Shaded parts are accessory parts.

A27 and A31 are unnecessary.



C

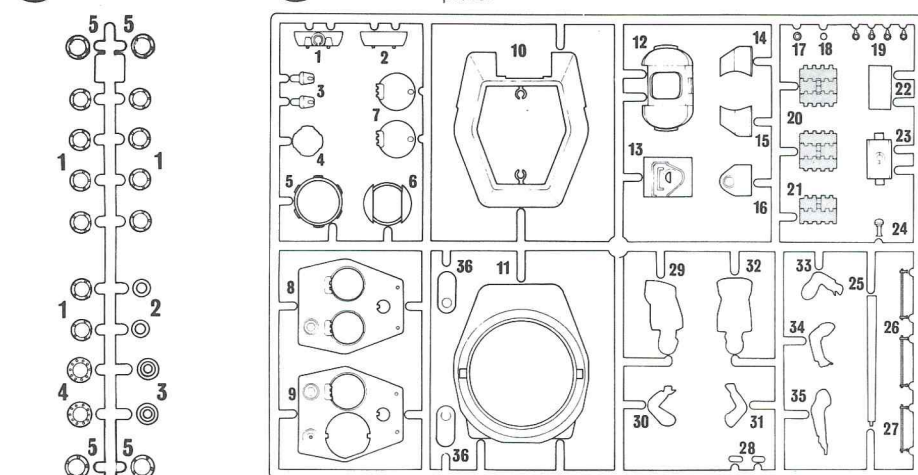
Shaded parts are accessory parts.



B

D

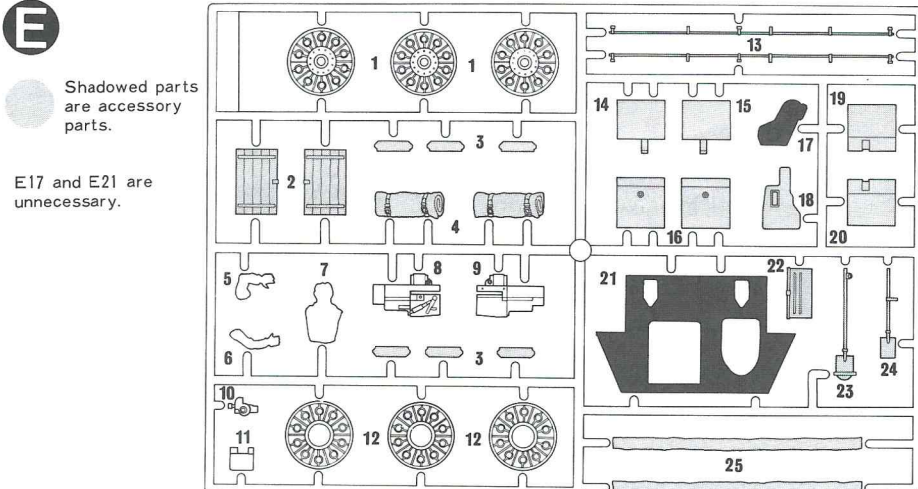
Shaded parts are accessory parts.



E

Shaded parts are accessory parts.

E17 and E21 are unnecessary.





《Please read this before commencing assembly》

★This kit can be assembled into the early or late model according to the turret top plate you choose. Also, you can make some variations (for instance, a variation for a particular season) according to Accessory Parts you use. Assemble the model tank as you like or with reference to your books, etc.

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

● This mark shows the colour this part should be painted.

For overall painting, refer to page 8.

1 《Construction of Wheels》

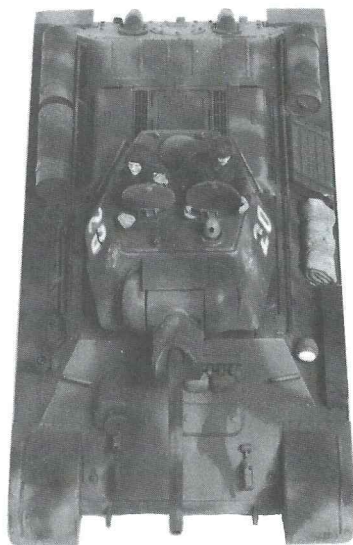
The kit contains two types of Road Wheels, A and B. You can change Road Wheels from A to B and vice versa when fixing Accessory Parts. Use Poly Cap B1 for Road Wheel A and B5 for B.

2 《Installation of Wheels》

Do not cement A21. This is to be moved forward or backward to adjust track tension.

