

Panzer Kampfwagen III Ausf. M/N

1/35 MILITARY MINIATURE

SERIES



On 15th September, 1916 during the World War I, tanks were used for the first time by England at the Battle of Somme. This was the first appearance of modern tanks on the battlefield. The distinguished service of the tanks was an important factor that led Germany to a defeat. Fully realizing the importance of tanks through the bitter experience, Germany threw energy into the development of tanks and the study of their use under the leadership of General Heinz Guderian who is called the founder of the German Tank Divisions after the World War I. Especially after Hitler gained power, Germany further accelerated the study and development, becoming far ahead of other countries both in the technique and in the tactics.

Germany, having carried on the development of the Pzkw I and II, earnestly developed the Pzkw III and IV as its main strength tanks. In 1935, Man, Daimler Benz, Rheinmetall, and Krupp were ordered to design a 15-ton-class tank. Among the prototypes presented by these rivaling companies, the one by the Daimler Benz was selected. Although the Krupp's prototype lost the competition, many of its features were applied to the late Pzkw IV. In 1936, 10 tanks

of the A type, the first type of the Pzkw III, were produced, 8 of which were armed with a 37 mm main gun. Each of this type employed 5 large-sized road wheels and coil springs in the suspension system. It used 2 upper small-sized wheels. The thickness of the armour was 14.5 mm at its thickest part. It weighed 15.4 tons. Its engine was Maybach HL 108 TR, 12-cylinder, with the maximum speed of 32 km/hr.

The Pzkw III has a number of types, from A to N. Types A to E are of the so-called "trial production types", which underwent various improvements. The Pzkw III reached near the stage of completion with its E type, the final trial production type, and the mass production was started. The E type, manufactured in 1939 to 1940, newly employed a Maybach 120 TR engine and a suspension system of torsion bar type with 6 large-sized road wheels. The look-out window for the driver was also improved. In the beginning of 1940, the production of the F type was initiated. The main gun on this F type and on the earlier G type was replaced with a 50 mm gun of 40 calibre, although Hitler insisted at that time that a longer and more powerful 50 mm gun of 60 calibre should be

mounted, which was not crystallized in view of production. The F type's engine was replaced with a Maybach HL 120 TRM, 300 hp for further reinforcement. Taking a lesson from battle experience, Germany mounted on it a fivefold smoke discharger operated at the gun turret.

The production of the G type was started in 1940. Its look-out platform was renewed, and its hatch was remoulded into a double-leaf one. The look-out window also underwent a slight improvement. With the exception of these points, the G type is about the same as the F type. Besides, the G type had a tropical type called G type Tp which was remodelled for use in Africa. The production of the G type totalled about 450. The H type, whose production began towards the end of 1940, underwent significant improvement: The caterpillar was widened from 36 cm to 40 cm. The upper small-sized wheels were rearranged at wider intervals with the increase of the tank weight. The drive wheels and the rear idler wheels were reshaped for mass production. Deriving a severe lesson from the battle with Russia that revealed the weakness of the Pzkw III's armour, Germany mounted 30 mm armour plates, as emergency measures for

	1935	1937	1939	1941	1943	1945
1	Pzkw I					
2	Pzkw II					
		3	Pzkw III			
			3	Sturmgeschuetz III		
		4	Pzkw IV			
					5	Pzkw V Panther
					5	Jagd Panther
				6	Pzkw VI Tiger I	
					6	King Tiger
					6	Hunting Tiger
						Schwimmwagen
						Kubelwagen

This chart shows the palmy days of the Pzkw I - VI

PARTS

A PARTS

- | | |
|-----------------------------------|---|
| 1. Commander's Hatch A | 30. Exhaust Pipe A |
| 2. Commander's Hatch B | 31. Gun Turret (Left) |
| 3. Cupola A | 32. Gun Turret (Right) |
| 4. Cupola C | 33. Armour Plate C |
| 5. Cupola B | 34. Armour Plate B |
| 6. Reaction | 35. Look-out Window A |
| Absorbing Plate | 36. Look-out Window B |
| 7. Cartridge Box | 37. Periscope |
| 8. M Type Gun Shield | 38. Frontal Hook |
| 9. Armour Plate A | 39. Handrail |
| 10. Tool Box | 40. Smoke Discharger |
| 11. 7.92 mm MG | 41. Exhaust Pipe C |
| 12. Tool | 42. Smoke Discharger Support A |
| 13. Gun Turret Parts | 43. Smoke Discharger Support B |
| 14. Ventilator | 44. Upper Half of Gun Turret |
| 15. Muffler Parts | 45. Escape Hatch C |
| 16. Gun Turret Machine Gun | 46. Escape Hatch D |
| 17. Unnecessary Parts | 47. Light |
| 18. Scoop | 48. Upper Hull Parts |
| 19. Wire Cutter | 49. Antenna Base A |
| 20. Fire Extinguisher | 50. Antenna Holder |
| 21. Jack | 51. Muffler |
| 22. Axe | 52. Muffler |
| 23. Projectile Charging Section A | 53. Projectile Charging Section A |
| 24. Projectile Charging Section B | 54. Gun Turret Base |
| 25. Ventilator | 55. Exhaust Pipe B |
| 26. Escape Hatch A | 56. Machine Gun Muzzle |
| 27. Escape Hatch B | 57. Projectile Charging Section Parts B |
| 28. Barrel | 58. Antenna Base B |
| 29. Frontal Armour Plate | |

