



Inside This Issue

Meeting Minutes.....1-6

Upcoming Events.....6-7

New Releases.....8

Members Build Blogs.....9

Club "Contest"10-11

New Techniques.....12-16

Interesting Articles.....16-23

USA AFV Register.....24

Support Our Vendors....24-25

Classified Ads.....25-26

The Day Room (Editor).....26

Welcome to the latest issue of our newsletter. We try REALLY hard to publish this each month, but sometimes stuff happens, or you know, CRS flair ups occur. Of course, what's published in this newsletter is probably out of date, known by everyone already, or completely off-topic. Maybe everyone will like the pretty colors, but then your ink cartridge will probably run out after only printing a couple pages. This paragraph is what's known as "filler text", which we needed since we added the snazzy table of contents and this area was kind of empty.

Additionally, we have returned the "Classified Ad" section to the newsletter. This section will give you a space to advertise items you want to barter, swap, sale or trade. Or even a request for research material. Check it out. Contact the seller directly. Note personal email addresses are not listed on the public site. Contact the seller directly via his/her email addresses. **Also check out the results from our first Club "Contest" in this issue.**

Check out our website for more info & photos:
<http://www.ampscentralsouthcarolina.org/>



Visit us on Facebook at:
<https://www.facebook.com/ampscentralsouthcarolina>

Regular Meeting Minutes, 9 November, 2016

Our last meeting was held on Wednesday, November 9, 2016 from 6-8 pm at the HobbyTown store in the Publix Shipping Center (North Pointe Shopping Center), Two Notch Road, Columbia (NE). We had 23 members in attendance, plus Sheila. The modelers brought 23 models for Show & Tell, plus a few pictures e-mailed by Daniel Karnes (he had to miss the meeting due to work). This month's Raffle Prize was the book "THE TIGER PROJECT: Book One - Alfred Rubbel - Schwere Panzer (Tiger) Abteilung 503", by Dale Richard Ritter", won by Tom McCoy (he's won the raffle two months in a row!).

1. IDF Puma Late Version (Hobby Boss + 3 Legend Conversion & Update Sets, AFV Club Track Links), 1/35 – Keith Frape
2. T-34/76 Pressed Turret (DML + Tamiya Turret, Master Club Tracks), 1/35 – Dave Varettoni **[T-34 Group Build]**
3. Imperial Guard Astra Militarum Chimera APC (Games Workshops Warhammer 40k), ? - Dave Varettoni
4. T-34/85 Mod. 1944 (DML + scratch built Engine Louvers, Fuel Tank Straps, Master Club Tracks, Aber PE & Barrel), 1/35 – Tom Wingate **[T-34 Group Build]**
5. T-34/76 Russian Tank, 1942 Production (Tamiya), 1/35 – Mike Roof **[T-34 Group Build]**
6. M4A3 Sherman 75mm Main Gun (Tamiya + Tamiya & DML figures), 1/35 – Michael Child
7. 6X4 Krupp Protze “Boxer” Personnel Carrier (Kfz. 70)(Tamiya), 1/48 – Bob Kerfonta
8. IJA Type 95 “Ha-Go” Light Tank North China Version (DML Armor Pro), 1/72 – Bob Kerfonta
9. IDF Puma Late Version (Hobby Boss + 3 Legend Conversion & Update Sets, AFV Club Track Links), 1/35 – Keith Frape
10. T-34/85 (DML + Master Club Tracks), 1/35 – Trevor Edwards **[T-34 Group Build]**
11. M8 75mm Howitzer Motor Carriage (Tamiya + LOTS of scratch built parts), 1/35 – Carl Wethington
12. M151A1 ¼ Ton Utility Truck (Tamiya + MV Lenses, Alliance Model Works Stenciles), 1/35 – Ben Brandes
13. T-90A (Revell Germany), 1/72 – Ben Brandes for his daughter Hannah Brandes
14. King Tiger Ausf. C-1 (Tamiya + PaperPanzer Skoda Turret, Gt-103 Turbine engine Deck), 1/35 – Tim Darrah
15. Sd.Kfz. 234 Armoured Car (Airfix), 1/76 – Kevin Cook
16. US Dodge WC-51 3/4 Ton Light Cargo Truck (Italeri/ESCI), 1/72 – Kevin Cook
17. M-42 Duster (Tamiya + AFV Club parts, Eduard PE), 1/35 – Ben Brandes
18. Stug III Ausf. G (Cobi Small Army), ? – Noah Brandes
19. T-34/76 Factory No. 122 (AFV Club + Detail Master Wiring, Master Club Tracks), 1/35 – Phil Cavender **[T-34 Group Build]**
20. SD.Kfz. 251/1 Hamonaog Half Track (Tamiya), 1/35 – Clinton McLeod
21. Sd.Kfz. 2 Kleins Kettenkraftrad w/ Trailer (Tamiya), 1/35 – Clinton McLeod
22. The Pirate (Unkown), 1/8 – Peter Briggs
23. Werewolf of London (Black Heart), 1/1 – Peter Briggs
24. Rocket Girl (Timmy Flintstone + Selfmade Details, Acrylic Robot Eye Lenses), 1/8 – Peter Briggs

Photo Album on our webpage:

<http://media5ik1.onlineview.it/FullScreenSlideShow.aspx?gallery=4783968&mt=Photo>

Business items:

- 1) Treasurer's report: No changes, current bank balance is \$4,186.82 with approximately \$200 cash-on-hand. Pending major expense is \$300 to update our website. We will commit the funds to convert our WebBuilder to version 7.0.
- 2) John Sherrer set up and showed some excellent COLOR WWII film (video) footage. This footage came from USMC archives which are being conserved and held in the USC library's "Moving Image Research Collections." This is some fantastic imagery, and if plans come to fruition, the public will be able to access it on line. Visit www.library.sc.edu/MarineCorps or <http://bit.ly/uoscmirc> for more information.
- 3) We made our NACM trip as planned on the weekend of 4-6 November. We had 11 members and guests make the trip, spending the entire Saturday at the collection holding yard on Ft. Benning. This was an incredible opportunity, and those that participated had a great time. After spending the day at the "yard," we all went to dinner, treating our NACM hosts – David Hobbs, Charlie Pritchett, and Joe Chun – as a token of our thanks for their hard work. The total for dinner for our hosts was \$75.79, which will be paid out of the club treasury, as approved by the membership this month.
- 4) Discussed and confirmed that our club Christmas party will be held in place of the regular 14 December meeting. "White Elephant" gift exchange and "pot luck" buffet will be included. Mike Roof will send around an email message to solicit and note who will bring which items for the buffet.
- 5) Discussed and confirmed that we will have a club movie day, Saturday, 12 November, at Village at Sand Hills to see "Hacksaw Ridge." Mike Roof and Ralph Nardone were the only two members who attended, but the movie was great and we had a good time – so there!
- 5) New Business:
 - a. Discussed and approved a \$250 donation by the club to the NACM Heritage Foundation's "Paver Program." Additionally, several members agreed to make individual donations of \$25 each to receive miniature, duplicate pavers. The club will pay upfront for these individual donations to be reimbursed by the members making them. (See more information in this newsletter on our club's NACM "Paver Program" donation.)
 - b. Phil Cavender announced the winners of the newsletter Contest "Name that Member Workroom". The grand prize winner was Trevor Edwards, with Tony Abbott and Rebecca Hettmansperger as the runners up.
 - c. We welcomed a new member, Peter Briggs, to the club. Welcome aboard, Peter!
- 7) By request, Mike Roof gave a short description and SBS on how to make weld seams using thinned polyester filler putty and two-part epoxy putty.

Tentative Agenda, Regular Meeting, 14 December, 2016

Our next regular meeting will be our Annual Christmas Party held on Wednesday, December 14, 2016, 6-8 pm, at the HobbyTown store in the Publix Shopping Center (North Pointe Shopping Center), on Two Notch Road, Columbia (NE).

Tentative Agenda Business items:

- 1) Treasurer's report: Over the last month, we've incurred several major expenses - \$75.79 dinner for NACM trip hosts; \$299.99 for GoDaddy Web Builder v7 conversion; \$500.00 for NACM "Paver Program" donation. Current bank balance is approximately \$3311.04 with a pending reimbursement of \$250 (individual NACM donations). Once reimbursed, our bank balance will be \$3561.04. This does not count cash-on-hand with the treasurer, approximately \$200.

- 2) Next Saturday Club Build Day selection. Available Saturday dates are: 14, 21 or 28. Please look over your personal calendars and have an idea of which Saturday will be best for you. We will pick one at this meeting. Our next regular meeting is scheduled for Wednesday, 11 January, 2017.
- 3) The conversion of our website's maintenance software from Web Builder v6 to v7 is progressing. Hopefully it will be completed before our January, 2017 meeting.
- 4) Reminder that annual membership dues are due starting January. Dues remain \$12 for adults. Dues are pro-rated at \$1 per month for the remainder of the calendar year for new members, no dues owed for their first meeting. Junior members, under 18 y.o., pay no dues. If you don't pay your dues, you won't be listed on the membership rolls that are used by the hobby shop to confirm your club member discount eligibility. Also, only members in good standing are kept on the "regular member" email contacts list, so you won't get regular emails about club business or other news.
- 5) Floor will be open for new business.

6) **Christmas Party!!!!**

Regular Show & Tell: This month we will forego the regular model show & tell. However, feel free to bring along your latest works to informally show them off.

White Elephant Gift Exchange: Bring along a wrapped, hobby-related gift if you want to participate in our annual gift exchange. See later in this issue for the rules, but you can't play if you don't bring a gift to put in the pot. **White Elephant Gift Exchange Rules:**

1. You must bring a WRAPPED hobby-related gift to put in the "pot" if you want to play. Everyone who participates receives a gift. Wrapping the gifts to keep them secret is important. The number of wrapped gifts in the "pot" equals the number of participants.
2. Everyone who is participating will draw a number to decide the order that they will select and unwrap gifts. Starting with number 1, an unwrapped gift is selected from the "pot."
3. Once a gift has been selected and unwrapped, the next person, in numerical order can either – select a new, unwrapped gift OR "steal" an already opened gift.
4. If a person loses his gift to a "steal," he or she can either - "steal" any other opened gift OR select another unopened gift.
5. An opened gift can only be "stolen" once per round. However, a gift that was stolen in a previous round, but not stolen in the current round, is fair game.
6. This process continues until all opened gifts have been "stolen" with the last person (who has no gift) then having to select from the unwrapped gift pot. However, any person whose gift has been stolen may decide to select an unwrapped gift rather than "steal" an already opened one. The selection of a new, unwrapped gift ends that round, and that gift must be opened before the next round begins.
7. Rounds continue until there are no more unwrapped gifts remaining (which should match the number of participants).
8. There will be a "bonus" round at the end to allow the first person (number 1) to get an opportunity to "steal." This "bonus" round ends when all opened gifts have changed hands one time. However, number 1 can decide to stand pat with the gift he or she already has ending the game without the "bonus" round.
9. After the final, "Bonus" round, participants are encouraged to trade gifts amongst themselves, if they would like. **Comments and provocations from the peanut gallery are highly encouraged throughout!!**

NACM Heritage Foundation “Memorial Paver Program” Donation

As an acknowledgement of our appreciation for the work being done by the National Armor & Cavalry Museum (NACM), and in an effort to support that work, our AMPS chapter voted in November, 2016, to make a \$250 donation to the museum’s Heritage Foundation’s “Memorial Paver Program.” This a fund raising effort intended to help raise the money needed to build a permanent home for the NACM.



1) On Saturday, November 5, 2016, a number of our club members and their guests visited the museum’s collection holding yard at Ft. Benning, GA. This facility, which is housed in one of the original, WWII 2nd Armored Division’s maintenance facilities, is not normally open to the public. However, we were able to tour it by special invitation of the museum’s staff and restoration workers. It was, to say the least, an incredible opportunity to get up close and personal with some of the most important surviving artifacts of the history of armored warfare. These historic vehicles and artifacts are presently being used to teach and educate the current generation of the US military’s armored warriors, and many of them are undergoing extensive and detailed restorations to preserve and conserve them for future generations.



