

Locomotive Coupling Rods

These etches are designed to produce scale coupling rods for RTR and kit built locomotives when using scale wheels, they can be assembled to any wheelbase up to 9'9"(39mm)

Warning! Beware of the sharp edges

Four coupled 'universal' coupling rods, 9'9"wb maximum, CR20

These coupling rods can be made up to suit most four coupled locomotives and include alternative boss designs.

A set of axle alignment jigs or a chassis alignment jig is almost essential to set up these rods accurately.

Start by carefully opening out the crankpin holes before removing the rods from the fret. Use a cutting broach or 1.5mm sharp drill, use light pressure to ensure you don't 'grab' the material and accidentally bend the rods. Make sure the crankpin holes have no rag on them by twiddling a 1/8th drill over them. Alternative overlays are provided for plain or fluted rods as well as different bosses. Gently remove a middle rod from the fret and hold against the axle jigs, measure how much to shorten the rod by and cut this out of the middle area leaving a small amount for final fitting. Now remove two bosses of your choice and neatly file the edge of the boss that butts up to the corresponding rod overlay. Using the shank of a 1.5mm black drill or a cocktail stick for alignment clamp a boss on both sides of the middle rod boss making sure you have all the oil reservoirs correctly aligned. Prepare your soldering iron with a small tip and a small amount of solder, apply a liquid flux and solder around the edges of the boss. Now take one of the front overlays, either the fluted or the plain one and again measure how much to shorten the overlay, try to cut half the amount from both ends to keep the taper of the rods equal, tidy up the end of the overlay with a file and clamp onto the middle rod tight up to the boss using sprung clamps and tack with solder. Take the other half of the middle rod and fit both the boss overlays as before and place both rod pieces onto your chassis jig or axle jigs set in your chassis, if the middle rod doesn't fit neatly file a little off the cut end until it does and file a little bit off the end of the front overlay till that fits tight to the second boss. Clamp the overlay onto the middle rod and tack solder in a couple of places, check again on the axle jigs. Trim the rear plain overlay to size and clamp in place, ensure the overlays at the bosses are clamped down tight and the rod is straight and aligned, spread liquid flux along the edges, touch the iron tip to the edge and slowly move along till the solder runs out, recharge the tip, spread more flux and move the iron further along. Move clamps to opposite side and solder along other edge. Do the same around the bosses and ensure the bosses have sufficient solder around the outside. Now comes the delicate bit, clamp the rod lightly in a smooth jaw vice and using a fine flat needle file on the edges file the etch cusp and the solder down to a neat square edge and then draw file along the edge, this will remove any marks left when cross filing. Where the rod meets the boss use a round needle file to blend the rod to the boss. If using the boss without the small step on the inner curve file the step in the middle rod to match. Mark this rod for refitting to the correct side of the loco, I always work on the left side rod first. Repeat all for the opposite rod. The rods are etched as 'fish belly' but one can file the rods parallel if required. Finish lightly with a fine emery stick all round. Check the rods on the jigs once again. The rods are now ready for fitting. The crankpin holes will need opening out slightly for a running fit on the standard 1.5mm crankpin bushes of your choice, use a jewellers broach for this.

Universal wheelbase

Four coupled