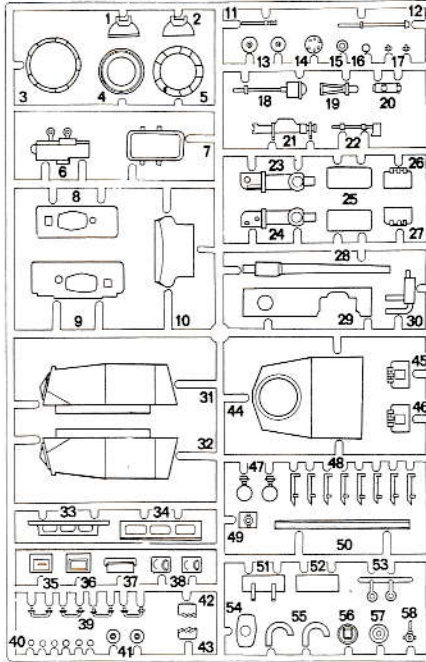
B PARTS

- | | |
|--------------------------------------|------------------------------|
| 1. Spare Wheel Clasp | 14. Road Wheel A |
| 2. Rear Wheel Bearing | 15. Rear Wheel B |
| 3. Spare Wheel Holder | 16. Rear Wheel A |
| 4. Idler Wheel | 17. Sprocket Wheel B |
| 5. Tank Soldier's Left Hand | 18. Sprocket Wheel A |
| 6. Lower Half of Tank Soldier's Body | 19. Cap |
| 7. Tank Soldier's Right Hand | 20. Spare Caterpillar |
| 8. Upper Half of Tank Soldier's Body | 21. Rear Panel |
| 9. Ventilator | 22. Shock Absorber |
| 10. Hull Fastening Parts | 23. Upper Hull Parts |
| 11. Spare Wheel Holder | 24. Upper Hull Parts |
| 12. Road Wheel B | 25. Upper Hull Parts |
| 13. Pistol | 26. Unnecessary |
| | 27. Binocular |
| | 28. Spare Caterpillar Holder |
| | 29. Idler Wheel Shaft |

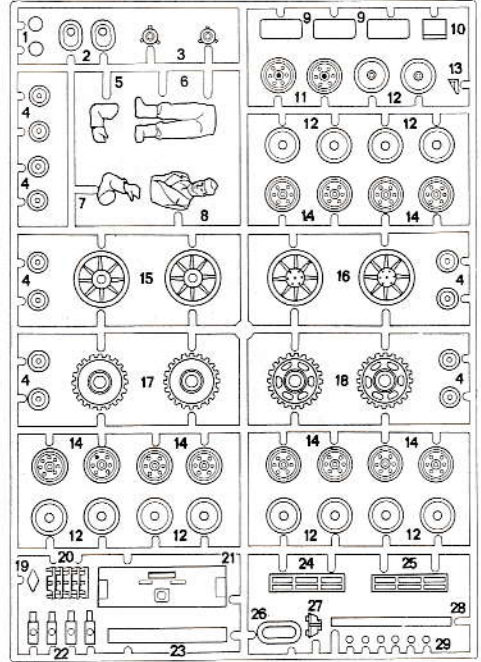
C PARTS

- | | |
|--|--|
| 1. Gun Turret Bullet-proof Plate | 12. Armour Plate Holder B |
| 2. Gun Turret Bullet-proof Plate | 13. Armour Plate Holder C |
| 3. Rear Wheel Shaft | 14. Gun Turret Bullet-proof Plate Holder B |
| 4. N Type 75mm Barrel | 15. Armour Plate B |
| 5. N Type Gun Shield | 16. Gun Turret Bullet-proof Plate |
| 6. Front Wheel Shaft | 17. Gun Turret Bullet-proof Plate |
| 7. Armour Plate A | 18. Gun Turret Bullet-proof Plate |
| 8. N Type Barrel Base | 19. N Type Hatch |
| 9. Gun Turret Bullet-proof Plate Holder A | 20. N Type Cupola |
| 10. Gun Turret Bullet-proof Plate Holder B | 21. Armour Plate Holder D |
| 11. Armour Plate Holder A | |

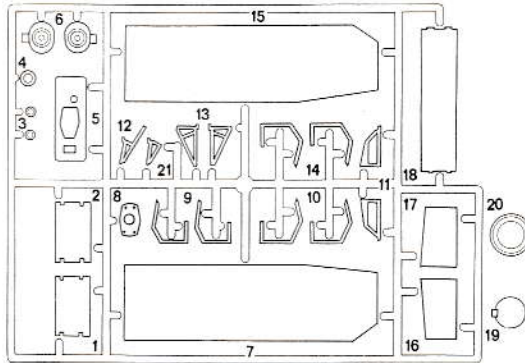
A



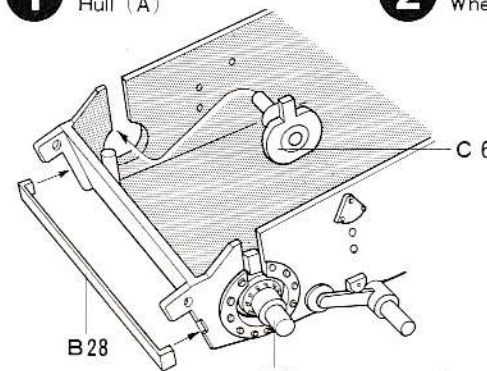
B



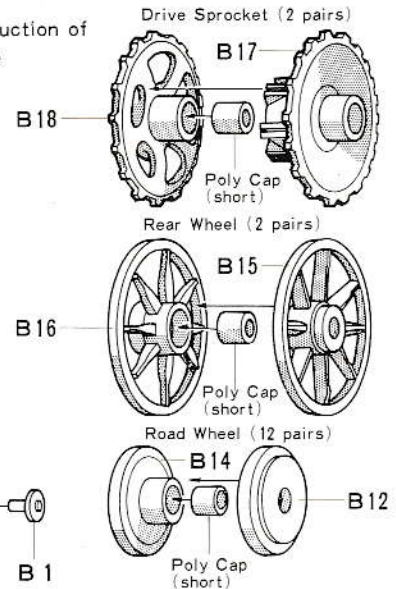
C



1 Construction of Lower Hull (A)



2 Construction of Wheels



★Do not use Poly Caps when constructing Spare Wheels.

★Be sure to read instructions before you start each construction work in numerical order.

★Get a knife, a driver, a pair of nippers, a file, and other necessary tools ready.

★Cut each parts off the runner carefully with either a pair of nippers or a knife. But it won't do to pluck it away with your hand.

★Too much adhesives won't do. Instead apply just a little onto both parts to be glued together.



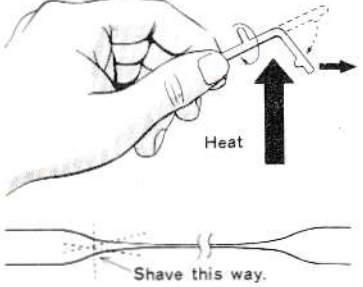
3 Drive Sprockets should be fixed while holding C6 with your fingers after Poly Caps have been put in.

★Before fixing Idler Wheels, B4 and B29, apply adhesives onto Lower Hull, at which B29 is glued. Take care not to put adhesives on B4.

