

1/35 RC センチュリオン (英)

EXECENTURION MKIII

In May, 1945 six prototypes of what was later known as the Centurion were taken to Germany to undergo combat testing in the battle zone, but they were too late to fight against the German tanks. On April 30th, 1945 the German Reich accepted an unconditional surrender, and hostilities ceased on May the 5th.

Three months later, on August 15th, 1945, Japan also accepted an unconditional surren-der, and World War II was finally over. Hence the Centurion never saw action in the

War for which it was designed.

However, five years after the end of World
War II the Centurion Tank at last saw combat in the Korean War which started in June,
1950. This conflict was caused when the Communist North Koreans invaded South Korea munist North Koreans invaded South Korea and the aid of the United Nations was requested to repulse the attack. The Commonwealth Brigade was amongst the forces sent in. The armoured element included the 8th Kings Royal Irish Hussars, who were equipped with the Centurion Mark III. The Superiority of the Centurion was soon demonstrated. e were many notable episodes in the where the Centurion won fame. The Eighth Kings Royal Irish Hussars were first in action on January 3rd, 1951, but on April on action on January 3rd, 1991, but on April 20th, 1952 the Centurions were involved in their greatest action, when C Squadron, commanded by Major Henry Huth, was giving support to the Northumberland Fusiliers and the Ulster Rifles, who were themselves at-tacked by a large force of Red Chinese In-fantry. A sharp battle ensued in which the tanks literally had to shoot the enemy soldiers off each others turrets with machine gun fire. The enemy were attempting to destroy the The enemy were attempting to destroy the tanks with sticky bombs in what was a suicide attack. Finally they were repulsed, though one Centurion was damaged by a bomb, but was nevertheless not immobilised. Later on, an even bigger attack by over 2,000 Chinese Infantry was similarly defeated. On the same day came yet another major action, as the

tanks fought in convoy to evacuate the wounded of a severely depleted Belgian Infantry Battalion. C. Squadron was surrounded by Battalion. C. Squadron was surrounded by hoard of Chinese Infantry by this time and had to shoot their way out of the encircled position by engaging the enemy at 50 yards range, at the same time covering the withdrawal of the remaining Belgian troops.

Eric Linklater wrote about the fight of C Squadron his dook "Our Men in Korea": "In their great Centurion Tanks, they fought with consummate skill and the utmost valour to cover the withdrawal, and by their massive assistance and self-sacrifice, saved many of the parched and hungry Infantry".

Development of the Centurion Tank dates

Development of the Centurion lank dates back to July, 1943, when the British War Office asked the Department of Tank Design to develop a "heavy cruiser" tank designated A41. The requirements the vehicle was to

(1) Its gun had to be at least the equal in hitting power of the 88mm weapon of the German heavy tank, Tiger I, and was to be of the largest caliber available (the 17

Speed was not so important as maneuverability and good cross-country performance.

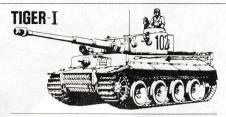
The armour protection was to be sufficient to withstand a hit from the German 88mm

An important factor which influenced the design was the dropping of a long-standing limitation imposed by the War Office that restricted the dimensions of British tanks so that they always fell within the loading gauge of British Railways. This meant that the new design could be considerably bigger than pre-vious British Tanks and so overcome the shortcomings of tanks like the Cromwell and the Churchill, which were too narrow to accept a turret big enough to mount the all-

cept a turret big enough to mount the all-important 17 pdr. gun.

The famous firm of A.E.C. Limited (in peace time, manufacturers of buses and trucks) were appointed "Design Parents" for the A41









project. By May, 1944 a mock-up was ready for War Office approval. The striking fea-

for War Office approval. The striking features of the design were these:—

(1) The main armament was the 17 pdr. (77 mm gun) which could fire armour-piercing (AP) or high explosive (HE) shells.

(2) The hull front had a sloped glacis plate (instead of the previously used vertical plate) which gave optimum shot deflection.

(3) The bottom of the hull was boat-shaped to

give better resistance to mine explosions.

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(4) Modified Horstmann suspension was adopted instead of the Christie type suspension of earlier "Cruiser" tanks. This was because the increased weight of the A41 was too great for the Christie suspension to support effectively.

(5) The combat weight was estimated at 42 tons.

(6) The traditional hull gunners position was eliminated to provide extra space for the stowage of the big 17 pdr. rounds. After the design had been approved, 20

After the design had been approved, 20 prototypes were authorised to be made for combat and troop trials, to assess the best combination of armament and fittings. The 20 tanks were built in groups of 5, each group having different gun arrangements. Briefly:

Vehicles 1-5 had the 17 pdr.gun with 20 mm cannon co-axial and a Besa machine gun in the turset rear

mm cannon co-axial and a Besa machine gun in the turret rear.

Vehicles 6-10 had the camnon with arrangements for its independent elevation, and these had a rear turret escape door instead of the machine gun.

