



# Ground Power

Central VA Chapter, Armor Modeling & Preservation Society | John Robinson, Editor | Volume 29 No.2

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## UPCOMING CHAPTER EVENTS

<b>FEB 16</b>	Friday pm MEETING: VFW Post 10657 DEMO: Artist Oil Paints Part 1 by John Robinson
<b>MAR 22</b>	Friday pm MEETING: VFW Post 10657 DEMO: Making Headlights by Ashley Abernathy
<b>APR 26</b>	Friday pm MEETING: VFW Post 10657 DEMO: Antenna Bases by Mickey Bates
<b>APR 30 -MAY 5</b>	Tuesday-Sunday Annual Model Building Retreat Fort A. P. Hill

## MEETING AGENDA

(segments vary in length)

6:30 OPENING REMARKS, UPDATES

DEMONSTRATION (~30 min.)

PASS IN REVIEW (~90 min.)

## LOCATION

VFW Post 10657  
11568 Cedar Lane  
Ashland, VA 23005

## PRE-MEETING DINNER



Q Barbeque at 5:15 p.m.  
1070 Virginia Center Pkwy.  
Glen Allen, VA 23059

## February Meeting Earlier Than Usual

In February, many of our members are assisting IPMS Richmond set up for the Old Dominion Open on February 23, so we will meet on Friday, February 16.

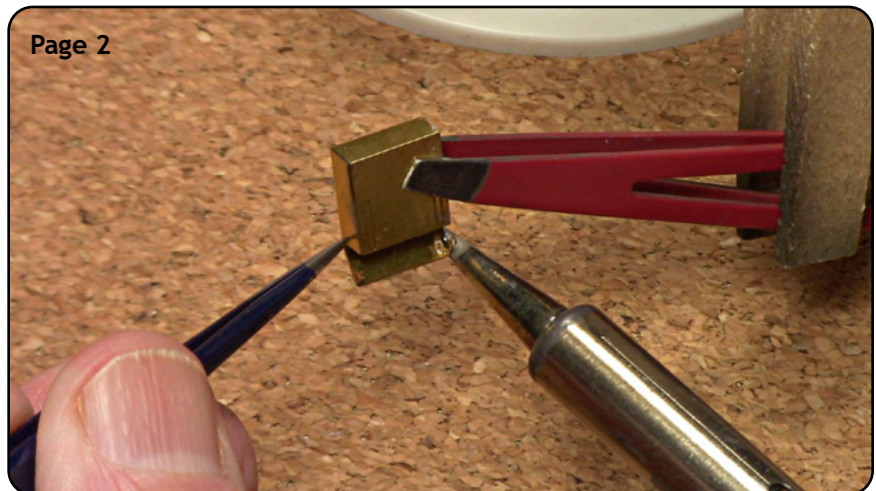
## AMPS-CV Model Building Retreat: April 30-May 5

Mike Petty is taking reservations but spots are limited. If you didn't already reserve yours, email Mike at [tanker@va.metrocast.net](mailto:tanker@va.metrocast.net). When the count reaches 18, you can still sign up but you'll be on a waiting list for cancellations.

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## January Demo - Soldering Photo-etched Brass Parts

by Mike Paquette

If you want to construct details made from photo-etched brass, you may reach for CA glue because that is what most instructions recommend. But CA joints on photo-etched brass is not strong, especially on parts that flex or that need to be handled. The best way to assemble photo-etched brass is to solder the joints. This creates a welded joint that is strong and permanent. Here are the notes from Mike's demo.

### Materials

- **Soldering Iron:** Mike recommends a soldering unit with variable temperature control. This allows fine-tuning your setup no matter what materials you use. Large parts absorb heat and typically require hotter temperatures than small parts. Expect to pay around \$100, but the investment is worth it if you integrate photo-etched brass parts often to your models.
  - **Solder:** Mike uses solder for stained glass work that is 50% Tin and 50% Lead. The melting point is around 400° F.
  - **Flux:** chemically preps the metal surface to be welded by the solder and is critical to success. Mike prefers a paste over a liquid, because the paste stays put and also tends to hold small parts in position before heating the connection.
  - **Bending tools:** Mike likes one made by The Small Shop called "The Bug." It is positionable for different bends and angles and is compact on the desktop. Unfortunately, it no longer
- in production but similar products can be found. For larger parts such as fenders, you may need a larger tool in the 6"-8" range.
- **Single-edge razor blade:** used to assist the bending and folding of parts. The edge keeps ensures bending along straight lines.
  - **Holding tools:** many types are on the market that use alligator clips. These are useful to a point, but better if you first clamp parts with tweezers and then clip the tweezers into the holder. An even better tool is a ball vise, which easily moves to any position you need.
  - **Cutting surface:** something hard such as glass, tile or metal. Anything softer will cause distortion while cutting parts off their fret.
  - **Hobby knife or scalpel:** used to cut through the part's attachment points on the fret.
  - **Sanding tools:** 400-500 grit will do. Use a rigid backing so that no distortion is introduced. Always sand along the length of the part, never across. This will avoid distorting the part.
  - **Syringe:** used to precisely apply flux paste in small amounts. Mike uses a 20 gauge needle, which is about 1mm wide.
  - **Tweezers:** used to hold the parts. Used in conjunction with a ball vise or holding tool.



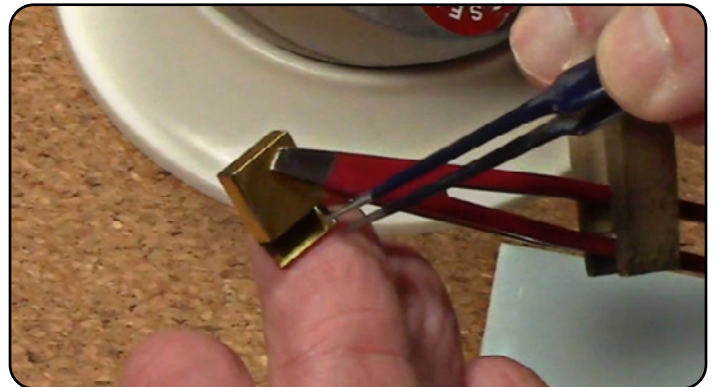
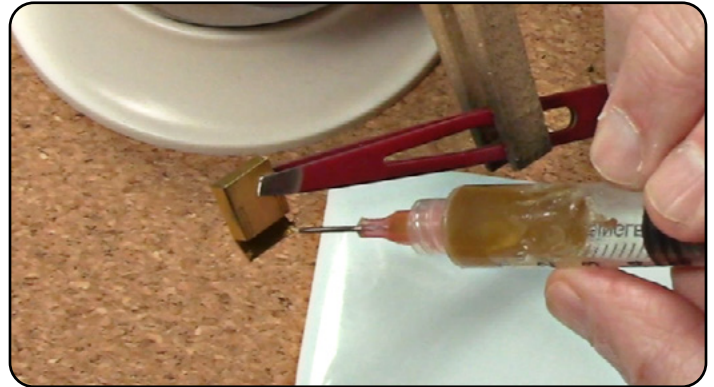
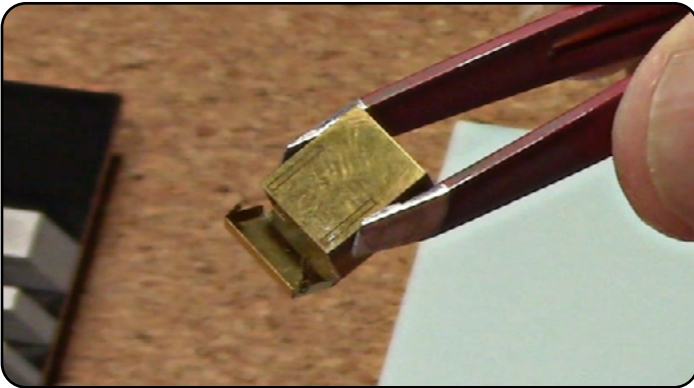
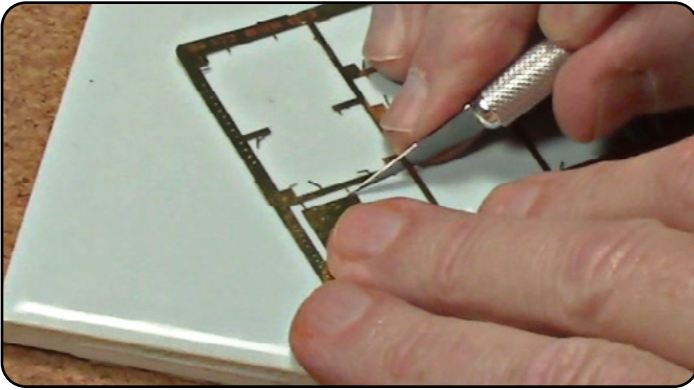
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## Technique

