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**T-70 M Late Production
Russia 1943**

Step-by-Step Finishing Russian Armor



By Glenn Bartolotti

A complete Step-by-Step Guide to Painting and Finishing Armor Models and Figures

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and Finishing Armor Models and Figures



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Materials Used

The materials I use are very easy to obtain and simple to use. Most are inexpensive and found in most all art supply stores. Over the years I have learned to used these basic materials to obtain finishes that look very realistic. **Consistency** is very important and following each steps is also very important to obtain the desired finish.

You will notice that in none of the steps will you see the method of dry-brushing. I do not like to use this method as some armor modelers do. I prefer a more subtle look in which I feel represents the look of a full scale armor vehicle.



*Just some of the materials used for painting and weathering only.
The figures seen in some of the photos used more paint colors than seen above.*

T-70 M Late Production

By 1942, light tanks were considered inadequate by the Red Army, unable to keep up with the T-34 medium tank and unable to penetrate the armour of most German tanks, but they could be produced by small factories which were unable to handle the large components of medium and heavy tanks. The T-70 was an attempt to remedy some of the shortcomings of the T-60 scout tank, which had very poor cross-country mobility, thin armour, and an inadequate 20-mm gun. It also replaced the very short production run of the T-50 light infantry tank, which was more sophisticated, but also much too complicated and expensive to produce.

The T-70 was designed by Nicholas Astrov's design team at Factory No. 38 in Kirov.

The first batch of T-70s were built with a GAZ-202 automotive engine on each side of the hull, one driving each track. This arrangement was seen to be a serious problem, even before the first tanks were issued. It was quickly redesigned as the



**T-70M
(although it continued to be referred to as just T-70),** with the engines in-line on the right side of the tank and a normal transmission and differential. The conical turret was replaced by one more easily welded out of plate armour, and moved to the left side of the hull.

Curiously, even after the T-70's production line was redesigned, SU-76 self-propelled guns

started to be built with the same unsatisfactory unsynchronized two-engine layout, and all of them were later recalled for factory rebuilding as SU-76Ms.

T-70s were put into production in March 1942 at Zavod No. 37, and along with T-60 production at GAZ and Zavod No. 38. They completely replaced T-60 production in September 1942,

although that tank remained in use until the end of the war. Production ended in October 1943, with 8,226 vehicles completed.

In April 1942, the conical turrets on early-production machines were replaced with new welded turrets. The end of the T-70's production run was built with two 85-hp GAZ-203 engines, a Mark 4 commander's periscope replacing a vision slit, and other improvements.

The T-70 was used until 1948.

1



1. The **kit** used is the MiniArt 1/35 T-70M Late Production Soviet Light Tank with Crew # 35030.

The kit comes in a large box with coloured artwork of the T-70. It also contains five crew figures which I believe are the MiniArt "Soviet Tank Crew At Rest" set.

Inside the box there are eight sprues. One large one with the main hull and turret parts, two smaller ones holding wheels and small fittings, four sprues holding the individual track links, one small sprue of clear parts and of course the sprue with the figures. There is also a small decal sheet.



I did add a MV lens for the head light.

2



2. The completed model is given a **primer coat** to cover and protect the photo etch parts and give the model a good base to start the paint process. I use a basic spray can primer that can be purchased at the local home store. This primer coat makes painting the steps much easier because you get a smooth coat of color to allow you to see all the areas that will be needed to be painted in the steps used to shade and high light the model.

3



3. The first step in the painting process is the **pre-shade**. This is the darkest shadow color. Model Master Flat Black is used. What you are trying to achieve in this is to make sure any areas that your light source cannot hit is painted. You are for the most part adding artificial shadows. All the recesses, corners, tracks, and under objects that stand off the tank. It is also best achieved in some areas by painting the areas from under the tank as to just paint under the objects.

4



4. Next step in the painting process is the **base coat**. This is the main color Russian Armor Green 2129 is used with no mix. What you are trying to achieve in this step is to make sure you cover the areas that were not painted in the pre-shade painting. As you can see you don't have to worry about being perfect just make sure you can see the shadow for the most part and a blending effect is achieved.



Russian Armor Green

Available as:

→ Russian Armor Green (SG) MM - 1/2 oz.