Vehicles 11-15 had a co-axial Besa machine gun instead of the cannon, and Vehicles 16-20 had the shorter 77mm gun of the earlier Comet Tank and "powerflow"

of the earlier Comet Tank and "powerflow gearboxes.
The A41 was subsequently called the Cen-

The A41 was subsequently called the Centurion Mark I. An improved model was initiated in January, 1945, the A41A. This had increased armour thickness and the turret was made as a casting instead of in fabricated form, as in the A41. This A41A was designated Centurion Mark II and 100 were

Initially armed with a 17 pdr. gun, later

vehicles had the vastly more powerful 20 pdr. New features of the Centurion Mark II in-

(1) An all-round vision cupola for the Commander.

(2) A co-axial Besa 7.92mm machine gun.

(3) A sighting periscope instead of a telescope. (4) A stabiliser for the main gun which oper-ated in both Azimuth and elevation. Though not the first tank with stabilised

Though not the first tank with stabilised main armament, in the Centurion this feature was carried to a high degree of perfection, giving in 1948, the Centurion Mark III a reputation for very accurate shooting. Also in 1948 the vehicle appeared with a new 20 pdr. gun and a secondary armament. There was also a co-axial 7.92mm Besa machine gun.

The engine of the Centurion was the Rolls-Royce Mateor, a V12 OHV 27 000cc petrol

The engine of the Centurion was the Rolls-Royce Meteor, a V-12 OHV 27,000cc petrol unit. The cylinders were inclined at 60°. There were two twin-choke up-draught carburettors, and oil was supplied by a dry sump force feed system. Each cylinder had two plugs and the output was 650 bhp at 2550 rpm.

The Meteor 4B engine was developed from the Rolls-Royce Merlin which powered such famous aircraft as the Spitfire and the Lancaster. The Meteor engine was first used in the Cromwell and the Comet tanks, the forerunners of the Centurion, and it proved to be

an excellent and reliable motor in every way. There was a triple plate dry clutch linking the drive to the Merritt-Brown gearbox, which was transverseley mounted. The transmission gave 5 forward and 4 reverse speeds. The main brake drums were fitted between the steering brakes and the hull on the final drive shafts. The maximum speed was about 21.5 mph, which was not so fast as some other tanks of its size, but speed was considered less important than the validate well-proven less important than the vehicle's well-proven cross-country performance.

The length of the hull was about 24'9' little shorter than that of the Mark II. The lay-out inside the tank was as follows:
(1) Driver's seat (left) and the 20 pdr. shell magazine were located at the front.

magazine were located at the front.
(2) Fighting compartment in the middle.
(3) Engine and transmission at the rear.
The Commander stood on the right-hand side, inside the turret, with the gunner standing in front of him. The wireless operator's seat was to the left of the 20 pdr. gun.

The modified Horstmann suspension consisted in essence of bogies, each with a pair of road wheels hung from horizontal springs. Similar suspension was used for the Con-queror and for the Cheiftain, which has now largely replaced the Centurion as the main battle tank of the British Army. It is inter resting to note that successive improvements in the design greatly increased the weight. The A41 was planned at 42 tons but the actual Centurion Mark I weighed 47 tons. In the Mark III with the heavier gun, the weight went up to 50 tons.

The armament accounted for about 45% of this weight; the guns and ammunition 10 %; the engine took up 5%; the transmission and crew and equipment made up 10%.

The projected close support version of the Centurion was to fit a 95mm Howitzer instead of the 20 pdr. However, this was cancelled in 1949. The allotted designation, which was not taken up, was Centurion Mark IV.

From 1950 to 1951 many Mark IIs were completed to Mark III standard.

An early complaint from the Tank Regi-ments concerned the Centurion's short range, and this admitted shortcoming was rectified to a great extent by provision of a mono-wheel fuel trailer which could be jettisoned when empty. Another measure used was the addi-tion of an external rear fuel tank.

Late in 1952 Vickers-Armstrong developed





the Centurion Mark V. It was basically similar to the Mark III but it had a 7.62mm Browning machine gun instead of a Besa, and other differences included some small changes

of escape exits and interior fittings. Gradually, most Mark IIIs were rebuilt to Mark V standards. After the Mark V the Centurion was developed up to Mark 13.

From the Mark VI onwards, the 20 pdr. was replaced by an even more powerful 105 mm gun which proved to be one of the finest tank guns ever developed. This gun is, in fact, now the main armament of the West German Leopard, the French AMX 30 and the American M60 A1 ican M60 A1.

Briefly, the changes in subsequent Centurion models included a side loading hatch on the left of the hull, (Mark VII): split hatch cover for Commander, (Mark VII); and increased internal fuel tankage, (Mark VIII). Also, infra-red night fighting lights on Mark 6/1, 9/1 and 10/1.

Another major improvement was the addition of a ranging machine gun on Marks 6/2 and 10/2.

After the Korean War, Centurions of the 6th Royal Tank Regiment saw action in the Short Suez Invasion of 1956. In 1965, in the Indo-Pakistan War, Centurions were used ef-fectively by the Indian Army, and showed tectively by the Indian Army, and showed themselves tougher and harder-hitting than the American M47 and M48 Tanks which were used by the Pakistan Army. In 1967, in the famous Six-Day War between Israel and Egypt,Israeli Centurions completely outclassed the Russian-made tanks used by the Egyptians.

From 1966 onwards the Chieftain began enter service, and by 1970 had replaced the Centurion with the British Rhine Army.