3 《Construction of Driver's Hatch and Upper Hull Inside》

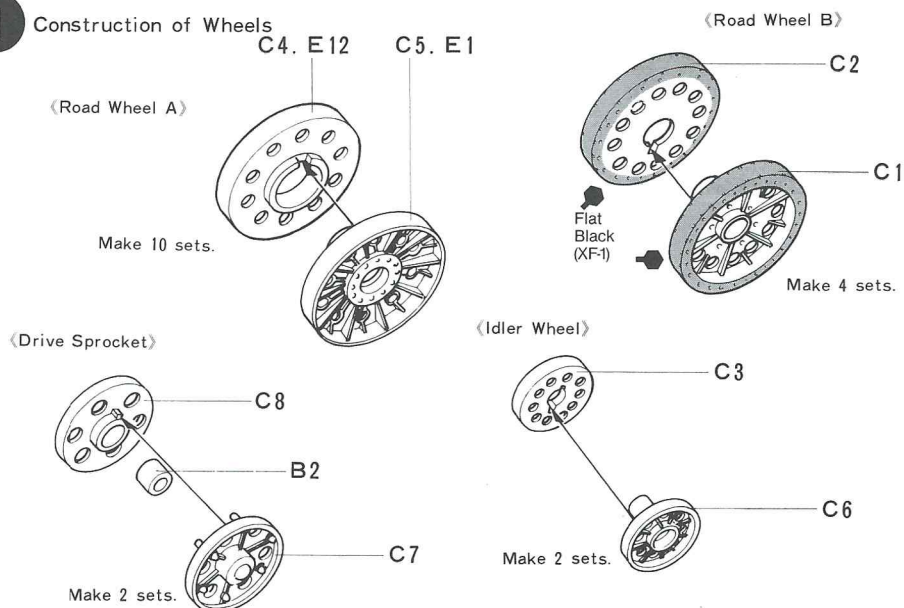
Driver's Hatch Periscopes A5 and A6 are not symmetric. Be careful of their number. You have the option of fixing them in an open or a closed state.