4 In the construction of the front part, first fix A56 and A37, and then glue Armour Plate A29.

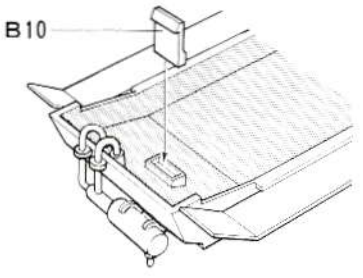
5 In fixing Antenna, do not apply adhesives to movable parts A58 and A49. A18 should be glued before A50.

(How to make antenna)

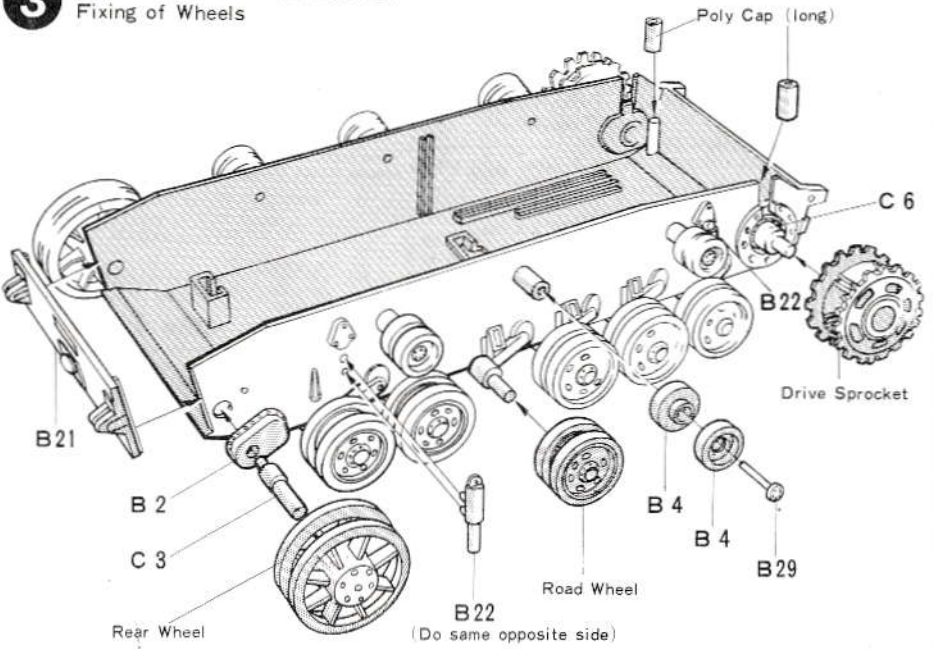


★Heat one of runner gradually while turning around. When the center portion began to melt, stop heating and stretch both ends of the runner slowly to opposite way to the thinness wanted. Hold it in that position for about 15 seconds to cool, and cut it to a 6 cm piece.
★Caution: Be careful in handling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

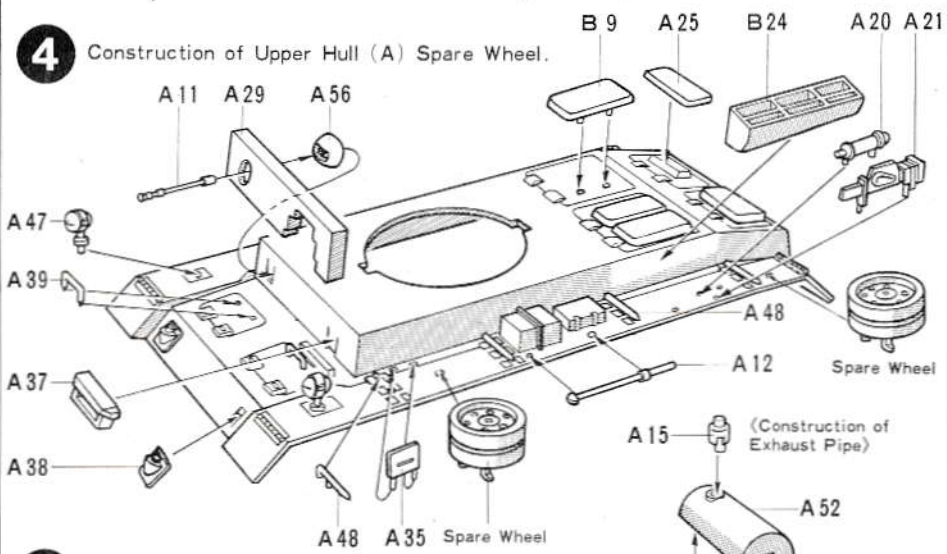
(Inside of Upper Hull)



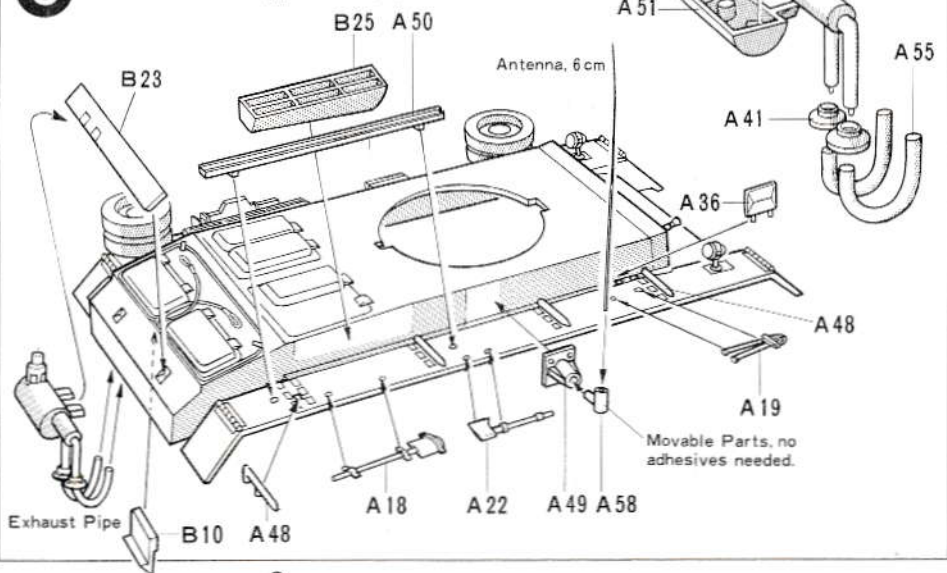
3 Construction of Lower Hull (B) Fixing of Wheels



4 Construction of Upper Hull (A) Spare Wheel.



5 Construction of Upper Hull (B)

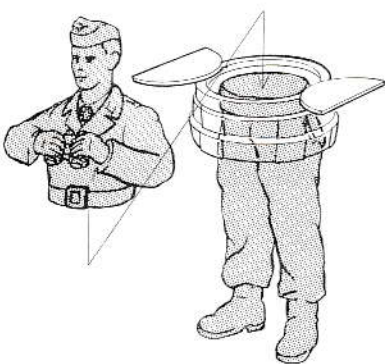


8 This kit is convertible and can be constructed in two ways; M Type and N type of the Pzkwf III. Make your choice and construct either of them. At this time, keep in mind that the shape of Commander's Hatch differs according as it is M type or N type.