However, Centurions still remained in ervice in Britain at this time, and they are likely to be in foreign service for many years

yet!
Twenty five years after its conception, the Centurion remains a most effective battle tank, with virtually twice the fire power of the original design and twice the radius and action.

Below is a list of countries which are

IRAQ ISRAEL DENMARK SWITZERLAND HOLLAND ENGRAND EGYPT JORDAN.

Main details of the Centurion Mark III: -Overall length 32'3", including gun. Hull length 24'9"

Hull length 11' 1" Hull width Overall height 9'734" Combat weight 50 tons

Engine

Ordnance quick firing 20 pdr. Armament gun Browning 7.62mm machine gun Smoke dischargers (2×6)

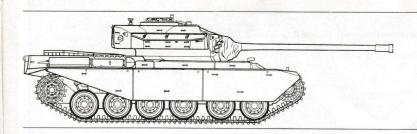
Rolls-Royce Meteor 4B Water cooled V type 12 cylinder OHV 27,000 cccs.

Output: 650 bhp at 2550 rpm. 21.5 mph.

Top speed Gradient 35 degrees. 110 kms. (approx. 65 miles) Cruising range Ammunition Capacity 65 rounds
Machine Gun ammunition 3600 rounds

Tracks Ma Width of Track 24" Magnesium castings

4 (Commander, gunner, Loader Crew: /Radio Operator and driver.



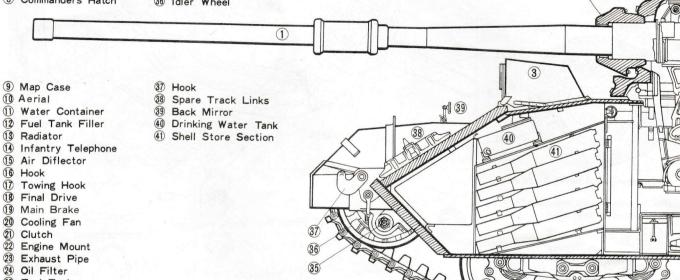
- Gun. Q. F. 20 Pounder
 Gun Shield
 Driver's Hatch
 Loading Section
 Commanders Cupola
 Periscope

25 Fuel Tank 26 Fuel Filter

② Commander's Seat (Later Type)

28 Used Cartridge Holder

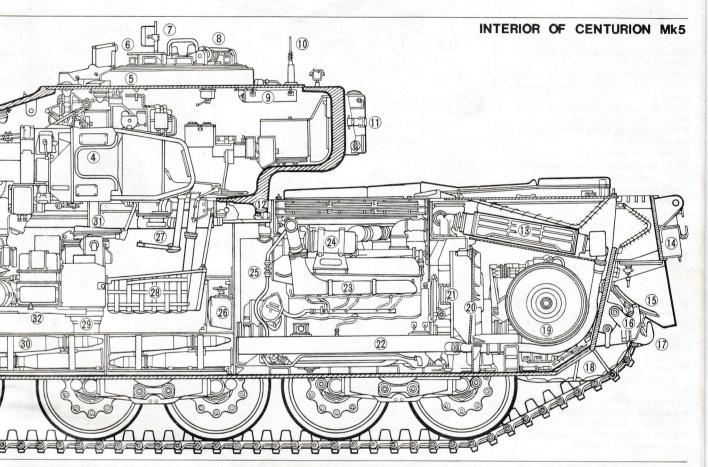
- 7 Machine Gun Holder
- 8 Commanders Hatch
- Turret Revolving Shaft
- 30 20 Pounder Shells
- Gunner's Seat (32) Turret Floor
- 3 Modified Horstmann Suspension
- 34 Road Wheel
- 35 Track Adjuster
- 36 Idler Wheel





EXECENTURION MKIII

Collaborator Royal Armoured Corps Tank Museum. Richard Kohnstam Ltd.







 $\bigstar Study$ the instructions before assembly.

★Have ready to hand a knife, a screwdriver, a file and a pair of long nosed pliers.

★For motorizing: One RE-26 Motor and two dry cell batteries.

★When removing parts from the sprue use a knife or pliers.

★Watch this mark.

Assembling of this section do with care.

(Paint before assembly)

★Carry out main painting after completion.

★Explanation of colour schemes is on Page 13.



Painting mark.

② Construction B of main gun barrel. ★Two different way: ③ to make a moveable gun barrel ⓑ to make a fixed gun barrel. Choose either one before starting work.

3 Construction of turret and method

of mounting gun.

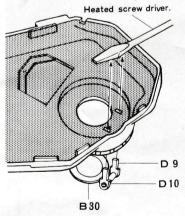
★Secure hatch-hinge by carefully melting ends of D9 and D10. Then assemble and cement C12, C10 and C11.