- 2) At our November, 2016 meeting, club members decided to contribute something to this effort by donating \$250 out of our treasury. In addition to this donation, 10 members decided to make extra individual donations of \$25 each, for a grand total of \$500 from the AMPS Central SC “Wildcats.”
- 3) The names of the members who went the extra mile to make these individual donations are: Phil Cavender, Michael Child, Mike Roof, Clint Mcleod, Ralph Nardone, David Varettoni, Carl Wethington, Jeffrey Nelson, and Bryan Mueller.
- 4) The club’s donation will be acknowledged with engraved granite paver stones. The first of these stones will be emplaced in the Heritage Memorial Walkway at the National Infantry Museum at Ft. Benning, and the second will be emplaced at the National Armor & Cavalry Museum once it’s completed. Our paver stone will be inscribed with “Thank You, AMPS Cen. SC Wildcats, 2016.”
- 5) In addition to the full-sized paver stones, each of the individual donors will receive a duplicate, miniature paver stone.
- 6) The National Armor & Cavalry Museum will one day be the place that armor fans and military history buffs have always wanted to see in the United States. However, the museum’s staff and volunteers are not waiting for a “pie-in-the-sky-some-day.” They are working hard today to preserve, conserve, memorialize and educate, and AMPS Central SC can be proud to be able to contribute to that mission.

Thanks, Wildcats!

Mike Roof

REMINDER: **The HobbyTown USA store will close at 7:00 pm (1900).** This means that all purchases at the store must be made before then so that the cash registers can be closed.

6:15 pm (1810): Admin business and Show & Tell.

6:50 pm (1850): Break: Shopping & Social Mixer. Cash registers close at 8:00 pm.

7:10 pm (1910): Reconvene: Continue Show & Tell: Builds and WIPs

8:00 pm (2000): Meeting ends (officially)

Regular meetings are held on 2nd Wednesdays of each month at 6:00 pm (1800) at the HobbyTown USA store, 10120 Two Notch Road, Suite 5, Columbia, SC 29223, (803) 736-0959.

Up-coming Events

South Carolina Modelers Association, 10th Annual Ricky Crouch Memorial "Hope It Don't Snow" Show and Contest. January 21, 2017, Marriott Hotel Ballroom, 299 North Church Street, Spartanburg, SC. <https://www.facebook.com/SCMASpartanburg/>

January 21, 2017

SCMA
SOUTH CAROLINA
MODELERS
ASSOCIATION

**10th Annual
Ricky Crouch
Memorial
"Hope it Don't Snow"
Show & Contest**
Marriott Hotel Ballroom
299 North Church St
Spartanburg SC

For Show & Vendor Information
Contact - Chuck Cox
(864)541-9080
E-Mail - Hobby4fun@yahoo.com

Vendor: Tables \$20.00 each before November 30th
\$25.00 each after November 30th

REGISTRATION
9:00am - Noon
\$5.00 for 1st Entry - \$1.00 each additional entry
\$5.00 General Admission

Vendor Setup - 7:00 am
Vendor Admission includes one additional staff member.

Come see the S.C.M.A Members Vintage Police Car Challenge sponsored by MASON'S Hobby Shop

ALL MODELS MUST REMAIN ON TABLES UNTIL AFTER THE AWARDS CEREMONY

AMPS Atlanta 2017, Atlanta Armor, Figure, and Modeling Contest and Exhibition, February 17-19, 2017. Atlanta Marriott Century Center, 2000 Century Blvd., Atlanta, GA 30345, 404-325-0000. 2017 Show Theme: “Big Guns”. <http://www.ampsatlanta.org/amps-atlanta-annual-show.html>




AMPS ATLANTA 2017
BIG GUNS
FEBRUARY 17 - 19 2017

Join us for our 9th annual AMPS Atlanta model contest and show! Our show provides a great opportunity to tune up your models in time for the AMPS Nationals. There are loads of vendor tables, not to mention great Southern hospitality and weather. All models are judged using the AMPS open system.

Not just a model show, there will be great figures on display as well as educational seminars.

Eligibility for the “Big Guns” show theme is defined by models of tracked gun tanks with a main armament of 88mm and larger

Atlanta Marriott Century Center
 2000 Century Blvd.
 Atlanta, GA 30345
 404.325.0000


 www.ampsatlanta.org
 www.facebook.com/groups/ampsatlanta/

AMPS 2017 International Convention, Crown Plaza Hotel, 18 Old Ridgebury Road, Danbury, CT 06810, Phone: (203) 794-0600, April 20 to 22, 2017. See the AMPS Homepage for info at: <http://www.amps-armor.org/ampssite/default.aspx>



AMPS 2017 INTERNATIONAL CONVENTION
April 20 to 22, 2017
Crown Plaza Hotel
Danbury, CT





2016 New Releases

- **Pz.Kpfw. VI (7.5cm) Ausf. B** – Dragon, 1/35th scale, kit # 6868, to be released January 2017



- **British 7ton Armored Car Mk.IV** – Tamiya, 1/48th scale, kit # 32587



- **King Tiger, Sd.Kfz. 182 Porsche Turret** – Takom, 1/35th scale, kit # 2074, released date unknown



- **King Tiger, Sd.Kfz. 182 Henschel Turret** – Takom, 1/35th scale, kit # 2073, released date unknown



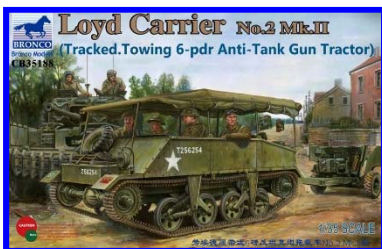
Members Build Blogs

Build Blogs give an in-depth review of the construction process and allow the builders to share their knowledge. We are fortunate to have some of the members in our club with build blogs on modeling web sites.