Bottle

SKU# 2129 Price: USD\$ 3.45

5



6



5. Next step in the painting process is the **high-light**. This is the base coat, Russian Armor Green 2129 mixed with 2142 Flat White, mix 4/1 ratio to lighten the base color. You want to add enough white to alter the base color and contrast is important in this step. What you are trying to achieve is to make sure any areas of your light source can hit is painted. A faded effect is also achieved since this T-70 has worn it's paint color for over a year in the field. This step will bring out your tank's details. Paint all the high spots, centers of any panels and the tops of objects that stand off the tank. Once again contrast is important!

Russian Armor Green

Available as:

→ Russian Armor Green (SG) MM - 1/2 oz.

Bottle

SKU# 2129 Price: USD\$ 3.45

Flat White

Available as:

→ Flat White FS37875 - 1/2 oz. Bottle

SKU# 1768 Price: USD\$ 3.29

6. Next step in the painting process are the **Tracks**. I thin 2005 Burnt Umber with airbrush thinner about 6/1 and spray it on the tracks as close as possible not getting any on other surfaces except the tracks. Your airbrush should be set to do a small spray which is usually achieved by turning the air pressure lower, and making sure your paint is thinned. Remember just get a hint of the color on the tracks. If some gets on the road wheels it is ok.



7



7. The model is now given a Testors clear gloss coat only in the areas that the **decals** will be applied. I used the decals included in the T-70 kit. When dry, spray the tank with Testors clear flat and allow to dry for about 2 days. A flat finish is very important to my step-by-step finishing.

8



8. Next step in the painting process are the **tools and equipment**. I paint all tools and equipment on the tank before final weathering. In painting these items study the way metal and wood looks in real life and add the colors into your paint to really get a good contrasting look and make sure you use various colors and shade as you can in each item. Most important don't paint items just one color or shade. I use acrylic paint but any paint you are comfortable with will work. The metal items are painted in shades of black, they will be treated with a metallic and rust finish later.

NOTE: Always use clean turpentine for each step!

9



9. Next step is the **white wash**. I wanted to Simulate a worn off winter white wash.

First I brush the model with clean turpentine in the area you will be working in. Work in small areas from the top of the model first ending with the running gear.

I put a dab of White oil paint on a pallet, the oil paint is thinned and mixed with turpentine on the pallet and then applied to the model with a brush. I do not want the wash to coat the entire model, it is controlled just where I want it. Streaked down the sides like it would naturally as the white wash paint wears off, but care should be taken not to overdo this.

10



10. Once the body of the T-70 white wash has dried it is turned on its side and the road wheels are given a wash. It is put on its side so the wash stays around the bolts and details not allowing the wash to drain down to the bottom of the wheels only. This gives all the wheel a even effect all around.

11



11. Next step in the weathering process is the **white wash wear effect**. I add worn paint with white oil paint. I cut a corner off a abrasive sponge to add the effect. The sponge is press into the oil paint then onto the armor surface lightly. I hold the sponge with tweezers. The key to this effect is keeping them on the most abused edges and flat surfaces. The more you add the more worn the paint finish will look.

Use common sense and remember that less is more you can always add more later if need be.

Study war time photos with his effect before starting this step.



12

NOTE: Always use clean turpentine for each step!



12. Next step is the **wash**.

First I brush the model with clean turpentine. I put a dab of raw umber oil paint on a pallet, the oil paint is thinned with turpentine on the pallet and then applied to the model with a small brush. I do not want the wash to coat the entire model, it is controlled just where I want it. This is called a pin wash, apply to all of the surface details to create false shadows around each one, and any excess wash is blended into the surrounding surface once dry. I streak it down the sides like it would naturally, but care should be taken not to overdo this...be subtle.

Once the body of the T-70 wash has dried it is turned on its side and the road wheels are given a wash.





13

13. Next step in the weathering process is the **paint chips & grime**. I add chipped paint and grime with raw umber oil paint and a small brush. The key is to make them small and without any pattern, keeping them on the most abused edges and damaged areas. On older damaged areas first paint the chip with burnt sienna, then add the raw umber inside the chip so the sienna borders the umber.

A small sponge or make-up applicator is used to apply this effect. The sponge is press into raw umber oil paint lightly then onto the armor surface lightly. Use common sense and remember that less is more with chipped/grime areas, and think very small!

NOTE: Always use clean turpentine for each step!



14

14. Next the **tires/road wheels** are given a very thin wash of black oil paint thinned with turpentine. The wash works well because stark black rubber is not realistic. Let wash flow all around the road wheels in the same manner. It is impossible to add the wash behind the tracks but if you can't see it no one will see it is not painted there!