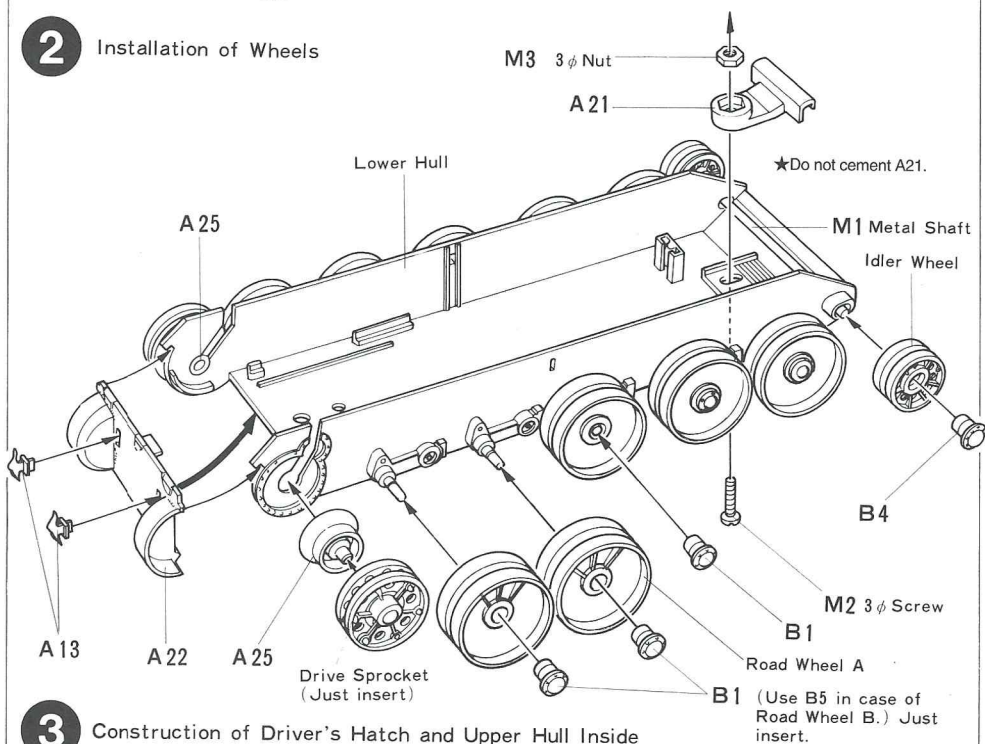
TAMIYA FARBKATALOG IN DEUTSCHER SPRACHE

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

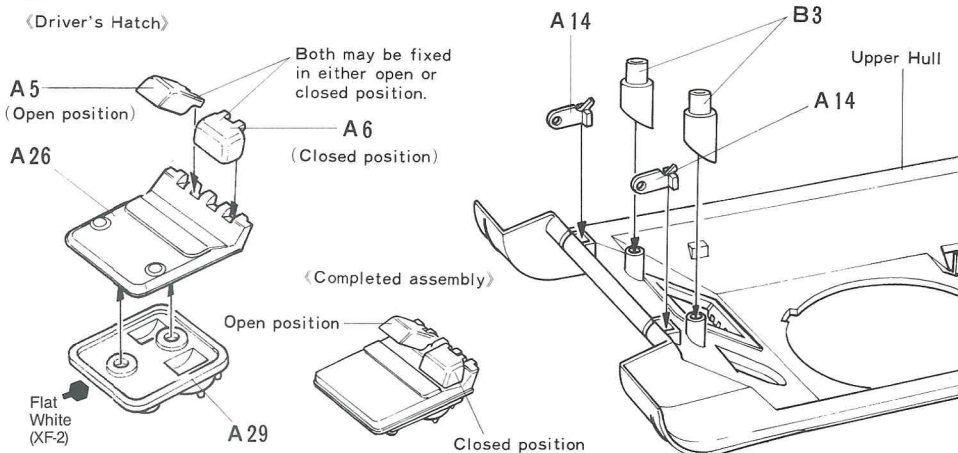
1 Construction of Wheels



2 Installation of Wheels



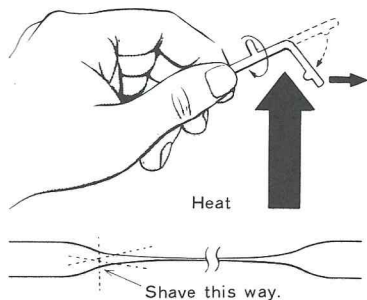
3 Construction of Driver's Hatch and Upper Hull Inside



4 (Construction of Upper Hull)

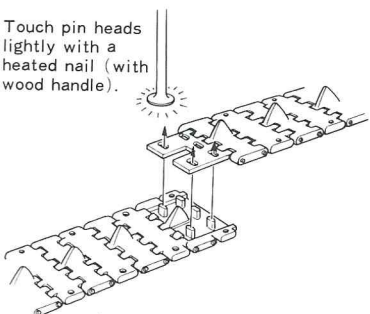
Driver's Hatch may be fixed in either an open or a closed state. It should be just put in. Model Figure of the Driver contained in E Parts wears winter clothing. If you are to mount it, Driver's Hatch should be kept open.

(How to make antenna)



★Heat one of runner gradually while turning around. When the center portion began to melt, stop heating and stretch both ends of the runner slowly to opposite way to the thinness wanted. Hold it in that position for about 15 seconds to cool, and cut it to a 6 cm piece.

(How to Construct Tracks)



★Construction of antenna and tracks needs a heating device such as candle fire. Be very careful not to get burnt or have a fire break out in your house.

5 (Construction of Loading Section & Gun Barrel)

Construct Loading Section and Gun Barrel securely as shown in the figure. Then, paint Loading Section with Gun Metal.

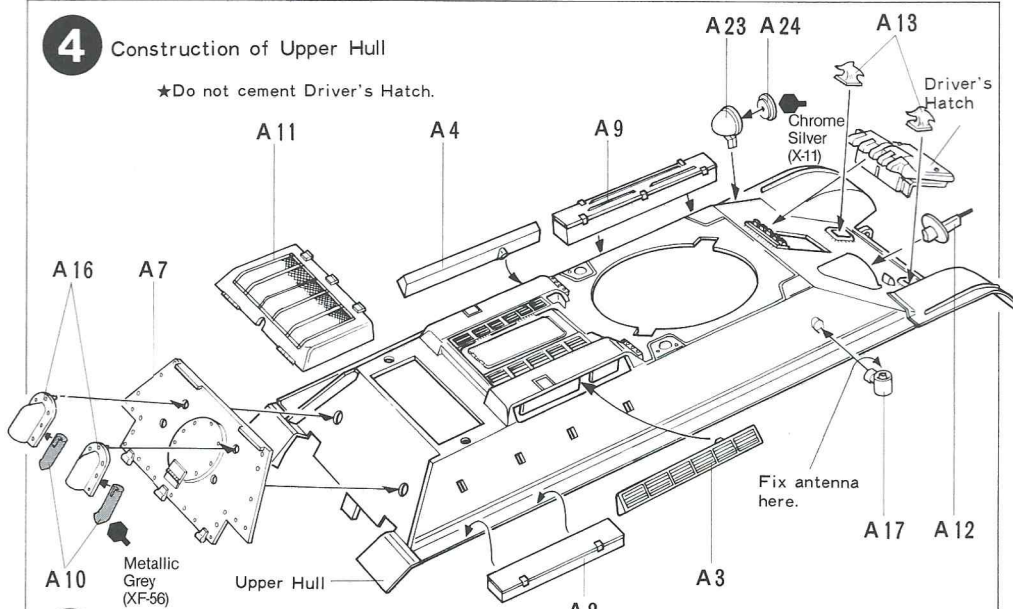
6 (Construction of Turret Top Plate)

The kit contains two types of turret top plates. Choose either of them according as you are to make the early or late model. If you are to mount Model Figures, be sure to fix hatches in an open state.



