

# Dragon 6565 Flakpanzer IV Ausf.G Wirbelwind w/Zimmerit

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[www.dragonmodelsusa.com/  
dmlusa/welcome.asp](http://www.dragonmodelsusa.com/dmlusa/welcome.asp)

Dragon has released the fourth in its series of German anti-aircraft Flakpanzers, this one sporting a molded-in coat of zimmerit, an anti-magnetic layer of paste added to the glacis, hull sides, hull front and rear plate. Based on the PzKpfw IV Ausf.G chassis, the Wirbelwind ('Whirlwind') utilizes Dragon's highly acclaimed 2cm Flakvierling 38 four-barreled main armament.

## The Kit

As usual with Dragon kits, once you open the box and take out the contents you will find it very difficult to get everything back in. Thankfully, for modelers, this is a good thing! As this is one of many PzKpfw IV-based kits produced by Dragon, many of these parts will go unused and into your spare parts box.

If you've built Dragon's 2cm Flakvierling 38 before, then you will already be familiar with this eye-catching assembly composed of slide-molded one-piece barrels with hollowed-out muzzles. Another superb design feature you'll find in this kit is the ultra-thin, two-piece, welded main turret, split vertically down a main seam and packaged with its own plastic support to prevent damage during shipping. The forward section of



## The contents of the box include:

- 2 front and back turret pieces packaged separately.
- 25 sprues in soft, light grey plastic, packaged separately.
- 2 lengths of yellow DS track
- 1 small photo-etch sheet, including an AA sight, and exhaust louvers.
- 1 8-page instruction sheet with 21 steps and four 3-view blue and white decal and painting diagrams.

the turret that covers the business end of the main weapon is a single piece of slide-molded plastic – and is without a doubt - THE MOST AMAZING PIECE OF PLASTIC I'VE EVER SEEN. On the down side, the wheels and tires are molded as one piece, a reversal of recent Mark IV releases, and Dragon has decided to provide single-piece DS 'rubber-band' track with the kit, even though it's excellent Magic Track would have better represented the 'sag' found on the German PzKpfw IV chassis. Still, the design and engineering are at the zenith of detail offered in armor kits these days – Dragon has produced another gem here.

## The Instructions

There are sprues from several different Dragon kits included in the box. There is at least one sprue from their zimmerit Brumbar kit (labeled B), as well as one from their excellent PzKpfw IV Ausf. H kit, several from a generic PzKpfw IV kit, and even one from their SdKfz 7/1 halftrack kit, presumably containing some of the Flakvierling parts. This is in addition to the sprues from their recent (non-zimmerit) Flakpanzer kit. As a result, there are some problems with the relationship between the parts map and the instructions. Some call out's for parts labeled with Z, for example, are actually found on the T and/or B sprues. Sprue 'S' is actually

'blue' B on the parts map, and callouts for 'F' parts are found on the 'V' sprue on the parts map. Needless to say, keep your unused parts handy, look at the images carefully, and test fit everything. Twice.

### Things to consider before starting:

Assembly sequence for this kit is as straight forward as they come. The track, wheels, turret, and main weapon can be assembled, painted and weathered separately and added as the last step, if desired. The fit of the main weapon inside the turret is tight but it is possible to drop the entire Flakvierling into the opening after painting. The sequence I used was as follows:

- I assembled the entire chassis, leaving off the turret/Flakvierling, the track, the antennae, and the two spare wheels & fastening bar (Part E25) that holds them in their box.
- I assembled the entire 2cm Flakvierling, leaving off the four guns and the four recoil shock absorbers (Parts G3).
- I assembled the two turret-mounted ammunition racks.
- I assembled the two turret halves, including the ring, front hatch and the two seats.

## The Build

### Front Hull armor plating and zimmerit parts

There is a zimmerit sprue labeled 'Z' in the kit, which is handy, but there are times in the instructions where identical (but non-zimmerit) parts from Sprue 'T' and Sprue 'E' are intermixed with their zimmerit companions. The first example of this is in Step 2, which brings the front hull plating together and, as far as I can tell, there is some kind of problem here. The v-shaped part (Z1) does not quite fit by itself as shown, leaving a large gap



underneath. It also does not have four guide holes that you are directed to drill out. Un-used Part E16 DOES fit, however, and has the guide holes. Furthermore, the instructions would have you glue a zimmerit part on top of another zimmerit Part (Z1 and T3) without guide holes. Bear with me. With all the parts in front of me, both zimmerit and non-zimmerit from sprues E, B and T and Z, I decided to do the following:

- Drill holes in (non-zimmerit) Part E16 and attach that to the main hull.
- Attach zimmerit part T3 to the front of that.
- Cut the lower portions off the zimmerit part Z1 and cover the lower portion of the non-zimmerit E16.
- Right or wrong, it looks fine and allowed me to move on.