15

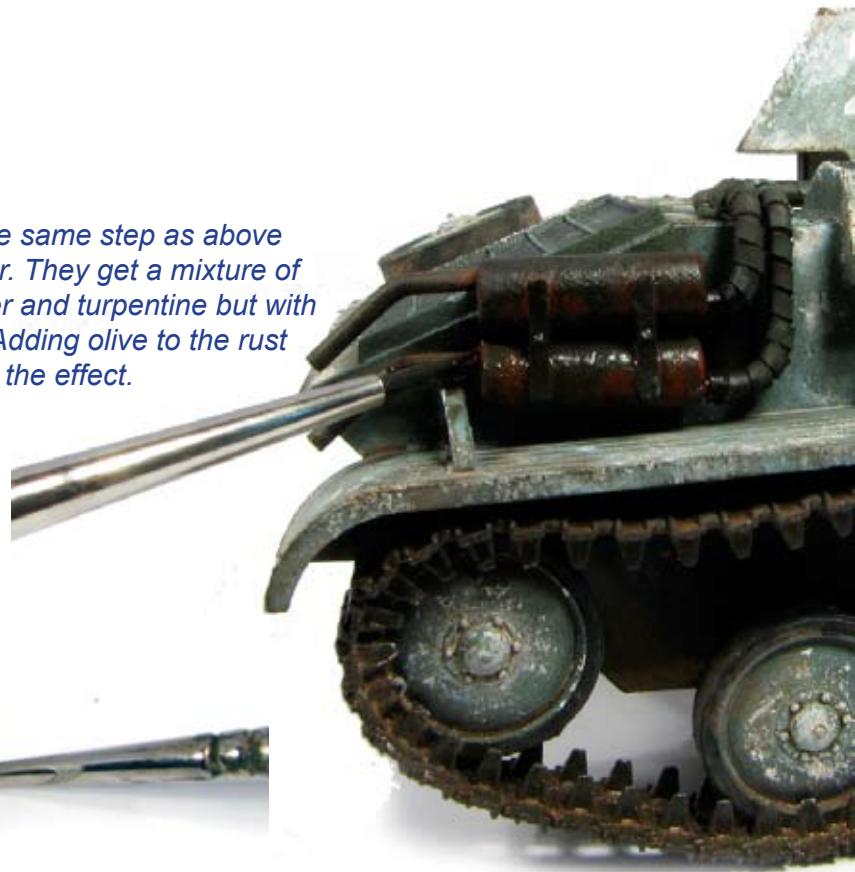


Last step are **metal accents**

I use a no. 2 graphite pencil to add the metal accents to the raised parts of the tracks and drive sprocket teeth.



Continued the same step as above on the muffler. They get a mixture of pastel powder and turpentine but with a rust color. Adding olive to the rust color adds to the effect.



15. Next step is **pastel pigment weathering**. I use pastels in the same way you use pigments, but I make my own powder. The pastels are \$1.00 a stick at the art store and come in a large variety of shades. I use a file to grind them into powder. I mix them with turpentine on a pallet and apply them with a brush. The lower body, wheel//tracks get a earth color thinned heavily with turpentine.

Make sure you thin the powder heavily because if not it will dry and cover to much of the tracks, a little goes a long way!

Apply a very thin mixture on the T-70's lower areas were dirt would accumulate in cracks, etc.



Finished Model



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Armor Models

by Glenn Bartolotti

Figure is from Alpibe

Step-by-Step Armor Finishing Sponsors



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www.track-link.net

A screenshot of the Track-Link website, which is a resource for modelers. The header features the site's name 'TRACK-LINK' and 'The Barrel Store'. The main content area is divided into several sections: 'Latest Updates', 'Recently Added Content', and 'Gallery'. Each section contains thumbnail images of armor models and brief descriptions. The 'Recently Added Content' section includes reviews for 'Verlinden Type 99 MBT', 'Verlinden Type 99 MBT', and 'Verlinden Type 99 MBT'. The 'Gallery' section includes reviews for 'Reichen-KT - Jul 23, 2011', 'Gallery - Model - Jul 23, 2011', and 'Gallery - Model - Jul 23, 2011'. The bottom right corner of the screenshot shows a banner for 'SUPPORTED BY INSTANCI INSTRUMENTS AND TRACK-LINK'.



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Stay Tuned!

Be on the look out for more Step-by-Step Armor Finishing!