



**A - tipper**   **B - bolster**   **C - plain**

The 3 different versions of this kit are for use with Binnie tipper kits, wheels, axle boxes and axles from <https://peterbinnie.com/>. This kit contains a replacement frame, brake parts and brass rods only. It is printed in PLA super tough. This means that while it is fine to run it anywhere, do not leave it standing outside in hot sun for any length of time, especially if it is unpainted, or it may warp. Polystyrene cement (used for Airfix kits) works well. We suggest Revell Contacta Liquid Glue with Professional Needle Applicator, available from Amazon. Hold the pieces together until they set in a

few minutes. Other glues including epoxy can be used but note that cyanoacrylate (super glue) may leave a white bloom on the surface if you are not going to paint the kit.

1. Push the coupling pins into the holes at both ends of the frame.
2. Glue the 2 bell crank lever brackets under the platform against the curved end.
3. Push the Binnie axle boxes into the frame but **DO NOT GLUE** them yet
4. Glue the brake beams into the underside of the frame so that they are touching the axle boxes. The front one has curved edges and 2 holes. The rear has 4 holes. When the glue has firmly set remove the axle boxes for easier access.
5. Rear brake rods: Turn the frame upside down. Make a 90 degree bend 45mm from one end of a 0.8mm brass rod and pass the long part through the holes in the lever brackets. The 45mm length should be over the rear brake beam. Bend the rod the other side of the lever brackets so it goes over the other side of the beam and cut to a similar length. Using snipe nose pliers carefully bend both ends of the rod so they go through the 2 inner holes on the beam. Trim the ends as required.
6. Front brake rods: Make a 90 degree bend 5mm from the end of a 0.8mm brass rod. Position this into a hole on the front brake beam. Cut the rod 5mm longer than the hole on the rear beam. Bend the end of the rod to fit. Repeat for the other side.
7. File the ends of the 1.5mm brass rod and use a hammer to tap it into the brake handle.
8. Thread the rod through the brake hanger and into the hole in the frame. Glue the brake hanger into the 2 holes on the frame using the rod for alignment.
9. Complete the rest of the kit as per Binnie instructions, including gluing the axle boxes (with the wheels and axles in place!) into the frame.