- Clean your photo-etched brass parts by soaking them in lacquer thinner for a few minutes. This ensures that no oils or films are present that would prevent a good soldered bond.
- Detach the part from the fret by using a sharp hobby blade against a hard surface. There will be nubs left on the part from cutting no matter how careful you are. Sand these down until smooth so that they don't interfere with part alignment.
- Bend your part as needed using the bending tools. If there are multiple bends required, you may need to brainstorm the best order for the bends so that you have room to use the tool.
- Mount the part to your holding tool and if possible, align it so that the joint is angling downward. This will put gravity on your side.
- Switch on the power to your soldering iron. Adjust the temperature to a) exceed the melting point of the solder and b) allow for heat reduction as it moves into the surrounding material. In Mike's experience, about 600°F works for most circumstances. This is an important component to the soldering process. If the iron is too cold, the solder will not melt or not melt thoroughly and not flow into the joint. If too hot, you could damage the part or cause nearby joints to melt and fall apart.
- Apply flux only to the joint that needs to be soldered. Using a syringe allows for this precision.
- Chip off a piece of solder with your hobby knife. You'll have to accurately estimate how much you need, because too little will not secure the joint, while too much will pile up and cause a blob of metal that is hard to remove. Experience will be your friend after a few tries.
- Apply the solder chip to the joint that already has flux. The flux will keep it in place.
- Now you're ready to apply the heat. Always touch the iron tip to the back side of the joint if possible. You want to heat the joint so that the flux melts first and then the solder. This liquid metal will flow by capillary action and gravity. Keeping the iron tip out of this means a perfectly smooth joint that doesn't require clean up. Figuring out the best way to apply heat may take a moment, but getting it right the first time is rewarding.
- Once the iron tip is removed, the joint will harden in a couple of seconds. After that, you can clean up the joint by sanding or scraping (if necessary). The goal is to not have to do this because it stresses the joint. Finish with a wash of lacquer thinner or alcohol. This step will clean away flux residue, which if present will interfere with paint adhesion.

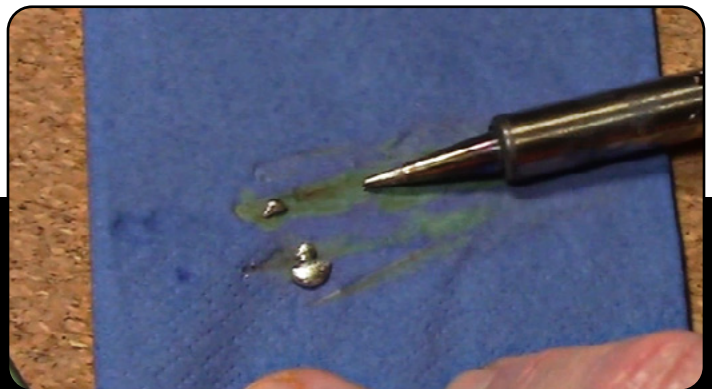
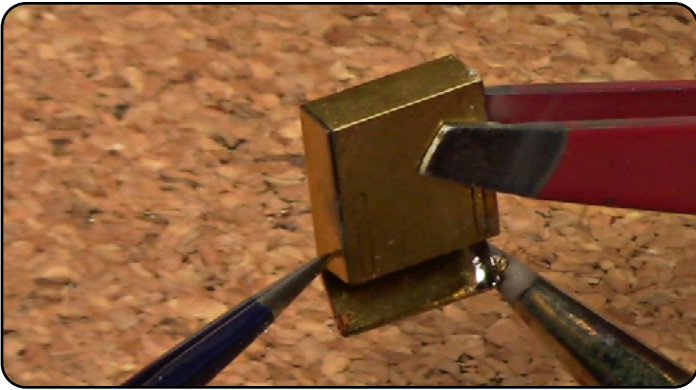
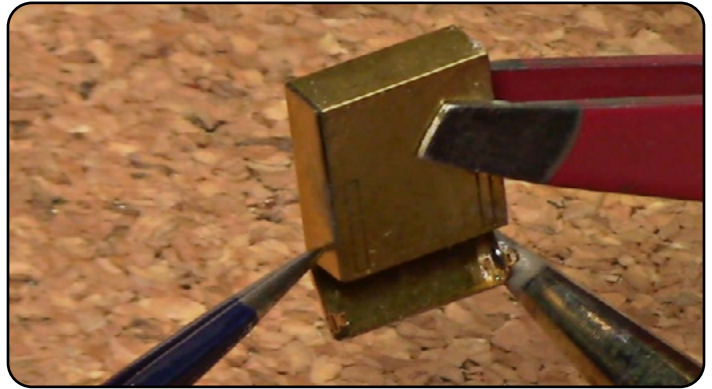
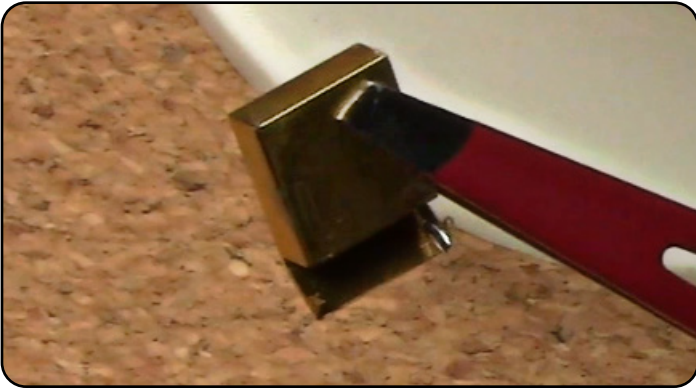


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1. Removing the part from the fret with a blade and hard surface.
2. Cleaning up fret nubs with a sanding stick.
3. The box lid corners to be soldered
4. Mounted in a ball vise, the part is held steady with tweezers.
5. The syringe filled with flux paste.
6. Applying precise amounts of flux.
7. Shaving off small bits of solder.
8. Placing the solder on the joint with flux already applied.

*Continued on next page...*



9. View of the part, ready for heat.

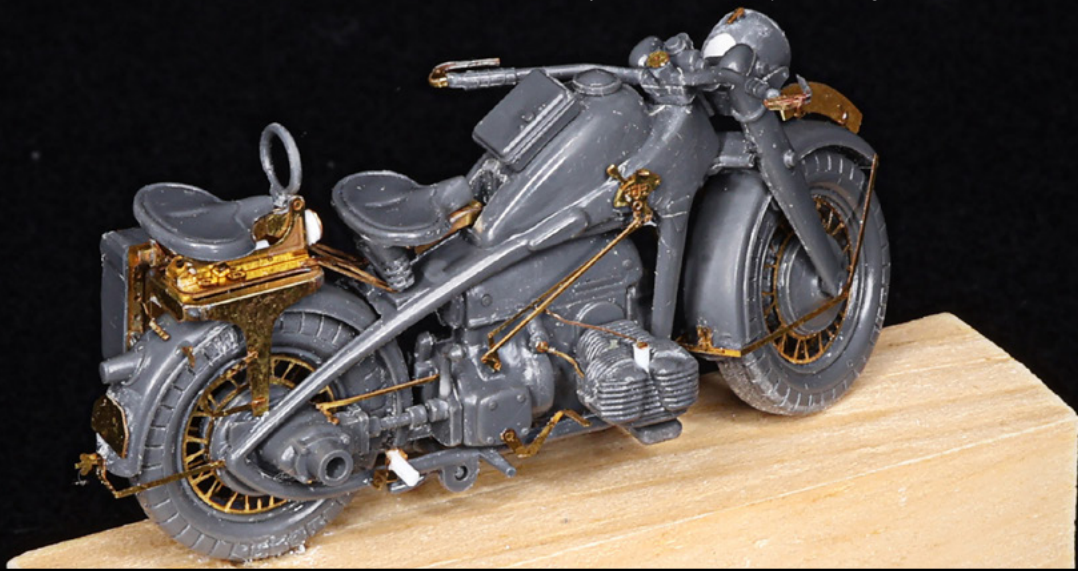
11. The moment the solder melts.

