

AMPS Central SC "Wildcats" Group-Build No. 2
AM-Works, LW35054 Panther Ausf. G PE Detail Set Build Notes and Tips:
Up-date 2

(Note that this Up-Date includes the original PE Part Comments in "PE Demonstration Notes" Tip Sheet. Future Up-Dates will only include the new comments.)

PE Part Comments and Observations:

Several optional parts are listed on page 5 of the instructions or in the body of the instructions.

Note that early production Panther G models had the Panther A rear stowage box mounts and tail light (mounted on the left rear box) (pg. 1). Note that these Panther A mounts on the Panther G did not include the heat shields (D1 and B74). These were only used on the Panther A.

This kit includes optional parts for all three types of rear exhausts set-ups (pg. 2).

This kit includes the IR equipment stowage box for the right rear. However, the model builder must add the four mounting tabs for this box (pg. 1).

There are two different chains for the gun travel lock. Parts C21 are for the lock around the gun barrel and C23 are for the lock "loose." (pg. 3)

The Schurtzen locks, parts B20 + B19 were only necessary on the first and last Schurtzen mounting holes even though the kit gives you enough for every hole. (pg 5)

Any number of "pie-shaped" heater cover parts C10 can be used on either the heater or shown stowed. (pg. 2)

The right side winter intake covers C5 + C2 + C3 can be shown open or closed in combination with using heater covers C10. (pg. 2)

The Anti-aircraft (AA) Machine Gun (MG) mount parts D13 + A38, 39, and 40 are only used on the cupola ring. On some late Panthers, this ring was not installed. (pg. 3)

On page 5, the instructions list several Fret B parts (47, 48, 57, 59, 33, and 34) for relocating the tools onto the rear deck. You need to check your references for this unit modification. The standard factory set up is shown in the instructions.

The following parts are particularly noteworthy. Some are optional parts and not mentioned in the instructions, and others require some comment or notes:

Fret A

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|-----------|---|
| A24 + A25 | Engine hatch hold open catch only used on the Jagdpanther G1 version. |
| A50 | AA MG Ring Sights. These are for the MG when it's mounted on the commander's cupola. |
| A35 + A36 | 15 / 20 Ton Jack Body. The jack also benefits from replacing the molded-on lifting handles with bent wire replacements. |
| A3 | "Closed" has Bolts in Holes (check references). If the kit armored hood (DML Step 8, part C2) is used, then use this PE part. If you omit the armored hood, then use the A4 part below. |
| A4 | "Open" the Bolts are not in the Holes (check references). Replicates the holes left if the armored hood (DML part C2) is not installed. |

Fret B

- | | |
|-----|--|
| B60 | Combine with B58 to make a correct / complete shovel head. B60 is the inside and B58 is the outside. |
|-----|--|

B1 Stern Antenna for Befehlspanther. Requires either scratch-building the mount or using a Befehlspanther kit.

Two Un-numbered Parts on upper Right Corner of Fret B are the Mast Mounts that go on the Right Rear Stowage Box of the Befehlspanther. These parts roll into tubes, one with a closed bottom end (the lower mount).

B47 and B48 Parts to hold the ax head on the right side front tool rack. The parts are shown on the drawing assembled to the rack, but the part numbers are not called out on the instructions.

Note: When building the right side tool rack, ensure that the "C-hook" will fit the tubes first. Then fit the engine starter crank next. The crank must have clearance past the "C-hook." Finally, fit the ax head brackets. The handle on the starter crank clamp lies partly over the ax blade edge bracket, B48. This is correct per the prototype. Also note, I had to build a new engine starter crank to fit the PE tool rack. The kit handle is too "shallow" or does not have enough length between its two parallel ends. The PE rack is correctly sized (according to the Doyle plans in Panzer Tracts). Use the starter crank and ax handles to ensure that the loops folded on the rack, part B46, are large enough to fit the tool handles through.

B28 Sledgehammer head bracket fitting to tool rack part B26. Note the shape of the sledgehammer bracket shown in the illustration on page 4 is incorrect. The bracket only has a "U" shaped holder on its bottom end and not on both ends (as shown in the drawing.)

Note also, parts B28 and B27, the brackets added to the rack B26 are slightly too long on the top end. Correctly constructed, the sledgehammer head bracket should be parallel to the tool rack as shown in the "side view" on the instructions.

B23 and B24 Spare track stowage racks. These are quite easy to build. The track hangers, B24 fit neatly into the grooves etched in the racks making the spacing pretty precise. Also, the hangers are spaced far enough apart that I didn't need any kind of heat sinks (wet paper towel, clamps, etc) to protect subsequent solder joints. I just worked my way from one end to the other. If you remove the heat as soon as the solder melts and draws into the joint, you won't melt any of the other joints. This makes the spare track racks a very good "confidence" soldering assembly. Use a set of cross-clamping tweezers to hold the hanger to the rack, use flux, and just a small "chip" of solder. Then, sit back and enjoy the satisfaction of a neat solder job!

Note: As you can see from the photo, the kit "Magic Tracks" can be made to fit the PE racks. However, I had to open the drive sprocket holes in the track links. The kit track holes are too closely spaced together. This is a problem with the kit tracks and not the PE stowage rack. The kit tracks also will not fit the kit drive sprocket (hence the extra track parts E16 and E17 to go around the sprocket) and they will not fit the kit spare track racks. The photo shows both Fruil metal Panther tracks (which I'm using on my kit) and a set of the kit "Magic Track" links.

Fret C

C11 This is the bolt and washer that hold the centers of the "pie-shaped" air deflectors onto the top of the crew compartment heater. See page 2 of the PE instructions.

Fret E

E10 The Lifting Cap for the Jack. Replaces the kit part.

E11 Cool Little Cog Shapes

E4 + E5 Type 2 Tool Clamps for Ax and Wire Cutters. These can be substituted by parts E1 + E2 Type 1

Tool Clamps. There are enough Type 1 clamps for the entire vehicle. Vehicle is correct either way depending on references.