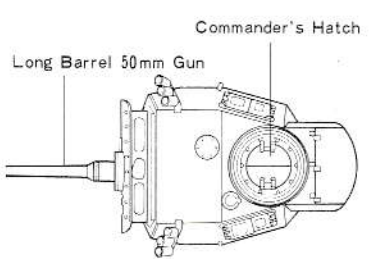
(Construction of Tank-Soldier Dummy)

★Glue Body on Legs with Cupola between them as shown in the figure below. See article 15.

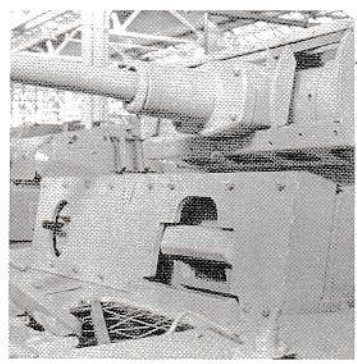
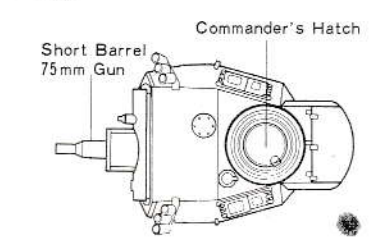
(Fixing of Tank Soldier)



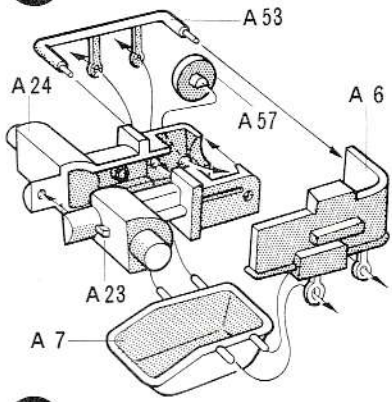
10 (Pzkwf III M Type) Long Barrel. Commander's Hatch with 2 leaves.



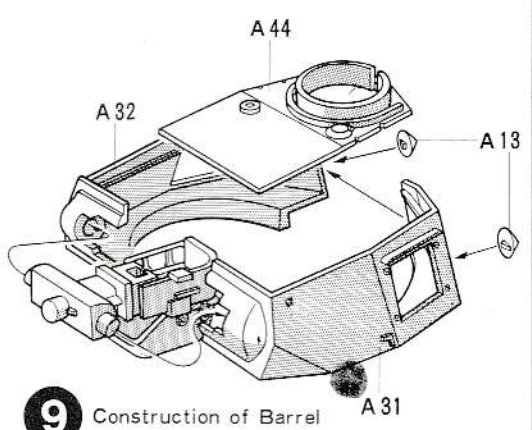
(Pzkwf III N Type) Short Barrel. Commander's Hatch with a single leaf.