13. Wipe on a dry towel.

10. Touching the back side of the part with the iron.

12. Cleaning the iron tip - apply some solder.

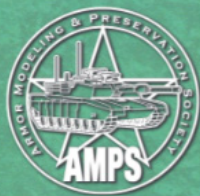
14. Tip is clean and ready for storage.



# BORESIGHT

THE AMPS MEMBERSHIP MAGAZINE

JANUARY / FEBRUARY 2024



Fragezeichen • Going From Beginner to Advanced In A Year • Desperation • The "Rolling Trains" of Port Arthur • Know Your Officer • Local Chapter News & Upcoming Shows

## Boresight November/December 2023

Building a 1/48th scale Su-122-54 by Stan Spooner

Building and improving 3D printed TL.37 by Fernando Sanchez

The Western Canadian AMPS Regional Model Show by Anthony Sowards

Book Review: Ukraine at War: Vol.1 - Invasion! by Greg Beckman

Know Your Officer: Brian Eberle

Local Chapter News & Upcoming Shows by the Editor

Membership includes the society's Boresight magazine that is published six times per year. In it are exclusive articles about armor research and modeling.

	1 year	2 years	3 years
USA	\$30	\$55	\$80
Canada/Mexico	\$35	\$65	\$95
International	\$40	\$75	\$110
Junior*	\$15	\$30	\$45
Family**	\$15	\$10	\$15
Digital***	\$25	\$45	\$65

\* Juniors: members aged 17 years or younger.

\*\* Family: active regular members living at the same address.

\*\*\* Available to International members living outside North America.

## Renew or start your AMPS membership online at: [www.amps-armor.org](http://www.amps-armor.org)

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To pay by check or money order, enter your delivery information at right and mail it with your payment to:

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State: \_\_\_\_\_

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# IPMS RICHMOND

International Plastic Modelers' Society : Richmond, VA Chapter

Since 1976

## 2024 Old Dominion Open Scale Model Show & Contest

### Saturday, February 24

**80 Model Display Categories**  
**Extensive Vendor Marketplace**  
**Huge Modeler's Drawing**

1st, 2nd & 3rd place awards for each category, plus these special awards:

**Judges' Best In Show • Best Junior**  
**Best Aircraft • Best Automotive • Best Diorama • Best Figure**  
**Best Gundam • Best Maritime • Best Military Vehicle**  
**Best Real Space & Sci-Fi**

#### **Schedule**

**Doors open at 8:30 a.m.**

**Vendors open all day**

**Registration Closes at 12:00 noon**

**Judging Starts at 12:30 p.m.**



#### **Location (new this year)**

**Richmond Raceway Complex**

**The Old Dominion Building**

**600 E. Laburnum Ave.**

**Richmond, VA 23222**

General inquiries, please contact Bob Walls: [robertwalls@comcast.net](mailto:robertwalls@comcast.net)

Find IPMS Richmond online:

[ipmsrichmond.blogspot.com](http://ipmsrichmond.blogspot.com)

[facebook.com/IPMSRichmond](https://facebook.com/IPMSRichmond)



# AMPS 2024

## International Convention

South Bend, Indiana • April 11-13

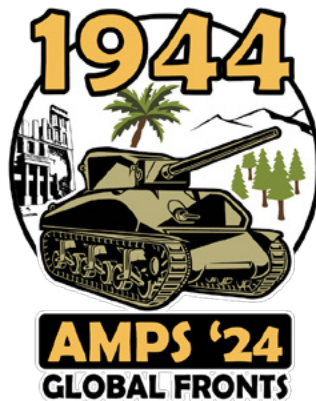
**Contest**  
**Awards**  
**Vendors**



**Seminars**  
**Demos**  
**Raffle**



The convention theme is "1944." It was a year the world was at war and Armor units played a huge part in the titanic struggles that were occurring all over Europe, the Mediterranean, and the Pacific.



From the steppes of Russia, the hills in Italy, to the far off shores of tropic Islands, mechanized battles raged that would change the course of World War II and tighten the noose around the axis powers.

Century Center • 120 Dr Martin Luther King Jr. Blvd. • South Bend, IN 46601

Visit the AMPS website for more details: [AMPS-Armor.org](http://AMPS-Armor.org)





2024

	S	M	T	W	Th	F	S	
<b>JANUARY</b>	31	01	02	03	04	05	06	
	07	08	09	10	11	12	13	
	14	15	16	17	18	19	20	
AMPS-CV Meeting	21	22	23	24	25	26	27	
<b>FEBRUARY</b>	28	29	30	31	01	02	03	
	04	05	06	07	08	09	10	
	11	12	13	14	15	16	17	
AMPS-CV Meeting	18	19	20	21	22	23	24	Old Dominion Open, Richmond, VA
<b>MARCH</b>	25	26	27	28	29	01	02	
	03	04	05	06	07	08	09	
	10	11	12	13	14	15	16	
AMPS-CV Meeting	17	18	19	20	21	22	23	
	24	25	26	27	28	29	30	
<b>APRIL</b>	31	01	02	03	04	05	06	
	07	08	09	10	11	12	13	
	14	15	16	17	18	19	20	
AMPS-CV Meeting	21	22	23	24	25	26	27	
<b>MAY</b>	28	29	30	01	02	03	04	AMPS-CV Modeler's Retreat, Fort A.P. Hill, VA
	05	06	07	08	09	10	11	
	12	13	14	15	16	17	18	
AMPS-CV Meeting	19	20	21	22	23	24	25	
<b>JUNE</b>	26	27	28	29	30	31	01	
	02	03	04	05	06	07	08	
	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	
AMPS-CV Meeting	23	24	25	26	27	28	29	
<b>JULY</b>	30	01	02	03	04	05	06	
	07	08	09	10	11	12	13	
	14	15	16	17	18	19	20	
AMPS-CV Meeting	21	22	23	24	25	26	27	
<b>AUGUST</b>	28	29	30	31	01	02	03	
	04	05	06	07	08	09	10	
	11	12	13	14	15	16	17	
AMPS-CV Meeting	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	
<b>SEPTEMBER</b>	01	02	03	04	05	06	07	
	08	09	10	11	12	13	14	
	15	16	17	18	19	20	21	
AMPS-CV Meeting	22	23	24	25	26	27	28	
<b>OCTOBER</b>	29	30	01	02	03	04	05	
	06	07	08	09	10	11	12	
	13	14	15	16	17	18	19	
AMPS-CV Meeting	20	21	22	23	24	25	26	
<b>NOVEMBER</b>	27	28	29	30	31	01	02	
	03	04	05	06	07	08	09	
	10	11	12	13	14	15	16	
AMPS-CV Meeting	17	18	19	20	21	22	23	
Thanksgiving	24	25	26	27	28	29	30	
<b>DECEMBER</b>	01	02	03	04	05	06	07	
	08	09	10	11	12	13	14	
	15	16	17	18	19	20	21	
AMPS-CV Meeting	22	23	24	25	26	27	28	
<b>JANUARY</b>	29	30	31	01	02	03	04	