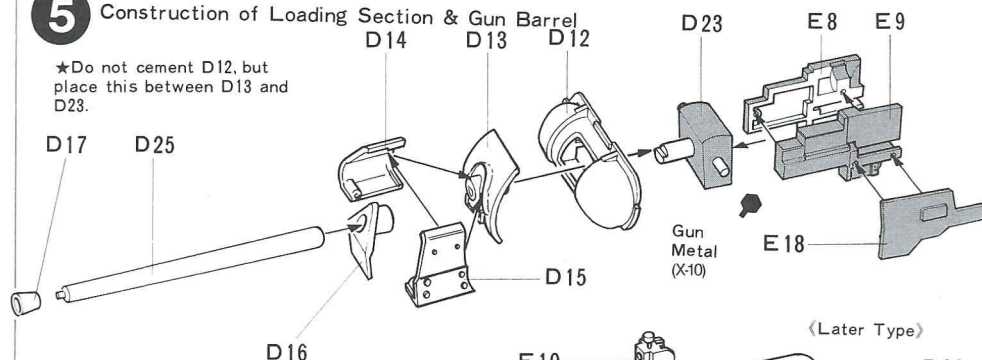
4 Construction of Upper Hull

★Do not cement Driver's Hatch.



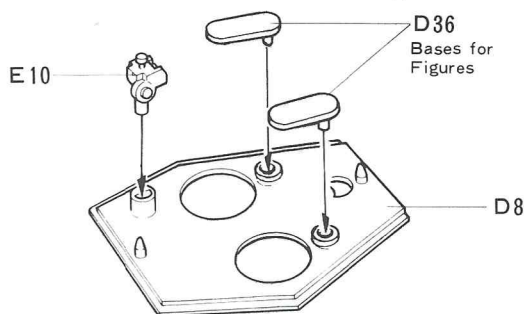
5 Construction of Loading Section & Gun Barrel

★Do not cement D12, but place this between D13 and D23.

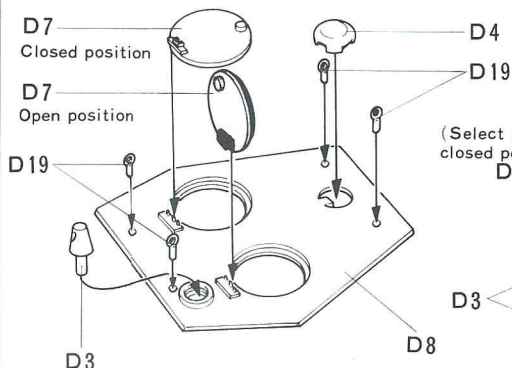
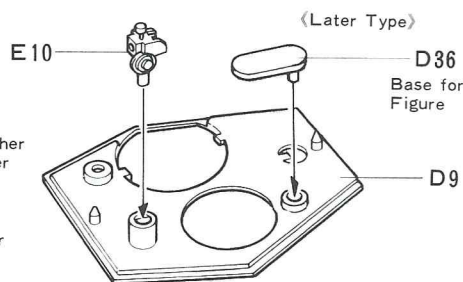


6 Construction of Turret Top Plate

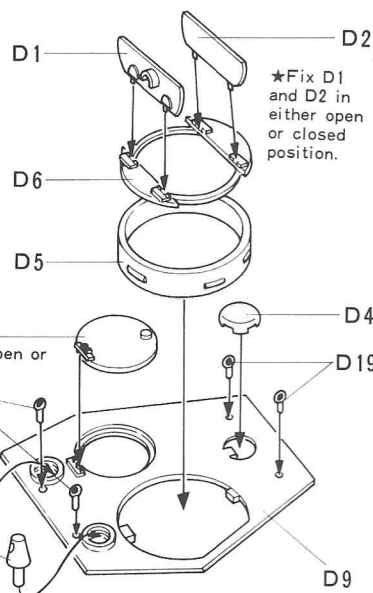
(Early Type)



★Select either early or later type.



(Select either open or closed position)



7 Construction of Turret

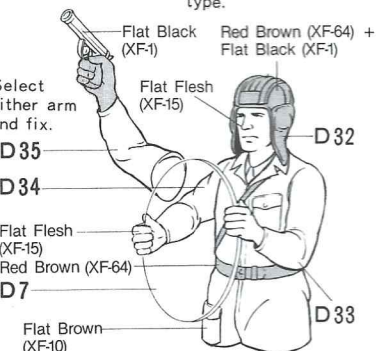
Use the Turret Top Plate which has been constructed at 6. Paint the inside of turret in matt white.

8 Completion of Hull

Complete basic Hull with no Accessory Parts on it. In the assembly line of the Tank Arsenal, the T-34/76 was assembled up to this stage.

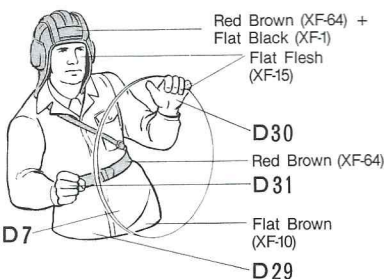
Construction of Figures

《Commander》★Do not fix to the later type.



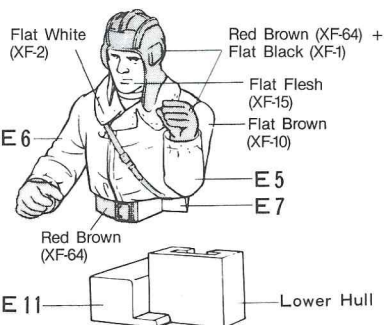
★Uniform colour of early type tank crew was dark blue.