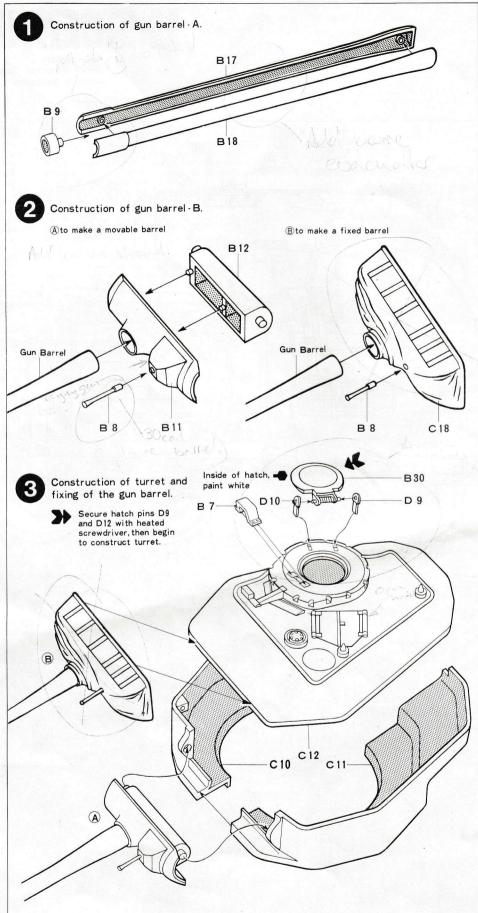
★If using a moveable gun barrel put B12 into position between C10 and C11, then cement C10 and C11.

Fixing the hatch by melting pin ends D9 and D10 - see stage 3 opposite.

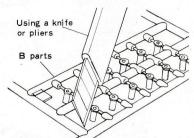
★Heated screwdriver tip.

Construction of Hatch.

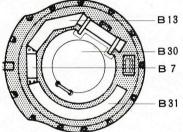




Construction of turret, Stage A.
 (Construction of smoke dischargers)
 ★Smoke dischargers (Pt.B1) must be removed carefully with a knife or pliers.

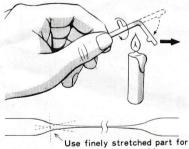


Commander's Cupola.



6 Construction of turret, Stage B.

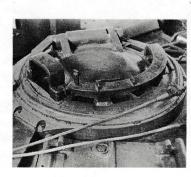
How to make a radio antenna by heatstretching sprue over candle flame.

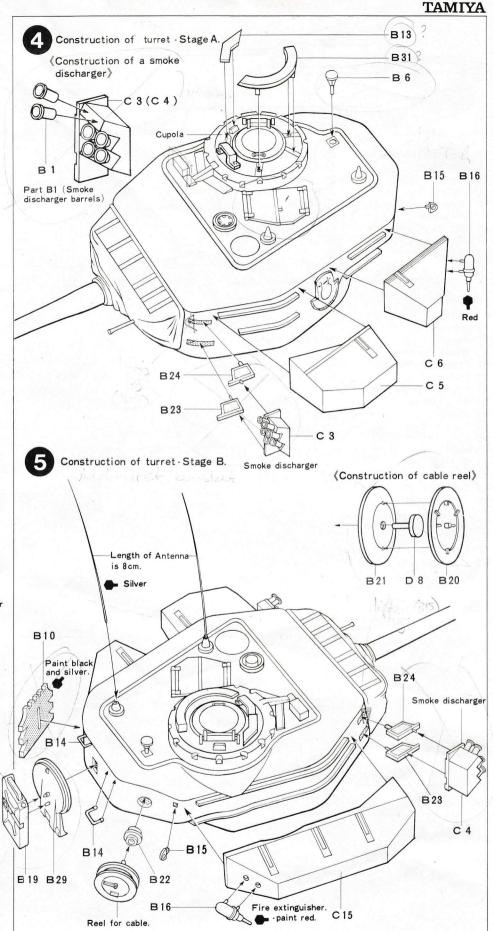


★Heat a length of sprue or runner over a candle flame, turning it slightly until the plastic is softened. Slowly stretch it as finely as you can and hold the stretched sprue for 15 seconds while it cools, and cut into 2 eight centimeter lengths.

the antenna cut end here.

★Be careful when using the candle. You may need more than one attempt at stretching the sprue satisfactorily.



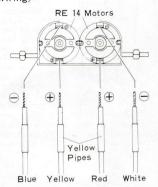


7 Fixing of Gear Box

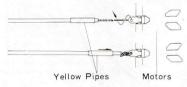
★Pass Cords from Remote-control Box through the hole in Lower Hull from its underside. Then, tie Cords together to make a knot just in front of the hole so that Cords won't get back easily to Gear Box again later. Lastly, connect Cords from Remote-control Box to Motor terminals as shown in the figure.

★When so connecting, cover each connecting part with respective Yellow Pipe quartors, so that any shortcut won't happen later.

(Wiring)



 \star Fix Cords to Motors firmly and cover the joints with Yellow Pipes.



How to Remote-control the Model Forward movement: Push down both levers forward.

Backward movement: Push down both levers backward.

Big right turn: Push down the left lever forward, while keeping the right one as it is.

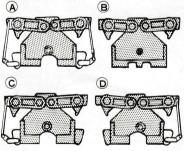
Small right turn: Push down the left lever forward, while the right lever backward.