Note that hints and tips for assembling the Rear Stowage Boxes and Front Fenders are included in "Photo-Etch Demonstration Notes" published 11 Aug, 2011.

Tips and hints for building the Tool Racks:

The tool racks on the sides of the Panther series vehicles add a great deal of extra detail to the look of the models, and as such, they deserve some care and effort.

When constructing the tool racks and brackets, clean-up the kit's tools by removing their molded on clamps, etc. You can then use the tools to ensure the PE tool rack parts are correctly sized and spaced. That is, build the brackets and tool racks around the tools. If you construct the racks without taking the tool sizes into consideration, you may find that the tools will not fit where you have added the clamps, etc.

Of course, there are always exceptions to every rule: The PE fire extinguisher and wooden jack block brackets must be constructed as designed. After building these PE assemblies, you must then fit the fire extinguisher and jack block to their brackets!

When building the PE tool racks, anneal the flat "tube" parts, C18 and C20 before trying to roll them into tubes. I used a small drill bit and piece of rubber to initially roll some of the curve into the PE parts. I followed this by using the drill bit clamped "cross-wise" between two teeth in my PE bending tool and burnishing the partly rolled PE parts around the drill bit to complete the tube shape.

Before soldering these onto the racks (parts B41 or B46), I soldered the tube seams and added the "tow cable" keeper disks (B51). I clamped the tubes in a cross-locking pair of tweezers that squeezed the seam tightly closed. I used a "high temp" silver solder (Stay Brite) for this and a "low temp" (Tix Solder) solder to fasten the tubes to the racks. This prevented the seams and tow cable keeper disks from coming un-soldered.

Using a combination of high-temp and low-temp solders can help resolve many soldering problems where joints are too close together. Also, using wet paper towel "heat sinks" or other clamps to protect previous joints will resolve others. Between the two techniques, there are not many PE assemblies that you cannot solder together.

In general, with the tool racks, my sequence was to first roll the handle holders (like on the ends of B46) and solder these with a "high-temp" solder. I then added the little slotted "tabs," like B50 and B49 and the shovel and ax head holders (B42, B47 and B48) also using high "high temp" solder. Next, I added the pins and chains, parts C17, once again using a VERY SMALL chip of "high temp" solder.

Now, I switched to a "low temp" solder to add the "C-hook" and tow cable tubes. I also, used bits of wet paper towel to protect some of the other joints. When making these "close" subsequent solder joints, try to think forward to the application of the heat and hold / orient the parts so that the flame on your torch doesn't blow across the earlier joints to get to the new joint.

Finally, I used "low temp" solder to attaché the tool clamps to the racks. Remember to position these according to the spacing required by the tools that they will hold.

Cylindrical Cleaning Rod and Antenna Stowage Bin Hints and Tips:

Like with the tool racks, the cylindrical stowage bin adds to the "Panther-look" on your finished model. The PE set gives you several options for increasing the detail in this area on your model. One thing to consider is the planned final appearance of your model. The thin metal PE tube is nice, but if you plan to show yours closed and un-damaged (no dents, etc), the kit's plastic tube is much easier to work with. The PE brackets, parts B30, B31, and B32 can be used with the plastic tube to add significant detail. Also, the angle iron "walking" brace, B39, will add to the look of the plastic tube. Finally, the kits plastic caps can be used with the PE handle, B35, and latches, C15.

On the other hand, if you want to show this tube open or dented up, there is no substitute for the appearance that you can achieve with the PE parts.

If you want to use the PE tube, construct it before bending and making the brackets so that the brackets can be fitted precisely to the PE tube. Since you will be rolling the metal to make the tube, start with annealing the PE part C27. Use a soft surface and a series of decreasing sized rollers (drill bits, metal tube, X-acto knife handles, etc) to form the tube. Once you have it as close as you can get, then use some brass wire wrapped around the tube to hold it closed while you solder it. Note that the long edges overlap. Use "high temp" solder for this joint. Don't worry if some of the solder gets under the brass wire, just nip it off as close as you can and sand / file the remainder away from the tube. No harm, no foul.

The ring stacks that make up the end caps are pretty easy. If they get distorted when you cut them away from the fret or when you clean up the attaching point burrs, use a tapered cone-shaped tool to restore their "circle-ness." (I use the point of a 7.62 mm round that was lying around my work bench for some reason....)

Stack the rings D3 and disk D2 between two fingers. Use a pair of fine tweezers to "neaten up" the edges. Once they're all coincidentally oriented, use a pair of cross-locking tweezers to clamp the stack end-to-end. You will probably notice that the tweezers cause the stack to "lean" in one direction. Try lightening up on the pressure and see if the stack straightens up. If it does, then practice just how much finger pressure you need to achieve this and once you're ready, use some "high temp" solder to fasten the entire stack. I rotated my caps and soldered them several times to fill in the small grooves created by the edges of the rings. This required a bit of filing and cleaning afterwards, but the results look pretty nice. A Dremel tool with a small cutter bit was what I needed to clean-up the insides of the caps.

I used a "low temp" solder to fasten the cap handles, B35. Don't forget to thread the loop on the end of the keeper chain, C15, onto the handle before you solder it. Also, as soon as the "low temp" solder melts and draws into the joint remove the heat!

Anneal and form the bracket loops, B32, around the tube (either kit plastic or PE). Use "high temp" solder to fasten these to the parts B30 and B31. Dry fit the loops to get their attachment locations correct.

Tip: I use a permanent marker (Sharpie) to mark the general locations for layout lines on metal parts. Once this ink dries, I can then use an X-acto knife point of a compass needle to make the exact location of any thing that needs it. In the photos, you can see some larger red marks on my cleaning rod tub. These are left over from where I used the end caps to measure the exact locations for their latches. The ink can be soldered over (flux and heat remove it) or it can be wiped away with a Q-tip and lacquer thinner. "Real" machinist use an alcohol based marking solution called "Dykum" to do the exact same thing on metal parts in a machine shop. The Sharpie works exactly the same, only less mess.