### Rear Hull zimmerit parts

According to the instructions, the rear hull is made up of several parts, including Part T1, which you attach the muffler to. I got pretty far down the road here before I realized that there are three large holes to the left that would normally receive

the small turret traverse engine muffler. Apparently, according to Dragon, this is not the case for the PzKpfw IV Ausf.G-based Wirbelwind. The problem is, the holes are drilled out in all the various rear-hull parts provided in the kit. They are shown in the call-out diagram in Step 2 but are magically absent in the larger image. Not wanting to fuss with filling holes with putty or plastic in a zimmerit part, I decided to rummage through the unused parts, grab the muffler and attach it. The rear hull may not be accurate, but at least the holes are filled in!

### Assembling the remainder of the Lower Hull

Thankfully the rest of the lower chassis went together without a hitch. The fit and detail here is excellent. Beware of the placement of the Flakvierling mounting ring, Part D11. The Wirbelwind main turret ring is off-center to the top of the vehicle, and the gun mounting ring must end up centered under the main turret opening. I got this backwards and had to kit bash a replacement later on when fitting the guns.



Placement of Parts D24, D9 and D10 is vague and the fit uncertain. Look at the image in Step Eleven to see where to place these parts.

Make sure to attach the rear fenders (B4 and B5) AFTER attaching the fenders to the hull. They hook around the end of side of the lower hull before attaching to the rear of the fender.

### **Mating the upper hull parts and side fenders to the lower hull**

For the most part, the upper hull went together just fine. The upper hull is made up of the main deck and four zimmerit side pieces. These fit together beautifully – some really good engineering and design here. The instructions say to fill in two holes above the starboard-side shovel. Doing so amongst a coat of zimmerit is problematic however, so I just attached a second (unused) shovel above the first, filling in the holes.

In Step Ten you can attach the photo-etch screens to the air intakes, but unless you are going to open the engine compartment you won't see them.

Also – the two delicate posts that hold the tow cables break off almost immediately. If you want to show the tow

cables properly stowed you will need to replace these posts with sturdy wire.

Even though the upper deck went together well, attaching it to the lower hull uncovered a problem. The already tight fit was exacerbated by a thin layer of plastic on each side of the lower hull that prevents a proper seating, pushing the upper deck upwards in the back. Pressing the back portion down, a gap is then opened at the front. Searching for the unwanted 'fulcrum', I removed a little plastic at a time from each side of the lower hull until the upper hull slid and dropped right in.

### **Assembling the 2cm Flakvierling**

I've built this four-barreled gun system from four different manufacturers now, and I believe Dragon offers the best combination of design, detail and fit. There is only a single tiny piece of PE (the gun site), so the entire assembly is robust and can be fearlessly handled throughout assembly and finishing. Also, the guns themselves are very simple (three parts each) and can easily be slipped into their positions, making painting and weathering a snap. Finally, the detail is simply exquisite.

That said, there are a few gotcha's that you can easily avoid, and a design flaw that you cannot.

First – in Step Fourteen, the auxiliary arm (Part A4) is attached to the main arm (Part A36) – but don't glue it yet!. There is a long support rod (Part A45) that must be attached later, and this will require manipulating the auxiliary arm with the elevation of the guns to fit right. Review the diagrams carefully and decide A) what elevation you want the guns to be in; and B) how high the auxiliary arm must be swiveled to accept the support rod. A roll of Tamiya tape might be helpful here to hold things together while you test the fit.

Second – also in Step Fourteen, the port-side ammunition rack (Part A31) is shown attached to the side of the main weapon housing with an arrow pointing to a hole. Ignore that – look at the image in Step Fifteen – it shows the rack properly positioned to the rear of the hole.

Third – still in Step Fourteen, Part A40 is shown as being attached the outside of Part A18. This is not right – the fit can actually be described as 'within' Part A18. Carefully test fit here – the solution will reveal itself.



The above issues are all part of a problem with Dragon's instructions. The next issue, however, is a design (or engineering) flaw, in my opinion. There are four plastic ammunition racks that are designed to fit together like the fingers in a glove. The problem is, the parts will fit at the top of the rack, or at the bottom of the rack, but not both. Even sanding down the rough bumps and edges still results in uneven gaps and seam lines between the parts, especially after

receiving a dark wash. I applaud the decision to use plastic instead of PE here, but hopefully Dragon can come up with a new approach next time.

### The Track

The two runs of DS track are very thin and beautifully detailed. They are a chore to paint (why can't these come in any other color besides neon-yellow??) but slide on without any trouble. I used Tamiya Thin (Green Top) cement to attach them and this worked well.

### Painting and Finish

The Wirbelwind is a challenge to paint, as are all open-topped vehicles. Having experience finishing aircraft helps a great deal here, as the armor modeler's mantra of build-first-then-paint approach won't exactly work here.

First let's review the four schemes offered in the instructions – 'Unidentified Unit, 1945' (summer), 'Unidentified Unit, Alsace-Lorraine' (winter), 's.Pz.Jg.Abt.654, Belgium 1945' (winter) and 'Unidentified Unit Hungary 1945' (summer). I chose the second scheme since I wanted to do a winter 'hair-spray' finish on my Wirbelwind.

