Dragon Sd.Kfz.10/4 fur 2cm Flak 30 w/Ammo Trailer

by Eric Christianson,
IPMS # 42218

Scale: 1/35
Company: Dragon Models
Price: $58.99
Product/Stock #: 6711
Website: Dragon Models
Product Web Page: View
Product provided by:
Dragon Models USA

Dragon has expanded their family of Sd.Kfz.10/4 utility halftracks to include a new version towing a standard ammunition trailer. This fully detailed kit sports an engine and gearbox, with an open passenger compartment and pose-able hood panels to expose these beauties. Upgraded road wheels and Magic Tracks have resulted in a spectacular halftrack/ trailer combination. The kit comes with an array of new parts like the loading ramps which can be either assembled for dismounting the gun in the rear or attached to the front of the vehicle.

The contents of this box include:
Lower body, packaged separately
11 sprues in soft, light grey plastic, packaged separately
1 clear plastic sprue - includes windshield, complete with clear frame
1 set of windshield masks, inside and out
1 photo-etch sheet, including mesh deck side and rear panels
1 set of Dragon MagicTrack
1 10-page blue and white instruction sheet with 30 steps

Background

Germany fielded a wide range of halftracks during WWII. The Sd.Kfz.10, one of the lighter types, was conceived as a prime mover for small towed guns such as the 3.7cm PaK 36. Measuring 4.5m long and weighing 4.9 tons, this Demag-designed vehicle had a 1-ton payload capacity. Around 14,000 Sd. Kfz.10 halftracks were built from 1938-45. Several specialized vehicles were based on this halftrack design, among them the Sd.Kfz.10/4, the subject of this kit. This type had a platform on the rear for carrying an antiaircraft 2cm FlaK 30 cannon. The purpose-built platform had fold-down sides and rear for the seven-man crew to serve and traverse the weapon. The Sd.Kfz.10/4 was used by both the Wehrmacht and Luftwaffe, and commonly pulled a two-wheel trailer containing ammunition.

Opening the box

There are a lot of parts in the box, especially for such a small vehicle. I must say, however, that this kit has some of the finest molding that I've seen coming out of Hong Kong. There are many parts so delicate that I feared breaking them while handling the sprues. To Dragon's credit, no parts arrived broken or damaged, and I managed to get through everything without breaking anything myself.

Another item of note, which is new: Dragon has thoughtfully stamped each section of each sprue with the sprue letter (A, B, C, etc.). For example: Sprue 'A' has six separate sections, which are (now) all stamped with 'A'. With the way I build models, this has been a tremendous help in distinguishing the many sprue sections, especially after I am well into the build and the sprues have become barely recognizable. Bravo Dragon – great idea.

The kit comes with two finishing schemes represented, both German Grey, using blue-and-white ink three-view drawings; and a small (but perfectly registered) sheet of decals from Cartograph of Italy. These units include:

1. Unidentified Unit, 1939
2. Unidentified Unit, 1940

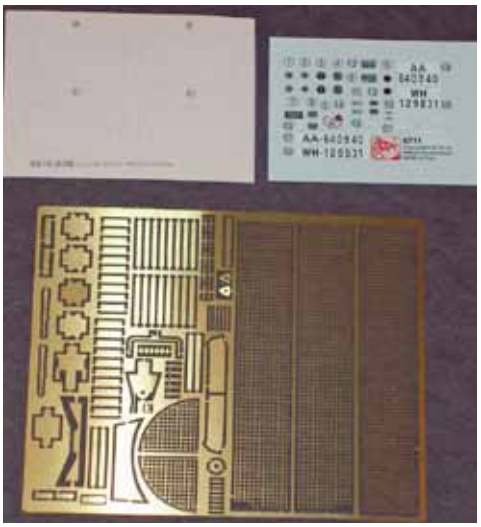
Several websites for this kit clearly shows a PE gun shield in Kit 6711, but no such part was included in the kit.

