

KV-1 Russian Heavy Tank

KV-1 TYPE C



1/35 MILITARY MINIATURE SERIES



The KV (KV in Russian) was a heavy tank in World War II that the Russians were proud of. It was named after Marshal Kliment V. Voroshilov who was an old class friend and comrade of Stalin's.

In 1935, the Russians emerged from the stage of being and imitating tanks of other countries and began to develop tanks based on their own conception. The Russians broadly classified tanks into two: high-speed medium tanks and heavy tanks. The high-speed medium tanks were designed to have powerful armament and effective armor so that they could support infantry as a matter of course and be used as independent units. The Soviet Union demanded that the medium tanks should have superior mobility in particular. They later developed into the BT and the T34. On the other hand, the heavy tanks were charged with duties of supporting medium tanks and crushing enemy's main fire-power when attacking enemy positions. The heavy tanks, therefore, were required to have great fire-power and strong armor at some cost of speed. They originated as the T100 and the SMK (CMK), grew into the KV and the Stalin and have become the main strength tanks.

In 1928, a heavy tank design team was formed with Engineer Z. Kotin as a leader at the Kirov tank factory of Leningrad. The team aimed at manufacture of tough thick steel plate for tanks, study of ideal tank body and turret construction, and possession of welding in place of riveting to reduce tank weight. In the spring of 1937, the first test tank T-40-S was completed. It weighed 28 tons and was armed with a 45 mm main gun. The armor was 66 mm in thickness to be proof against 37 mm anti-tank projectiles. Although the production was only a few, it was such an special tank that it led the direction of later Russian tanks. It was the first tank manufactured on the basis of Russian own design as well.

The design team subsequently started designing the heavy tanks SMK (CMK) and T-100 which had two turrets on the body, but about the time when the team completed the design of the T-100, the leaders of the Russian Army became aware that in view of lessons learned

from the Spanish Civil War large tanks could not be battle-ships on land and especially those with double turrets were not suited to modern battles full of variety. In February of 1939, the team of Kotin, therefore, set to the design of the KV heavy tank which might be called the pioneer of modern tanks. In September of that year when the Germans were carrying on with a glitzy success the Polish Campaign the prototype of a new tank with a single turret was completed. It was 43.5 tons in overall weight and employed the same torsion bar suspension as did the T-100. Six road wheels were used as compared with eight for the T-100 and tracks were of the same cast steel as that of the T-100. The new tank was also similar to the T-100 in body shape and the driver's seat was located in the center of the body. Thus the traditional framework of Russian heavy tanks was completed by this new tank. It had heavy armor which was 75 mm thick in the front and 60 mm thick on the sides. A 76.2 mm gun (30.5 caliber long) of model 1932 which was used for the T-100 was mounted on a new turret remodelled from the rear turret of the T-100. Three 7.62 mm tank machine guns were mounted: one interlocking with the main gun of the turret, a second in the rear of the turret and a third in the front of the body. The new tank was powered by a water-cooled, 12-cylinder B-2K diesel engine with output of 550 hp. This was the same engine as mounted on the T-34 medium tank which began to be mass-produced. The maximum speed of the new tank was as low as 26 km/h, which naturally could not bear competition with 53 km/h of the T-34. After putting the new tank to severe tests of the Army for about a month, the Russians officially decided on 19th December, 1939 that it should be mass-produced and named "Kliment Voroshilov T". The first mass production vehicle of the KV-1 was completed in February 1940 at the Kirov tank factory and the KV-1 came to be produced in succession thereafter. The KV-2 armed with a 152 mm howitzer was also produced at the factory. In the spring of 1941, the KV-1 replaced its main gun with a more powerful 76.2 mm gun of 41.6 length

caliber and employed 100 mm armor in the front. Steel casting was also employed for the manufacture of its turret, and therefore the weight of the KV-1 increased to 47.5 tons. The KV-1 had variations such as the KV-1A, the KV-1B and the KV-1C. The production of the KV was 245 in 1940 and it 1941 reached 391 by the outbreak of the German-Soviet War. 505 KV tanks delivered to Russian troops fought severely with German tank forces. In the summer of 1942, the Russians sent the remodelled KV-1B-KV-1C in Russia. In the front. This heavy tank officially called type S was designed with emphasis laid on mobility at some cost of conventional heavy armor. The weight was reduced to 42.5 tons and the maximum speed was increased to 42 km/h, which was also due to the improvement of the engine cooling device. The turret was redesigned to be strengthened in the front for higher effectiveness in protecting against projectiles.