After completing the main assemblies (see 'Things to consider before starting', above), painting and finishing (more or less) followed these steps:

I airbrushed all of the subassemblies and the track runs with a pre-shade coat Tamiya NATO Black (XF-69). I normally precede this with a coat of Gunze Primer, but I felt that the fewer layers over the zimmerit, the better. Plus – there was very little photo-etch to worry about paint adhesion.

I followed this with a coat of Tamiya Dark Yellow (XF-60), building up the coat little by little so that the black would still show

through in the recesses. I painted all the subassemblies except the guns and recoil 'shock-absorbers'.

I dry-brushed the Flakvierling assembly, guns, shock absorbers and ammunition packs with Amblin Sliver Artists Oil.

I then applied a wash to the interior turret halves, Flakvierling assembly, guns, shocks, and ammo racks using a 50/50 mix of Raw Umber and Burnt Sienna Artists oils, diluting this mixture heavily with Mona Lisa White Spirit.

Next I attached the turret-mounted ammo racks and, once dry, the two turret halves. I let this dry overnight so the bond would hold up to handling during painting and weathering. The fit of the turret halves wasn't perfect – the thinness of the plastic not affording much in the way of surface area for the glue to take hold. Patience, however, produced a good bond here with several applications of Testors 'Black Bottle' cement.

I attached the guns and shocks to the Flakvierling assembly and then test-fit the whole thing down through the turret to see if I still had room. Just enough – and I mean JUST! I pulled the Flakvierling back out and set it aside. That, and the turret interior, were done and would be slipped back in after everything else was done.

I spot-painted the track runs, the turret and the main deck with Tamiya Hull Red.

I then spot painted the turret and the main deck with Tamiya Dark Green.

Once the paint was completely dry, I air-brushed two heavy coats of hairspray, followed by a 'splotchy' pattern of Tamiya Flat White (XF2) over the upper deck and the turret, leaving the lower chassis and muffler alone.

Using a soft brush, I wet sections with water and, after about five minutes,

slowly worked off some of the white paint until I had the effect I was looking for.

I then hand brushed some Future acrylic on to the four areas that would receive decals.

While the Future dried, I took a little Mig (P230) Old Rust pigment and a drop of Mig Thinner for Washes and created a slurry of sorts and painted the two mufflers in the back. Once that was dry I rubbed the pigment in a downward motion using a stiff brush to allow some of the yellow color to show through from underneath.

I followed this by adding a filter of Paynes Gray to the rubber portions of the wheels and the extra track. I heavily thin all of my washes and filters with Mona Lisa White Spirit.

I painted the jack block Vallejo New Wood and the wooden handles of the appropriate pioneer tools Vallejo Old Wood. I painted the fire extinguisher Vallejo Yellow Olive, and all the steel parts Vallejo Oily Steel. For the hand painting I mix a tiny bit of Vallejo Slow Dry and water with each color until it flows smoothly off a 00 Liner Red Sable brush.

To give the wooden parts of the pioneer tools more depth, I brushed on a little Mig Wash Brown Oil and let that set for 20 minutes. I then carefully removed most of the brown oil paint using a brush dampened with Mona Lisa, leaving the areas near the buckles and metal parts darker than the wooden shafts.

I applied the decals for my scheme using the Red and Blue Micro Sol/Set system without any problems. They snuggled down into the zimmerit just fine.



Once dry, I hand-brushed another coat of Future over the decals to seal them.

I then gave the vehicle a pin wash using Mig Dark Wash (aka Raw Umber).

I worked a slurry of Mig Russian Earth and Mig Thinner into the areas behind the bogies, and then took a little off in the open areas using plain Mig Thinner.

I then added some oil stains here and there using Tensocrom Oil.

While the oil paints were drying, I brought out the detail by carefully dry-brushing all the protruding bits with Amblin Sliver Artists Oil.

I followed this with a 'road-dusting' coat of Vallejo Model Air Light Brown and then shot the whole vehicle with Vallejo Flat Varnish to kill any remaining shine. I cut each of these 50/50 with Vallejo Airbrush Thinner to improve flow.

Finally, I applied a light dusting of various Mig pigments, light earth tones for the body and wheels, dark rust and black for the track.

I finished by attaching the antenna and dropping the Flakvierling down into the turret and spot-gluing where needed.

### Conclusion

I always look forward to building a new Dragon kit. They have really great subjects and the engineering and detail is a bargain for the price. Dragon, it seems, will always have problems with instructions – but that aside, this kit is really a nice piece of work. The chassis you've seen before if you've any of their recent PzKpfw IV-based vehicles. The beautifully molded turret and 2cm guns are things to behold.

I recommend this kit for average to experienced modelers. Go slow, pay attention to the instructions, and use the suggestions included above. This kit trumps all Wirbelwinds that have gone before it!

I would like to thank Dragon Models and Dragon USA for providing this kit for review, and to IPMS USA for giving me the opportunity to build it.