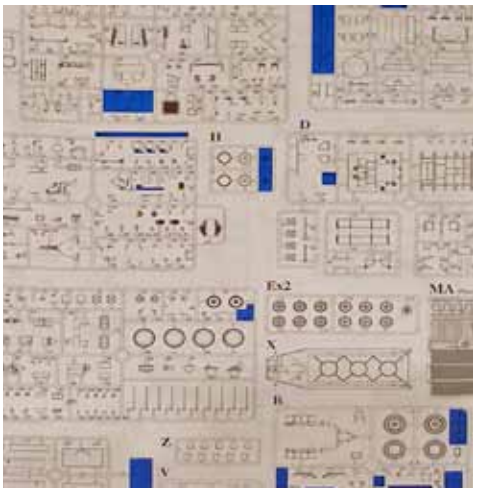
The Instructions

This is a 'fortified re-box', containing sprues from several different Dragon SdKfz 10/4 and 10/5 kits, which sometimes leads to inaccuracies in the instructions. The issues encountered have been noted below (see sections labeled 'Errata').

One of the sprues ('Black' D) shows as (mostly) being used in the Parts Map, but the instructions use only 4 pieces from it. All the rest are actually not used (47 pieces). This is the first time I've seen that happen for a whole sprue in Dragon kits.

Apparently, some of the images have come from other kits that contained slightly different versions of the parts. For example, PE parts that appear in the instructions (Step 8) were not included on the sheet provided. And, in several places, the parts in the images do not match the parts in the kit (ex. A28, A31, B11, and where assembly 'B' joins the sides, etc.). Dry fit everything!





Things to consider before building:

The SdKfz 10/4 is an 'open cockpit' model, meaning that wandering eyes will explore every exposed nook and cranny, and you have to plan for that. I assembled the entire vehicle and trailer, including the track, leaving off the following parts to be finished separately and then attached at the end of the build:

1. Front wheels and trailer wheels.
2. Bucket seats.
3. Steering wheel.
4. Rear-view mirror and windshield wipers.
5. Starboard side hood panel (so the engine could be exposed)
6. Rifle racks

One of the great things about Dragon models is that there are always options to open things up to expose detail. I chose to drop one side panel on the rear deck, open the engine hood on one side, and open the trailer. If you choose to build either of the side panels up, you will need to move the adjacent seat cushion(s) slightly inboard from where the instructions tell you to put them in order to make room for the bottom of the panel (see Step 14). Dragon expects you to build the panels deployed in the flat position.

The Build

The Lower Chassis and Running Gear

The assembly of the lower chassis went together relatively well, with slight fit problems when assembling the 3-part drive sprockets and later, with Parts B18/B19 and the 10 torsion bars. With the bars, there is no detent to let you know the correct 'slant' angle of the axles, nor is there a decent image of the correct positioning. I simply guessed and made them all the same, hoping that the track will fit around everything later.

The seam lines down the middle of the two front tires will have to be addressed without losing too much tread pattern.

Errata: Part A20 is not identified – that's the part between A19 and A21 in the image in Step 2.

The Engine and Transmission

Dragon included an impressively detailed engine and transmission in the kit. The fit of the engine parts is excellent, and there is enough detail to warrant posing the hood parts open, which is what

I did. The five-part belt and pulley assembly is finicky but worth the effort in the end.

The transmission looks very nice when done, but the images in the instructions leave much to the imagination regarding the correct placement of parts. Arrows simply point to 'here' for attaching significant parts. I found that gluing Parts B12/B13/B43 and A36 before everything else helped. After that, I just stuck things on where they looked like they should go. I suggest leaving Parts B2 off until later. The illustration in Step 8 helps, but only from one angle.

The fit of the dashboard and driver's console is excellent, and detailing the dials and gages can be left until later since you will have complete access to this area.

Everything comes together in Step 8, and the fit of the major assembles is really good, but the instructions will run you awry. To save you some grief, I suggest proceeding in the following order:

1. Remove the four tabs as show in the illustration.
2. Attach Parts B20 and B21 to the inner chassis.
3. Drop in the driver's console (Assembly K)
4. Drop in Part B27.
5. Drop in the Engine (Assembly F)
6. Attach (2) Parts B2 to the Transmission assembly.
7. Drop in the Transmission (Assembly J) and push Parts B2 into place.

The running gear went on relatively well. There is always a bit of coaxing to get things to line up while the glue dries. Fortunately, the task is simplified since the 10/4 halftrack is so small; the clearances between the wheels are pretty tight.

Errata: Part B55 is used in both Step 8 and later, in Step 11. One of those two is supposed to be marked as Part B54. They are different looking parts, but perform similar functions. I don't know which one is right.

The image in Step 8 shows 6 photo-etch parts (MA-6) being added to the outer wheels, but the parts are not included on the single PE sheet.