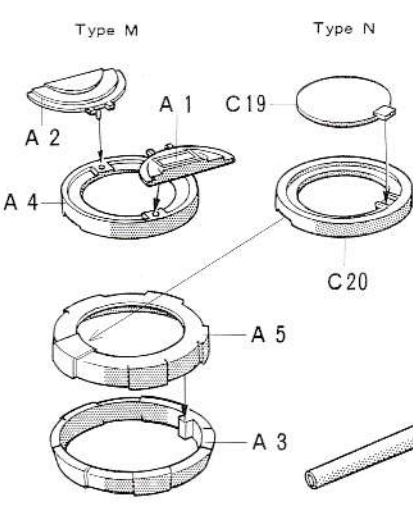
6 Construction of Barrel Base



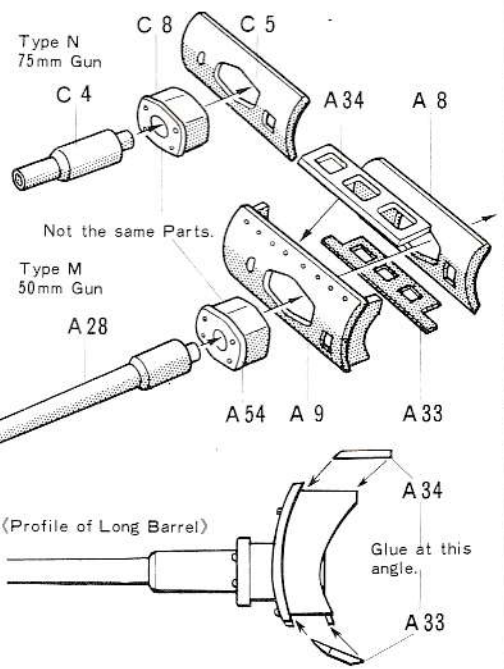
7 Construction of Gun Turret



8 Construction of Cupola

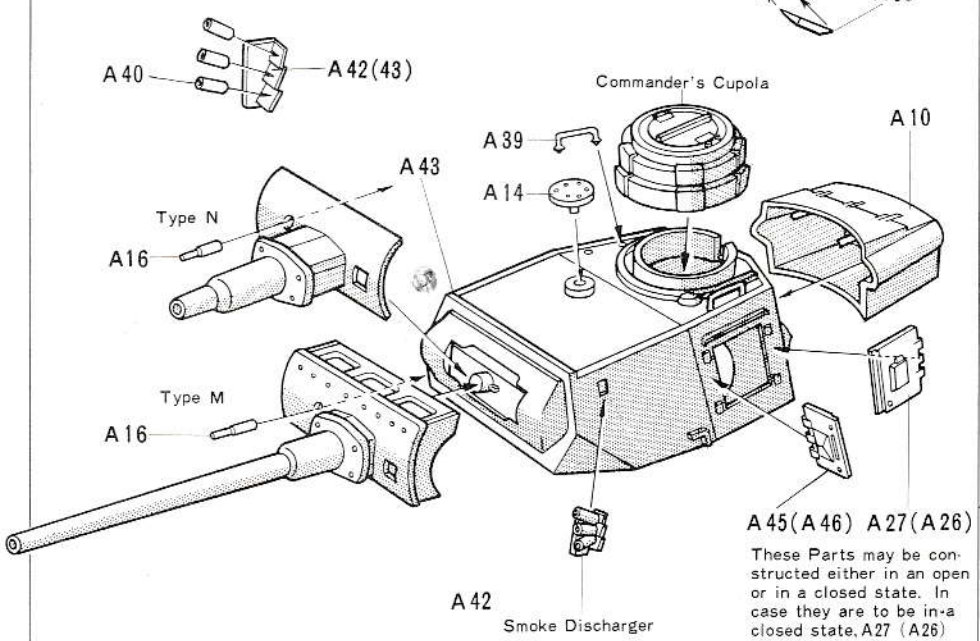


9 Construction of Barrel



10 Construction of Gun Turret

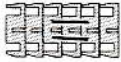
(Construction of Smoke Discharger)



**Good Way to Fasten Caterpillars
Flattening of Connecting Pin Head by Heating)**

★When heating pin head, use either splittable chopsticks inserted with a nail, about 2.5 cm long, or a screw driver with an extremely thin end as shown

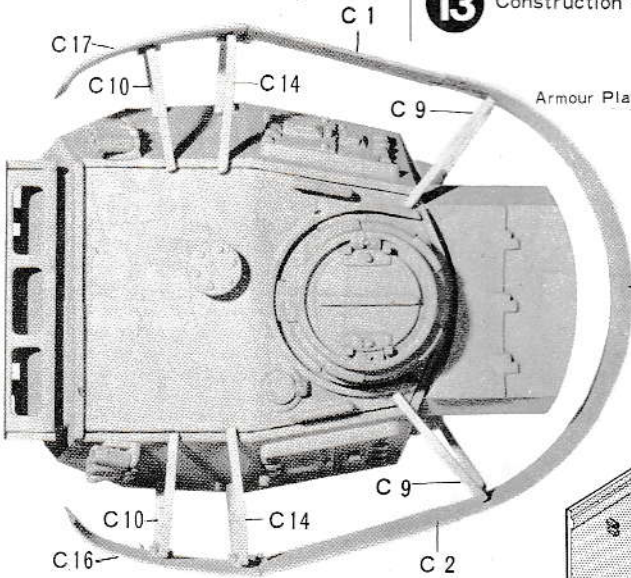
★When the connecting portion is broken off or flattening has been too slight to hold the two Caterpillars firmly together, secure the connection further with a black thread or a stapler as shown in the figure.



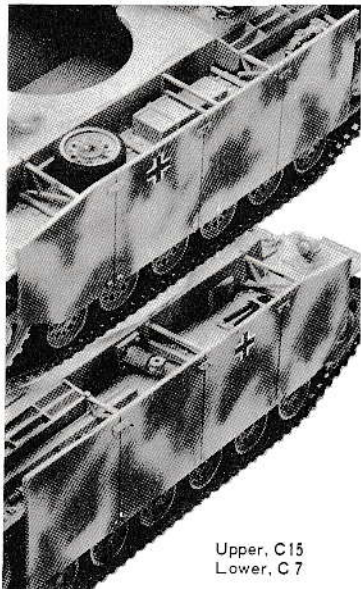
- 12** (1) Insert pins on the underside of the front part of Upper Hull into Poly Caps (long)
- (2) Hook the rear part of Upper Hull, parts B 10, into Rear Panel.

- 13** Construct Bullet-proof Plate with Parts placed on the full-sized picture below.

(Fixing of Armour Plate)

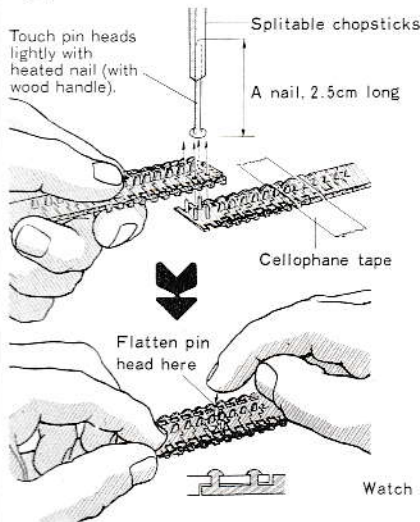


(Fixing of Armor Plate)

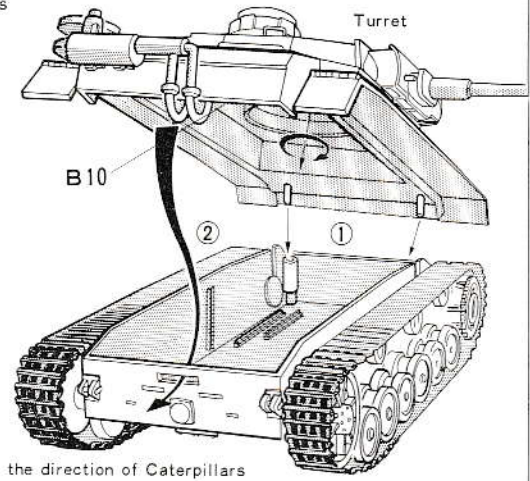


Upper, C15
Lower, C7

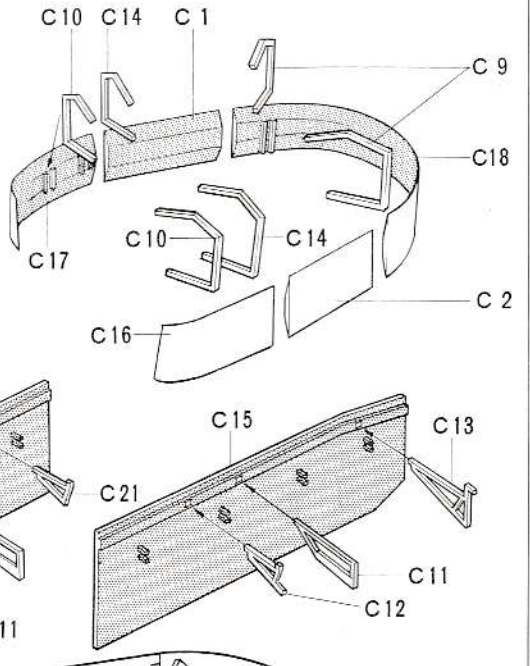
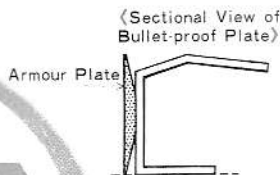
11 Construction of Caterpillars