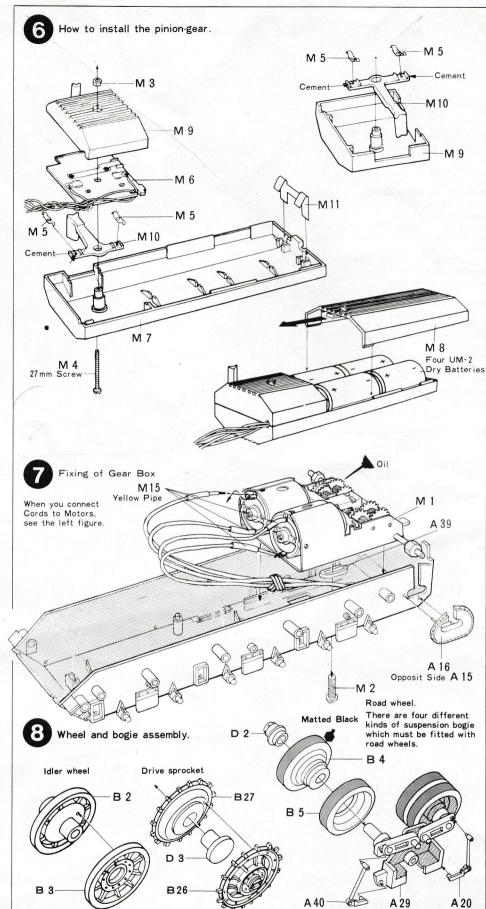
Big left turn: Push down the right lever forward, while keeping the left lever as it is.

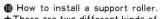
Small left turn: Push down the right lever forward, while the left lever backward.

★There are four different kinds of suspension unit as shown below:

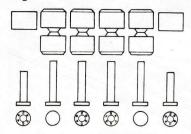
A,B.C.D.marked on the parts. These must be checked so that all parts in each sub-assembly have the same key letter.



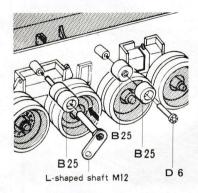




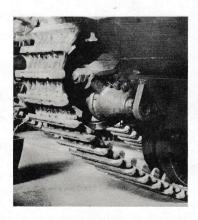
*There are two different kinds of support rollers as the diagram shows, and three different kinds of shafts which fix the rollers identify them from this diagram.

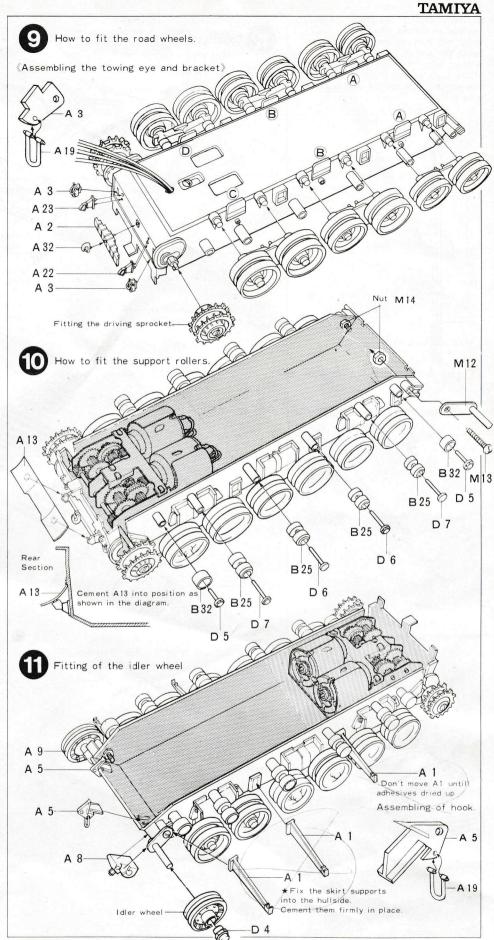


★How to fit a support roller:
Put the shafts D5, 6 and 7 into the slots in the hull by pushing them in with the L shaped piece M9, which will be needed again in Stage 12., below.

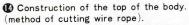


- -Make sure it runs smoothly-
- ★Put oil or grease on each wheel shaft ★Oil all moving parts lightly but thor-
- ★ Plastic moving parts, like wheels, must be lubricated with a vegetable oil which does not affect or corrode the plastic.



