Finishing Wheels of Time detailed acrylic polymer vehicles from Shapeways

These parts are made of UV cured acrylic polymer. They will require removing any waxy substance on surface of model, light sanding, priming, and painting. You will need Simple Green, toothbrush, warm water, hobby knife (X-acto no. 16 blade), 400 wet-dry sandpaper, gray primer (Tamiya or equivalent), painting gloves. Optional: ultrasonic cleaner, sanding stick, files.

Simple Green will nicely dissolve the waxy substance on the model.

1) Pour some Simple Green in a container with some warm water. The more concentrated the solution is the faster the waxy substance will dissolve. However, Simple Green may negatively affect small parts by leaving it in for too long. Using a toothbrush, gently brush the model. Extra gentle brushing in pockets or recessed areas including where the axle and body meets. The wheels should rotate smoothly after all the waxy substance are removed from the axle.

2) Rinse with warm tap water. You may need to do this a couple of times to get all the waxy stuff off.
3) After the final rinse with water, let it dry.
4) Spray primer. You will notice areas where the part will need to be lightly sanded.
5) Using a sand paper; lightly sand with a little bit of water. The objective is to remove any unwanted lines and high places, and letting the primer fill in the "valley". Be sure to watch the edges and not round them. Folding the sand paper gives the paper some rigidity. See photo.
6) With a knife gently scrape at a slight angle in the direction away from the edge of the blade. In this manner, the part can remain "square" as you eliminate any unwanted lines. See photo.
7) Repeat steps 4 - 6 until you are satisfy.

8) Paint with your favorite paint. When delivered these 50/60/80 series work trucks have black wheels (hubs).
   Paint the tires with a paint brush. Using the paint brush rotate the tires to gain access to all areas of the tires.

Some common paint colors on railroad maintenance-of-way vehicles in the ‘60s and ’70s

Dark yellow (school bus yellow): C & NW, Erie Lackawanna, Union Pacific, Western Pacific
Dark yellow with lower side panels dark blue: Chesapeake & Ohio
Dark yellow or blue: Conrail
Orange or green: Burlington Northern
Orange (reefer orange): Santa Fe, Southern Pacific, Canadian National, MoPac

Making the windshield.

Materials needed -
clear soft plastic dixie cup (No. 5 plastic PP), clear tape, Formula 560 Canopy glue

The curve of the plastic cup matches the curve and taper of the windshield.

Cut out and tape the windshield pattern onto the cup.
The lower edge of the windshield should be oriented to be closer to the lip side of the cup. The top edge of the windshield should be oriented to the bottom of the cup.

Using a scissor cut out the windshield. You may need to use a sandpaper to finish it up. Test fit on to cab opening. It should be just snugged. Using canopy glue, glue in place.

Windshield templates

N scale
HO scale

Use a clear soft plastic dixie cup for the windshield.

Test fitting windshield.

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