Once you have your loop brackets made, you can add the angle iron "step protector," B39, to them. I used the dimensions on the DML kit plastic tube to get the spacing for the loop brackets. I marked the distances on the angle iron and soldered it to the loops using "high temp" solder. Here I protected the earlier loop joints with wet paper towel heat sinks.

Slip the PE tube into the brackets and use a couple of "low temp" solder joints on the loops to hold it in place.

Next, solder the latches C15 to the tube using, you guessed it, "low temp" solder.

I then added the interior part, B37 to the front end of my stowage tube. Here I used a bit of two-part epoxy to hold this in place. I also used a bit of epoxy to glue the rear end cap onto my tube (since I had the glue mixed).

Finally, I added the pry bar tool clamp (PE Tc 1). I confess again that here I used a dab of two-part epoxy to glue the clamp to the loop bracket between the two solder joints.

Crew Compartment Heater Assembly:

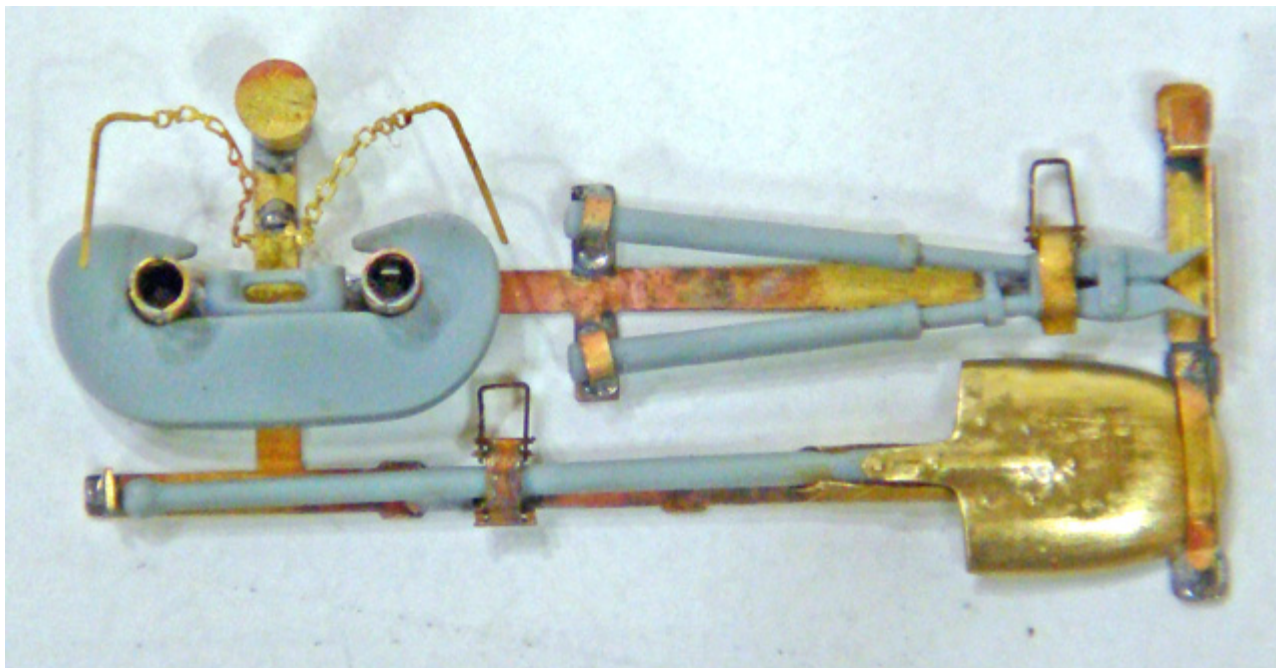
I soldered this "stack" of parts, C8, C9, D18, and A7, together and used the solder to fill the circumferential grooves although CA glue would probably work just about as well.

I clamped the "stack" of parts around its edges using several metal "clothes pin" type clamps. This spread the clamping force evenly around the edges. I then soldered between the clamps. Once I had worked my way round, I moved the clamps to the soldered locations and repeated the soldering. Once I had an even solder joint all the way around the stack, I cleaned up the edges.

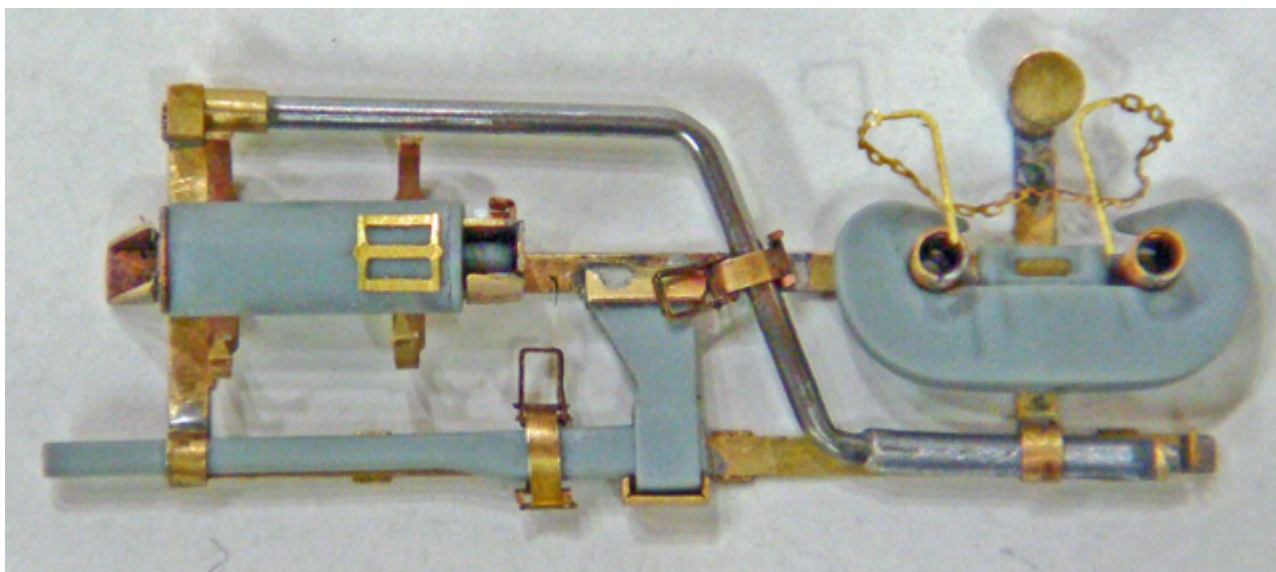
Note that as indicated above, PE part C11 goes in the center of the screen. On mine, I soldered a piece of brass wire to the bottom of C11 and drilled out the center of the DML plastic heater part, C21. This allows me to remove the nut and washer to install the "pie-shaped" air deflectors, PE parts C10, later during final assembly. (I want to show some of these in primer red and some camouflaged, so I'll paint them separate and add later using the C11 PE nut and washer to hold them as per the prototype.