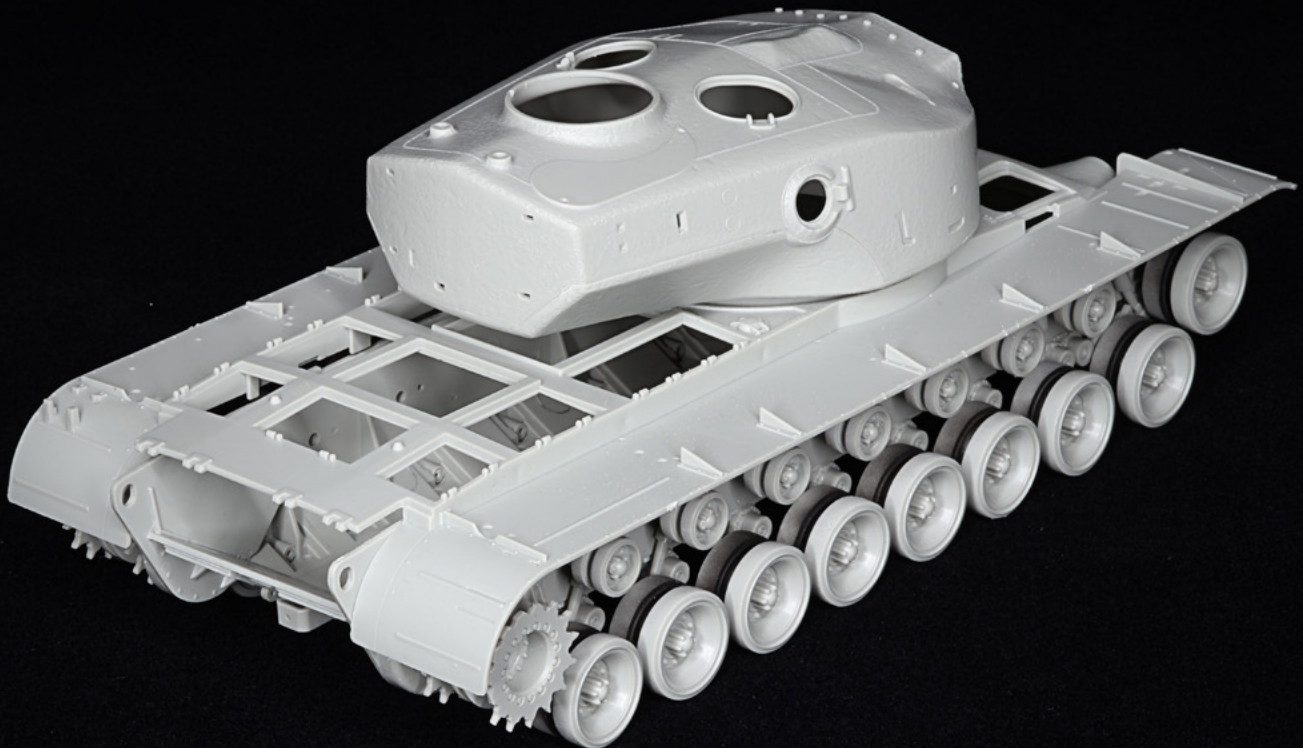




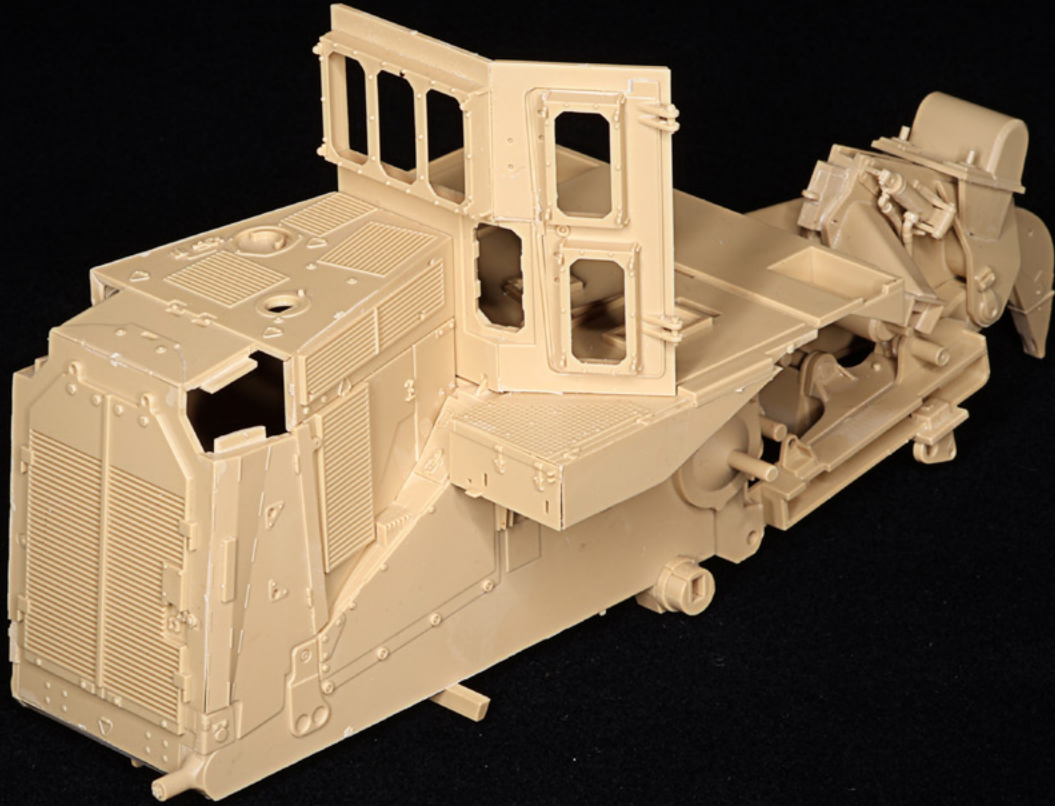
**Hobbyboss US T34**  
in 1:35 scale  
by Glen Martin

There is no metal gun barrel in the kit, but two different styrene barrels are included. A small photo-etched brass set is included but it mostly pertains to the tiny strap loops on the fender. Since styrene ones are also included, Glen plans to use them for a less complicated build. Tracks are separate link and include a forming jig.

The wheels attach to the arms with an internal styrene ring that once installed does not allow removing the wheels. The only issue encountered so far was that the tracks did not fit around the drive sprocket. Compensation was made by removing some of the sprocket teeth where there is track contact.