In the summer of 1942, the KV-85, the final version of the KV series, appeared. It was a remodelled type of the KV-1S and carried an 85 mm gun (49 caliber long) as its main armament.

At the beginning of the German-Soviet War, the Russians were organizing the T-34 and the KV-1 as the new main strength tanks of their tank forces. Under these worst circumstances, both the T-34 and the KV-1 had literally desperate struggles with German tanks. Particularly the heavy armor of the KV tanks excited feelings of wonder in German officers and men. The Germans were terrified at the KV tanks which rucked at them repelling all projectiles of the Panzer Kampfgruppen II and IV and called the KV "Monster". Even the penetration of the 88 mm anti-tank gun credited with high performance could not easily penetrate the armor of the KV tanks. The KV, which kept growing through fights, was succeeded by the Stalin and ended its days. The basic conception of the KV was inherited by modern tanks of the Soviet Union and other countries.

PARTS

Make sure that parts are complete.

A Parts

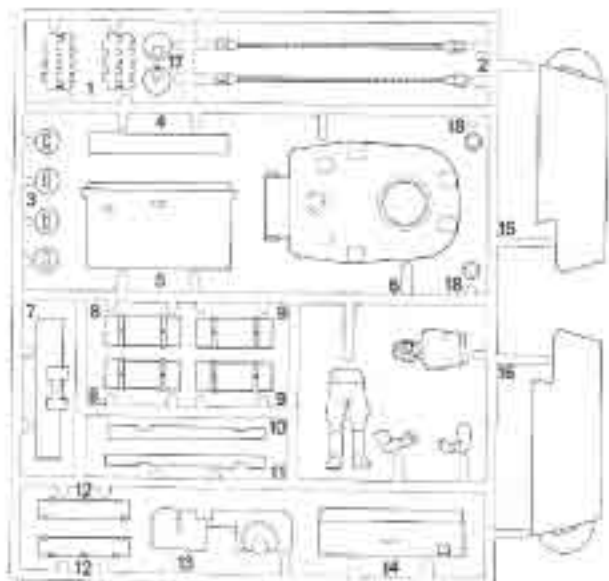
- | | |
|------------------------------|----------------------|
| 1. Spare Tracks | 7. Wire Ropes |
| 2. Tank Cover | 8. Bombproof Plate A |
| 3. Rear Panel | 9. Turret A |
| 4. Bombproof Plate B | 10. Tank A |
| 5. Tank B | |
| 11. Bombproof Plate C, Right | |
| 12. Bombproof Plate C, Left | |
| 13. Tool Box | 14. Driver's Panel |
| 15. Air Deflector Plate | |
| 16. Turret B | 17. Turret C |
| 18. Rear Steps | 19. Front Steps |