Also, note the orientation of the "spoked" PE part C8. Dry fit the DML plastic part D18 to the heater C21 and note that the spokes line up with the centerline of the tank. Make sure that when you add the PE parts you get them orientated correctly.

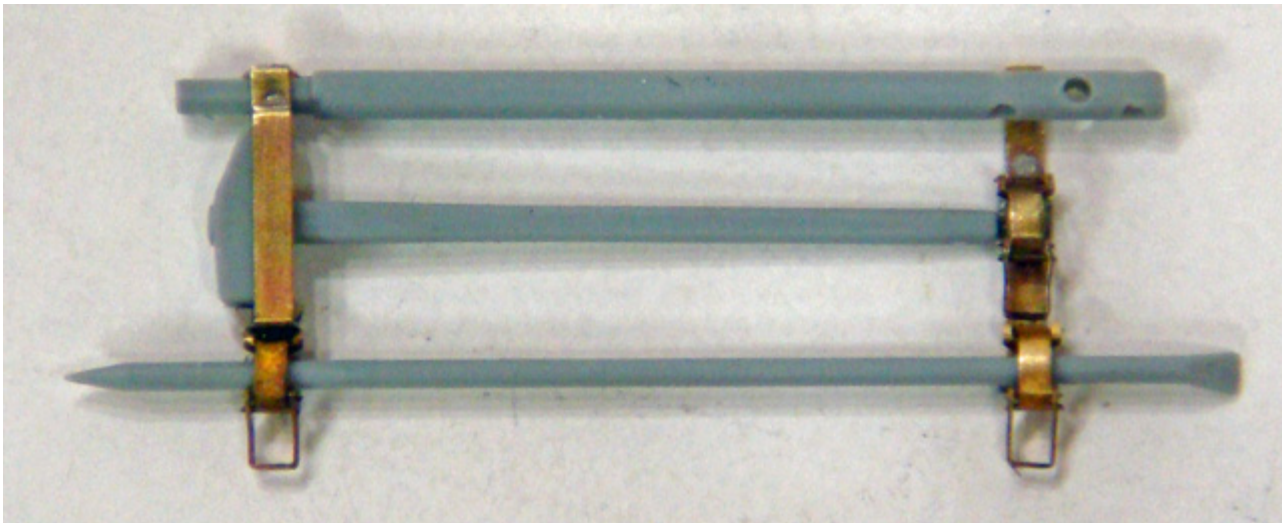
Finally, you might want to take some time and open up the grating on the bottom of the DML crew compartment heater part C21. This will allow more of the details of the fans, DML subassemblies "A" in step 1. If these are nicely painted, the details should show through the air intake and exhaust gratings. Also, you might consider leaving the screen assembled above so that you can paint down into the heater unit.



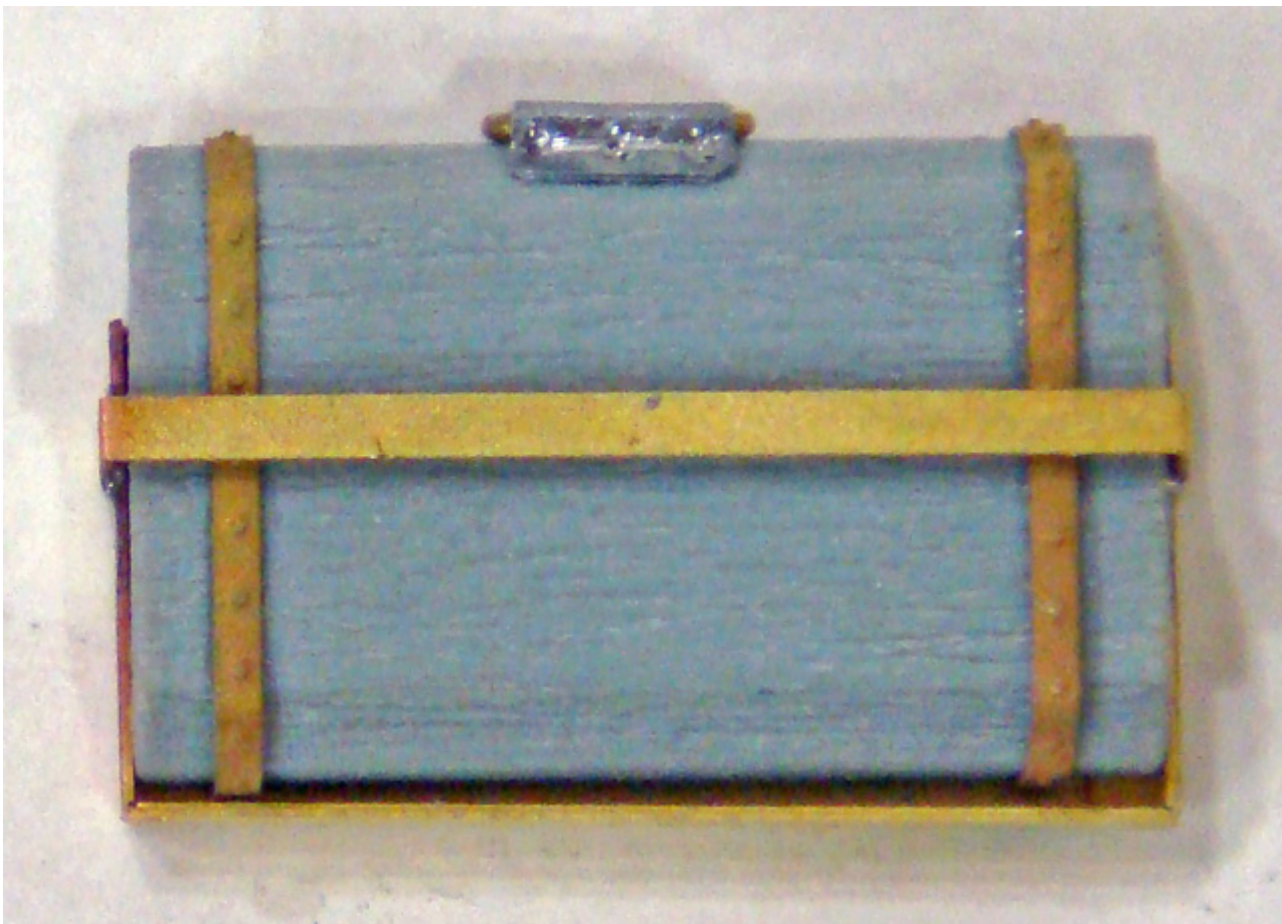
Tool Rack "A" – The shovel head is made with both PE parts as noted above.