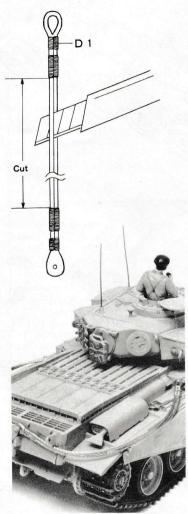


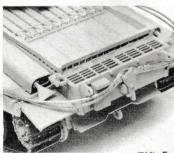
9



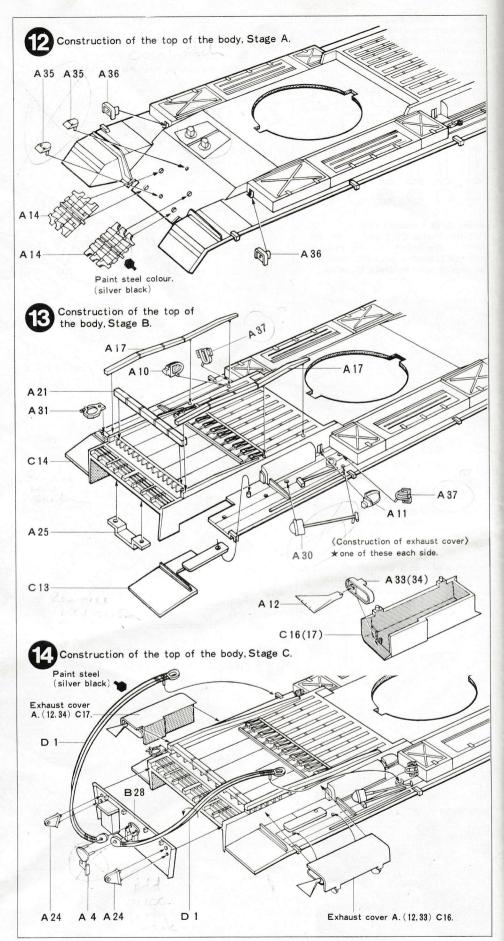
★Slit the part of the wire rope between the arrows.

*When fixing the rope on to the top of the body, cement Panel B28 solidly into position, then cut the rope and set it as shown.









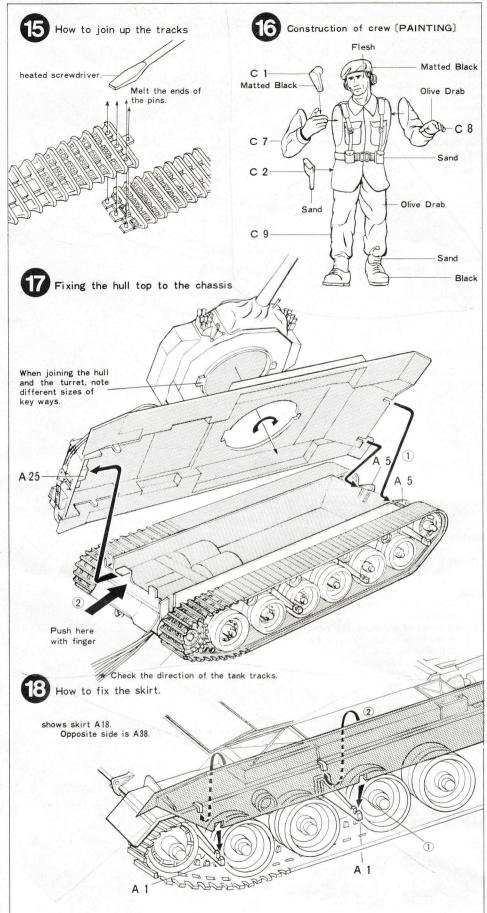


- Prixing the hull top to the chassis.

 (1) Put A5 on to the chassis into the slots on the hull top.
- (2) Clip the bracket at the rear into the slot A25 on the hull top, pusing home with the finger.
- ★To change the dry cell batteries, the reverse process is carried out.
- (B) How to fix the skirt-armour. Proceed as follows:
- (1) Fix the bottom slots of the skirt into the slots on the skirt support arms A1.
- (2) The top of the skirt is fixed into the recesses at the sides of the hull top.
- \bigstar To remove the skirt, reverse the process.







PARTS

A Parts

Side Skirt Holder Arm Leaf Spring 3. F

Side Skirt Holder Arm Side Skirt Holder St. Rear Hook Wire Rope Holder 5. Front Hook Shell 7. Shell Cartridge Shell

Idler Wheel Cover(Left)
Idler Wheel Cover(Right)

10.

Exhaust Pipe Cover A (Left)
Exhaust Pipe Cover A (Right)
Exhaust Pipe 13. Air Deflector
Spare Track 15. Finel Drive (Right)

Final Drive (Left)
Engine Cover Guide A

17. Side Skirt 1 Suspension Arm A 19. Hook

20.

20. Suspension Arm A
21. Engine Cover Guide B
22. Leaf Spring Holder (Left)
23. Leaf Spring Holder (Right)
24. Rear Panel Hook 25. Body Stopper
26. Suspension C
27. Suspension D
28. Suspension B
29. Suspension A
30. Shovel
31. Gun Travelling Clutch

32

Towing Hook Exhaust Pipe Parts (Right)

34. Exhaust Pipe Parts (Left) 35. Head Light 36. Front Cover Wire Rope Stopper 38. Skirt (Right)

39. Remote Control Parts (Non Essential Parts)

40. Suspension Arm B

B Parts

Smoke Discharger Idler Wheel (Outside) Idler Wheel(Inside) 6 . Aerial Holder Periscope Cover 8. Machine Gun 10. Spare Track 12. Gun Drum Muzzle of Gun

Gun Shield 13. Cupola Rail Turret Hook 14. Handrail16. Fire Extinguisher 15. Gun Barrel·A Water Tank 18. Gun Barrel·B 20. Reel Cable (Outside) 17.