《Loader》



★Driver Figure wears the winter combat clothes. This figure is optional.

《Driver》



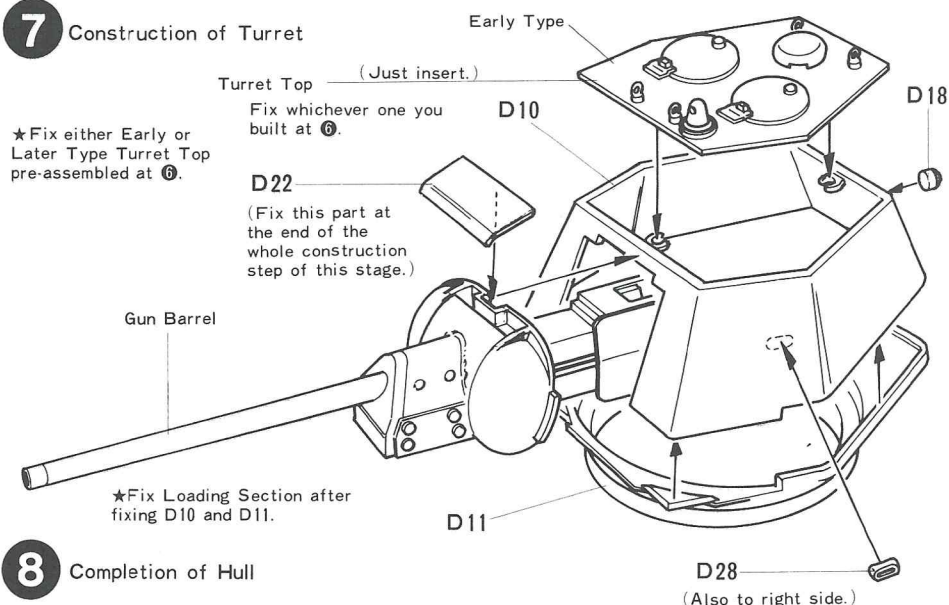
Construction of Fuel Tanks

Additional fuel tanks were mounted to increase the cruising range of the tank. They were cylindrical or square in shape.

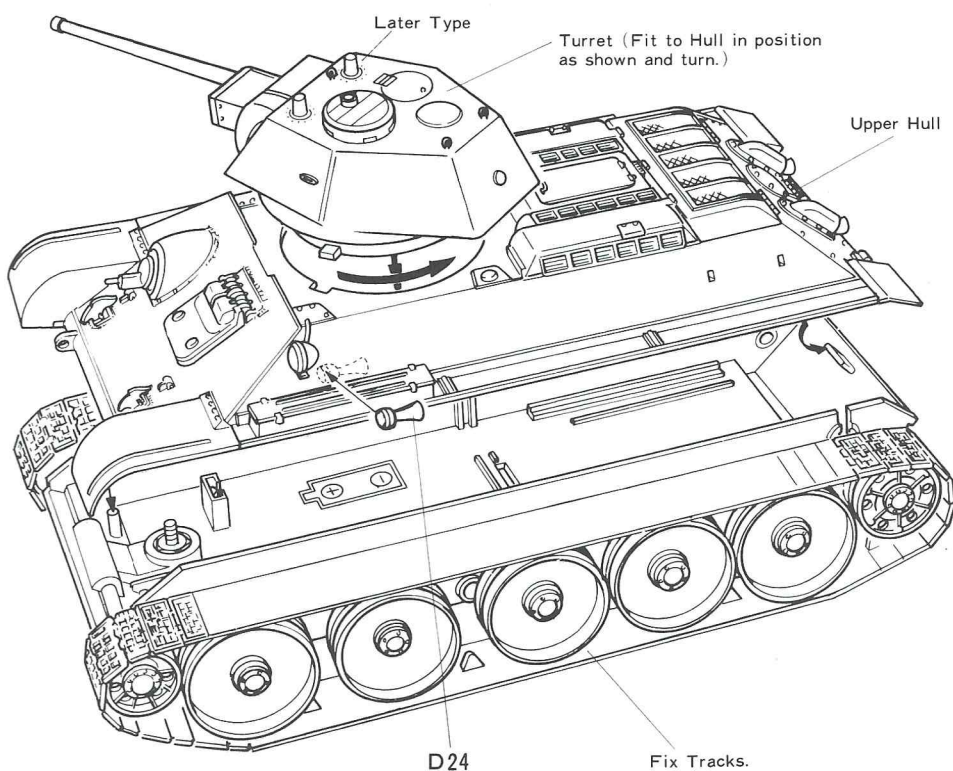
★Accessory Parts are shown in the photographs on page 7. Fixing of Accessory Parts, painting and marking may be done with reference to the photographs and figures in this booklet and your additional material or your preference.

7 Construction of Turret

★Fix either Early or Later Type Turret Top pre-assembled at 6.