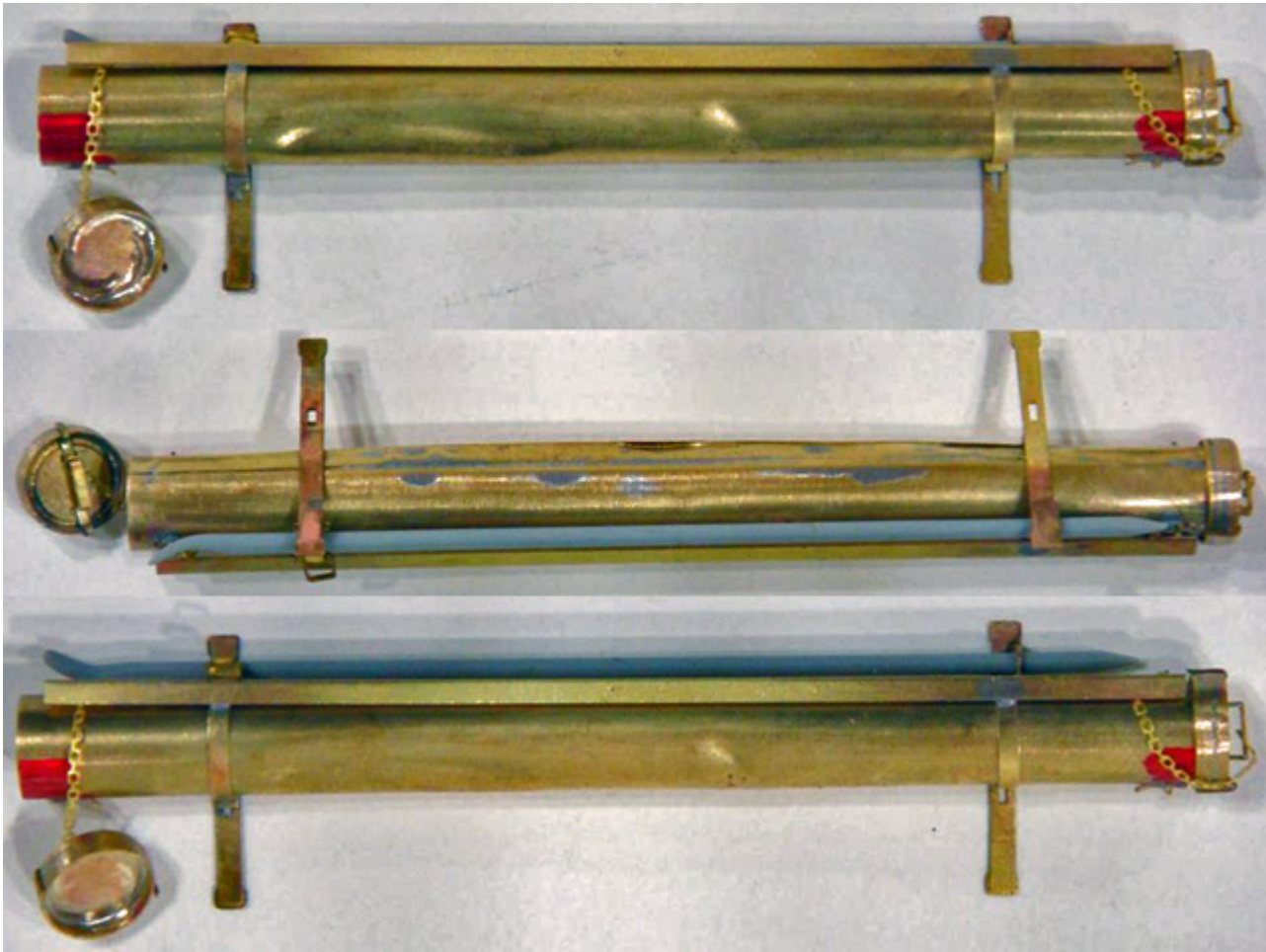
Tool Rack "B" – The engine starter crank handle was replaced since the DML kit part, K18, doesn't fit the PE rack. The PE rack is correctly dimensioned according to the H.L. Doyle plans in Panzer Tracts. Also, note how the ax head brackets hang slightly off the edges of the rack per the prototype and how the latch on the crank clamp overlaps the edge of the ax.