The Front End and Drivers Compartment

Step 9 brings us to the hood and bumper area. All I can say is that the two hood parts, front grille and two side fenders fit perfectly – an area that, many times, causes a lot of grief. The two fenders fit so well that you can use gravity to

hold them in place while applying glue. Nice. I left one side of the hood up to expose the 'busy' half of the engine.

Dragon thoughtfully supplies adhesive paint-masks for both inner and outer sides of the sturdy windshield, although the masks are not mentioned anywhere in the instructions or parts map. I dipped the windshield in Future and applied the masks, leaving the mirror and wipers off until later when the masks come off. (Note: After painting the frame, I removed the masks and re-cut sections to fit the arc of the wipers and re-applied them for weathering.)

In Steps 10 and 11 there are several vague arrows pointing to where some pretty significant parts must be attached. Just look at where the shovel goes to see an example of what I mean – there is no way it fits on the round surface of the fender, as shown. After a lot of head-scratching, it appears that

parts are shown being attached before the parts they are attached to even exist. Here is the sequence I suggest you follow:

1. Assemble Parts A5/A6 and attach the assembly to the inside of Part A30.
2. Attach Part A30, A39 and D16, in that order.
3. Attach the remaining Parts in Step 10.
4. On the other side, in Step 11, glue Part A64 to the side of the vehicle, and then glue the A29/A65 assembly to Part A64.
5. Attach Part D15 and then the remaining Parts in Step 11.

Important: In Step 22 you can attach (empty) rifle racks that just fit over the pioneer tools you just installed. If you glue the shovel and/or the pick axe one millimeter too far inboard or out, the rifle racks won't fit. I suggest you dry fit all of these parts first.

The PE baseplates for the two curb warning rods do not have plastic alternatives, unfortunately, and they do not have any specific location provided, other than an arrow pointing to the fenders. These need to line up symmetrically, so care should be taken positioning them and the angle of the rods they support.

Errata: In Step 10, the windshield is shown slipping into Parts A74/A75 on each side of the frame. Even though these parts are shown in the images as far back as Step 9, they are not attached per the instructions until Step 11.

The Rear Deck

The biggest fit issue of the build so far involves attaching the rear deck to the vehicle superstructure. The problem is that the large cabinets (Assemblies B36 and B11 from Step 7) sit slightly proud of the surface of the rear bed, keeping the deck from seating properly up front. I had to do some surgery to the deck to

allow it to hunker down correctly. To this end, I suggest the following sequence in Steps 12 and 13:

1. Attach Parts D45 from Step 13 to each side of the vehicle.
2. Attach the frame (Part D11) to the deck surface (Part D9).
3. Attach the frame and deck assembly to the vehicle. This way you can solve any fit problems without bringing the fiddly into harm's way.
4. Attach Part D1 to the deck.
5. Attach the remaining Parts in Steps 12 and 13.

Errata: The image in Step 12 shows some kind of detail hanging off of Part D6. A quick search through the sprues uncovers the winch mechanism that the main gun baseplate attaches to (Part D13). You'll need that part later.

The image in Step 12 calls out a drop-down mud-guard as Part D14. The part in the image, however, is Part D5 on the blue (B) sprue. What's more, (Blue) D5 is not on the Parts Map at all. The number is there, but not the part. This is important if you are going to pose the port-side panel up, as I did, because only Part D5 has a notch in it to accept the panel's rear strut.

The Track

Unfortunately, Dragon has decided to go with MagicTrack instead of DS track in this kit. I am a big fan of both types of their track – they are quite literally the reason I started (and continue) to build armor models. But for this kit, I feel DS would have been the better choice for two reasons. The first is the size of the links, which are small, and tend to move around a lot during assembly. The second reason is that this particular track has to be assembled with the uneven side down, so you can attach the track pads, which come as separate pieces. Strange, because Dragon's recent kitting of the Kettenkrad uses even smaller track of the same design, but comes in plastic DS runs.

