

Brassmasters

C101 - 1F Replacement Coupling Rods

The replacement rods were originally designed to go with the Brassmasters' EasiChas for the Bachmann 1F and Alan Gibson or Ultrascale replacement wheelsets. However, they can also be used to replace the original rods on the Bachmann loco or with any other model of a 1F.

1. Each side is manufactured from four etches and hinged behind the centre crank pin. There are also overlays for the bosses. The left hand side and right hand side rods are the same.
2. Cut one pair of leading coupling rods from fret [1 & 2].



3. Open the crankpin holes using a 1.5 mm drill. When complete drill a hole using the same size drill perpendicular in a scrap piece of wood. Leave the drill in the hole in the wood. Tin the mating surfaces of a pair of coupling rods and place over the drill. This holds one end of the rods accurately ready for soldering. **It is critical to align the two halves exactly** in order to make one rod so take some time tweaking. See photo.

4. Place a little flux along the top surface of the rod and apply heat; the solder on the soldering iron will run down between the rods and join them. The secret is to apply only a little solder at a time. Solder will fill the "cusp" and give the impression of a solid rod. See photo left. Repeat for the whole length of the rod.

5. Next cut one pair of trailing coupling rods [3] and [4] and assemble in the same way keeping the forked end clear of solder.
6. Repeat for the other leading and trailing rods.

7. There are two different boss overlays for the front rods and another two for the rear rods. Working from the front of the locomotive, half-etched boss overlays [5] are fitted to both the inside and outside of the front coupling rod boss and half-etched large bosses [6] are fitted to the inside and outside of the front of the centre boss. The half-etched fork overlays [7] are fitted to the inside and outside of the forked end of the back rod. Finally, half-etched boss overlays [5] are fitted to the inside and outside of the trailing end boss. Using the appropriate bosses, apply each boss holding it in place with a cocktail stick and solder in place using the same technique as for joining the rods. Clean up each rod with files. Carefully blend the bosses into the front face of the rods.

8. The rear length of each rod has a knuckle joint to be manufactured. The front and rear rods are joined with a short length of 0.9 mm nickel silver wire pushed through from the front and then cropped back on the rear. leaving about 0.5 mm proud. See photo.



9. To stop solder flooding the joint apply a little oil to the surfaces not to be soldered - this will prevent the solder running into the joint. Keep the rear of the rod clean. Solder can then be quickly applied with a very hot iron to the back of the rod to fix the wire in place. Clean off excess solder leaving enough to keep a strong joint. See photo above of completed rods.

10. Repeat for the other rods on the other side of the loco, using the same part numbers.

11. Open up the crankpin holes so that the crankpin bushes will rotate in the rod. This can be done with a reamer, broach or a fine Swiss file



12. Fit the rods to the wheels and test run. A comparison between the Bachmann rods (lower) and the replacements is shown in the photo.