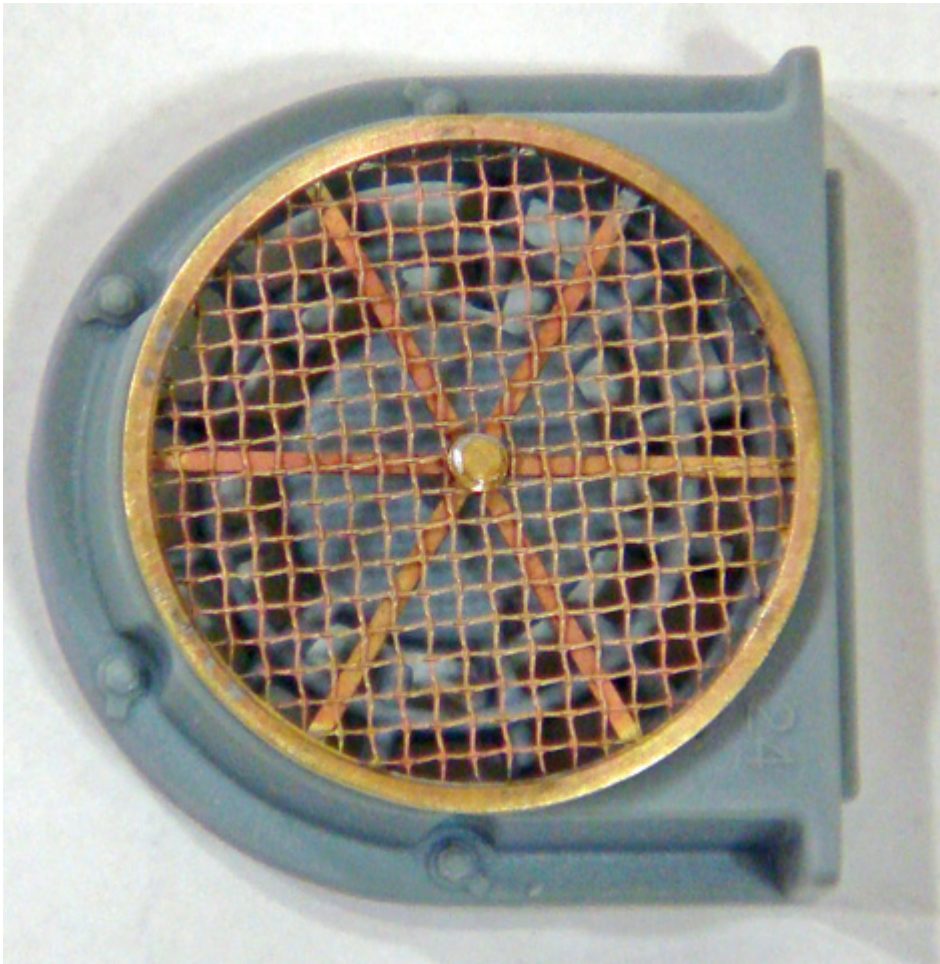
Tool Rack "C" – The sledgehammer head is not sitting down in its holder in this photo (all of the tools are still loose for painting). The DML kit sledgehammer, K2, head has to be reduced in thickness to fit into the PE bracket.



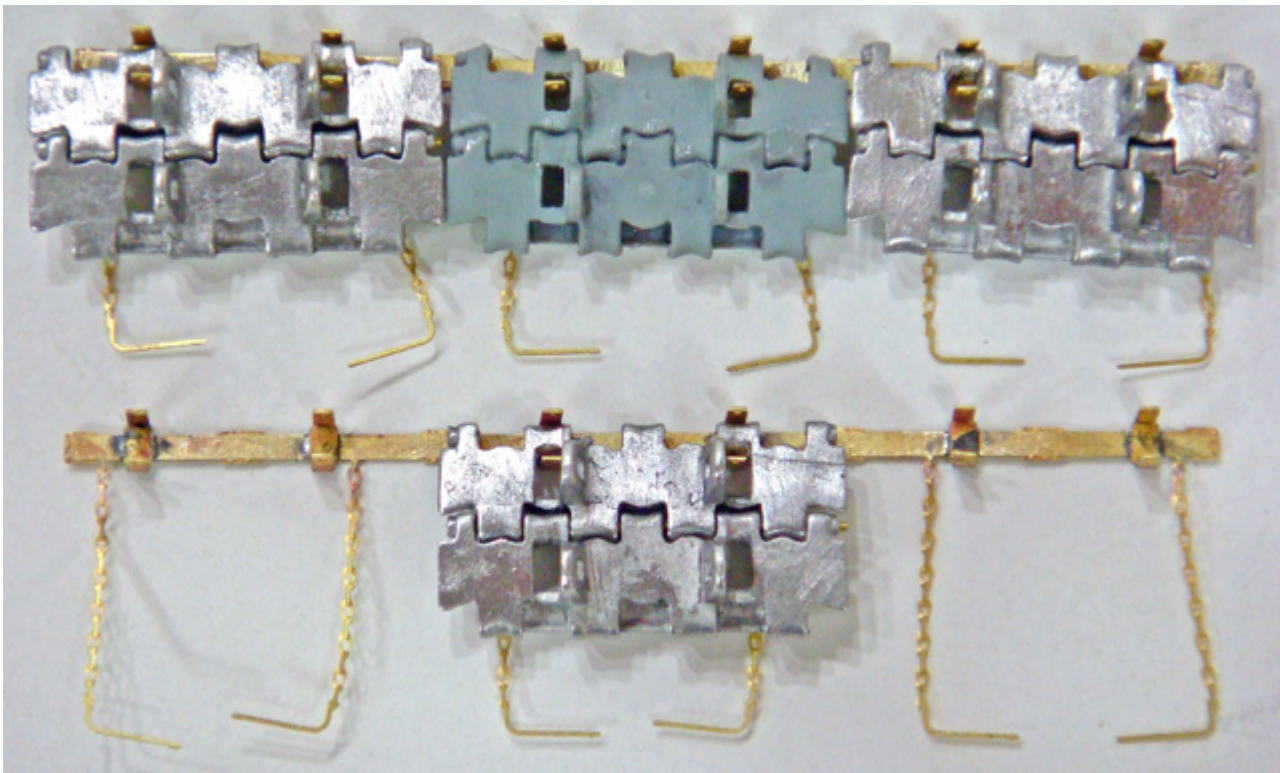
Jack Block Rack – The DML kit jack block, C38 + C50, fits the PE rack with just a little work. The block needs a lifting / carrying handle added to its top edge. This rack is also a good soldering project since the parts are easy to clamp together using cross-locking tweezers and the joints are spaced far enough apart to allow sequential soldering with no worries about heating each other.



