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Vol. 1, No. 2

Published by AMPS Central South Carolina

August-September, 2010

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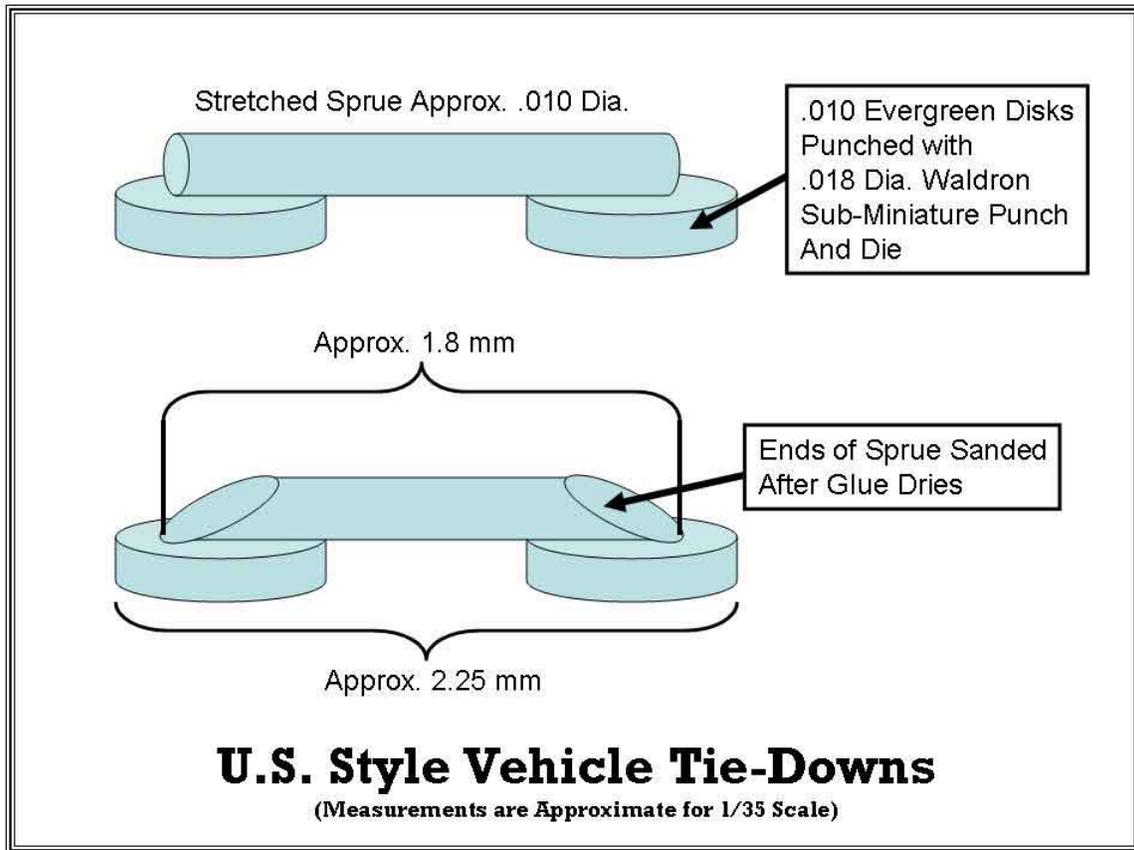
The following is an extract from *The Wildcat*, Vol. 1, No. 2, the newsletter of the AMPS Central SC Chapter. AMPS Central SC meets at 6:00 pm on the second Wednesday of each month, at the HobbyTown USA, Northpoint Shopping Center, 10120 Two Notch Road, Suite 5, Columbia, SC 29223.

#### **Newsletter Feature Article:**

#### **Scratch Building US-Type Equipment Tie Downs (Footman Loops)**

A common and reoccurring task that modelers must face when building US manufactured vehicles (and some other nationalities, too) is the need to make the tie downs that hold tools, fuel cans, and other items to the vehicle. The modeler is confronted with two different items really – the tie downs (more correctly called “footman loops”) and the straps and buckles that hold the item to the tie downs.

The following is an explanation of the techniques that I use to model these common items. As with most (if not all) of the techniques I employ, I’ve learned these methods from other modelers either in print, in discussions, or by observing their work at shows, etc. This technique for making the footman loops has been published by at least two authors that I have in my library. The earliest of these published instructions is in Shep Pain’s *How to Build Dioramas and Modeling Tanks and Armored Vehicles* (both books have much of their material shared). The second, and more contemporary, description is in any of several of Steve Zaloga’s Osprey modeling books that cover US subjects. So, to give at least some of the credit where it’s due, my thanks go to both of these gentlemen for sharing their techniques, methods and craft.



Functional footman loops are easiest made by using two small disks punched from .010 - .015 thick plastic card using a Waldron Punch & Die Set. These disks are then glued to the model an appropriate distance apart. They are then bridged using a short piece of stretched sprue or .010 - .015 plastic rod. (Evergreen's thinnest rod is .020, but Plastruct makes styrene rod in both .010 and .015 diameter.) Once the glue has dried, the ends of the rod can be beveled using a sanding block or Flexi-file to replicate the slightly angled ends of the prototype.