B Parts

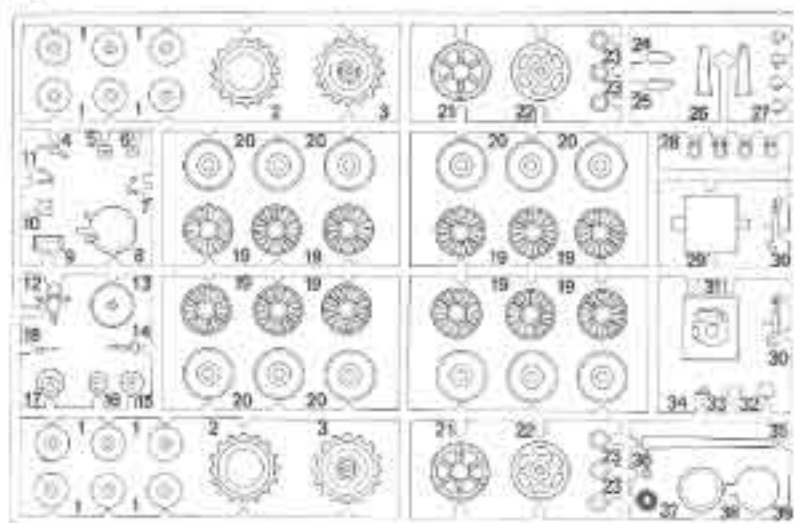
- | | |
|------------------------------|----------------------|
| 1. Idler Wheel | 2. Sprinkler Wheel A |
| 3. Sprinkler Wheel B | |
| 4. Commander's Hatch Lever | |
| 5. Commander's Hatch Hinge B | |
| 6. Commander's Hatch Hinge A | |
| 7. Commander's Hatch Arm | |
| 8. Commander's Hatch | |
| 9. Front Hatch | |
| 10. Driver's Hatch Hinge B | |
| 11. Driver's Hatch Arm | |
| 12. Driver's Hatch Hinge A | |
| 13. Driver's Hatch | 14. Gun Barrel B |
| 15. Gun Mounting C | 16. Gun Mounting B |
| 17. Gun Mounting A | 18. Gun Barrel A |
| 19. Road Wheel A | 20. Road Wheel B |
| 21. Front Wheel A | 22. Front Wheel B |
| 23. Idler Wheel Pin | |
| 24. Exhaust Pipe, Left | |
| 25. Exhaust Pipe, Right | |
| 26. Mud Scraper Arm | |
| 27. Hook Holder | 28. Hook |
| 29. Gun Shield Drum | |
| 30. Wire Rope Hook | 31. Gun Shield |
| 32. Light B | 33. Lens |
| 34. Horn | 35. Main Gun Barrel |
| 36. Tip of Main Gun Barrel | |
| 37. Unnecessary | |
| 38. Driver's Seat | 39. Commander's Seat |

Poly Caps
(Short) Wheel Stoppers
(Long) Unnecessary

A PARTS



B PARTS



TAMIYA CRAFT TOOLS

STRAIGHT TWEEZERS

ITEM 1001

ANGLED TWEEZERS

ITEM 1005

SIDE CUTTER for PLASTIC

ITEM 1010



TAMIYA
TAMIYA PLASTIC MODEL CO., LTD.
1-10-1 SHIBUYA, SHIBUYA-KU, TOKYO, JAPAN





APPLYING DECALS

(Painting)

As the standard painting, Russian tanks were spray-painted dark green overall. Camouflage painting applied to the SU-100 etc. was not seen on the KV-1. In winter, however, some KV-1 tanks were camouflaged with white paint, lines or the like applied to the dark green base. In winter camouflage, it is recommended to apply Flat White in such a way that the Dark Green base remains partially visible. By good "drying" painting, you can faithfully reproduce any one of these real tank in the following states with your model.

- A tank with hollowed-out surfaces by bullets during combat.
 - A tank with dusted surfaces due to run through a desert or a bog.
 - A tank with its exhaust pipes collecting soot.
 - A tank with its sprocket-wheel teeth staining due to wear and
 - A tank with its tools like an ax and a shovel painted snow in expectation of operation.
- Do your best and get a fan.

(Marking)

Many of Russian tanks including the KV-1 had excellent performance but did not wear geometrical unit marks that were seen on German vehicles. Units or platoons to which Russian Tanks belonged seem to have been identified by respective numbers written in triangles or diamonds. Possibly because of a dislike for the imperial marks of numbers or absolute confidence in their beloved vehicles, Russians wrote slogans in bold letters on the sides of the turret in disregard of camouflage principle. Slogans such as "For Stalin" and "For Immortal Fatherland" written not in a very good hand clearly showed the spirit of Russian Tank crew. These letters were painted white on dark green hulls or black on white hulls wearing winter camouflage.