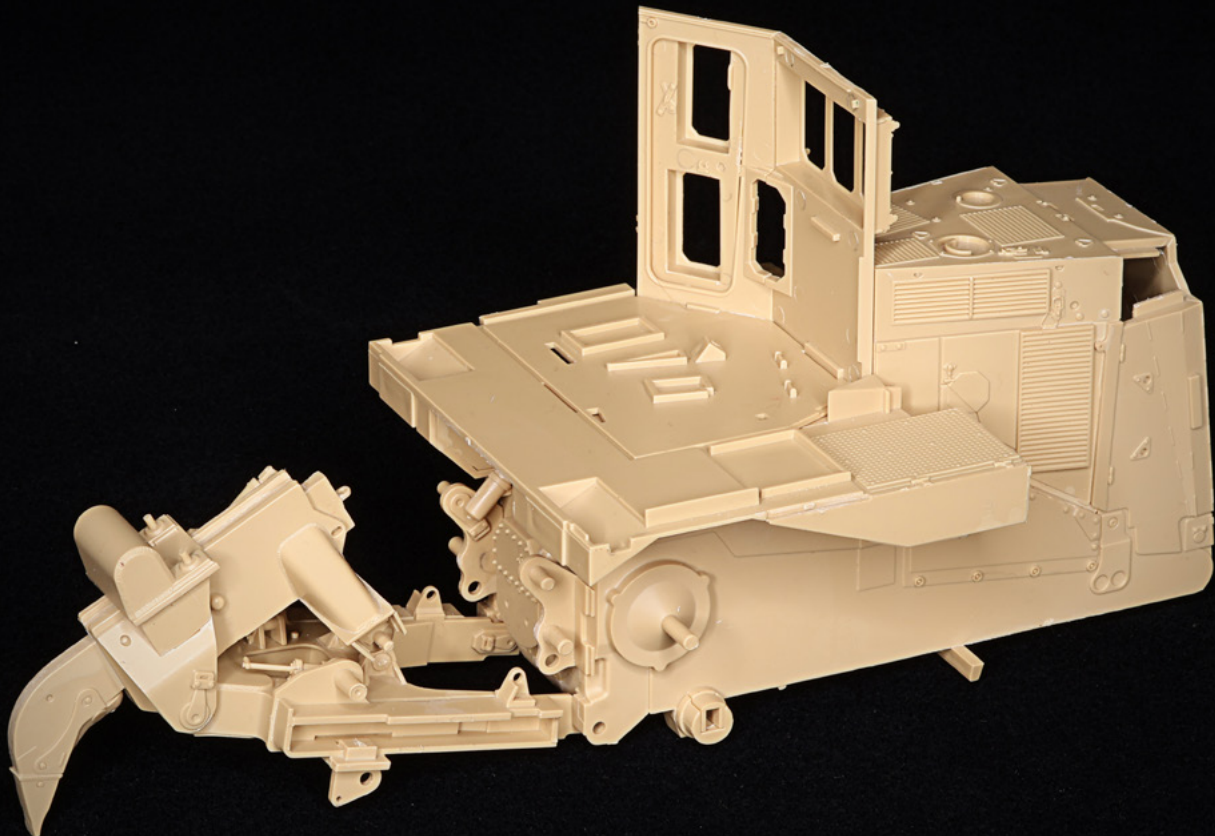
Pass and Review from January



**Meng US D9R**  
in 1:35 scale  
by Mickey Bates

Fit overall is good although some aspects are better than others. There are lots of tubular parts for the hydraulic mechanisms, most of which are in two halves, so cleanup is extensive. Rubber hoses are also included

and are equipped with nicely detailed end fittings. This kit will need to be painted in sub assemblies as the build progresses, especially in the crew cabin.



## Pass and Review from January

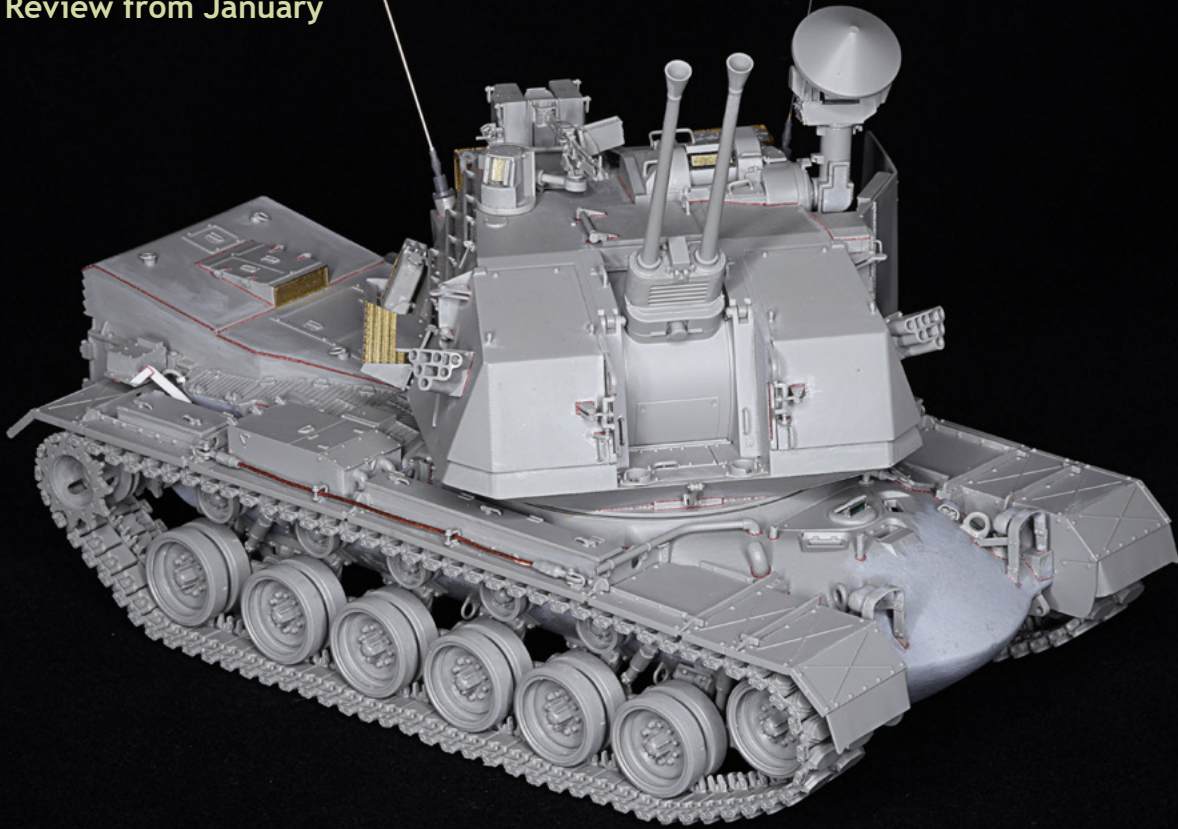


Bronco US M19  
in 1:35 scale  
by Scott Bregi

The kit has been fiddly to work on with lots of small parts but is finally ready for paint.



## Pass and Review from January

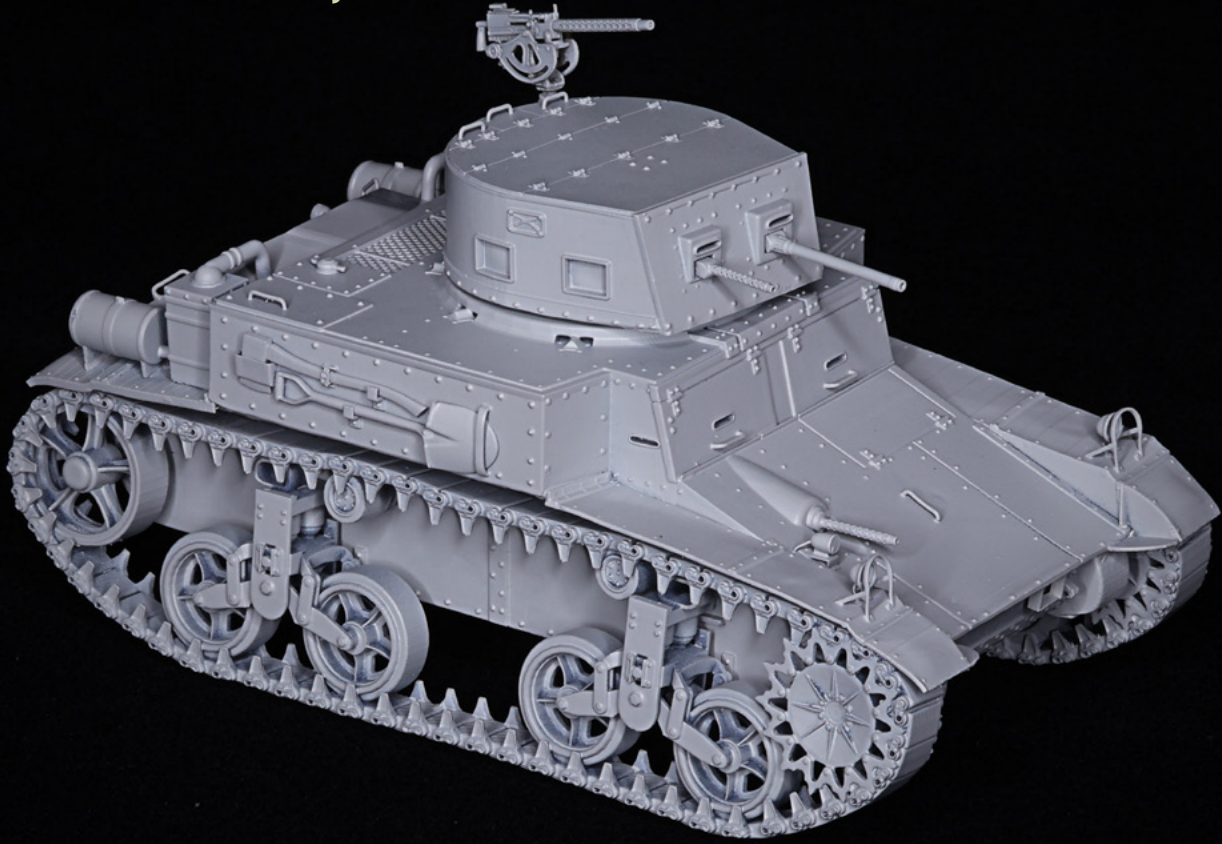


Takom US M247 Sgt. York  
in 1:35 scale  
by Scott Bregi

The model is ready for paint after some minor track work. Most all the welds were either reworked or added when absent using Slater's red plastic rod softened with Tamiya Extra Thin cement.