Mike Roof has 2 on Track-Link.com:



MiniArt T-44 Soviet Medium Tank, Kit # 35193
http://www.track-link.com/forums/site_blogs/27686



Bronco Loyd Carrier No. 2, Mk II (Tracked Towing 6-pdr Anti-Tank Gun Tractor), # CB35188, towing a Riich British Ordnance QF Mk. IV A-T Gun 6 Pdr, # 35042
http://www.track-link.com/forums/site_blogs/22053

Jeff Nelson has 1 on Armorama.com:



Fine Molds Japan Ground Self-Defense Force Type 60 APC, FM40
http://www.armorama.com/modules.php?op=modload&name=SquawkBox&file=index&req=viewtopic&topic_id=213731&page=1#2056793

Additionally, Jeff did an In-Box-Review of this kit.
<http://armorama.com/modules.php?op=modload&name=Reviews&file=index&req=showcontent&id=9272>

Keith Frape also has 2 on Armorama.com:



Chieftain Mk. 7 ARR (Tamiya + Accurate Armor Conversion)
http://www.armorama.com/modules.php?op=modload&name=SquawkBox&file=index&req=viewtopic&topic_id=241027



Up Armored Scimitar LEP with Bar Armor (AFV Club + Castoff Models Conversion)
http://armorama.com/modules.php?op=modload&name=SquawkBox&file=index&req=viewtopic&topic_id=212968

Club "Contest" – Our Workbenches

Contest Results

And the winners were:

1st Place – Trevor Edwards
with 13 out of 13 correct.

2nd Place – Rebecca and Tony
with 12 out of 13 correct.

Each winner received a prize of a Wooden Plaque Base, a Veterans Administration Crisis Line Bandana, and a Patriot Pin. Trevor won a Hard Maple Wood base and Tony/Rebecca won a smaller size wood base made out of Brazilian Cherry, also called Jatoba. Both are domestic and exotic hardwoods used in woodworking for their resistance to warping.



WB 1 ~ Mike Roof



WB 2 ~ Keith Frape



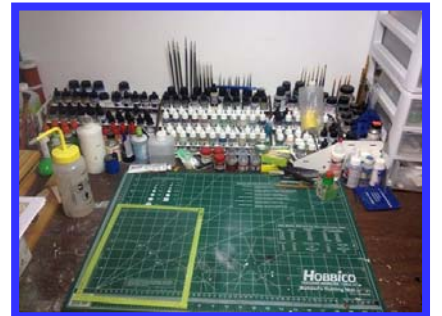
WB 3 ~ Phil Cavender



WB 4 ~ John Currie



WB 5 ~ Rebecca H. & Tony A.



WB 6 ~ Ralph Nardone



WB 7 ~ Carl Wethington



WB 8 ~ Trevor Edwards



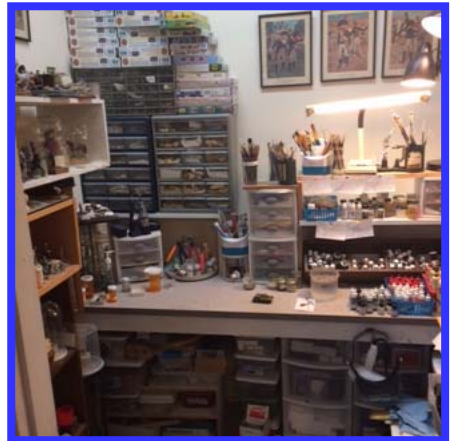
WB 9 ~ Jeff Nelson



WB 10 ~ Steve Reid



WB 11 ~ Tim Darrah



WB 12 ~ Tom McCoy



WB 13 ~ Bryan Moeller

Thanks for your participation and I hope you all enjoyed this little contest.

Phil Cavender
AMPS #3060
"The Wildcat" Editor

New Techniques – Weld Beads, Part 2 Demonstration

Demonstration

At our last club meeting Mike Roof gave a two-part demonstration on making weld beads using Apoxie Sculp and a putty mixture consisting of Squadron Green Putty, lacquer thinner, painters tape and Testors Liquid Cement. In both cases he used the end of a toothpick chiseled to a point to define the welds. See the pictures below.



Mike cuts thin strips of Painters Tape on a piece of glass using a sharp blade & straight edge



Mike then installs the tape strips on the hull where he wants to make a Weld Seam



Thin strips of Painters Tape placed in parallel lines to define the Weld Bead



Mike discussing using thinned Squadron Green Putty



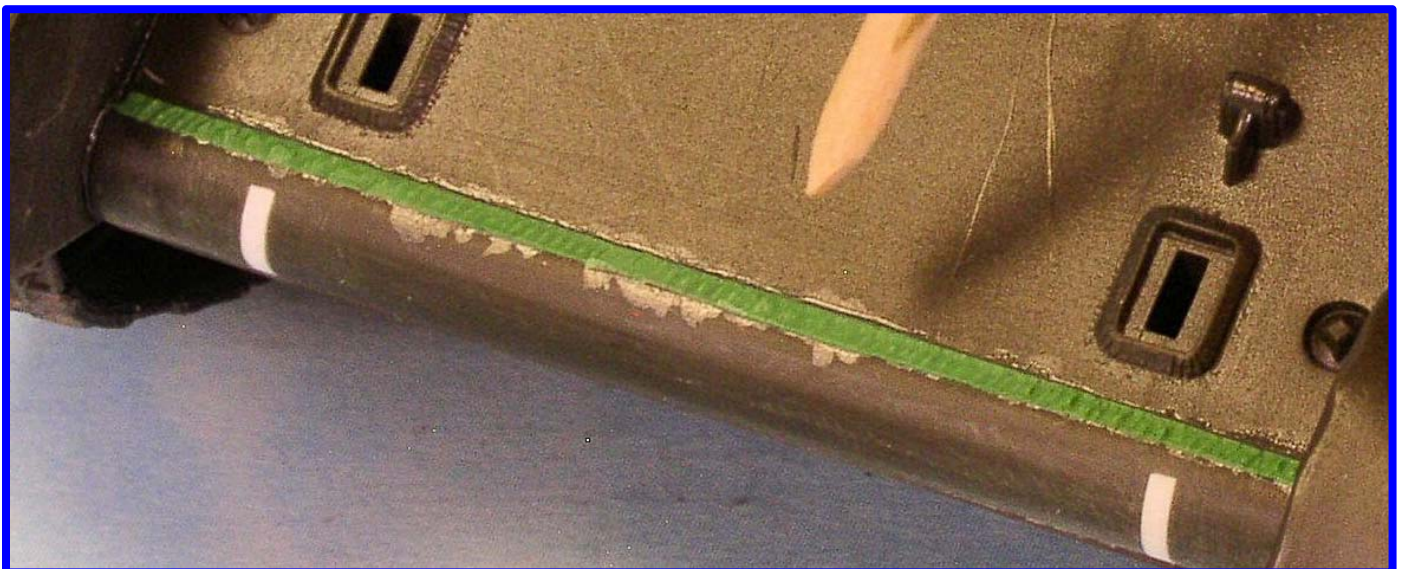
Thinned Putty is "Painted" over the Tape Strips and Gap



