

Trailer for Faller Car System's MB Truck

N Scale

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Background

Faller's third start set for their N scale Car System features a modern Mercedes-Benz 'SK' tarpaulin-bodied two-axle truck. This vehicle is based on Wiking's plastic model installed on Faller's purpose-built motorized chassis. The FCS truck is now available as a separate item, though the price is just a few dollars less than the start set, which includes a battery charger and enough materials to make 33 feet of roadway.

For additional visual interest, I wanted to add a trailer that the truck could tow. The original Wiking model includes a trailer, but since it has non-rolling wheels I imagine Faller decided that creating a new chassis was just too much expense. Fortunately, this is easily accomplished with a trailer borrowed from another Wiking model, a few tools, and spare parts you are likely to find in your junk box.

Before starting it might be wise to review the two major design characteristics of a reliable FCS vehicle.

- **Three Point Suspension** – This is required to make sure that all four tires remain in contact with the road surface at all times; it's also about aesthetics. Faller ensures this with its center-pivoting front axle which keeps the rear tires on the ground with most of the vehicle weight resting on them.
- **Tracking on Sharp Curves** – As you may know, full sized road vehicles are equipped with differential gear boxes that allow the drive wheel on the inside of a curve to rotate at a slower rate than the one on the outside of the curve. This is not practical in small scale models, so the typical FCS vehicle just muscled its way around curves with one wheel or the other slipping as it goes.

Though not needed for traction, the trailer will have a three-point suspension thanks to a limited amount of 'slop' built into the connection between fifth-wheel dolly and the trailer. To simplify construction, the trailer will have solid axles but the hard plastic tires will allow one wheel to slip easily while negotiating curves, minimizing drag on the mechanism.

Parts and Supplies:

- A three-axle truck chassis with separate, free-rolling wheelsets;
- A couple of inches of steel music wire;

- Two #00-90 machine screws:
 - One round-head screw 1/4" long;
 - One 1/8" long (Micro Trains coupler mounting screw);
- Plastic cement;
- CA adhesive.

Tools:

- Hobby knife;
- Razor saw;
- Pin vise;
- Drill bits, #62 & #56
- #00-90 tap.

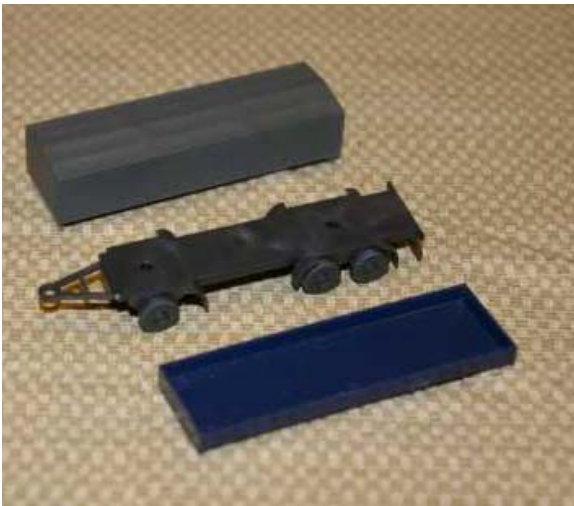
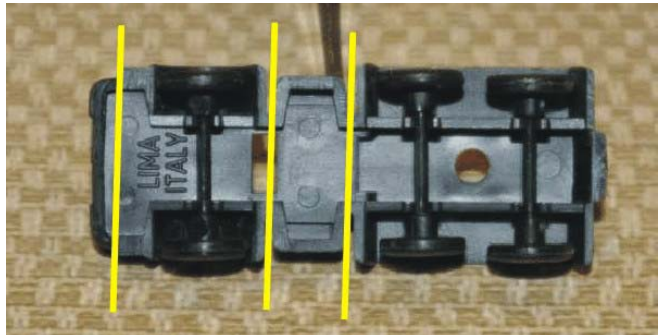
Note that the two drill bits and the tap are available as a set from Micro Trains (Cat. #988 00 121).

Step-by-Step:

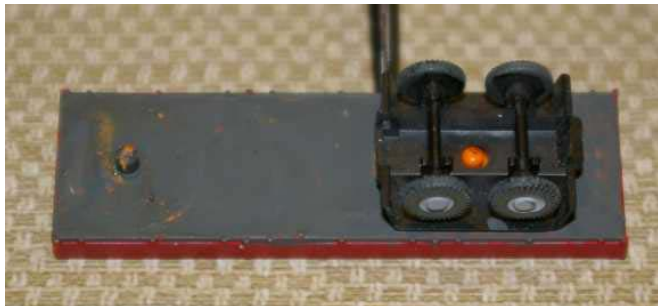
Separate the 'donor' truck chassis into two pieces using the razor saw to cut the frame members just forward of the rear axle pair.