Reel Cable (Inside) 22.Reel Cable Holder Smoke Discharger Arm A

23. Smoke Discharger Arm·B 25. Support Roller A

Drive Sprocket (Outside)

27. Drive Sprocket (Inside)
28. Rear Panel 29. Escape Hatch
30. Commander Hatch 31. Cupola Rail A

32. Support Roller · B

C Parts

Microphone 2. Gun Holster Smoke Discharger Box (Left) Smoke Discharger Box (Right) Tool Box: A 6. Tool D Commands

Commander Right Arm Commander Left Arm

Commander Body 10. Turret (Right) 11. Turret (Left)

12. Turret (Upper Surface)

13. Fender (Right) 14. Fender (Left)

15. Tool Box · C

16. Exhaust Pipe Cover (Right) 17. Exhanst Pipe Cover (Left)

18. Gun Shield Cover

D Parts

1. Wire Rope 2. Road Wheel Cap

Wire Rope 2. Road Wheel Cap
Drive Sprocket Cap
Idler Wheel Cap 5. Support Roller Pin A
Support Roller Pin B
Support Roller Pin C

Reel Cable Pin

9. Commander Hatch Hinge A 10. Commander Hatch Hinge B

11. Battery Holder M Parts (Metal)

Gear Box 2 . Gear Box Stopper Screw 4 . 27mm Screw

Switch Metal 6. Switch Plate

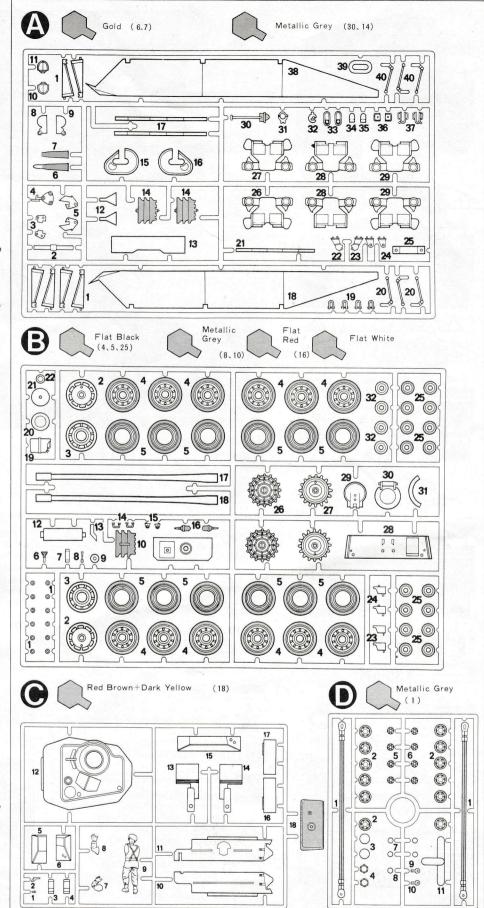
Remote Control Box (A) Remote Control Box (B)

Remote Control Box (C)

10. Switch Lever 11. Battery Terminal Metal 12. L Shape Idler Wheel Shaft 13. Idler Wheel Shaft Stopper Screw

14. Idler Wheel Shaft Stopper Nut

15. Yellow Pipe



PAINTING

Colours of British Tanks.

Centurions are used in many countries, not only in England. For example, it is in use in Israel, Australia and many other countries throughout the world.

After World War II, British Tanks were generally painted a dark bronze-green which was applied to all Centurions when new.

In the desert, as in the case of Israel, they are painted a stone colour, and in snow-covered terrain they are over-painted with a temporary whitewash.

Camouflage painting is sometimes applied to the Centurion, mostly using the colours dark yellow and red brown. A vehicle camouflaged in these colours is shown on Page 14.

Also for camouflage painting, dark green, olive drab, matt black and pearl grey. are used. The Centurions were frequently seen in dark green and matt black, but pearl grey was sometimes used to paint the lower parts of the hull and turret to break up the outline. The lower half of the gun barrel was also sometimes painted pearl grey with a wavy demarcation line. Sample schemes for colour painting are shown on Page 14.

Before Painting

Painting the model can greatly enhance its realism. Here are some useful tips: Before painting, do the following: Wipe any dust or oil off the surface. If any cement has disfigured any external parts, scrape it off carefully with a knife.

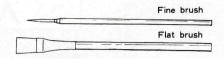
Carry out main camouflage painting last of all

Most paints are inflammable, so be careful when using them.

Items needed for Painting

Two brushes a flat one and a fine one. A plate or the lid of a tin, and some rags are also needed.

Both brushes should be soft and of good quality. Use the plate or tin lid to mix the paints. After finishing, wash the brushes clean with thinners.



PAINTS & SOLVENTS

Use suitable paints for plastic materials. Paint the model in stages.

The hull top and chassis should be painted as separate units.

In the case of the turret, hold it by the gun barrel as shown in the picture, and spray or brush the paints on it, turning the gun barrel.

Your model will look better if given two separate thin coats, allowing the first coat to dry thoroughly.

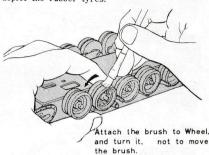
《Colour Guide》

Colour
Flat Metallic Grey
Flat Black
Red Brown+Dark Yellow
Chrome Silver
Metallic Grey+Red Brown
Field Grev

How to paint small parts.

After the main colours are dry, then paint the small parts.

The picture shows how to paint the wheel to depict the rubber tyres.



