

## **AMPS Central SC "Wildcats" Group Build 2, Build Notes No. 1**

### **DML Panther Ausf. G Smart Kits #6370 and #6268 Series Optional Parts**

The comments below are based on information found in "Panzer Tracts" No. 5-2 and 5-3 along with the Camouflage Patterns and Markings, Appendix 4 in "Duel in the Mists."

#### **Step 1:**

Optional cooling fan parts D5 or D21 – D5 represents the late Panther Ausf. G Sep '44 strengthened fan while part D21 represents the earlier fan design used from the Panther Ausf. D.

Steel wheel Panther kit can be built with the standard rubber tired wheels. Substitute E11 + E9 x 8 (set "B") for the steel wheels W1 + W2 x 8 (set "B") in preparation for Step 3.

#### **Step 2:**

Towing clevis parts A25 or W11 – The clevis with the "squared" shoulders around the pin holes would appear to be the more standard style. Having said this, though, I really couldn't tell from most photos if the shoulders were "squared" or "rounded." My best guess is that these are simply two minor sub-contractor manufacturing variations with no "official" design difference. That is, either kit optional part is correct – Heck, for all I can tell, the two designs might even have been mixed on the same vehicle.

Bumper stops parts C20 or C19 – C20 represents the earlier style used from Panther Ausf. A. Part C19 represents the late style. No date of introduction for the late style but it was present on final production tanks.

Bumper stops parts E14 or E13 – E14 represents the late style. Part E13 represents the early style used from the Panther Ausf. A. No date of introduction for the late style.

NOTE: The rear bumper stop (either E14 or E13) was dropped from the Panther Ausf. G starting in Oct '44.

Final drive parts G4/5 or G8/9 – If you want to use the wheel return roller part A19 (step 3) then you must use final drive G4/5. If you want to use the skid shoe part G24/26 (step 3) then you must use final drive G8/9 (which has a reinforcement on the upper rear corner).

NOTE: Only the MNH factory used the skid show (Gleitschu) on its final production tanks. MAN and DB continued to use the wheel return roller throughout their production. No date of introduction for the MNH Gleitschu is available.

**Step 3:**

Return roller wheels part A19 or return track skid (Gleitschu) part G24/26 as described above in Step 2.

For Steel Wheel Panther kit using rubber tired wheels, substitute rubber tire wheels E12 for inner steel wheels W4 and G21 and rubber tire wheels E10 for outer steel wheels W3 and G20. Also, substitute rubber tire wheel sets "B" constructed in Step 1 for the steel wheel sets "B" illustrated in Step 1.

NOTE: For the Late Panther, the Last Wheel Station (LWS) steel wheels G21 + G20 can be substituted with standard rubber tire wheels W4 and W3. This was the more common version of the late / final Panther Ausf. G. The steel LWS configuration was only seen on some (not all) MAN Panthers built in March / April '45.

**Step 4:** Note that the PE set provides parts to replace the jack part K9 (PE parts A35 and A36) and K7 (PE part E10). These PE parts are not identified on the PE instructions.

**Step 5:** No kit options identified.

NOTE: For a fully factory-ready IR Panther, replace the starboard / right side rear stowage box, kit parts F5 and G27 with the AM-Works PE box parts B70, 71, etc. The Steel Wheel Panther turret will need the small "horse shoe-shaped" shot deflector on the turret roof forward of the cupola added. This detail is already on the Late Panther kit turret.

**Step 6:**

Hull MG ball mount part W12 or C51 – C51 is not shown in the instructions but is a valid option. Check your references. W12 appears more common, but not exclusive, on Ausf. G's the later they are.

Both types look to me like they were used depending on the supplier of the hulls and not which assembly line the tank was built on. Note the difference is in the lower outside corners of the opening.

**Step 7:** Driver's and radio operator's hatches open or closed.

**Step 8:**

Engine deck parts A36 or A34 – A36 is the standard engine deck. Starting in Jan '45, an order was issued to reduce the number of bolts in the engine deck by about half (because of a shortage of bolts) and plug the excess holes. A34 is supposed to represent this modification, but DML didn't fill but one bolt hole. If you want to model this modification, let me know and I'll send you a scan that shows the holes to fill. You would do this using part A36 since the one hole filled by DML on part A34 is wrong anyways (according to the Doyle plans).

Fighting compartment heater (Kampfraumheizung) part D6 or D22 – D22 represents the air deflectors (the pie-shaped parts) that were installed to heat the fighting compartment. D6 shows the deflectors not in use. If you use D22, the use part D13. If you use part D22, then use part D19 (showing the air deflectors stowed).