COLOURS REQUIRED

Tamiya Spray Colors

TS-2 Dark Green

TS-22 Matt White

Tamiya Bottle Paints

X-89 Gun Metal

X-11 Chrome Silver

XF-2 Flat White

XF-15 Flat Flesh

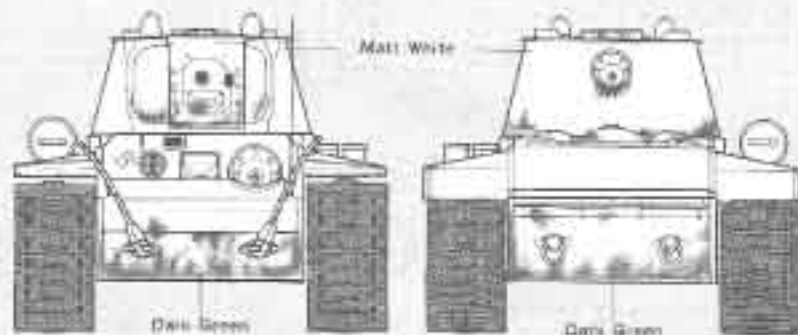
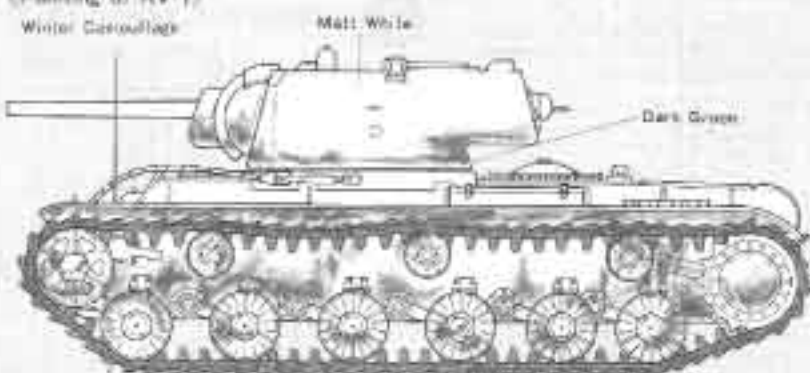
XF-49 Khaki

XF-58 Metallic Gray

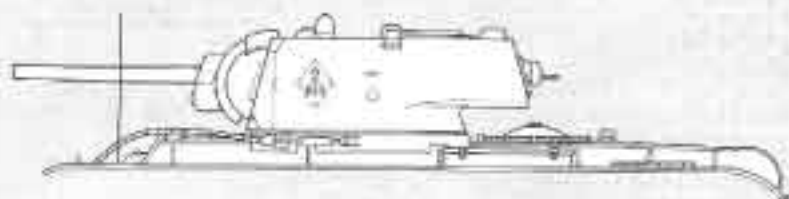
XF-61 Dark Green

XF-64 Red Brown

(Painting of KV-1)



(Location of Divisional Marks)



Model for Distinguished Service in Battle

Assigned to units which rendered distinguished service on the battlefield

Hull colour:
Dark Green



Model of Lifeguard

Discharged units were assigned to the Lifeguard

Hull colour:
Dark Green



For Fatherland

Hull colour:
Matt White
on Dark Green



For Stalin

Hull colour:
Dark Green



TAMIYA COLOR CATALOGUE

The latest in cars, boats, tanks and ships. Motorized, radio controlled and museum quality models are all shown in full color in Tamiya's latest catalogue. English, German, French and Japanese versions available.

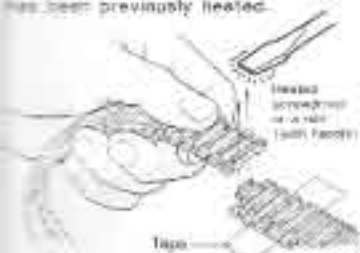
7 Construction of Turret

Some assembly is designed to move up and down. This should be put between Turret Sides A15 and A16.

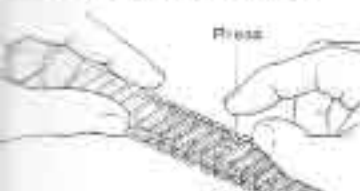


Construction of Tracks

1. Properly, fasten one end of track on a desk with tape and insert pins in respective holes. Then, lightly warm the pinheads with either a nail head or the end of a screwdriver that has been previously heated.