## Pass and Review from January



### Vargas Scale Models US M1 Combat Car

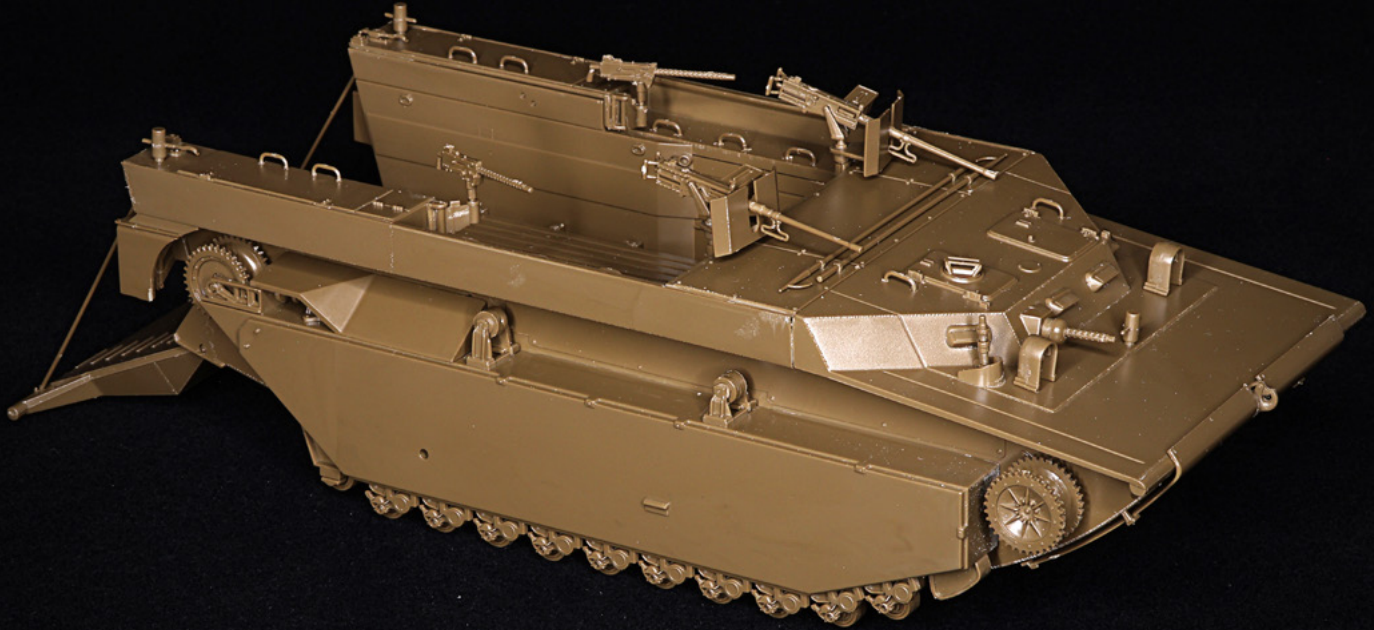
in 1:35 scale  
by Mike Petty

The main concern for this kit was the fenders, which although molded scale thickness, suffered from distortion in some places. Mike glued brass strips underneath to help support the weak areas. The .30 cal

MG barrels are replacements from Tasca. There is an engine underneath the grills, which will be a challenge to paint since there are no open hatches.



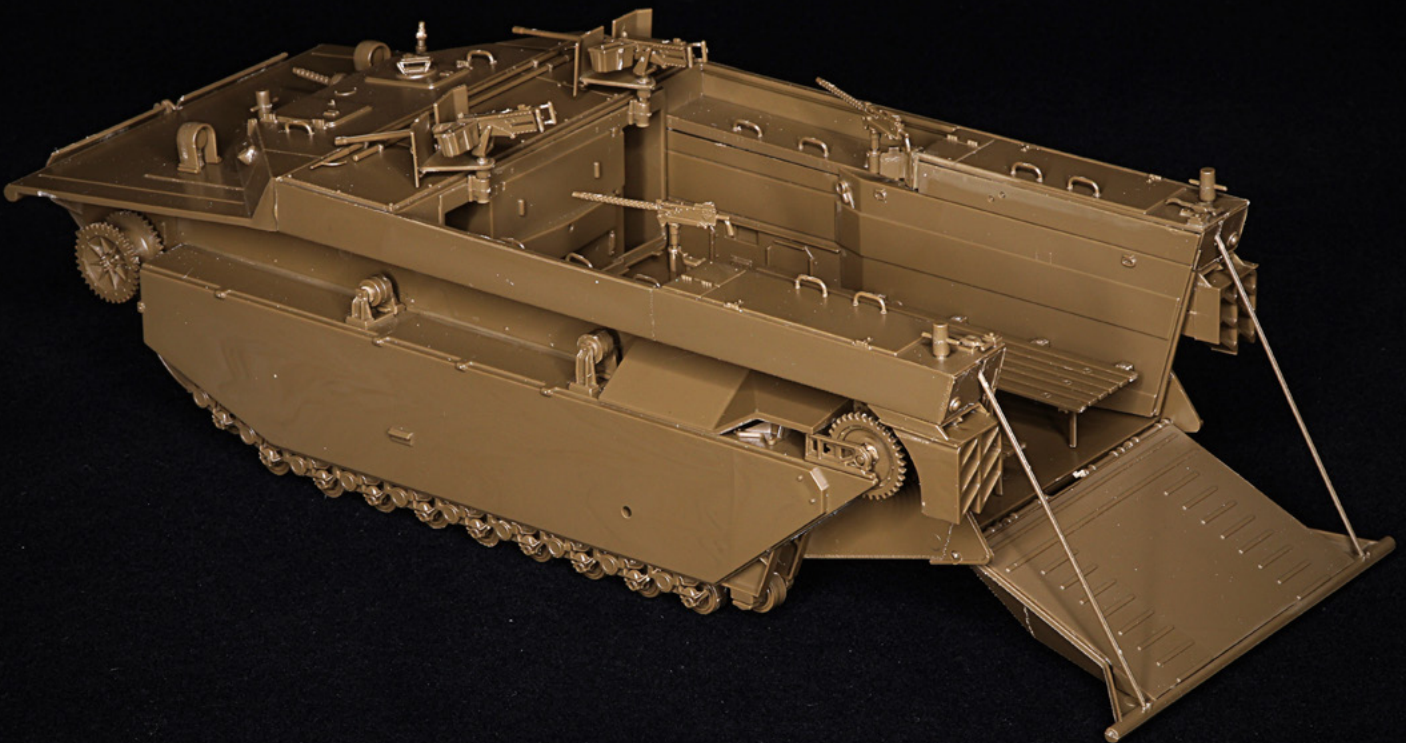
## Pass and Review from January



**Italeri US LVT-4**  
in 1:35 scale  
by Winston Gould

Winston got this far on a club building day. He said the kit was sound and had good fit and detail. The lifting handles fit snugly into holes on the hull. The bench seats are in place now but can be removed prior to

painting. The tracks are the only weakness. They have good detail but are too stiff and thick. It is planned to make this a British variant with green and black disruptive camouflage.