NOTE: The fighting compartment heater wasn't universally installed until late Nov early Dec '44. It was installed on some tanks as early as late Sep '44.

NOTE: Also, the pie-shaped air deflectors didn't have to be all used. Depending on how low the temp was, any number of pie-shaped deflectors could be used.

### **Step 9:**

Cooling air intakes open or closed A27 or A29 – The colder the temp the more the intakes were closed. This was done in conjunction with installing the fighting compartment heater air deflectors (D22 / D19).

NOTE: If the fighting compartment heater is not installed, then don't use the A27 or A29 parts.

Left hand cooling air outlet A9 or A10 or fighting compartment heater assembly (step 8) - As explained above. By Dec '44, these were pretty universal on the Ausf. G.

Cooling air inlet / outlet parts A9 or A10 – A9 represents the standard Ausf.G design. I couldn't find any examples (photos or drawings) of the A10 design.

**Step 10:** No kit options identified.

**Step 11:** No kit options identified.

**Step 12:** Gun mantlet F2 or F3 – F2 is the early rounded gun mantlet. Remove the two small rectangular bumps on the right side of this mantlet. These were the intended mounting points for the IR coaxial spotlight, but that curved mantlet was never made with these. F3 is the "chin" mantlet that was introduced starting in Sep '44, but its use was gradual and many Panther Ausf. G's were built all the way to the end of the war with the rounded mantlet F2.

**Step 13:** If you're going to close the turret opening of the close-defense weapon in Step 15 (part 29), save the weapon part B5 for your spare parts box!

**Step 14:** The anti-aircraft (AA) machine gun (MG) ring mount part B50 was installed on many of the commander's cupolas until the end of Jan '45.

NOTE: For the Late Panther kit, the model can be built with or without the ring mount part B50. This is shown as an option in the instructions.

**Step 15:**

Close defense weapon opening parts B28 or B29 – Either open or closed. See the note in Step 13 above.

Rear turret lifting ring part W13 or reinforced C32 – Check your references. I only found a few photos where I could see the reinforcement and they were on MAN produced Panther Ausf. G.

**Step 16:**

Turret spare track hooks MB1-2 or W5-8 – This round-bar stock design was a unit field modification. Check your references.

Turret foliage loops A2 or MB? – These were installed starting Jan '45 on MAN and MNH produced tanks. DB produced tanks had mounts for spare road wheels on the upper rear corners of each side of the turret and didn't get the foliage loops.

Tow cable eyelets parts K21 short or K22 long ferrules - Check your references. All of the photos that I have that show the ferrules clear enough to judge the proportions of their length look like the shorter K21 ferrules.

The late tow cable was 32mm in diameter and 8.2 meters long.

The early tow cable was 27 mm in diameter and 5 meters long.

Gun travel lock open part C18 or closed C7 – Self explanatory.

**Step 17:** No kit options identified.

**Final notes on camouflage:**

All three factories (DB, MAN, and MNH) had peculiar "styles" that they used to apply their factory camouflage patterns. These started in mid-Aug '44 when all factories were ordered to camouflage paint their tanks before sending them to

the ordnance depots to be issued to the troops. These Panther factory "styles" changed over the months from Aug '44 until the end of the war.

Also, each factory had "unique" locations where that factory stenciled the Balkan crosses. These cross locations varied from factory to factory.

So, when the camouflage pattern "style" is combined with the Balkan cross locations, the particular factory that built a Panther can be identified. This means that the factory modifications discussed above must be combined with the correct camouflage and Balkan cross locations to accurately model any particular Panther Ausf. G.

Unfortunately, no one has published a complete description of all of these camouflage changes in a single source. (Appendix 4 in "Duel in the Mists" is very good, but slightly incomplete in that the final two-tone hard-edged camouflage patterns are not discussed. Its authors deserve credit for being the first to identify and publish these factory "unique" camouflage styles and Zimmerit finishes.)

So, here's a synopsis of the Panther camouflage based on my interpretation of several sources of information combined into one location:

**a.** "Ambush" factory patterns starting mid-Aug 44 until mid-Oct 44:

Tanks were camouflaged with dark yellow ("Panzer Yellow") over primer red at all three factories with brown and green applied over the yellow.

**1)** DB used a three-tone "cloud" pattern with the brown and green sprayed over the yellow base. On top of each color, small "dots" of the other two colors were sprayed. This is the "classic" ambush pattern, but only used by DB.