2. Flatten the pinheads immediately with your finger to connect track.



3. If track break or is unfastened due to ineffective flattening, re-fix it with sewing using a black thread or with a stapler as shown in the figure.

(How to Make Antenna)



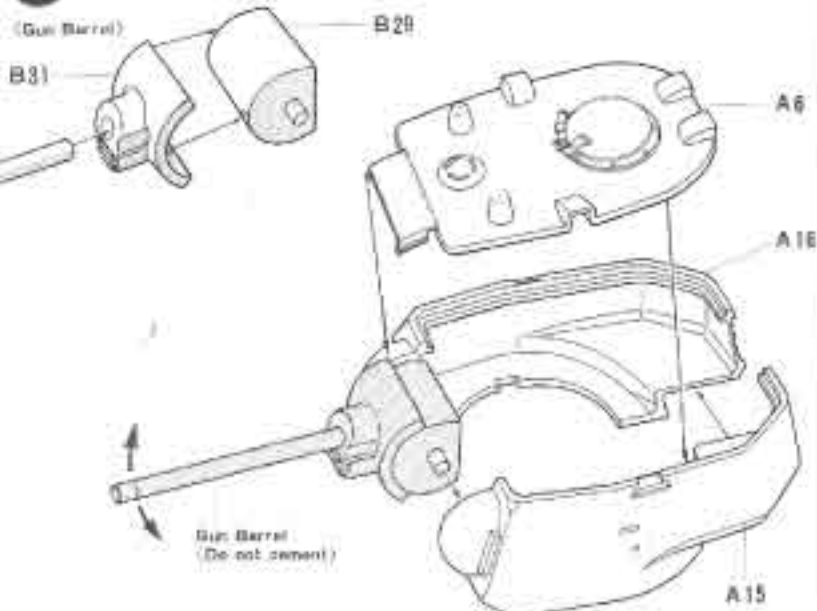
When the turner hangs down, as shown in the figure, take it away from the heating device. Then, slowly stretch it both ways until it becomes long and slender. Keep it still for about 15 seconds to cool. Lastly, cut it to a piece of 7 cm.

Fixing Wire Ropes



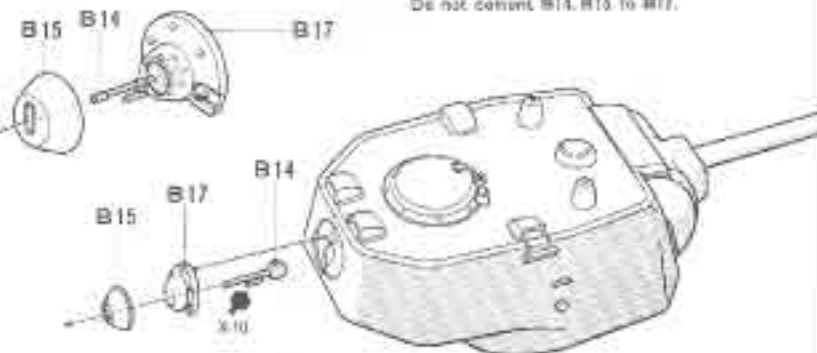
7 Construction of Turret

(Gun Barrel)