Pass and Review from January



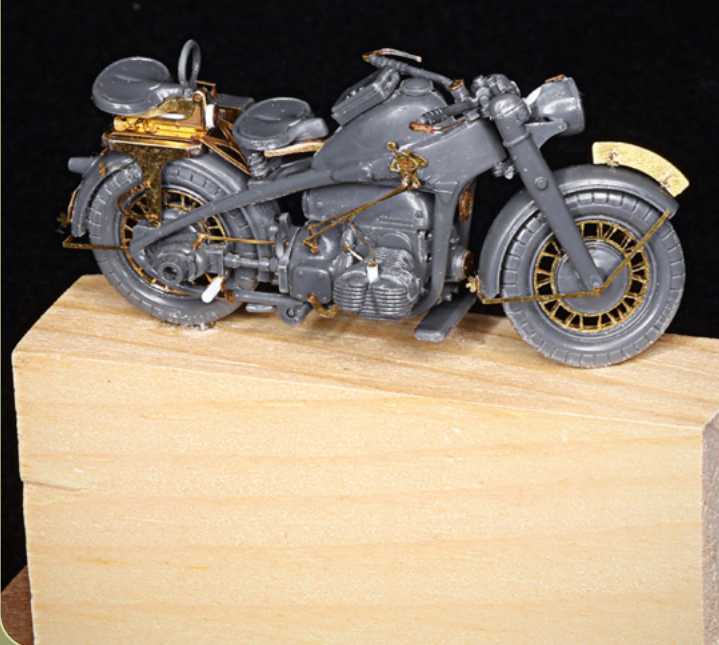
Tamiya German BMW R75 & Zündapp KS750

in 1:35 scale

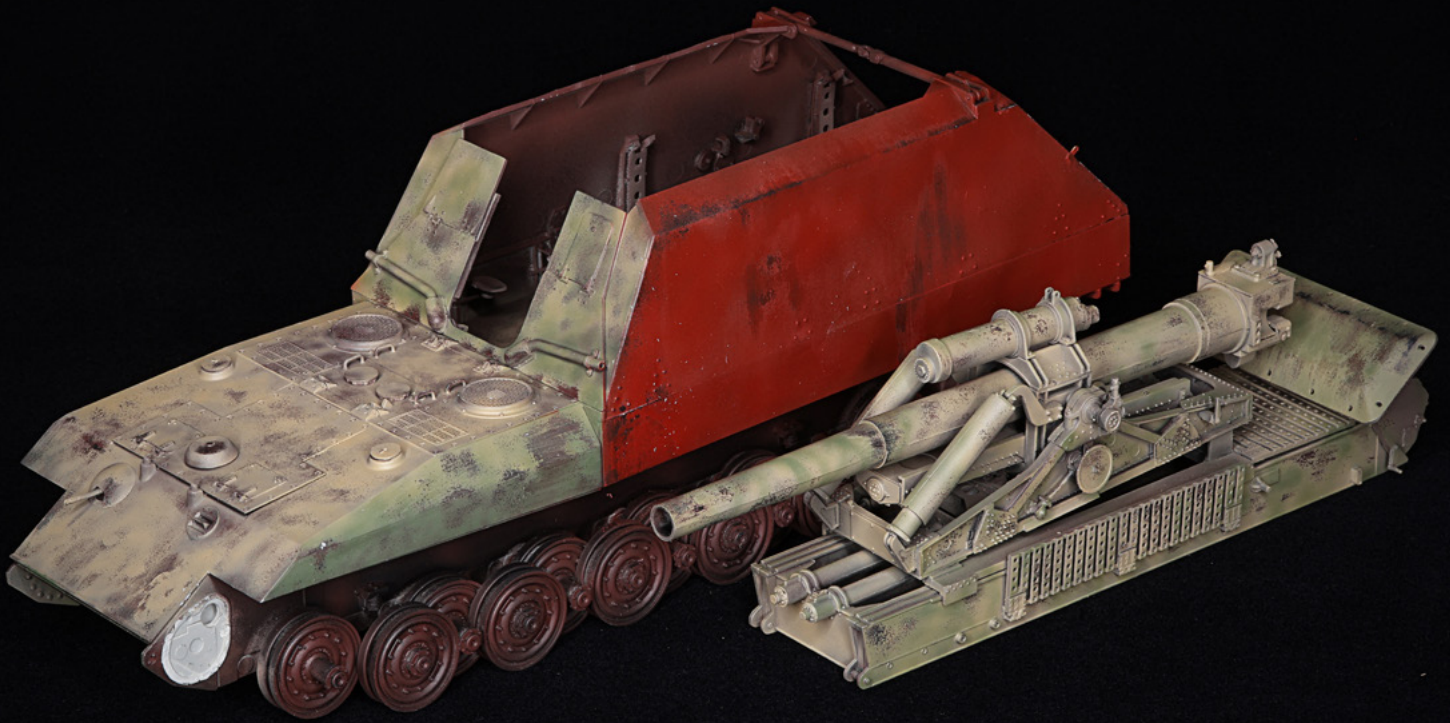
by Mike Paquette

An Eduard photo-etched brass set was used to replace/enhance many parts on these two bikes. Gear shifters and pedal parts were particularly challenging to put in place while interacting with other parts. The

wheel spokes were one of the more visible replacements.







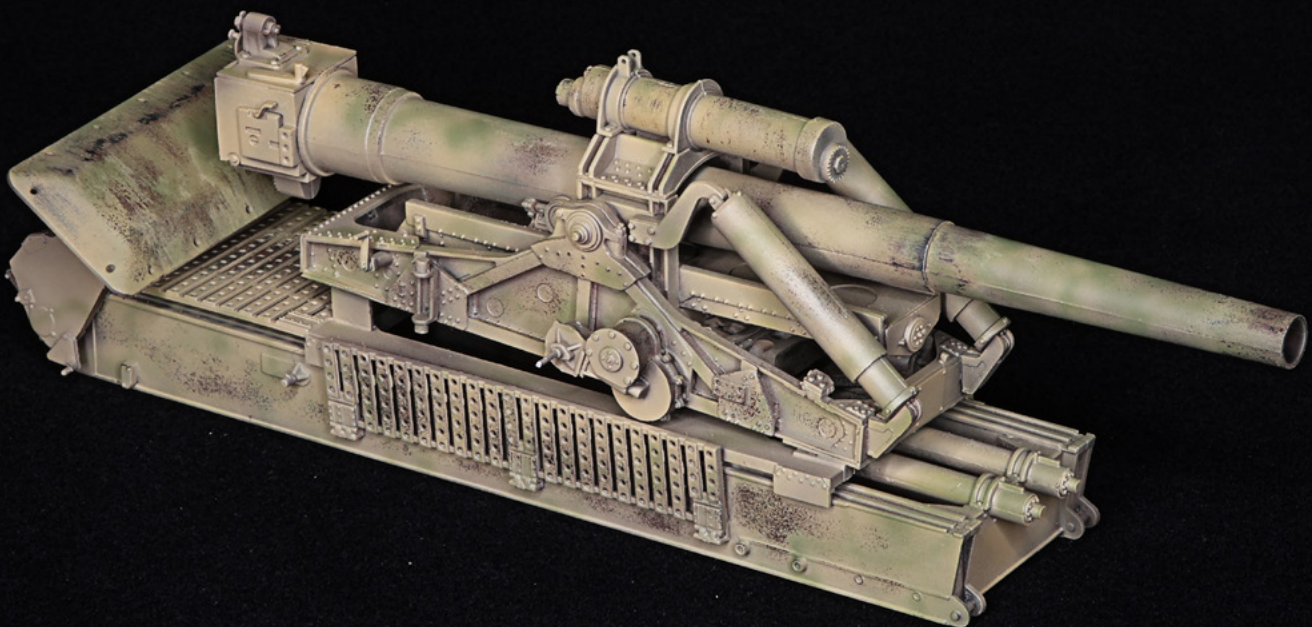
**Trumpeter German Geschützwagen VI 21cm Msr 18**

in 1:35 scale

by Matt Zador

This kit has some age on it and the fit was not great. An engine is included but in the end it was not exposed. Matt replaced the single piece track with Friul individual links

in metal, but unfortunately the track set did not include enough links for the entire kit. Initially, it was painted an oxide red primer base but Matt thought it was too dark. This is the second attempt with a brighter red oxide paint. The remaining parts were painted Desert Yellow and green and then chipped away with the use of chipping fluid.