**2)** MAN and MNH used a three-tone cloud pattern with the entire vehicle covered first in a cloud pattern of brown and green. (This might have been done over the primer red to save the effort and material of painting the entire tank dark yellow only to re-paint it brown and green). Over the brown and green, both factories used the "disk" stencils and sprayed the dark yellow spots onto the brown and green. Over these yellow spots, both factories added stripes and spots of dark yellow. This the "disk" ambush pattern used on MAN and MNH Panthers.

**3)** The use of the "ambush" patterns ended in mid-Oct 44.

**4)** The use of Zimmerit ended on 7 Sep 44. (Note each factory had its "own" Zimmerit patterns, too. But that's for another missive.)

**5)** Therefore, "ambush" pattern tanks with Zim were only produced for about 3 weeks and "ambush" pattern tanks without Zim were only produced for about 1

month. Total time that factory applied "ambush" patterns were in use was only about 7 weeks, ending in mid-Oct 44.

**b. "Classic" factory patterns starting mid-Oct 44 until 31 Oct 44:**

All three factories used versions of a three-tone "cloud" pattern of green and brown over dark yellow. The dark yellow was the base coat and was applied over primer red.

**1)** DB and MAN used spots, blobs, and irregular "tree" shapes for the three colors with the brown and green covering about 40% each of the area and the dark yellow covering about 20%.

**2)** MNH used wavy "diagonal" bands of each color running from side to side on the tank and generally oriented from the top-front down to the bottom-rear as viewed from either side. Again, the color ratios were about 40% each brown and green and 20% dark yellow. Some very late MNH Panthers have these diagonal bands applied very straight, almost like they were done with a ruler.

**3)** Many of the available photos seem to suggest that the dark yellow base coat was often "touched up" to make it stand out more, so that perhaps there was a lot of extra paint being used that was covered by successive color coats.

**c. "Classic" factory patterns starting 1 Nov 44:**

An order was issued on 31 Oct 44 to the factories to stop base coating the tanks in dark yellow and simply apply each camouflage color over the red primer.

All three factories continued to use the "cloud" patterns described in b, above.

**d. "Late" two-color factory patterns starting about Mar '45 (maybe earlier).** These are somewhat "controversial" and not completely agreed upon by the "experts."

The cammo colors were applied "hard edged" probably by hand brushing or very "tight" spray patterns.

Color combinations were either dark yellow and green or green and brown.

Color photos exist of the captured Panther Ausf. G in the Patton Museum collection from the 50's and 60's before it was repainted and was still in its original colors. This tank was produced by MAN in Apr '45, and it was clearly finished in a two-color brown and green cammo.

**Balkan Cross Locations:**

**a.** DB left-hand hull cross was applied under the wire-cutter stowage location until late '45 when they were applied to the rear of the gun-cleaning rod stowage tube. The DB right-hand hull cross was applied under the track-tension wrench / sledge hammer stowage location. The DB rear cross was applied to the port / left side stowage box.

**b.** MAN left- and right-hand hull side crosses were applied to the front corners of the hull in front of the side tool racks. The MAN rear cross was applied to the starboard / right side stowage box. MAN produced Panthers can also be identified by white block letter "A" on the starboard / right front of the gun travel lock mount (on a red primer patch) along with black stenciled "chassis" (Fahrgerstelle) numbers on the front glacis plates.

**c.** Some MNH regular Panthers and some MAN Befehlspanthers had their crosses applied to the turret sides. Whenever there are turret crosses, and the rear of the vehicle can be seen, there are never any rear crosses on the stowage boxes.

**d.** A large number of MHN Panthers were manufactured with no Balkan crosses at all. Also, a number of MAN Panthers with the "disk" ambush cammo were made with no crosses.

#### **Miscellaneous Panther Markings:**

**a.** When the newer cooling air fans (kit part D5) were installed, the air intake grate (kit part A9) was marked with a red cross.

**b.** Many Panthers were marked with capital block letter "G" on either the hull glacis front or on the left hull rear corner above the fender / Schurtzen location. There has been much speculation about these marks, and for my money, I go with the theory that the letter "G" indicated a vehicle that had "Glysanin" anti-freeze. These letter "G" marks are usually black, but occasionally are seen in white. They are also usually stenciled on, but are sometimes seen hand-painted.

**c.** Another somewhat common marking is to see the last 3 digits of the chassis number stenciled on each of the Schurtzen plates. This was probably for accountability (to keep the "midnight requisitions" at bay).

**d.** Panther tanks manufactured for IR use were supposed to have a capital block letter "F" stenciled at the end of their chassis numbers (for "FG 1250" the designation of the IR equipment).