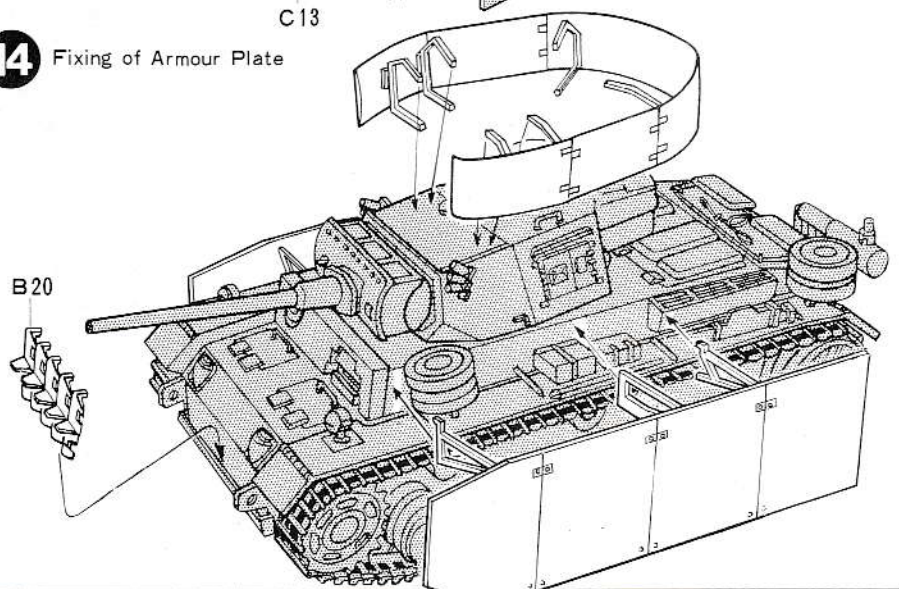
12 Construction of Hull



13 Construction of Armour Plate



14 Fixing of Armour Plate



(General Painting of German Officer and Tank Soldier)
Uniform

The uniform, including cloth gloves provided by the army, was made of field green cloth. Lapels, which were dark bluish green in the early stage, were later coloured field green, the same colour as the uniform itself. Matted-silver buttons were used, five on the coat and one on each pocket. The eagle mark, the national emblem, was provided on each army man's cap and left breast. German Tank Soldier's combat uniforms, including caps, are roughly divided into two: Black ones and field grey ones. Grey shirts worn under the uniform were coloured light green later in 1944.

Cap
Each officer was provided with a regulation cap corresponding to his rank, which was used at the time of battle also. Soldiers wore a field cap or a mountain cap by choice except for the time of fighting when they used a helmet.

Camouflaged Coat
A camouflaged coat, as shown in the figure below, was adopted in 1943. The helmet was sometimes covered with the same camouflaged cloth.

Camouflaged Coat

This coat was provided to officers and men of the Reichwehr in the late stage of the World War II.



- Medium Green
- Field Grey
- Medium-green vertical stripes on a field-grey ground.
- Red Brown

Painting

In constructing dummies, painting is the most important work. Get the following tools and paints ready and start painting of each dummy carefully. Tools and Paints: a slender brush (a long-tipped one for designing); a pair of tweezers; a series of matted or bright paints used exclusively for the plastics—white, flesh tint, yellow, red, brown, green, blue, black, and silver paints.

[How to Make Field Grey]
Mix white, black, green, and yellowish brown in the proportion 6:3:6:4 to give a matted tint.

Like to detail your models?

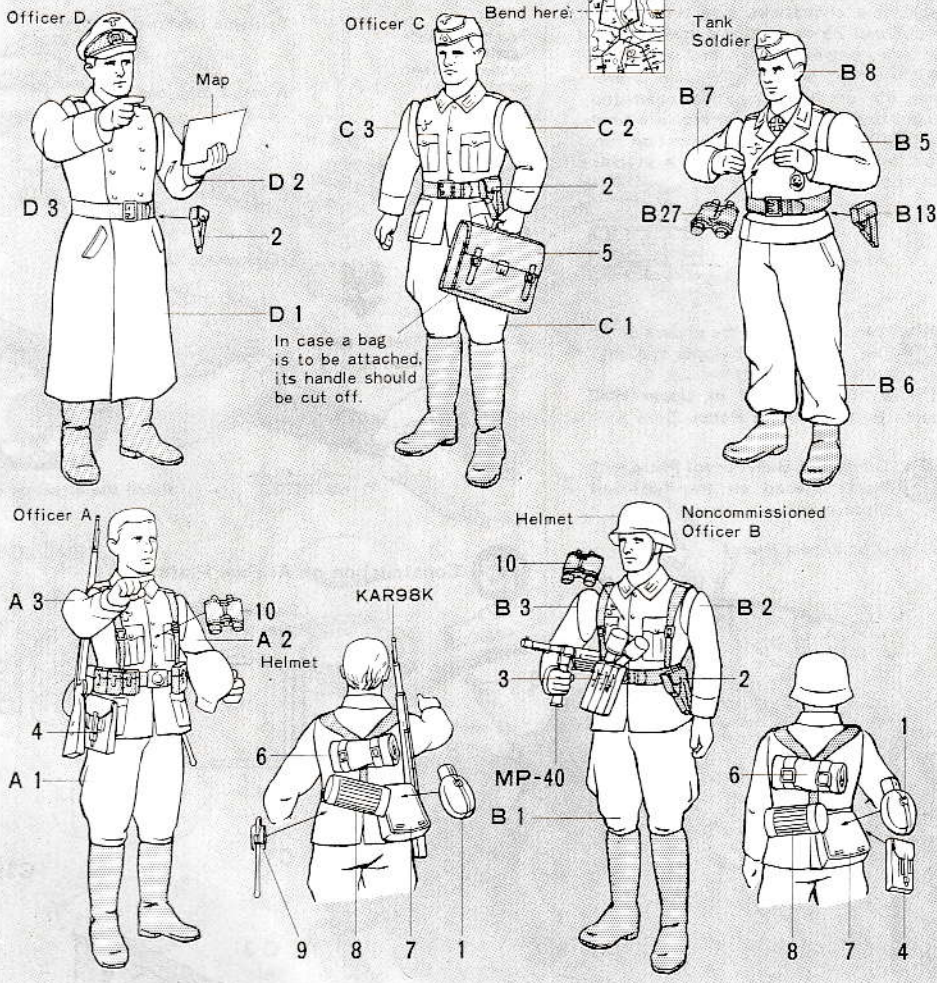
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The latest in cars, boats, tanks and ships. Motorized, radio controlled and museum quality models are all shown in full color in Tamiya's latest catalogue. English, German, French and Japanese versions available.