I solved the problem by using a scrapbooking product called 'Wonder Tape', which is a slightly tacky, two-sided, spongy tape that has just enough push in it to hold on to the rough side of these links. You can find Wonder Tape at any well-stocked craft store. I stuck the 1/8th inch-wide strip of tape on a glue-proof surface, about ¼ inch above and along a 12-inch ruler. After laying out the links for one side, I applied two drops of Model Master 'black bottle' slow-drying cement to the area that would receive the pad on each link in the run. I then went back and dropped on the pads and let that sit for about 20 minutes. I then took a razor blade and slid it under the run to help it off the tape and draped it on the vehicle. One more session for

the other side and I was done. Nice. I wasn't real happy with the fit of the pads, so I decided to painstakingly remove the two pins from the back of each pad for the second run and things seem to go better.

Dragon has provided 101 track links and 104 track pads in two unlabeled baggies. The links have some flash on them but it doesn't seem to get in the way of the fit (which is fortunate, since I don't know how you would be able to remove the flash anyway). The instructions show that 42 links are required for each side, leaving 17 unused links, and 20 unused pads. I wanted to show some 'track sag' on my vehicle, so I tried adding an extra link per side but found that the 42 links specified by Dragon was spot-on.

The Droppable Panel Sides

The three panels (right, left and rear) sport photo-etch mesh, studded with ammunition cases and their brackets. The PE mesh provided for the rear panel is waaaay too wide, by just under a half-inch. Since the mesh has a visible bar down the middle of it, I had to trim each end equally to get a piece that would fit the rear panel – which ended up being six columns of mesh from each end. The other two pieces (for the right and left panels) fit perfectly.

I wanted to display one side down, and the other side (and rear panel) up, so I did not need the rounded corner sections that Dragon provided if you want to build the gun deck with all three panels down. It is not clear where the rounded corner sections would be stored when the vehicle is in travel mode? To build the side panels up, you will need to move the adjacent seat cushion(s) slightly inboard to make room for the bottom of the panel(s).

Assembly of all three sections went relatively smoothly, considering the amount of photo-etch involved.

The Main Weapon and Final Assembly

Steps 15-21 focus on assembling the 2cm FlaK 30 cannon. This gun is sold separately as a complete kit by Dragon so my expectations were high. There are a lot of small plastic and PE parts here, yet with all that detail, Dragon

chose not to include a PE gun-site in this kit. The instructions walk you through a number of sub-assemblies, and it if you go slowly and let each subassembly dry thoroughly, everything comes together pretty well. I appreciate Dragon's crisp, slide-molding technology – I feel that plastic is easier to work with than turned aluminum or brass.

In Step 22 Dragon provides rifle racks for each side of the front end, but no rifles to put in the racks. I searched my spare parts box and came up with six German rifles for the racks. Each rack had to be painted separately since they cover detail that must be painted before attaching them. Unfortunately, my racks would not fit over where they should go since the pioneer tools under them had dried fast to the fenders. I'll keep the racks handy for some other build.

Errata – Parts A65 and A70 are reversed in the instructions. In Step 15 you might wonder why the baseplate you are working on looks nothing like what is in the image. That's because the top of the main baseplate (Part Blue A77) is not called out in the instructions, yet magically appears in the image. Attach that part to the frame (Part Blue A22) first and you're good to go. (Don't glue it if you want to position the weapon along its horizontal axis later).

The Ammunition Trailer and Loading Ramps

Steps 23 through 30 bring the ammunition trailer and loading ramps together. The undercarriage in Step 24 came together beautifully due to some pretty spectacular slide molding. The ammunition cargo box, on the other hand, had fit problems and was saddled with some significant errors in the instructions. In the end I managed to cobble together a reasonable facsimile, but don't look too close. Dragon does not provide any content for the trailer so I went to spares box for that.

Dragon provides two loading ramps with the kit that are used to load and unload the 2cm Flak 30 weapon. The ramps can be modeled in a deployed configuration as well in 'travel mode'. They come together perfectly and if you choose to put them up front, the brackets can be adjusted to fit exactly where you want to attach them.

Errata – Parts B35 and B15 are reversed, or the image is wrong. Parts K3 and K4 are not drawn correctly – actually upside down and backwards. These two sides don't fit around the floor (Part K11) anyway, no matter which way you go. Part K5, if installed as shown, will not line up with the brackets B18/B19 to receive Part B11. I'm not sure how it would fit regardless of how it is installed since lining it up would cause the two pegs in the rear of the box from fitting in the receptacles made for them. I clipped a corner portion (with the hole) out of Part K5 and simply glued everything in place, discarding Part B11.