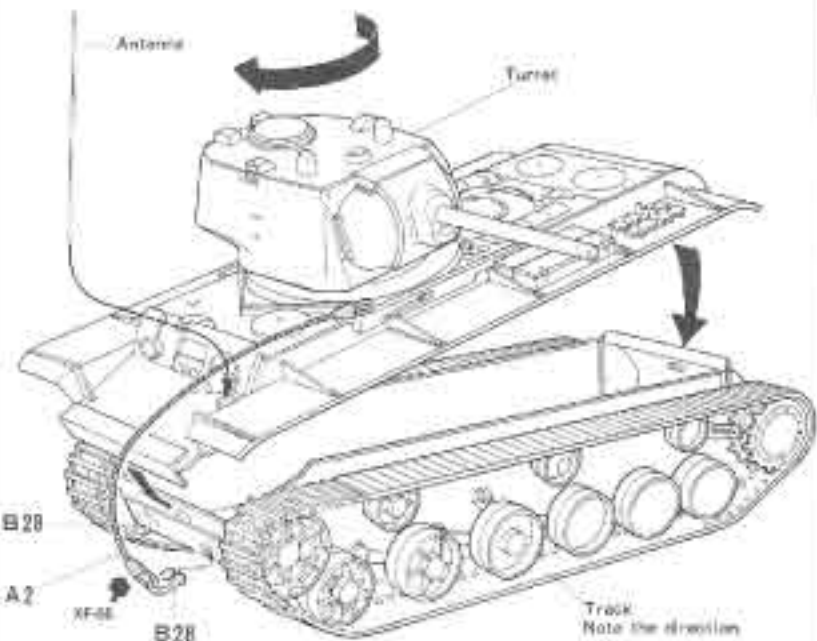


8 Fixing of Turret Parts

*Insert B14 and B15.
Do not insert B14, B15 to B17.



9 Completion of KV-1

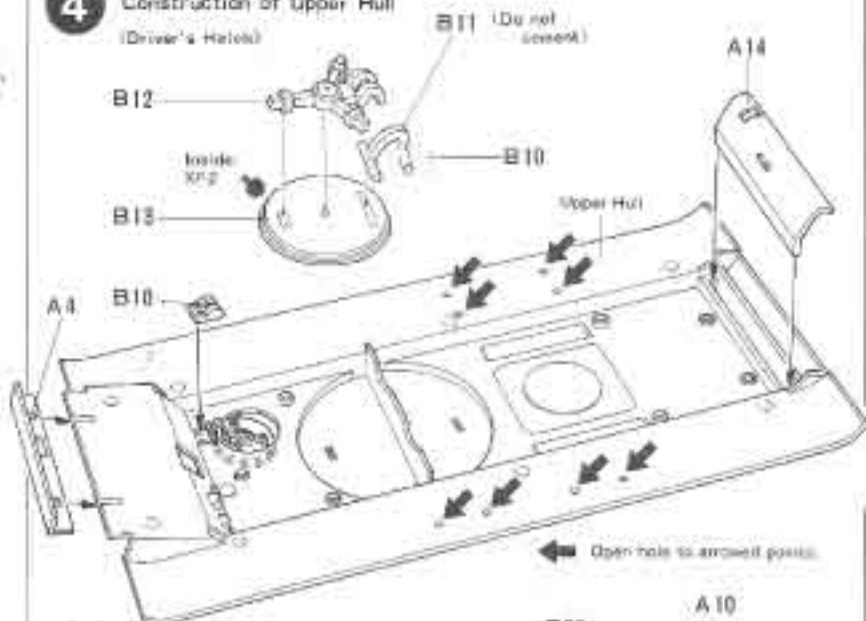


4 (Construction of Upper Hull)

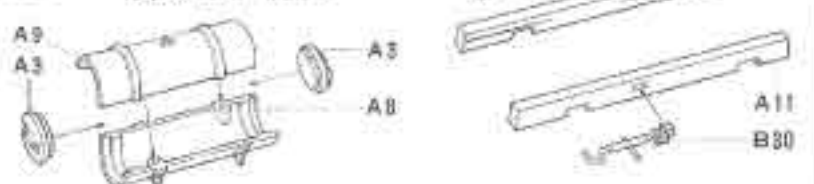
Driver's Hatch can be opened and closed. B11 must not be cemented. This should be fixed to the Upper Hull by means of B12 and B10. A4 and A14, which hold the Upper Hull and Lower Hull together, should be firmly cemented in place.