15 Construction of Dummy



APPLYING DECALS

(Explanation of Marks)



PAINTING

(Camouflaged Colours of German Tanks)

The camouflaged painting of the German tanks has three basic colours: dark yellow, dark green, and red brown.

The combination of these colours varies the camouflaged colours and patterns according to the season and the region.

Camouflaged Painting

(Gradation by means of Spray-type Colours)

Get the following ready: cotton, aseptic paste, Spray-type Colours — dark yellow and red brown.

(1) Paint the tank overall in the basic colour red brown so lightly that the plastic colour remains visible. After drying it do the work again.

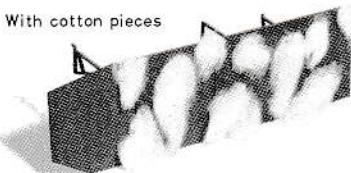
(2) Cover the basic colour with cotton, referring to the figure of camouflaged painting at right. The cotton should be taken to as small pieces beforehand as you can and applied with small amount of paste.

(3) Apply camouflaged colours overall in the same way as the basic colour. Do not forget the bottom of the hull. Give three thin coats or so.

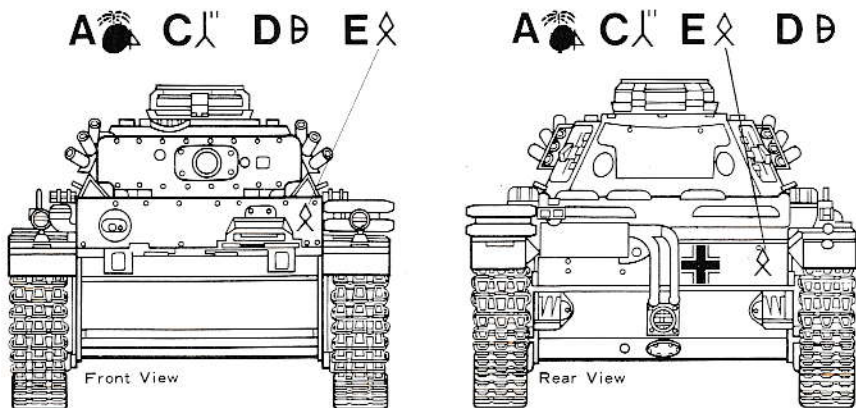
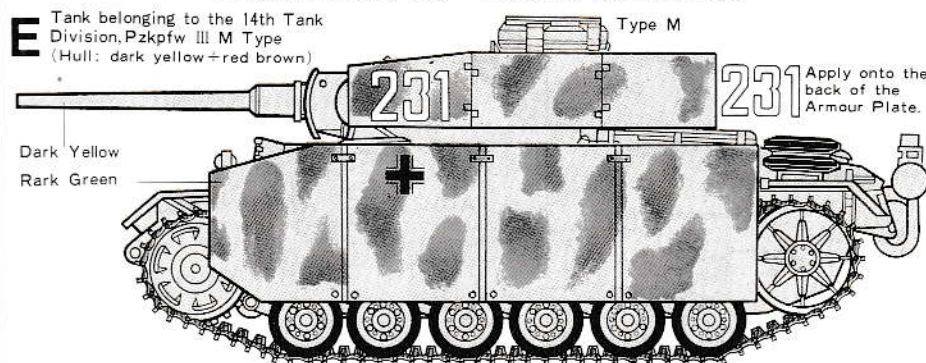
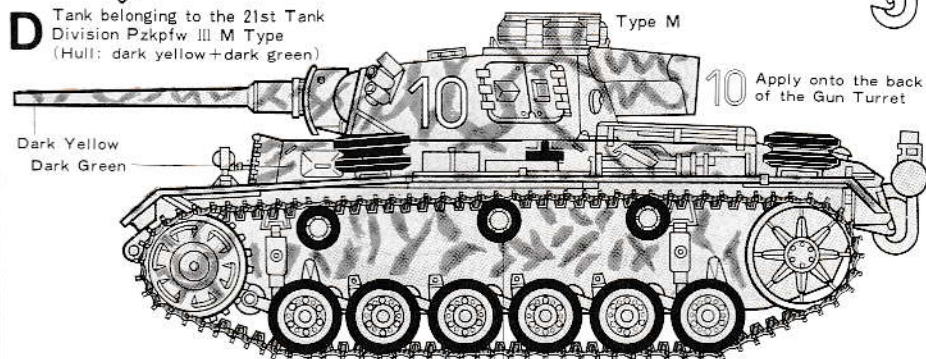
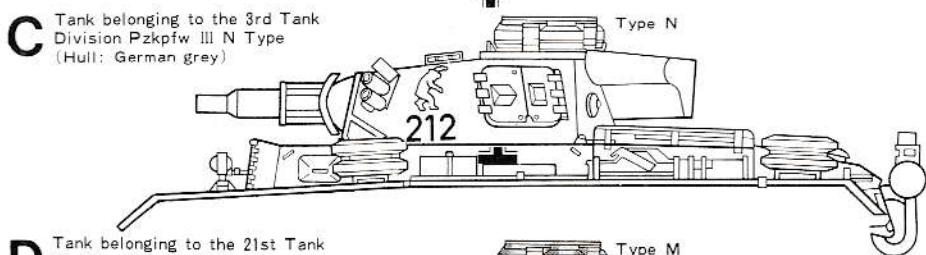
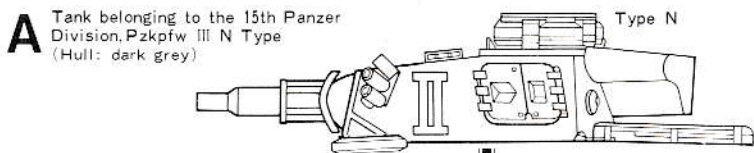
(4) Remove the cotton pieces after leaving for about 20 minutes. When dry the colours for another 30 minutes, rinse the paste away.