Mike created a Sculpting Tool by cutting a Chisel Point on one End of a Tooth Pick



While the Putty is still soft, the Tool Tip is repeatedly pressed into the Putty Surface



The Tape Strips are removed after the Putty has hardened some more

Next, Mike showed how he added a Weld Bead to the Hull Machine Gun Mount Casing using a thicker Putty (such as Milliput or Epoxy-Sculpt) rolled into a long, thin Strip that is laid along the "Weld Line". The same Toothpick Tool (wet with water to prevent the putty from sticking to it) is then used to form the Weld Ridges.



Mike demonstrates how the rolled thin Putty Strip is placed along a curved Surface



The Model has a Molded Weld Bead, but it isn't all that Realistic



The "Chiseled" Putty Weld Bead is more Realistic than the molded Model Plastic Bead

Interesting Articles – T-34 Group Build

AMPS Central South Carolina "The Wildcats" T-34 Group Build

We decided at our August club meeting that we would have a group club display of the T-34 Group Build Models at the **Atlanta Armor, Figure, and Modeling Contest and Exhibition** to be held 17-19 February, 2017 at the Atlanta Marriott Century Center. Several members of our club are participating in this endeavor. So as a note: let's get the builds done so we can make a great showing in February. So far we have the follow modelers participating:

1. T-34/85 No. 183 Factory "Berlin 1945" (Academy), 1/35 – Daniel Karnes
2. T-34/85 Mod. 1944 (DML + scratch built Engine Louvers, Fuel Tank Straps, Master Club Tracks, Aber PE & Barrel), 1/35 – Tom Wingate
3. T-34/85 (DML #6810 + Eduard PE), 1/35 – Carl Wethington
4. T-34/76 Factory No. 122 (AFV Club + Detail Master Wiring, Master Club Tracks), 1/35 – Phil Cavender
5. OT-34 (DML), 1/35 – Ben & Noah Brandes [father/son build one each]
6. T-34/76 Factory No. 112 (DML + Kit Maker/Tank Workshop resin Turret, Bits Krieg Boxes & Fuel Tanks, scratch built applique armor), 1/35 – Tim Darrah
7. T-34/76 (Darius Miniatures "Wedgie"), 1/35 – Steve Reid
8. T-34/85 (DML + Aubis Creations Resin Turret, Self-cast resin details, bent wire, RB Model barrel), 1/35 – Steve Reid
9. T-34/76 M42 (Italeri Fast-Build), 1/72 – Tom McCoy
10. T-34/85 (DML + Masterbox Tracks), 1/35 – Trevor Edwards
11. T-34/76 Russian Tank, 1942 Production (Tamiya), 1/35 – Mike Roof
12. T-34/76 Pressed Turret (DML + Tamiya Turret, Master Club Tracks), 1/35 – Dave Varettoni

Steve Reid has graciously volunteered to be the main point person for questions concerning you build. He has spent several years dedicated to building Soviet Armor and is a wealth of knowledge. In addition, he not only casts resin parts, but he has an extensive library. **Contact Steve directly.**

Interesting Articles – The Tank Goes to War Part III

Tank Mark IV and Mark V

Final of a three part series written by John Currie

The Mark IV was a greatly improved version of the first British tank, the Mark I. It was better protected and the fuel tank was relocated. It was, numerically, the most important tank of the First World War, with 1220 built: 420 “male”, 595 “female” and 205 tenders.

The Mark I had proved to be far from perfect on the battlefield. Attrition rate was enormous. The Mark II and III, both training machines, featured many modifications to the original Mark I. This culminated with the final Mark IV, a joint product of William Tritton and Major Walter Gordon Wilson. Basically, the Mark IV was a modified Mark I, taking into account all the war experience acquired on the front. The director of the Tank Supply Department, Albert Gerald Stern, was also instrumental in this process. He argued for the adoption of a new, more powerful engine and an improved transmission. But this project was ambitious, and the deadline of 1 April 1917 was never attained.

Instead, to speed up production, as many parts as possible were borrowed from the Mark I. The early production version was armed with three (male) up to five (female) compact, light and reliable Lewis machine-guns (later Hotchkiss Mk. I), mounted in sponsons and the front of the hull. However the Hotchkiss, although sturdier and more affordable, was criticized for its lack of magazine capacity (14 rounds compared to 96 for the Lewis). Later this issue was solved with a new flexible 50 rounds ammunition strip. The QF 6pdr (57 mm) guns on the male tanks were now short-barreled. Another improvement was to carry a large fascine, made of brushwood bundle with chains, carried at the front. Later it was replaced by a chained unditching beam, reinforced with sheet metal, stored on two parallel rails running the entire length of the roof. This provided better trench crossing capabilities, and became a trademark of the Mark V. Another attempt was the tadpole tail, a large extension of the rear tracks horns. But rigidity quickly proved an issue on trials and it was apparently never mounted on operational tanks. The main improvements were an increase of armor, up to 12 mm (0.47 in), and the relocation of the fuel tank. The later has enough room for 265 l (70 gallons), for an operational range of 56 km (35 mi). The Mark IV was propelled by the Daimler-Foster, 6-cylinder in-line sleeve valve petrol engine, which developed 105 bhp at 1,000 rpm, allowing a speed of 6.4 km/h (4 mph). Transmission had 2 forward and 1 reverse primary gears and 2 speed secondary gears. It was still relatively complex for the driver, but an improvement over the previous models.