**Tamiya Soviet BT-7**

in 1:35 scale

by John Robinson

The kit has good fit and is easy to assemble. Using period photos as a guide, the front fenders were removed. The turret was

raised slightly and Model Kasten wingnuts were added to the deck screening. The kit's link and length tracks were replaced with Masterclub metal separate link tracks. Although the tracks are workable and end result looks great, getting there requires assembling each link with two very tiny track pins and was a hassle. It was painted

with Vallejo Air paints using a custom 4B0 green mix and heavily weathered with dust effects to match its service in Mongolia, where it fought against the Japanese. The dust is primarily done using chipping fluid and followed with small amounts of enamel paint to soften the effect. It is planned to be displayed in a vignette with a figure.



## Pass and Review from January



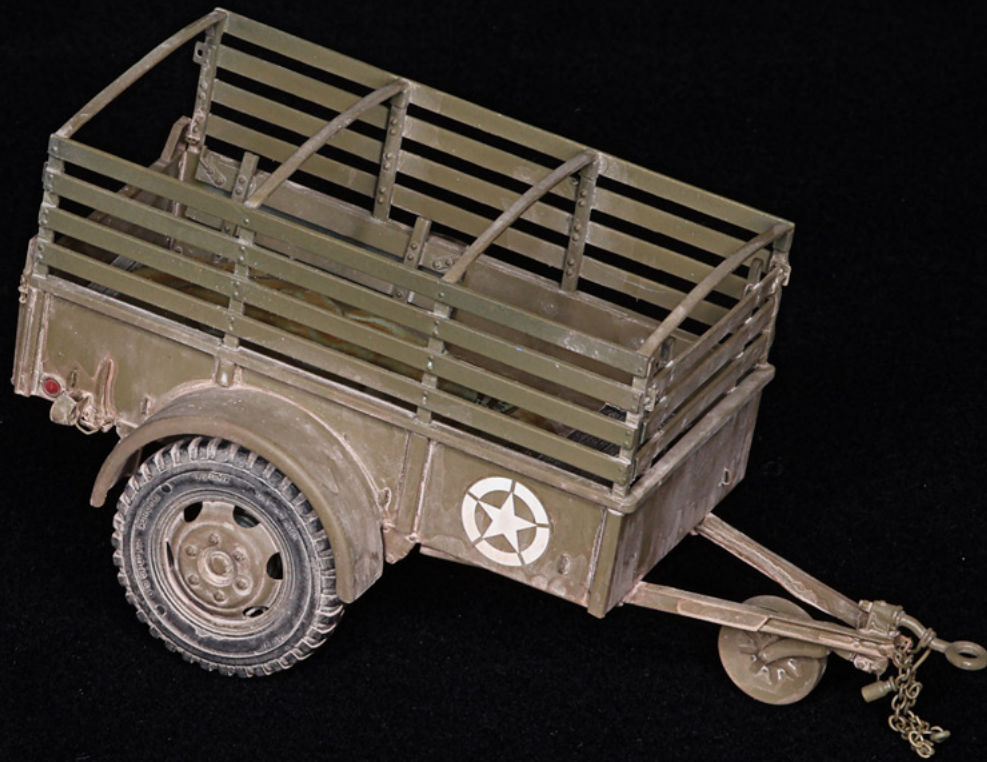
ICM Soviet T-35  
in 1:35 scale  
by Mike Paquette

Most of an Eduard photo-etched brass set was applied, which enhanced kit parts that were too thick or lacked detail. Engine deck louvers were replaced to allow visibility to

the engine. The kit tracks were individual link, and Mike said he assembled a total of three feet of track for the model.



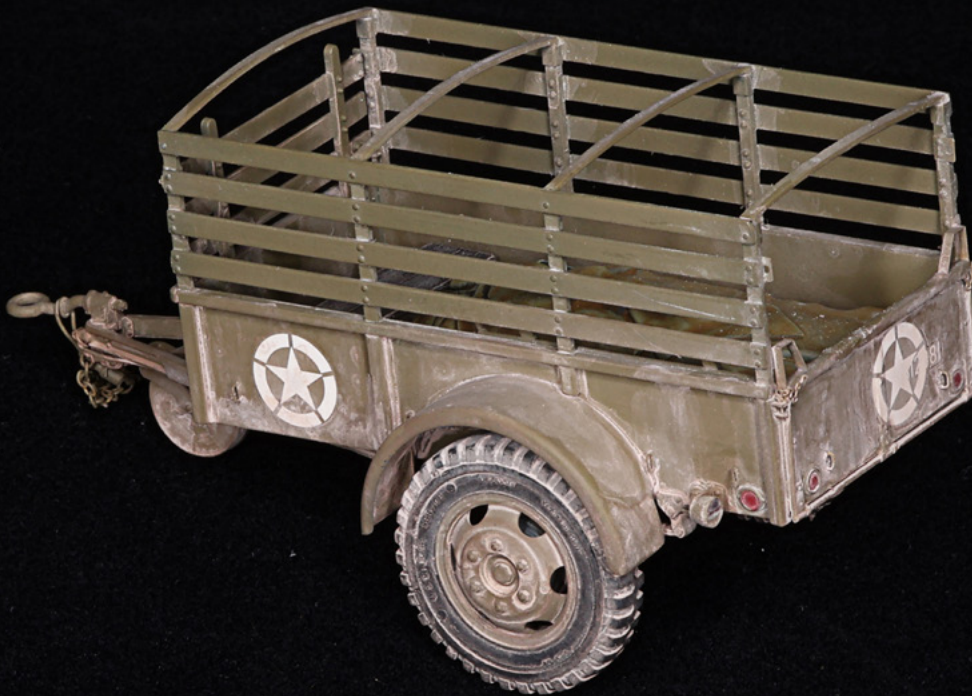
## Pass and Review from January



**Miniart US 1-ton Cargo Trailer  
in 1:35 scale  
by Frank Blanton**

The kit includes photo-etched brass for the tie down loops, foot holds and brackets. VMS CA glue was used to attach these parts. Frank used .010" and .015" diameter lead wire for the electrical lines on the

lights and tongue. Chain was provided in the kit but was fiddly to drill out for the attachment hooks. It was painted Mission Models Olive Drab #25 and weathered with a pigment wash.



## Pass and Review from January



Vargas Scale Models US Mk.VIII Liberty  
in 1:35 scale  
by Mike Petty

This one is done, after adding water-slide  
decals by Decalmaniacs!





## AMPS-CV Quatermaster

This page is dedicated to member-recommended products and places to purchase hobby products.

If you have a company you want to add to this list, contact your editor [via the chapter website](#).

### Product Manufacturers

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[Abteilung 502](#)  
[AK-Interactive](#)  
[Alliance ModelWorks](#)  
[AMMO of Mig Jimenez](#)  
[Archer Fine Transfers](#)  
[Armand Bayardi](#)  
[Badger Airbrush](#)  
[Bolddivision](#)  
[Copper State Models](#)  
[D-Day Miniature Studio](#)  
[DN Models](#)  
[Echalon Fine Details](#)  
[Elefant Corporation](#)  
[Eureka XXL](#)  
[GasPatch Models](#)  
[Hauler](#)  
[Heavy Hobby](#)  
[Live Resin](#)  
[Maus Werx](#)  
[Mission Models Paints](#)  
[MJ Miniatures](#)  
[Modern Masters Metal Effects](#)  
[Monroe Perdu Studios](#)  
[Panzer Art](#)  
[Paracel Miniatures](#)  
[Precision Ice and Snow](#)  
[RB Model](#)  
[ResinScales](#)  
[Roch Model](#)  
[Scenic Express](#)  
[Slater Plastikard](#)  
[Squadron Hobbies](#)  
[Star Decals](#)  
[Syren Ship Model](#)  
[Track48](#)  
[Valkyrie Miniature](#)  
[Woodland Scenics](#)

### Miscellaneous

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[paintRack](#) (mobile app for Android)  
[Scale Mates](#)

### Hobby Vendors

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[Barrel Store](#)  
[BNA Model World](#)  
[Central Tools](#)  
[Dick Blick Art Materials](#)  
[Frontline Model Kits & Hobbies](#)  
[Gundam Planet](#)  
[Hobby Easy](#)  
[Hobby Search](#)  
[HobbyLink Japan](#)  
[HobbyWorld-USA](#)  
[Last Cavalry](#)  
[Lots of Models](#)  
[Lucky Model](#)  
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