

FROM TOY TO MODEL

RENFE SERIES 303 SWITCHER LOCOMOTIVE



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During my childhood, I grew up in a neighborhood next to my town's main train station. At night I could hear the horns of the freight trains and during the day I often went with some friend to play by the tracks near the station. Playing among the rusty and greasy freight cars was really exciting; we ran away when we heard the 303 series locomotive arriving to haul the rolling stock. The engine has a deep and distinct growl, like an old bear. I clearly remember how large the black plumes of smoke were, disproportionate to the small size of the locomotive itself. Through all these years, that dirty engine has been in my memories, and today, at 45 years old I still can remember that locomotive as clearly as when it was in front of me. It's amazing how I can even recall every shade of grease and gunk, just like the first time I saw it.

This issue of TWM has allowed me to bring back these indelible childhood memories. This project was made possible thanks to some friends from Zamora, that kindly gave me permission to publish their photograph of a RENFE (Red Nacional de los Ferrocarriles Españoles - acronym for Spanish railway network) 303 series road switcher from the same model and era, and the excellent model from Electrotren.

This particular engine is the perfect platform to show how a pre-assembled and pre-painted train model in HO scale can be converted into a lifelike replica of the real locomotive. The Electrotren model can be considered a die-cast in the broad sense of the term; although the frame isn't made of the typical injection molded metal alloy used in those type of kits, it comes painted and assembled like die-cast models. The model includes numerous metal, plastic, and clear parts, and the level of detail in general is quite high.



Before



1 The 303 series comes in the usual boxing style of most HO scale (1/87) models, very well protected and packaged. An essential measure, as the model is extremely fragile and delicate.



2 A stout plastic blister protects the model from bumps and shocks, a typical solution found in pre-assembled die-cast replicas.



3 We get an accurate 303 series machine straight out of the box. Nothing to add or paint: simply perfect for our purposes.

Mod. ELECTROTREN RENFE 303



After



It will be necessary to disassemble some parts in order to ease the weathering process. It's very simple to do and we won't need to remove the electronic components.



The most important area that must be removed is the upper body to prevent the washes from seeping inside the electronics by capillary action.



The first step will be applying various washes with a dark color to the entire model. AMMO products are enamel, but they don't damage the surface or attack the factory-applied paint.



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The cabin roof is disassembled to make the painting much easier.



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Once washes have been applied to all the surface details and panel lines of the model, we let it dry for a few minutes without touching it until it's dry to the touch (as soon as it's no longer shiny).



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The barely dry enamel product allows us to remove the excess wash very easily by lightly passing a make-up sponge across the surface.

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The next step involves another essential product for train models, ENGINE GRIME which realistically imitates grease and gunk. The dark enamel color is airbrushed onto the lower areas and horizontal surfaces.





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Once applied, any excess is lightly wiped off with a make-up sponge once again. Next, we apply a clear matt coat to the entire model with AMMO Matt Lucky Varnish. This acrylic product is applied directly from the bottle without diluting.



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Now we have a nice matt surface onto which we can add earth and dust color pigments.



15 The pigments are randomly applied to the same lower areas and horizontal surfaces.



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16 17 Then we moisten the pigments to distribute them over the surface. The Odorless Thinner can soften the varnish if the coat is very thin and we flood the surface with thinner. If you're not experienced with the product, I'd recommend to use water instead, as there is no risk at all of the varnish being effected.

18 Once the pigment has dried, the color becomes more natural and the effect integrated into the finish. And now it's time to apply yet another matt coat.





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Oil paints are used to emphasize the dust effects. AMMO Oilbrushers are very easy to work and dry to a matt finish. The paint is first applied with a fine brush and then we blend it using Odorless Thinner.



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Now using the sponge one more time, we apply a mixture of rust colors to represent rusted and damaged spots. We can use various tones in different areas for added visual interest.



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It's time to add more washes to accent all the details that have been 'softened' during the previous steps, especially door and panel lines which require lots of depth and contrast. You can use the same wash color we applied in the first step.