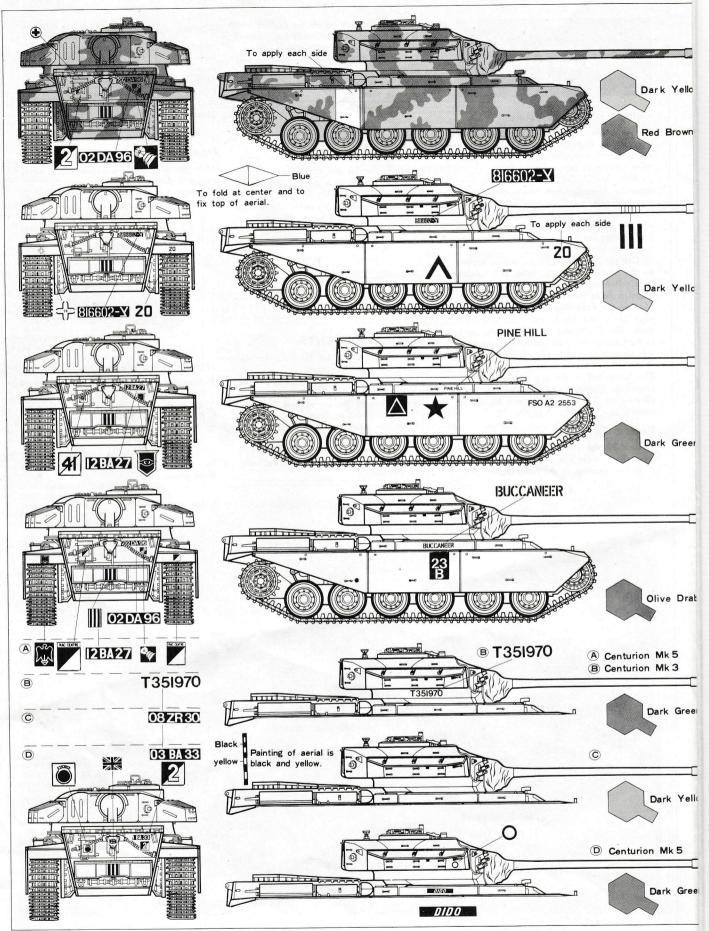
How to make a camouflage effect.

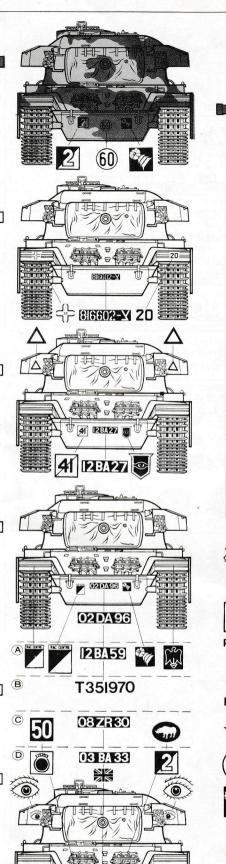
For example a camouflaged vehicle in dark yellow and red-brown.

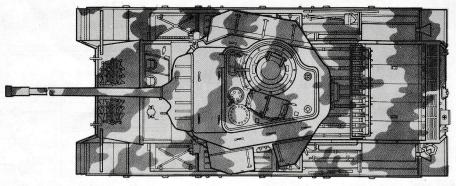
- (1) Paint the tank with the dark yellow and leave it for at least an hour.
- (2) Then put on a red-brown to the pattern shown on Page 14.

With care in painting your model should look as realistic as the pictures shown on these pages.











Marking



The Chinese eye is unique to 4 th Royal Tank Regiment, This first appeared on Mk IV Tanks of D company-later the 4 th Battalion, of the Royal Tank Corps-in March 1917.



The Berlin Brigade sign.

ILL Tank name, there are MAPLE HILL, LONDON STATESMAN BADER COLOMBO, and ETC.

This is Tank name too.



The United Nations Army Sign in the Korean war.



Bridge Classification



6th arm Divisions Sign.



Israeli tanks marking. Chevron Foreward denotes Sinai Campaign, Chevron Downwarddenotes Jordan Campaign, Chevron Upward - denotes 3rd Special Armored Corps.



O Squadron Signs, triangle is A squadron. Circle is C Squadron.



The formation Sign.

How to apply the transfers

Apply the transfers (DECALS) appropriate to the colour scheme you have chosen. Use the drawings on Page 14 as a guide to positions. When cutting out the Decals, trim them carefully with small scissors to remove the varnish edging which will reflect the light if left on-in other words, trim as closely as possible round the edge of each individual



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No.5 6 Pounder Anti Tank Gun.... Three figurs
No.6 Kubelwagen and Crew..........Three figurs
No.7 British Army Infantry Set....Three figurs





Kubelwagen



6 Pounder Anti Tank Gun



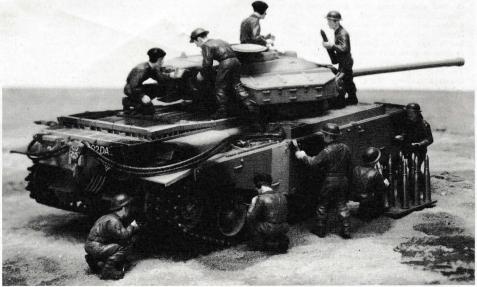
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