Painting and Finish

The SdKfz 10/4 offers some tricky steps in painting and finishing, especially if you want to leave the hood and other panels open. I painted several parts separately (see "Things to consider before building", above), and attached them after painting but before weathering. Otherwise, the kit can be completely assembled before painting.

Primer and Pre-Shade

I started by airbrushing a primer/pre-shade coat of Gunze Mr. Finisher 1500 Black to give the plastic and PE some grip for the following coats, and to fill in the recesses and create a shadow effect near the flat surface edges, adding depth for the subsequent coats to come. I really like Gunze's new product – it goes on beautifully and it combines what used to be two coats of paint applied in two painting sessions all into one. I allowed that to sit overnight to de-gas.

Using Vallejo Paints with a (syphon-feed) Pasche H Airbrush

I used Vallejo Model Air colors on my halftrack, in my continuing transformation over to true acrylics. I went through

a bit of experimentation up front, but eventually found them to spray beautifully once I dialed in the right setup and thinning ratio. To do that I had to throw out most of everything I had been told since very little of it worked for me.

First, I dialed the pressure up to 20-25lbs (Vallejo recommends 12-15lbs). I think the higher pressure is needed because I use a siphon-style airbrush (Pasche H) as opposed to a gravity-feed airbrush. Once I did that, the spray pattern evened out and I lost the scatter-shot look of the paint on the surface.

Next, I found that using very thin paint worked well and (almost) never clogged. A Q-tip wetted with Vallejo thinner was kept nearby during my painting sessions for knocking off the little 'paint clod' that would form on the nozzle tip when minor clogging did occur. I found that I needed to thin their Model Air paint (which supposedly comes already thinned) roughly 2:1, thinner to paint, and used small batches to achieve a near-perfect session. So, 5 drops of paint to 10 drops of thinner for small jobs, 15 drops of paint to 25 drops of thinner for larger jobs. Anything more than that and the brush seemed to 'fatigue' and clog more often with dried paint.

Also – cleaning the airbrush became a must-do chore afterwards, which is a break from using other paints when I just blew some thinner through the brush and put it away.

On the flip side, Vallejo paints are odor-free and allow me swap my heavy, uncomfortable vapor mask I use with distillate-based paints for a simple painters (particulate) mask.

Camouflage

I followed the pre-shade coat with Vallejo's three-color German Yellow recipe of Dark Yellow (71.025), Sand Yellow (71.028) and Sand (Ivory) (71.075), applied in that order. What starts out looking yellow-green ends up as a nice, light, German yellow. I worked each color from the center of the panels outward to preserve some of each color showing through from underneath. Some parts I left the original dark yellow and some parts were nearly ivory-white, depending on where I thought the sun would hit, achieving sort of a forced-color perspective (called 'color modulation' now in the industry).

On-Board Tools

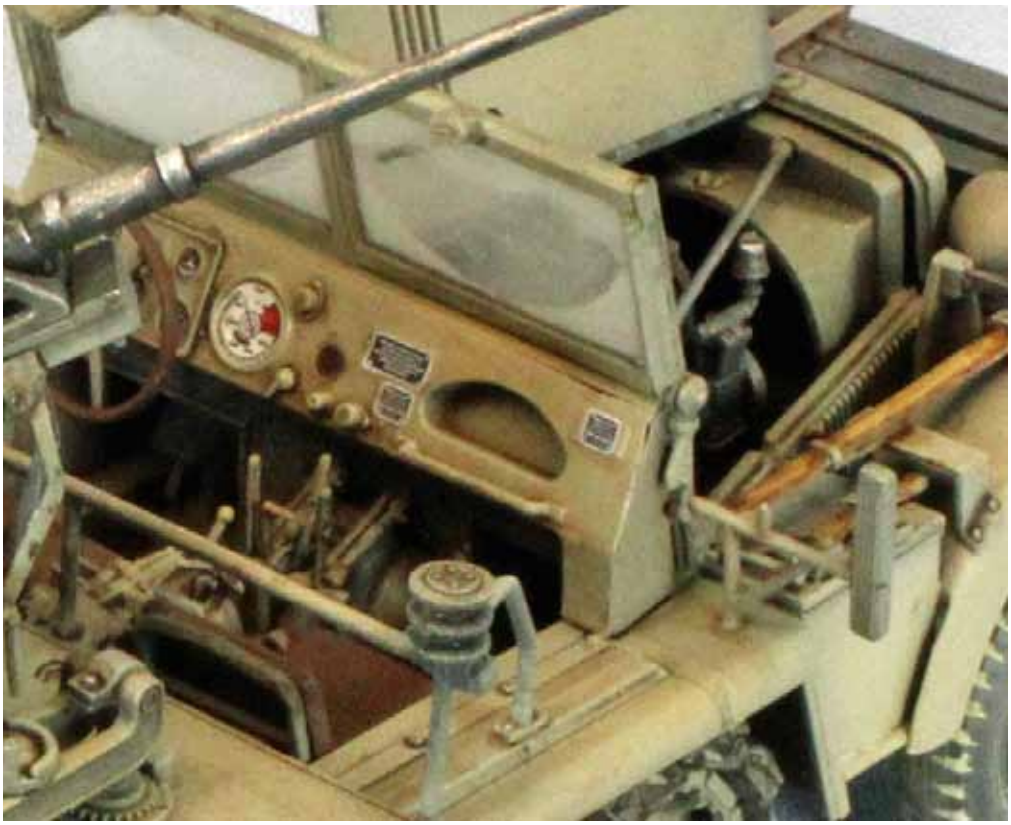
(Note: For hand-brushing Vallejo paints, I put a drop of Vallejo Slow Dry and a drop water onto an old CD and then