Production and Variants

Due to the urgent need for tanks the production of the Mark IV was dispatched to Metropolitan, Fosters of Lincoln, Armstrong-Whitworth, Coventry Ordnance Works, William Beardmore & Co and Mirrlees, Watson & Co. An initial order of 1,000 tanks was issued by the War Office in August 1917. The last were delivered after the armistice in November 1918. They had been converted to armored tank tenders (205 in all). Standard production was 420 “male” and 595 “female”. Normal weight, in

battle order, was 28.4 tons (male) and 27.4 tons (female). Ammunition provision for the males consisted of 180 HE rounds. Unit cost was about about £5,000. Two variants of the design appeared. One equipped with a “tadpole tail”, never to be used on the battlefield. The other was the mass-produced tank tender, which was identical to the regular female, but unarmed. They carried gasoline and ammunition.

The Mark IV in Action

First blood for the Mark IV came on June, 7, 1917, with the attack of Messine Ridge. The terrain was very rugged, heavily cratered, but cold and dry, which allowed some sixty plus tanks some success, although lagging behind the infantry. Later, during the third battle of Ypres (31 July), most of the Mark IVs committed literally sank in the mud. The power to weight ratio was such that in a heavily cratered terrain and swampy ground, the Mark IVs frequently bogged down and the overheating and overused engines usually broke down in the process of bailing out. Most fell prey to German artillery or were captured afterwards. Their contribution was insignificant. However in November 1917, at Cambrai, a big concentration of Mark IV's (460) proved decisive despite a complicated and well-defended trench system.

During the German spring offensive, British officers discovered in surprise some German assault troops were accompanied by captured Mark I and IV. These “Beutepanzers” sightings rose so often that encounters with the German-built A7V were rare in comparison. This led the War Office to order the modification of the armament of some Mark Vs into “hermaphrodites”, fitted with guns and machine-gun sponsons. However, the first tank-to-tank duel involved one of these German A7V during the second battle of Villers-Betonneux, in April 1918. Two British Mark IV female and one male spotted and engaged the A7V. But after several miss-hits, the two Females, retired. After many shots and two hits, both Mark IV and A7V tanks retired in a draw.

When the Mark V, better protected, with a better engine and greater speed came into service, the production of the Mark IV was phased out and the last converted as supply tanks. No Mark IV seemed to have been sent to the Whites in Russia. However, a few Beutepanzer Mark IV took part in the revolutionary events in 1919, on the army's side. Seven Mark IV have survived. The Female “Flirt II” is exposed at Museum of Lincolnshire Life, and another one is at Ashford (Kent). One male, “Lodestar III” is hosted in Belgium, at the Royal Museum of the Army in Brussels, while another, a Female “Grit” is on display at the Australian War Memorial. The “Deborah”, a Female, was excavated at the village of Flesquières in France. It is now been restored, possibly for display at Saumur. A former war bond tank, the “Liberty”, is under restoration at the United States Army Ordnance Museum, Aberdeen, Maryland, after decades of decay. A Male, the “Excellent”, which later became HMS Excellent, was used at a Royal Navy shore establishment training camp, and later kept fully functional for the Home Guard in 1940. It is now an exhibit at the Bovington tank museum and the only one in the world in running condition.

Tank Mark V

The Tank Mark V was the last and largest British tank produced during the war. Born as a very advanced project, it ended up as an enhanced Mark IV. Together with its derivatives, like the Mark V* and V**, around 400 were completed by March 1919.

A brand New Design

The Mark IV was an efficient model, but many issues shown by war experience had still to be solved by mid-1917. A new design, studied by William Tritton, was ready within days, incorporating a set

of brand new features, including a new hull, improved transmission, engine, and steering system. But while a wooden mock-up was built, industrial priorities dictated a radical turn. When it appeared that the new transmission and steering system originally planned for the Mark V were ready for production, the War Cabinet decided to urgently build this improvement of the Mark IV, renamed Mark V. Some features of the original new design will be implemented in the post-war variants of the Mark V.

Design of the Mark V

The Mark V kept all the external features of the Mark IV including the hull, rollers and tracks in order not to disrupt production. However a new, more powerful drive-train and transmission were ready at the beginning of 1917 and tests ordered by William Stern were conducted on modified Mark IV. These systems included petrol-electric schemes, hydraulic systems, a multiple clutch system (a single driver was needed), and Wilson's own epicyclical gearbox design (4 forward gears, one reverse). A new, more powerful 19 liter six cylinder in-line Ricardo engine (150 bhp) was chosen (giving a power/weight ratio of 5.2 bhp/ton). Autonomy was 70 km (45 mi) with 450 liters fuel capacity (93 gallons), or enough for approximately 10 hours on a rugged terrain. The hull was fitted with a second rear cabin with observation slits and hinged sides allowing the fitting of an unditching wooden beam. The rear part of the hull also received an additional machine-gun mount.

Production of the Mark V started at the Metropolitan Carriage and Wagon factory in the fall of 1917. The first batch arrived in France in May 1918, and total production was 400, of which 200 male and 200 female. The last were delivered by mid-1919.