Finally, make sure to check your references for the number and exact placement of the loops. Most US tool mounts only use a single loop positioned so that the strap pulls the tool into the mounts. It might seem counter-intuitive, but adding two loops for tool mounts is usually inaccurate.

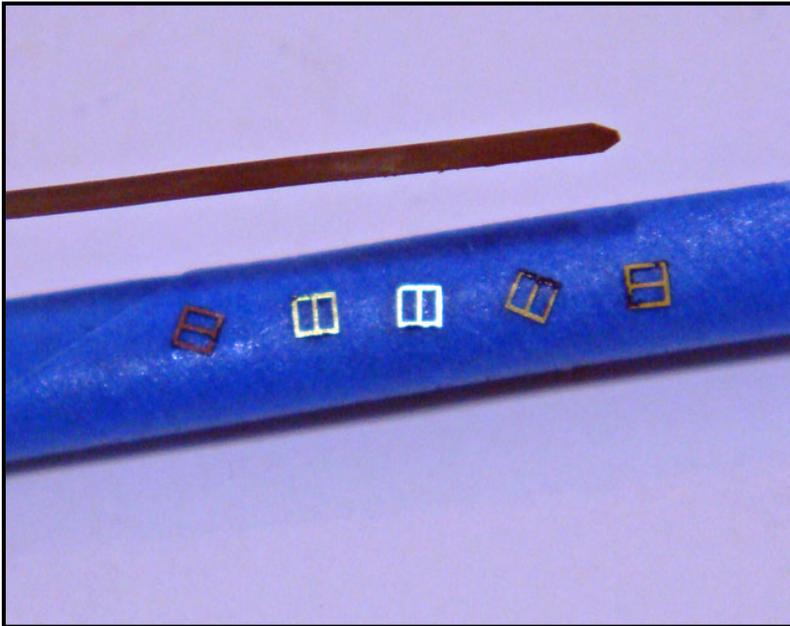


Here is a photo of several footman loops on a Sherman V turret. Note that these loops are formed using stretched sprue. The heavy foil strap illustrates how these loops can be used to actually attach items per the prototype.

I use heavy aluminum foil from old wine bottle tops, but there are other materials which will make suitable straps. One thing you should check, though, is how thick the strap material that you will use is. Some heavy, lead foils are relatively thick, and you must punch your supporting plastic disks out of correspondingly thick plastic (.020 - .025 for example).

The actual straps on US vehicles during WWII were made from both leather and woven cotton. They also had both roller buckles (with the pins that fit into holes) and friction buckles. As the war progressed, the cotton straps with friction buckles became the most common type. These cotton straps were dyed in both khaki and OD colors. Modern US equipment straps are almost universally made from OD colored nylon with friction, cinch-type buckles. These fabric straps also have metal reinforced tips vice the pointed tips of the leather straps.

To start, I cut a strip of foil the appropriate width and usually long enough to cut several straps from. I then paint this a dark shade of the selected color which allows me to add highlights later after the straps are in place. I also pre-paint the photo-etch buckles, usually painting one side then the other, most often using a black undercoat. Here's a photo of the pre-painted strap (here leather colored) and one side of the buckles (the other side has already been painted). Note also that I've trimmed the end of the strap while it's still as long as possible.

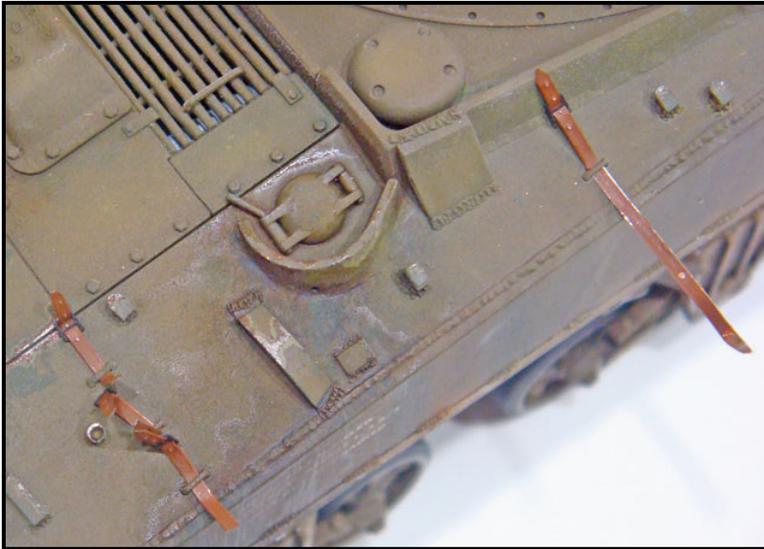


As I get ready to cut each successive strap from the long piece, I'll trim the end and punch the roller buckle holes using a pin before I cut the strap to length. This makes fabricating the shorter straps easier.