(Painting of Armour Plate)

With cotton pieces



After painting



armour reinforcement, on the gun turret shield and on the upper front hull of the H type which was in course of production. Some of the later tanks of the H type are armed with a powerful 50 mm gun of 60 calibre.

The J type had a 50mm armour. Its main gun was then replaced with a 50mm gun of 60 calibre. Its look-out windows at the front and the side of the hull were taken off.





The next L type, much the same as the J type, has improved suspension system with the increase of the total weight.

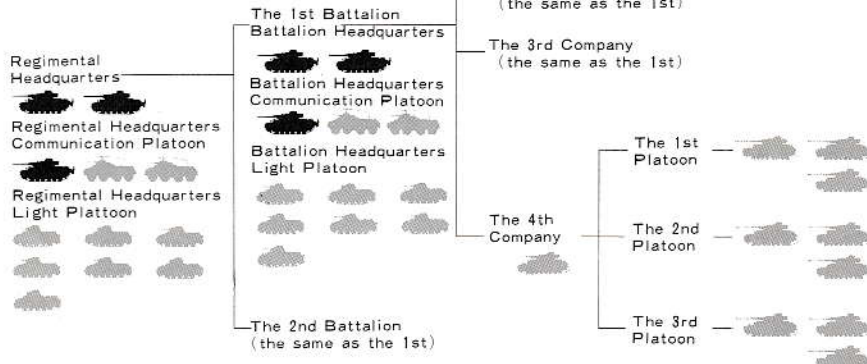
The M type was manufactured from 1942 to 1943. The escape hatch at the side of its hull was removed. The M type, except for the initial production type, has Panzer Schelzen, or apron, as the standard equipment on the sides of the hull and around the gun turret. Its river-crossing ability was improved: It could move freely at a depth of up to 130 cm or up to 152 cm with special equipment. Thus, new mufflers and exhaust pipes were employed. The smoke discharger, which had been mounted since the F type on the right side of the rear portion of the hull, were moved to the sides of the gun turret. The head lights were renewed and also moved to the top of the fender. To facilitate the engine starting, the M type had a cooling water exchanging device as the standard equipment, which made possible the engine starting in 12-15 minutes even at 30 deg C of frost. This device was mounted on the next N type and on the Pzkwf IV after the G type.

The N type, the final mass production type, was manufactured from the end of 1942 to August, 1943. The main gun mounted on it was a short 75 mm gun of 24 calibre, type 37, which was originally on the Pzkwf IV. The hatch of its look-out platform was replaced with a circular single-piece one. Also improved was the hatch for inspecting the steering brake at the front of the hull. These are important features of the N type. Some of Pzkwf III with a the short 75 mm gun use the hull either of the L type or of the M type. This model is the earlier N type having the hull of the M type. The production of the N type, including those with such hulls, totalled 666.

It was between 1941 and 1943 that the Pzkwf III played the key role of the German Army. During this period, the German tank corps displayed its strength and manoeuvrability to the

Example of German Tank Regiment Standard Organization. (As of autumn, 1942)

-  This mark stands for the Pzkwf III.
-  This mark stands for the Pzkwf II.
-  This mark stands for the Pzkwf IV.
-  This mark stands for Heavy Radio Combat Car.



world as well as Germany. Although the Pzkwf III, originally designed as an attack tank, later reached the level of using a 75 mm gun, General Guderian reminisces say, its armament was never strong and its armour was rather poor. The fact that it showed such activity that adds glory to the German was history was the result of its excellent united operations with other tanks, flying corps, or later with 88 mm guns, which feature the tactics of the German forces. The Pzkwf III rendered distinguished service together with the Afrika Korps in North African hot deserts, as well as drove Russia to the wall twice on the Eastern Front in mid-winter. These facts show that the tank tactics of the German Army was excellent and at the same time that the Pzkwf III was a superior tanks of high working ratio suitable for the tank tactics. The Pzkwf III has many escape hatches in compared with tanks of other countries, which

clearly shows how the crew's lives were valued. This is true of all German tanks.

Among various types of the Pzkwf III, the best are the types J, K, L, and M armed with a long 50 mm gun of 60 calibre. The Allied forces placed a high value on the superiority of these 4 types. The production of the Pzkwf III including command ones totalled about 5800. If the Assault Gun III, which was built using the hull of the Pzkwf III, is taken into account, the total production will exceed 15,000.

Essential Specifications of the M type

- (The N type, in parentheses)
- Length: 6.55m (5.78m)
- Width: 3.41m Height: 2.50m
- Weight: 21.13tons (21.3tons)
- Engine: Maybach HL 120 TRM, V-type, 12-cylinder
- Maximum speed: 40 km/hr
- Armaments: One KWK, L60, 50mm gun (One KWK, L24, 75mm gun); Two MG 34, 7.92mm machine guns
- Number of crew: 5

- | | | | | | |
|-----------------------|-----------------------|--------------------|-----------------------|---------------------|------------------------|
| ①: 7.92mm Machine Gun | ⑤: Gun Shield | ⑧: Reaction | ⑪: Commander's Cupola | ⑭: Exhaust Pipe | ⑲: Torsion Bar |
| ②: 20mm Armour Plate | ⑥: 75mm Projectile | ⑨: Look-out Window | ⑫: Gun-elevation | ⑮: Rear Wheel | ⑳: Suspension System |
| ③: Gauge Board | ⑦: Ventilating Device | ⑩: Escape Hatch | ⑬: Adjusting Wheel | ⑯: Road Wheel | ㉑: Driver's Seat |
| ④: L24, 75mm Gun | | | ⑰: Engine | ⑰: Propeller Shaft | ㉒: Transmission System |
| | | | | ⑱: Commander's Seat | ㉓: Control Lever |
| | | | | | ㉔: Clutch Pedal |
| | | | | | ㉕: Drive Sprocket |
| | | | | | ㉖: Disc Brake |