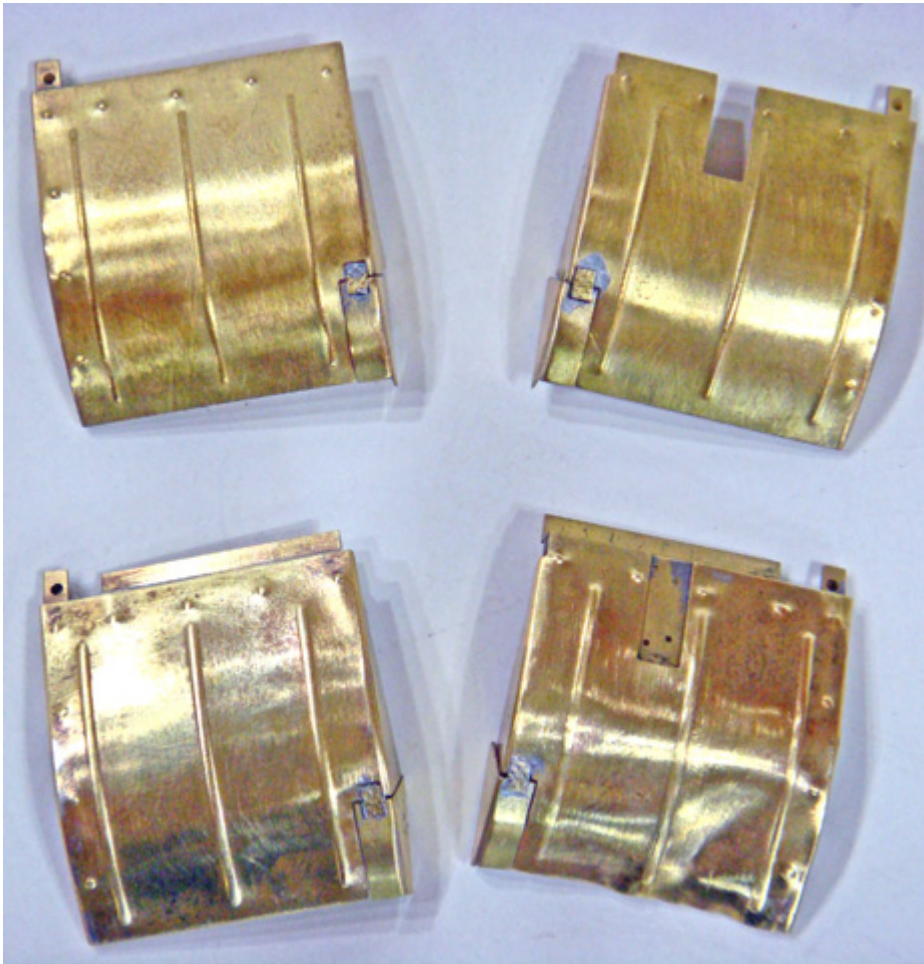
Cylindrical Cleaning Rod and Antenna Stowage Bin – I added the dents and damage after the entire assembly was completed. Since the PE tube was annealed, I only needed pressure from my thumb nail to create the dents.



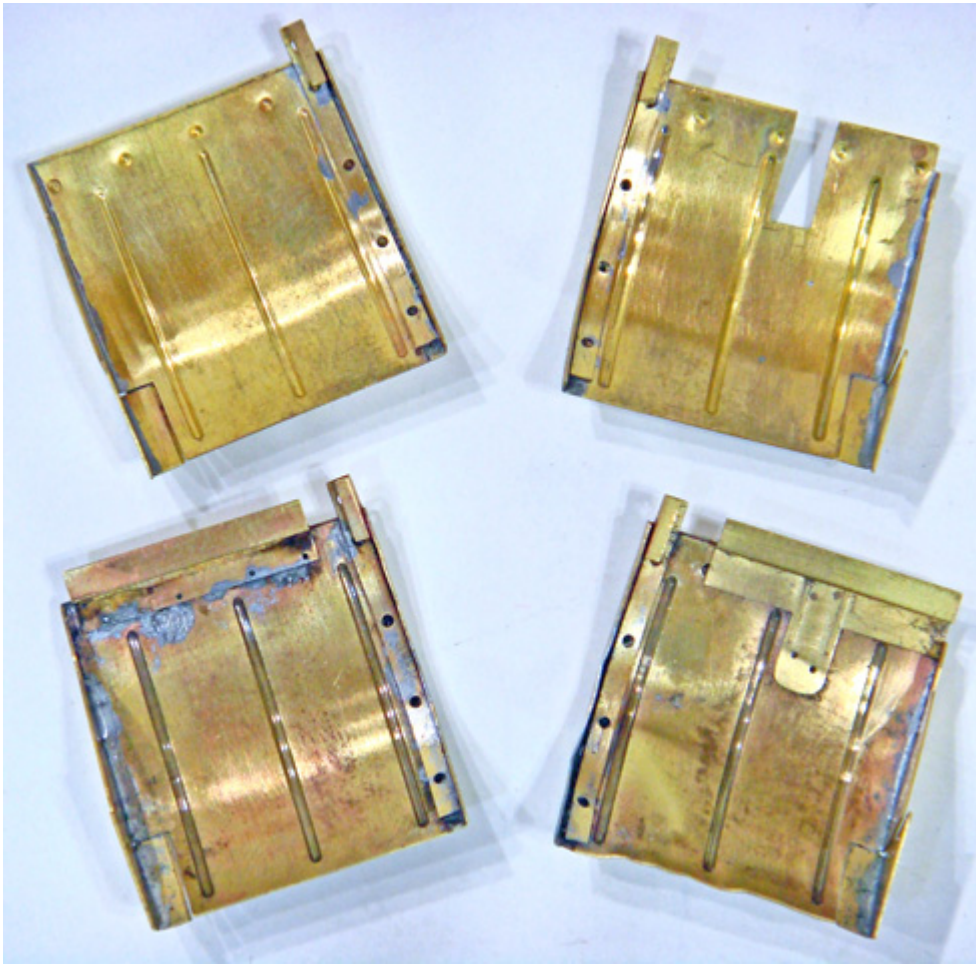
Crew Compartment Heater – Note the visibility through the grating. The heater will also get a "cast" texture before I add it to the kit engine deck.