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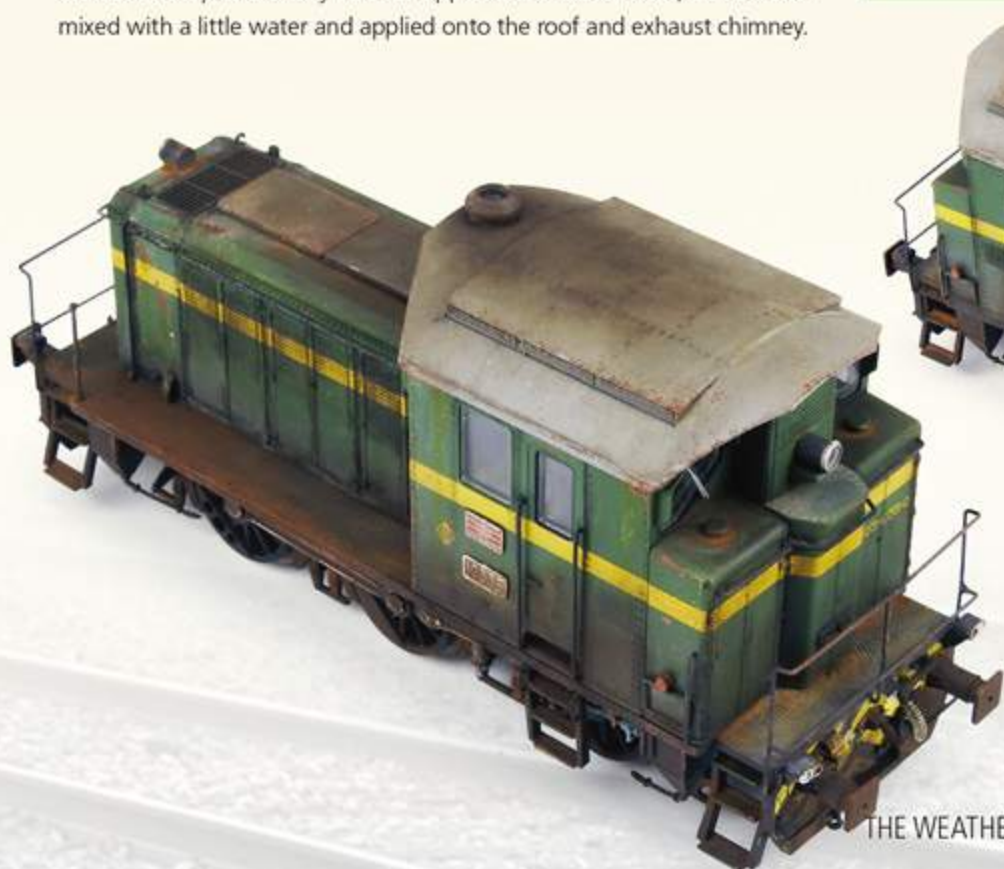
25 26 27

The enamel product Light Rust Wash is added to the lateral platforms in order to tie in the rust chips we applied before.



This is one of the easiest and most fun steps in the entire process. The pigment Metal Slag is perfect for lots of effects on railway models; it creates a unique and very realistic appearance. In this case, it has been mixed with a little water and applied onto the roof and exhaust chimney.

The same pigment suspension is also added to the buffers and couplings.



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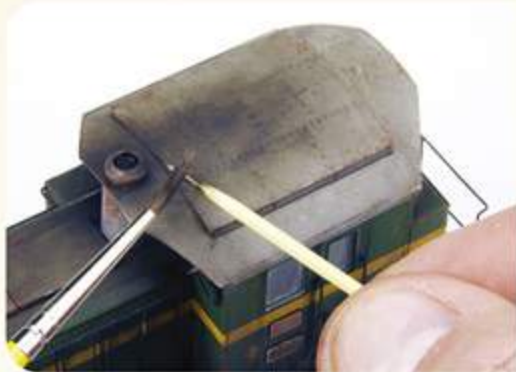
Once the water dries, we can retouch the pigments with a sponge. The resulting effect is extremely realistic and lifelike.



32 33 Use a light rust pigment tone to enhance and add contrast to some parts of the side platforms. A few touches will be sufficient to add more variation.

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The single most important step is the application of oil and grease splashes and stains. It's essential to make some tests on an old model, a piece of scrap plastic, or another inexpensive material before adding the effect to the model. The product Fresh Engine Oil is the most appropriate for this, as it realistically depicts the glossy texture of oil and grease on machinery. Add a small amount of thinner to avoid a glossy finish.



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We dip a small brush into the enamel product and then use a toothpick to pull the bristles back and splatter the color over the roof, creating extremely realistic tiny droplets. It's better to do a few splashes first and repeat the process if you want a more intense effect, because it's easy to overdo it if you're not careful.

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The grease accumulations on the engine doors have been applied in two separate steps. First, we add just Fresh Engine Oil diluted with a little Enamel Odorless Thinner if necessary. Apply the color only to the door's lower parts in an irregular pattern.





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We can also add some stains with the same product on the center of the buffer heads and their moving parts.



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Finally, we have mixed the oil and grease product with black pigment and the resulting mixture is applied to the same areas in order to add texture to the gunk, creating a more realistically nuanced appearance. The edges must be blended to avoid a stark demarcation and tide marks; it's as simple as using a little thinner to feather the edges. Once dry, the effect is strikingly realistic. If you want a more shiny finish, simply add a few extra touches of Fresh Engine Oil without pigment.



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Special thanks to the guys at www.TrenZamora.es

Before



After



Before