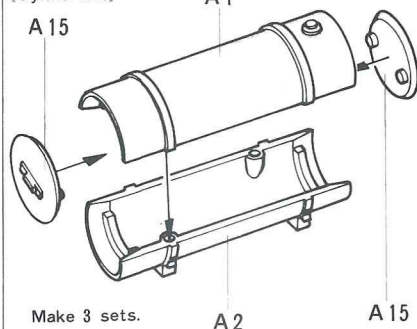


8 Completion of Hull

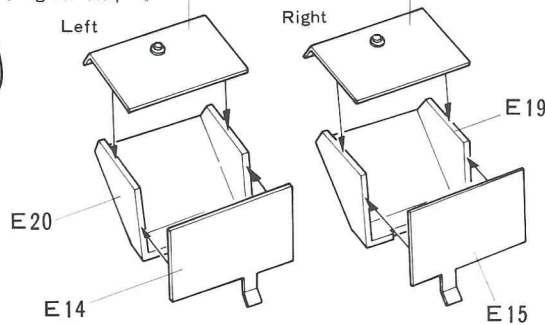


Construction of Fuel Tanks

《Cylindrical》



《Angular-Shaped》



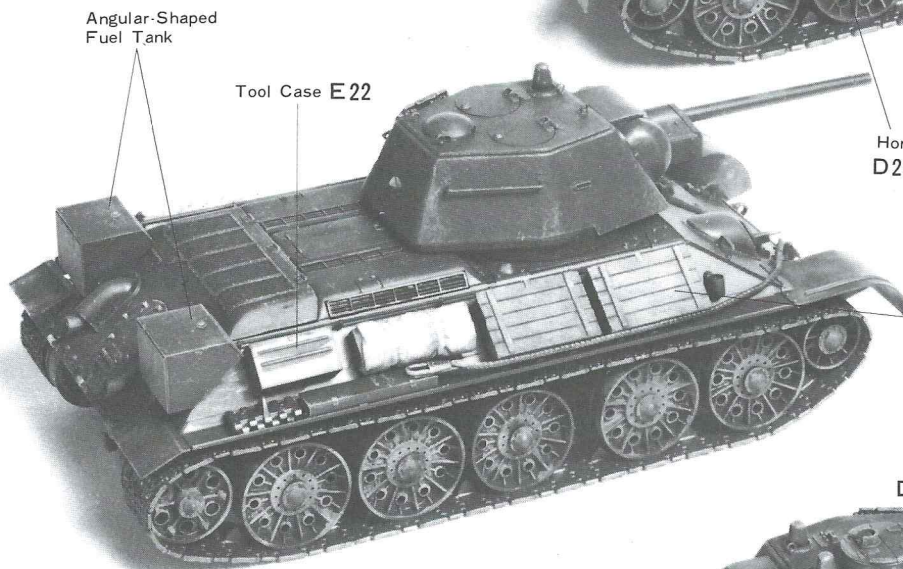
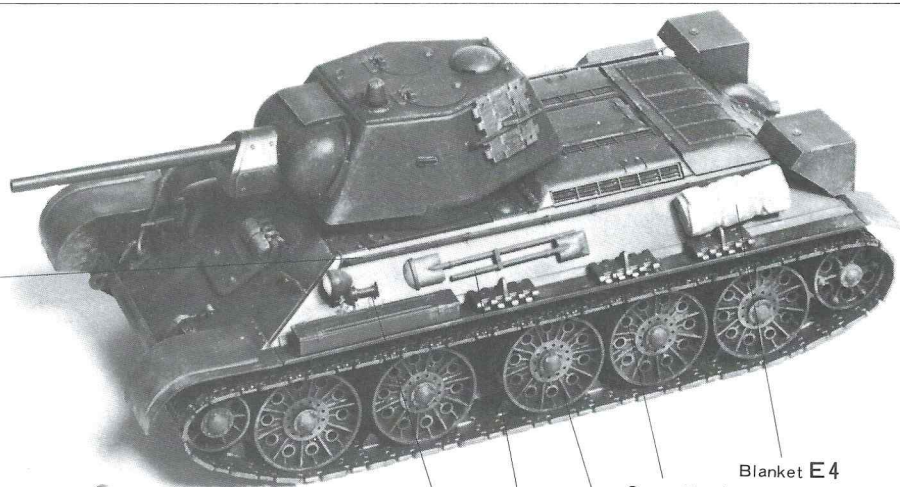
《Fixing of Accessory Parts》

Early Model

The early 1943 model was put to production at the beginning of 1943. It formed the main strength of the Russians in the "Operation Citadel" in the summer of that year, where it saw the largest-scale tank-to-tank fighting ever staged during World War II. It remained in active service until the invasion of Berlin in 1945.

Handrails E13

As the Russians changed from defensive action into pursuit action, the tank often moved to the front with a number of soldiers on it. For them, handrails were fixed to various places on the tank.