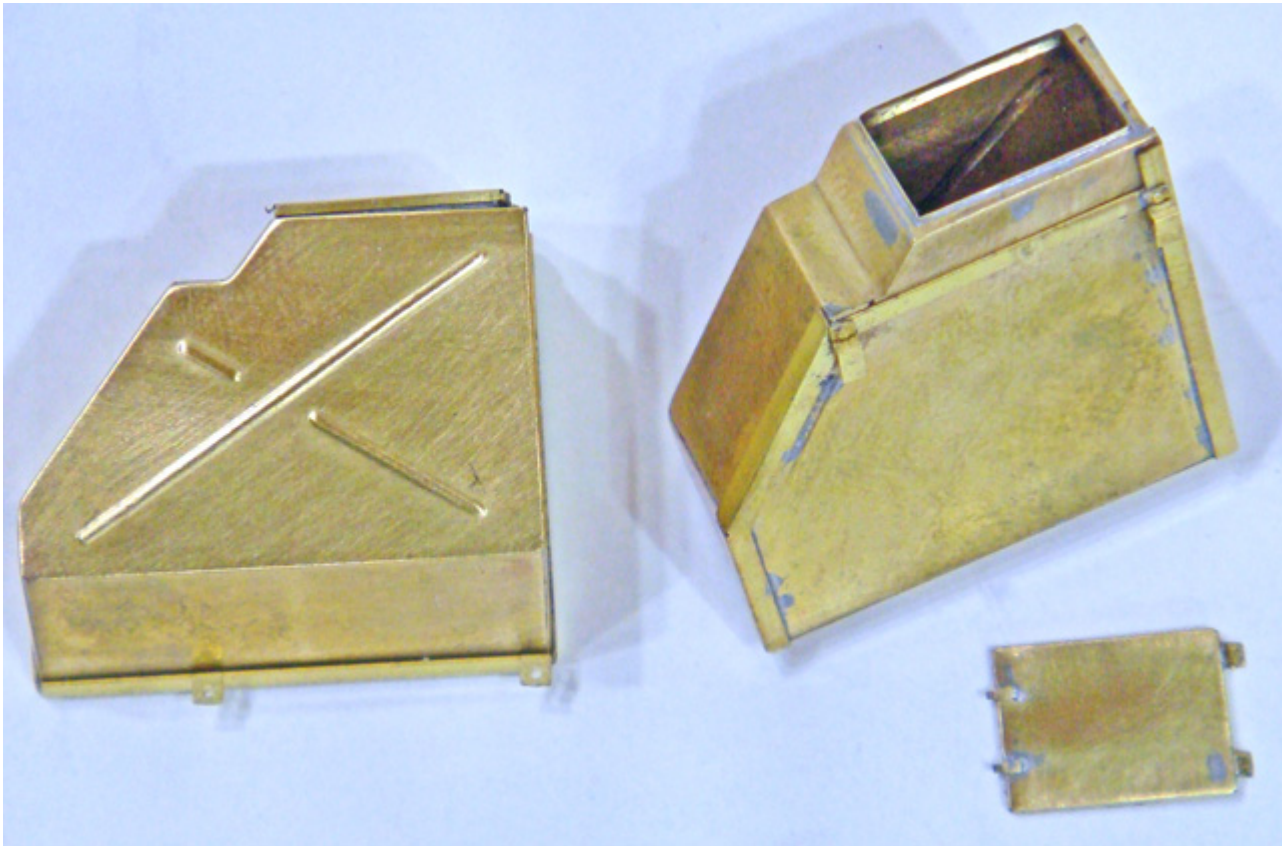
Spare Track Stowage Racks – As noted, this is a good candidate to practice soldering.



Front Fenders Top Side – The bottom set of fenders are the ones I will use on my model. These also have the mounting brackets, B8 and B9 soldered on to them. These two brackets must be folded into a "Z" shape (as viewed from their sides) to fit the bottom front edges of the hull after the plastic fenders have been cut away.



Front Fenders Bottom Sides – Note how the mounting brackets, B8 and B9, are fitted to the edges of the fenders. Refer to the earlier construction sequence described in the "PE Demonstration Notes" for hints and tips on how to build these.



Rear Stowage Boxes – Note that the bottom tabs on the rear brackets will be adjusted to fit the PE parts D10 which are installed on the bottom rear ends of the hull side panniers. Again, refer the "PE Demonstration Notes" for hints and tips on the sequence for building these boxes.