4 Construction of Upper Hull (Driver's Hatch)

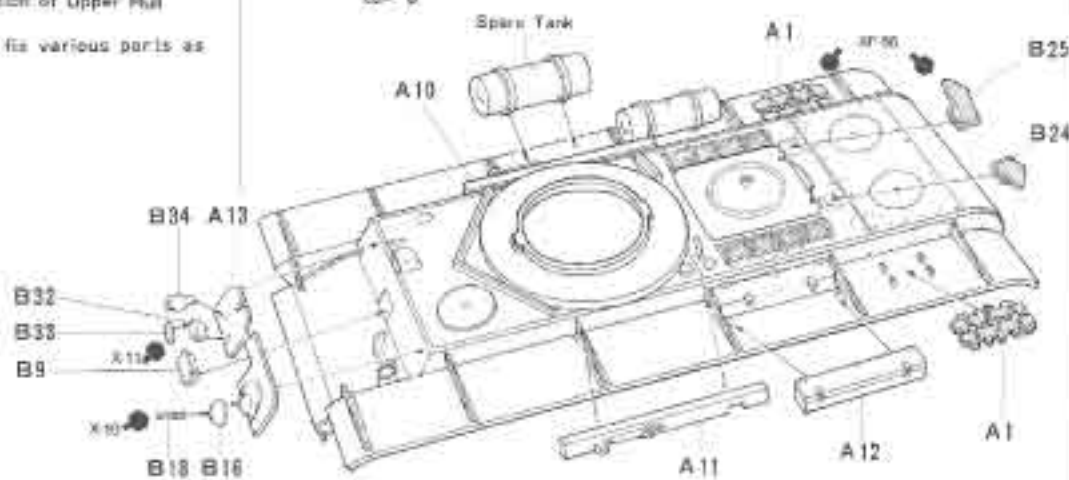


5 Construction of Upper Hull Parts (Spare Tank) Make 2:



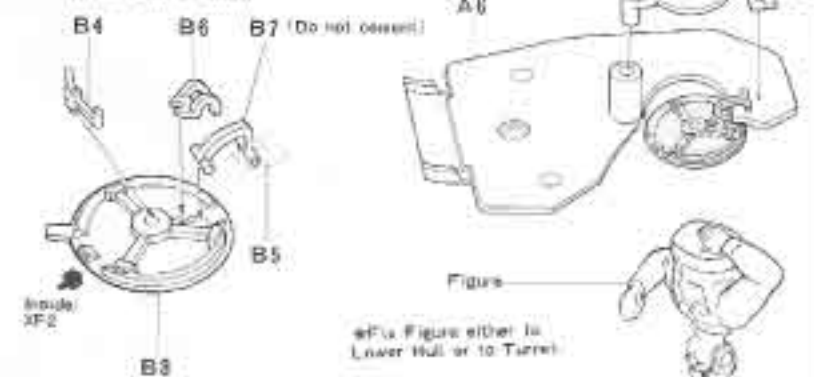
5 (Construction of Upper Hull Parts)

Construct and fit various parts as shown.



6 Construction of Turret Top Plate (Commander's Hatch)

Commander's Hatch Hinges B7 must not be cemented. This should be fixed to the Turret Top Plate by means of B4 and B6.





★ Study the instructions and photographs before commencing assembly.

★ You will need a sharp knife, a screw driver, a pair of pliers, and a file.

★ Do not break parts away from sprues, but cut off carefully with a sharp knife or a pair of pliers.

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

This mark denotes number for Tamiya Paint Colors.

1 (Construction of Wheels)

Each Wheel has a Poly Cap. Never put cement on Poly Caps.

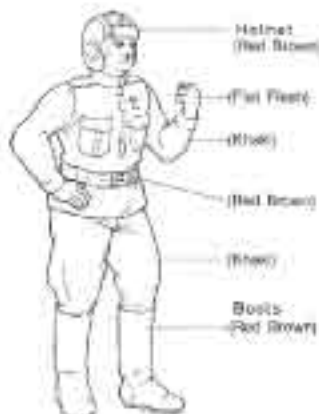
2 (Fixing of Lower Hull Parts)

Each Drive Sprocket and Idler Wheel should be just fitted in place. Do not cement them. For B1 and B23 see the figure below.



(Construction and Fixing of Figure)

The model figure should be either fixed in the Lower Hull or Turret, or stood outside the model tank. If you hope to fix it in the Lower Hull or Turret, mount only its upper half on the base.



★ When you fix Figure to Upper Hull, do not use Lower Hull.