Mark V Variants

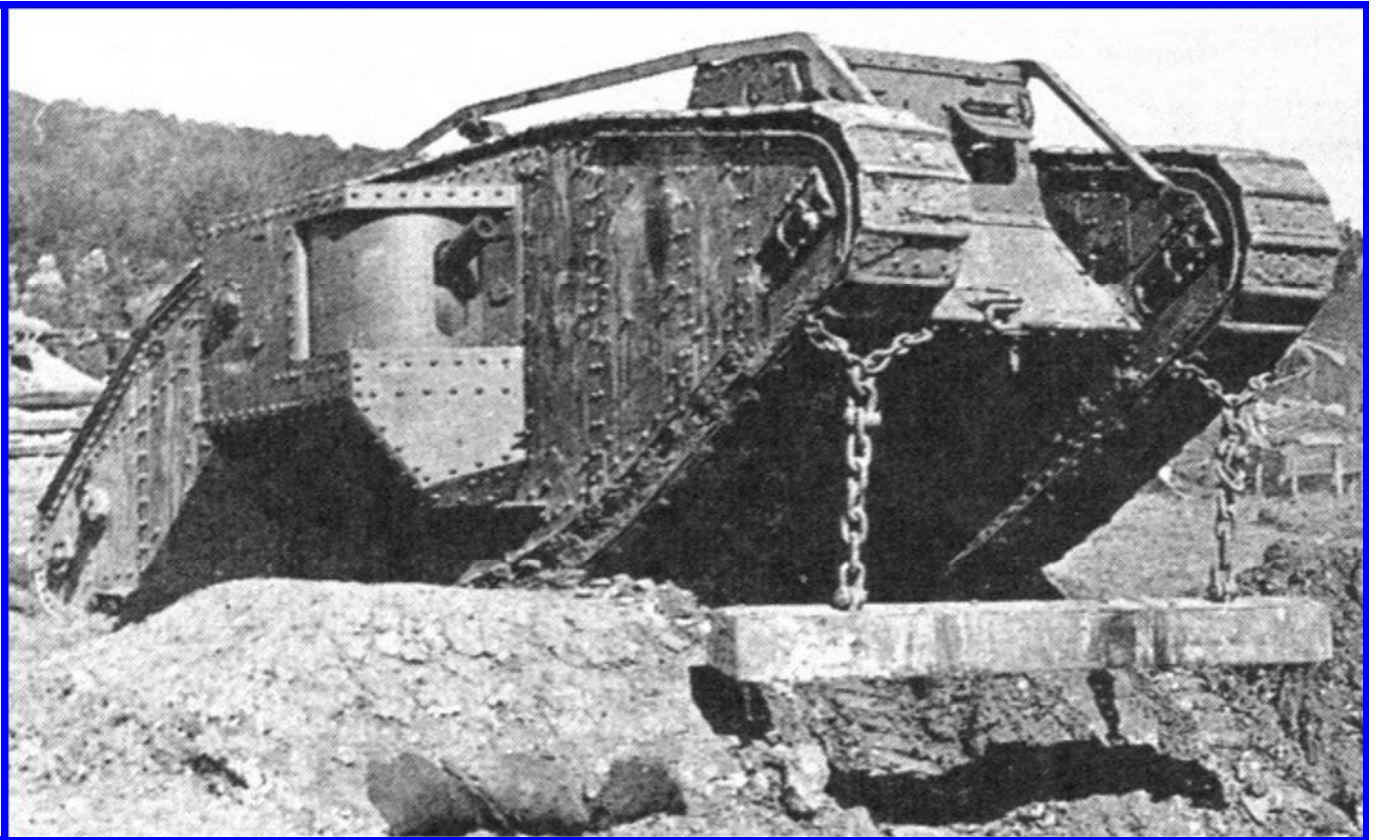
Four variants were built during and after the war. The first was the famous "Hermaphrodite", a bunch of modified "Females" to include a "Male" artillery sponson. These mix type tanks were conceived in response to the growing number of captured German Mark I and IV tanks. The giant A7V was very rare at that time. The Mark V* or "star" was a lengthened (six feet) version designed by Tritton during the fall of 1917, to deal with the Hindenburg line, and its very wide trenches (3.47 m/11.39 ft). Major Philip Johnson of the Central Tank Corps Workshops took leadership of this project. The pre-series tanks were conversions of regular, stretched Mark Vs with reinforced heavy girders. 400 Male and 200 Female were ordered, of which 579 were built by March 1919. Some arrived in time for the last offensives of November 1918. They were fitted with guidance rails for the unditching beam, two extra machine-guns in their rear cupola, two side doors with extra machine-gun mounts and a total weight of 33 tons. The extra space was thought to be best used for troop transport, but the internal conditions were still unbearable.

The Mark V** was proposed by Major Wilson to cope with the main limitation of the Mark V*, a cruel lack of agility. Turning circle was enormous and the added weight and length caused enormous tensions on the steering system. It included new widened tracks (67.3 cm/26.5 in) with a stronger curve on the lower run reducing contact (but increase ground pressure), a bored out engine, pushed to 225 bhp, relocated further back in a lower position, and better compartmentalization. Out of an initial order of 700, only 25 were delivered by January 1919.

The Mark V*** was a paper project, a largely improved version, part of a contingency plan in case the Liberty (Mark VIII) would fail. Improved protection, speed and crew comfort, while using as many parts as possible from the Mark V were the main objective. Prospective production for 1919 was 2,000 units.