To put the PE buckles on the straps, I've found that the easiest thing to do is to fold the strap into a "V" shape, slip both ends through the buckle, then flatten the strap out. This is much easier than trying to thread the strap through the buckle like a prototype belt, first through one side then the other. Here's a photo of what I mean.



Note the holes and trimmed ends. I've also added a bit of bronze color on the faces of the buckles to replicate worn finish.

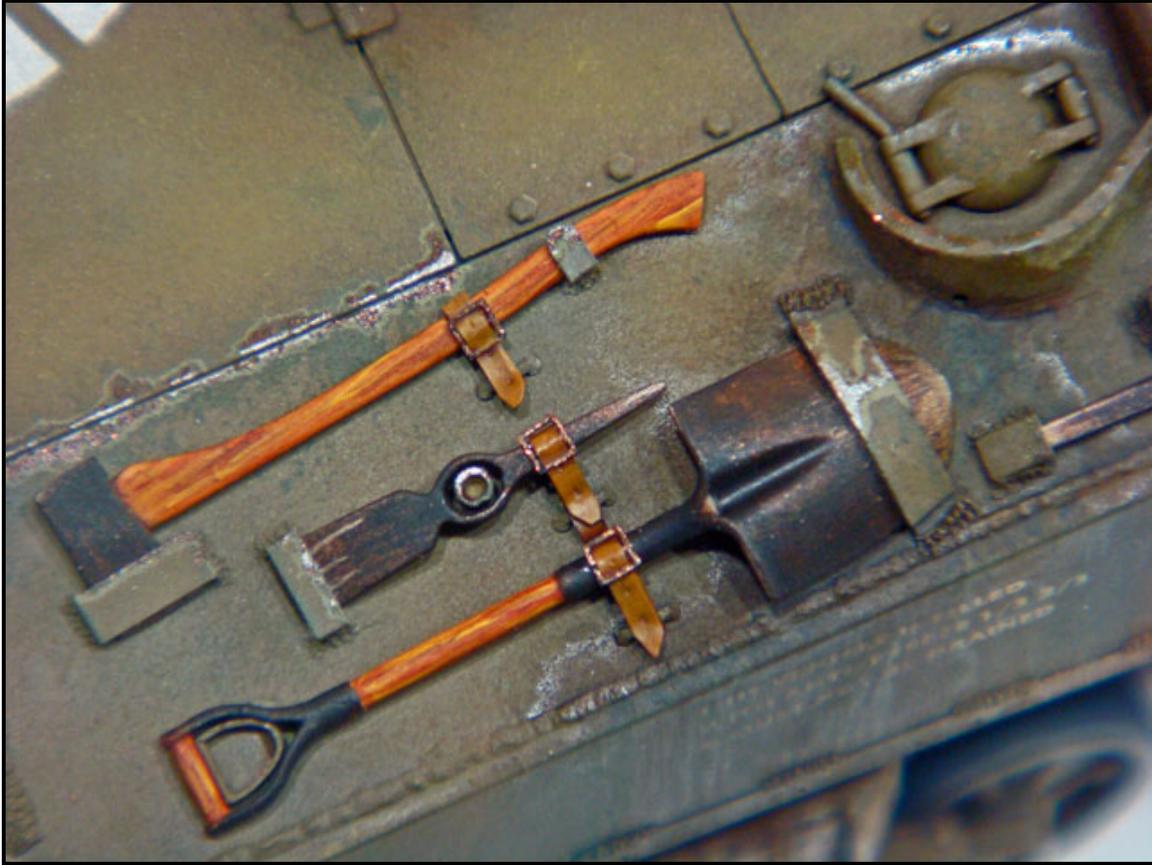


The next step is to fit the straps into the footman loops and trim the exact length to get the buckles positioned on the tools or other items where you want them. In this photo, the long strap wraps around two tools and I wasn't sure exactly how long to initially trim it.

To get the exact length, the tools are positioned, the straps are measured against them, the buckles positioned, and then the straps are trimmed to final length.



The final step is to add a small drop of supper glue on the "tail" of the strap under the point where the buckle will be, then hold the buckle end down (using a toothpick to avoid scratching the paint). After the glue sets, the strap paint can be touched up using a lighter shade of the base color for highlights.



All in all, I find scratch-building the footman loops and straps much easier than using some of the ultra-small PE parts and brass straps. The tiny loops are hard to get accurately spaced and lined up, they're hard to glue on, and they're prone to breaking off. As for the brass PE straps, even with annealing they're hard to form, generally stay "springy," and never seem to lay down naturally.

These straps and loops add a considerable amount of detail to US vehicles and can be used to give a bit of color to otherwise drab, monotone finishes. By using styrene plastic components, the glue-up and accurate positioning is much easier than trying to do the same thing with PE parts and isn't as hard as you might think.

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