I used the chassis from a Lima semi-truck tractor (having replaced the MB truck cab with the Fiat 619 cab to have a more typical Italian vehicle). The center piece containing the representation of the fuel tanks is discarded.

File the top of the dual wheel set flat so that it can be glued to the underside of the truck bed.

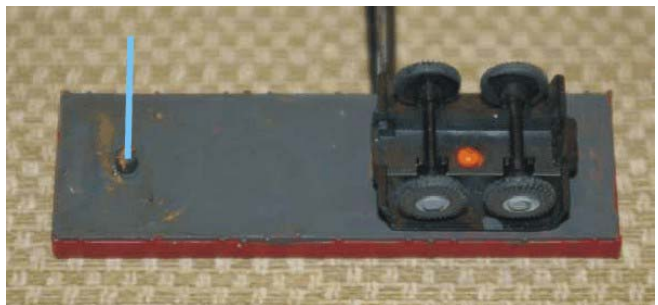


Disassemble the Wiking trailer and set the chassis and tarpaulin aside. Glue the dual wheel set to the underside of the truck bed so that it is perfectly symmetrical around the rear chassis mounting pin.



With the #62 drill in the pin vise, drill a hole straight through the center of the front chassis mounting pin. Carefully cut threads into this hole using the #00-90 tap.

To minimize cracking, clearance the lower half of the hole with the #56 bit, tapping only the upper half where it passes through the bed floor.



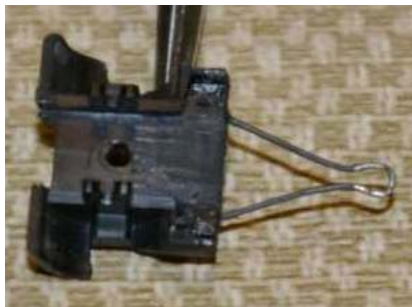


Turning your attention to the remaining single wheelset, carve, cut, and file anything away that doesn't look like a fifth-wheel dolly (bogie).

If you are using the Lima part, cut away the front bumper, then file the tops of the fenders off and remove the fronts of the fenders with the hobby knife.

With the #56 bit, drill a mounting hole in the top of the dolly directly over the axle. Place the dolly on the work surface and set the trailer on it, with the front mounting pin sitting on the hole you just drilled. Shorten the pin if necessary until the trailer sits level.

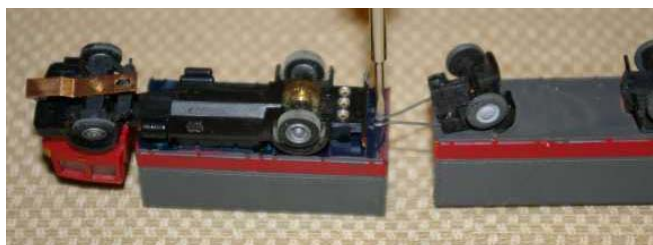
To form the dolly's tow bar, bend the wire in the shape of a 'V' making sure to leave a loop at the apex to act as the coupling eye. Using the Wiking chassis as a guide, determine a good length for the part, bend the ends down 90 degrees at that point, and cut the remainder off just below the bend.



Drill two holes in the dolly, insert the ends, line everything up, and glue the wire in place with CA.

Mount the dolly to the underside of the bed using the longer #00-90 screw. To ensure adequate turning as well as a working three-point suspension, snug the screw down, then back it off one complete turn. Reinstall the tarpaulin. Check for freedom of movement and smooth the surfaces as necessary.

I had to remove the cast-on lettering "LIMA ITALY" from the underside to ensure good swiveling of the dolly. I also still need to add a strip of plastic channel to simulate a frame member.



Drill and tap a #00-90 hole in the underside of the truck bed, making sure to miss any of the truck's internal electronics in the process.

Turn the truck and trailer over and attach the trailer using the shorter of the #00-90 screws driven through the drawbar's coupling eye and into the tapped hole on the truck's bed; don't overtighten!

Set the truck and trailer 'dirty side down' and check that everything looks straight and true. Take it for a test drive.