single drop of all the colors I need. I mix the colors with the water and slow dry until the paint flows smoothly off a red sable brush.)

I painted the wooden portions of the pioneer tools with a mixture of Vallejo Panzer Aces New Wood (311), Old Wood (310) and (Model Color) German Cam Medium Brown (70822). I painted all the steel parts Vallejo Oily Steel. I then added a wash of Mig 110 Black. To give the wooden parts of the tools more depth, I brushed on a little Mig Wash Brown oil paint straight from the tube and let that set overnight. Don't let this paint leach out its oil beforehand, like you would when you are using oils for dry-brushing. The oil helps it stay workable. In the morning I carefully removed most of the oil paint using a brush dampened with Mona Lisa Paint Thinner, leaving the areas near the latches and metal parts darker than the center of the wooden shafts. I then let a little black wash puddle up on the horizontal surfaces of the metal axe and shovel heads. When dry, I think this gives them a convincing look of used steel.

Other details

I painted the metal surfaces of the engine, the 3.7cm PaK 36, and the trailer contents Vallejo Oily Steel, following by a wash



of Mig 110 Black and Mona Lisa. The tires received a coat of Model Master US Army Helo Drab followed by a treatment of Mig PO27 Light Dust Pigment. The eight seat cushions were painted using Vallejo Panzer Aces 'Leather Belt', followed by a dusting of Mig PO27 pigment.

Decals

I hand-brushed the areas that would receive decals with Future acrylic to give them a smooth surface to set up on. I applied the decals using the Red and Blue Micro Sol/Set system without any problems, followed by an additional layer of Future to seal them.

Finish

Before applying an overall coat of Future, I applied a filter of Mig Wash Brown while the surfaces were mostly still flat, and used AK Interactive Track Wash on the track. I thin all of my washes and filters using Mona Lisa Odorless Thinner, which will not affect underlying layers of paint. Once dry, I airbrushed a coat of Future over the entire vehicle to set it up for a pin wash using Mig Dark Wash (aka Raw Umber) straight from the bottle and a small red sable brush, concentrating on the panel lines, recesses, buckles, pioneer tools, etc.

Road Dust and Final Assembly

Finally, I applied a 'road-dusting' coat consisting of Vallejo Model Air Sand (Ivory) (71.075), followed by a coat of Vallejo Flat Varnish to kill any shiny spots still remaining. I cut each of these 50/50 with Vallejo Airbrush Thinner to improve flow.

I attached the separate pieces and this little guy was done!

Conclusion

Building this kit was a challenge, a lot of that having to do with the poor instructions. At the same time, there were a large number of very small parts, and a lot of photo-etch parts without plastic alternatives. One of these challenges by itself would be ok, but all three together translate into a build that I would highly recommend, but only to experienced modelers. There is a lot going on for such a diminutive subject.

On the positive side, Dragon kits are simply amazing – the detail, the design and engineering, the subject matter, DS and Magic Track, opening hatches, slide molding… they produce some of the very finest models in the industry. That's what keeps me coming back for more.

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