Spare Track
A20, A28

Blanket E4

Shovel

E23
E24
Horn
D24

Storage
Box
E2

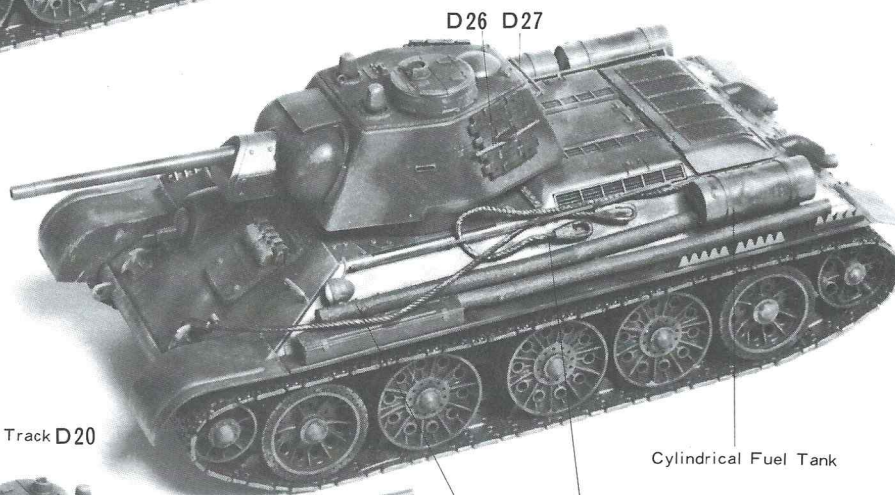
Steel-Tyred Road Wheels

In the second half of 1942, the Russians began to use cast steel-tyred road wheels in place of rubber-tyred ones because they were short of rubber. In view of function, cast steel-tyred ones were generally used for only three central wheels on each side. In some tanks manufactured toward the end of the war, cast steel-tyred ones had to be used for all road wheels.

★Accessory Parts may be fixed with reference to these photographs and your informations in stock or your preference.

Late Model

The late 1943 model with a cupola on the turret was put to production in the summer of 1943. Like the early model, it rendered distinguished services in various battles until the end of the war. The idea of the turret with a cupola was incorporated in the basic design of the T-34/85 which appeared later.



Spare Track D20

Cylindrical Fuel Tank

Wire A30

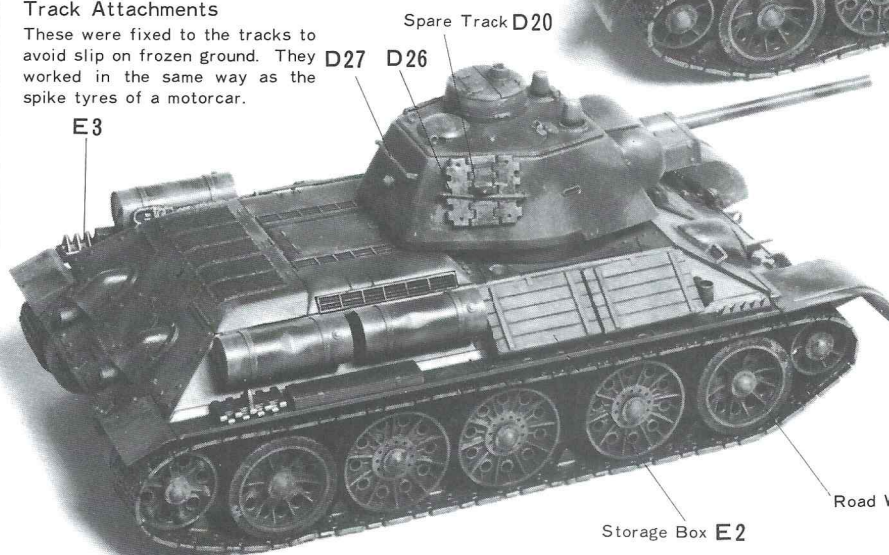
Decide where to fix a wire. Bend the wire as you like by gradually warming it over a candle fire or the like and fix it.

Log E25

When the tank was stalled in a slough, logs were tied to the tracks so that the tank could get away from it. They were indispensable to the tank in Russia at the snow-thawing season.

Track Attachments

These were fixed to the tracks to avoid slip on frozen ground. They worked in the same way as the spike tyres of a motorcar.



D27 D26

E3

Road Wheel B(C1, C2)