Mark IV Male



Mark IV Female using Unditching Beam



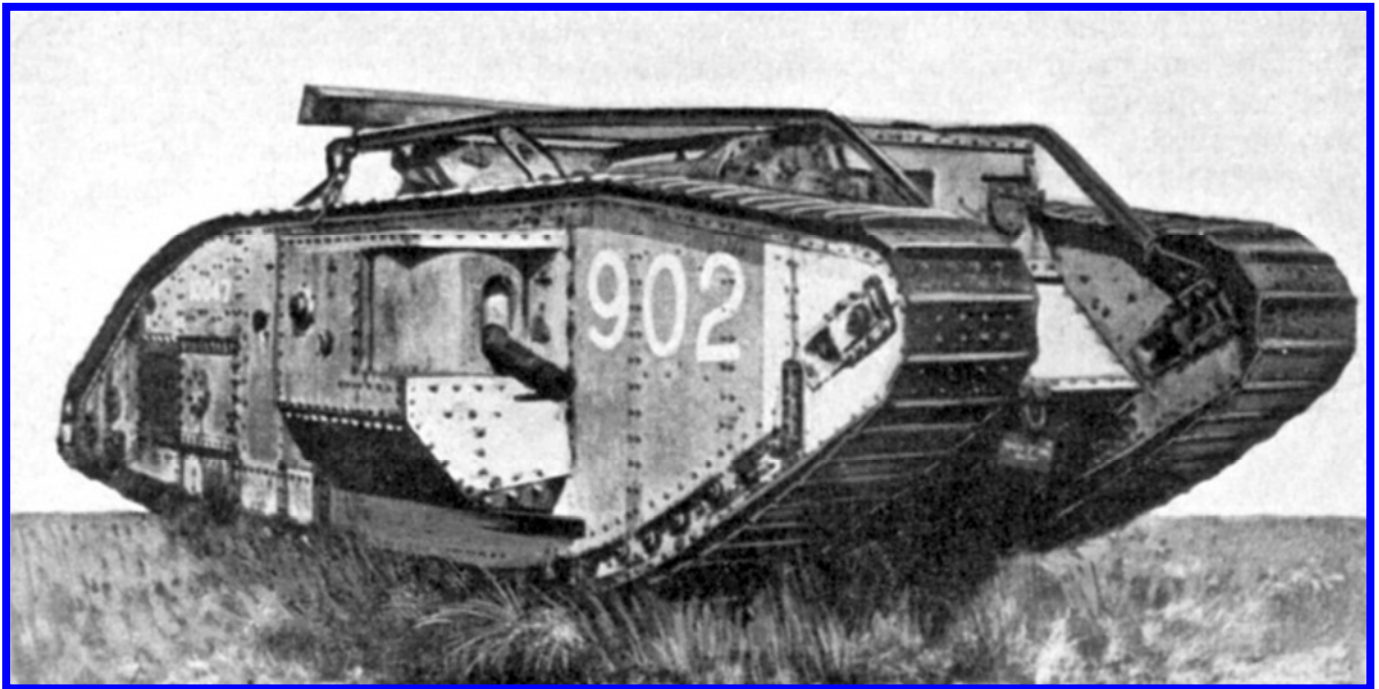
Mark IV with Experimental Tadpole Tail



Mark V



Mark V*



Mark V**

The Roots

How it all started, the forerunners of Mother.



Progenitors of the Tank 1: the Foster-Daimler petrol (gasoline) tractor (shown in use by the Royal Marines Artillery), the engine of which was to be used for the projected "big wheel" machine and which was subsequently used to power all tanks Mk. I-IV.
(Chamberlain Collection)

The Foster-Daimler Petrol (Gasoline) Tractor

Available Models and Decals

Decals are available in 1/72nd and 1/35th scale, DDecal from Russia, and Black Lion Decals from Holland

BLD-72001 - British Mark I, II, III

BLD-72003 - WWI British Mark IV

BLD-72050 WWI German A7V. Research will be required with Black Lion Decals as no placement guide is provided.

Available Models

Emhar cover the Mark IV in 1/72nd and 1/35th as well as the Mark IV Tadpole.

Tamiya and Takom also have the Mark IV in 1/35th, Takom also have the Mark V.



Emhar 1/72nd scale - also have a range in 1/35th scale



Tamiya, 1/35th scale, with motor



Takom, 1/35th scale – these seem to be getting some good reviews

This concludes this three-part series.

John Currie
Guest Contributor

The USA Historical AFV Register

Mike Roof has provided us with a great link he found that may be of interest to all.

"For those who are interested in preserved AFVs or photographing them for research, here's a link to the latest issue of the AFV Register Organization's "The USA Historical AFV Register."

The register is broken down by state and city, with the AFVs listed along with their exact locations (to include GPS lat/long coordinates). This is a good list to keep saved on your computer.

If you travel around you can plan accordingly (look up your travel destination or itinerary stops to see what interesting AFVs might be there), and if you need reference material on a particular vehicle, you can often contact one of your "virtual" friends online who lives near an exhibit to take some pictures for you".

The USA Historical AFV Register

*Armored Fighting Vehicles Preserved
in the United States of America*

V4.0

March 2016

**Michel van Loon
Neil Baumgardner**

For the AFV Association



<http://afvregister.org/Downloads/The%20USA%20Historical%20AFV%20register%204.0.pdf>

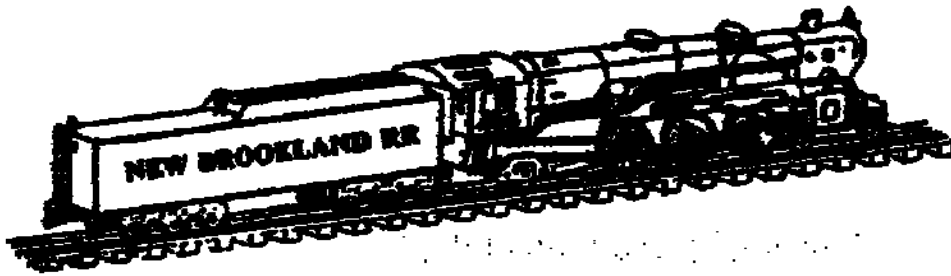
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Classified Ads

All submissions for entry into the Classified Ads section should be submitted to the editor two (2) weeks prior to the monthly AMPS meeting. Next submission deadline will be September 28, 2016.

For Sale: North Star Models 1/35 ARV-AL XM-1219 Resin kit, \$65. **Contact Paul Lovell.**

For Sale: John Sherrer has a large number of DML/Dragon figure kits that he would like to begin divesting himself of in the coming months. They are too numerous to list. Contact John directly for specific kits he has in his stash. **Contact John Sherrer.**

Wanted: I am looking for the Eduard (35 233) 1/35 photoetch M110A2 SPH update set for the Italeri M110/M1102, and M107 kits. As with the Hobby Fan resin Kit, I kept waiting to buy one until it also was gone! -- Are you picking up a recurring theme here? **Contact Carl Wethington.**

Wanted: I am looking for the Hobby Fan (HF001) 1/35 resin M110A2 SPH update set for the Italeri M110/M1102, and M107 kits. As you can tell from the item number it was the first resin detailing kit make by Hobby Fan. It was an excellent set that replaced much of the traditional Italeri soft detail, and included an outstanding loader / rammer section. I kept waiting to buy one -- until, well, it was gone! If you come across one, I would be glad to "rent" the set to make resin masters for my M110 and M107 kits. Thanks for any leads you can offer!
Contact Carl Wethington.

“The Day Room”

In the US military, most company-level units have a “day room” in the barracks where the troops hang-out, relax, and BS. When you want to learn the latest in “rumor control,” you swing by the day room and chat-up the Joes and Janes hanging out there. They might not always get it right, but they’re always willing to tell ya just what they think! So, welcome to “the Day Room...”

Well, folks, this is the 9th issue I've had the pleasure to be the editor. Don't forget about the upcoming events to show our support.

Also don't forget to send me your favorite techniques you've learned through the years. We all would benefit. I'll include them in our next newsletter.

Finally, if you aren't a member of AMPS, now is the time to join. ***Join AMPS Now!***

www.amps-armor.org

Happy modeling,

Phil Cavender

Editor, “The Wildcat”, AMPS Central SC “Wildcats”