Storage Box E2

PAINTING

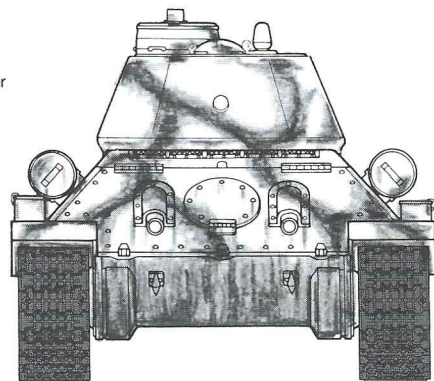
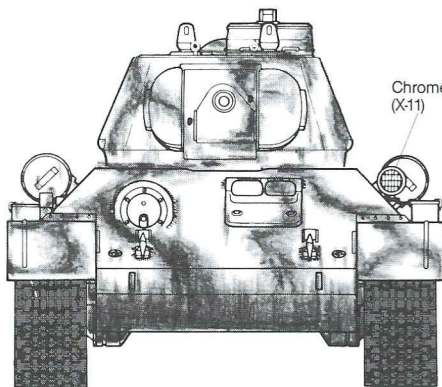
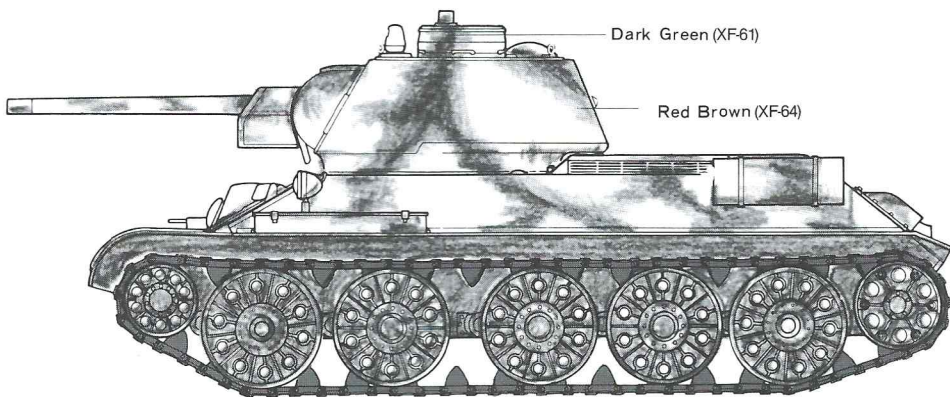


APPLYING DECALS

《Painting of T34/76》

Russian tanks were sprayed with dark green paint overall. This was their standard painting. In seasons other than winter, camouflage was seldom seen but tanks of only a few units were camouflaged with reddish brown pattern on the dark green ground. In winter, many tanks wore camouflage of white paint or lime on the dark green ground. The white paint or lime did not completely cover the ground. It is, therefore, recommended to paint your model tank white in such a way that the dark green ground is visible in places.

《Camouflage Pattern》



《Position of Marks》

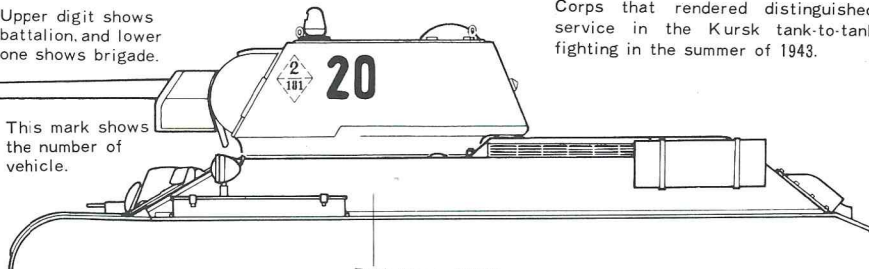
Marking Which Shows Vehicle Number



Upper digit shows battalion, and lower one shows brigade.

20

This mark shows the number of vehicle.



Dark Green (XF-61)

★This mark represents the 2nd Battalion, 181st Tank Brigade, 18th Tank Corps that rendered distinguished service in the Kursk tank-to-tank fighting in the summer of 1943.

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For the Final Finish

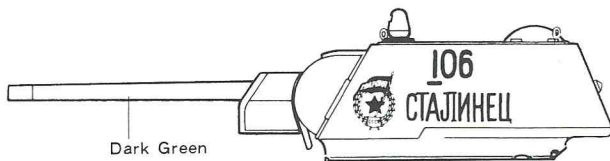
Tamiya's all new acrylic paints. 56 colours, with a perfect match every time, plus a special thinner and flat base. Engineered by modelers for modelers. Safe, non-toxic, low flammability and water based. Excellent coverage and permanent.

Slogan Mark

★This means "Stalinist" and seems to have been written in praise of the arsenal.



★This is a mark of a guard tank unit and used at ceremonies only.

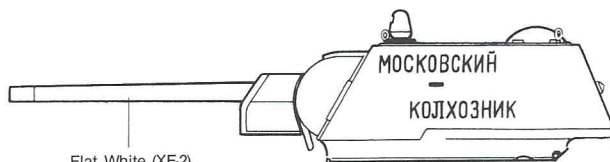


Dark Green (XF-61)

Sponsor Mark

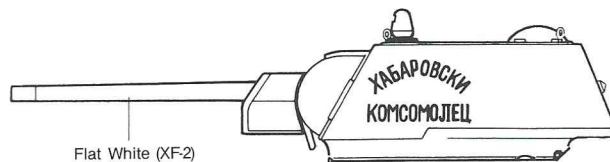
Moskvich Kolkhoz (Moskvich Collective Farm)

★Labourers and union members of those days clubbed together to buy tanks and planes. They wrote their names on the weapons they bought.



Flat White (XF-2)

Khabarovsk Communist Youth League



Flat White (XF-2)



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