



LM19 Motion Set for GWR 2800/2884 2-8-0s

COMET MODELS components complementing this motion set are:

Frames	LF19	Cylinders	LC2
Crossheads	LS8	Pony truck	LS2

This motion set etch is designed to fit our loco frame pack LF19. All folds should be made with the half-etch to the inside, and reinforced with solder. All parts are numbered on the etch and are identified in the instructions by the number in brackets. Where components are handed they are marked on the etch 'L' for left (nearside) and 'R' for right (offside).

NOTE: Crossheads and pins are NOT supplied in this pack, but are available separately - COMET MODELS pack LS8.

We strongly recommend that the cylinder and motion bracket assemblies are arranged to bolt on to the frames so that everything can be stripped down and re-assembled as required, otherwise you are sure to finish up with an axle nut or whatever hidden behind the motion. A little forethought when positioning the frame spacers for chassis assembly will facilitate this.

Parts List

- | | |
|----------------------------|------------------------------|
| 1. Coupling rods | 6. Slidebar support brackets |
| 2. Coupling rod overlays | 7. Support bracket overlays |
| 3. Connecting rods | 8. Vacuum pump rod bracket |
| 4. Connecting rod overlays | 9. Valve rods |
| 5. Slidebars | |

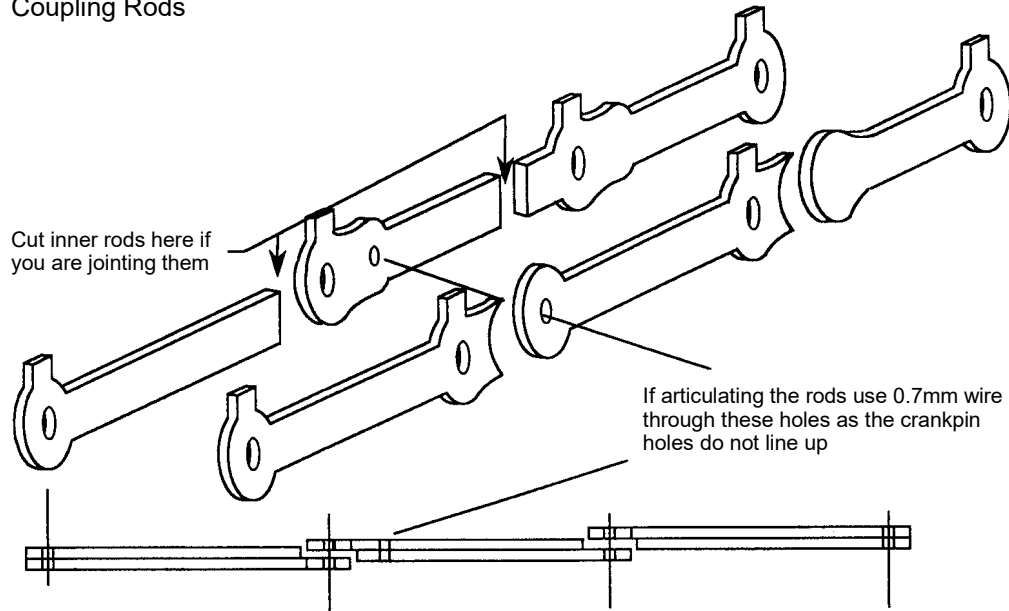
Assembly sequence

1. Fix the plain outer coupling rod overlays (2) to the half-etched inner rods (1). Note the rods are handed - the half-etch detail on the inner rods should be next to the wheels. To aid identification the overlays are coded "F" (front), "C" (centre) and "R" (rear). If you wish to articulate the rods, the inner rod should be split as per the sketch before attaching the overlays. Whether you articulate the rods or not this operation is simplified if the crankpin holes are first drilled (1.2mm for Markits crankpins) and the overlays tinned along their length. Both the backing rod and the overlay can now be threaded onto the drill which will keep one end in alignment whilst the other is squared up and the rods soldered together (see sketch).
2. Fix the outer connecting rod overlays (4) to the plain inner rod (3) - note the rods are handed.
3. Assemble the slide bars (5) to the cylinder rear stretcher as per sketch, and fettle the slidebars and crossheads as necessary to achieve an easy sliding fit.
4. Temporarily bolt the cylinders to the chassis and position the chassis under the body. Solder the slidebar support brackets (6) to the slidebars ensuring that they line up with the boiler stay on the body moulding.
5. Fix the support bracket overlays (7) in position and file flush with the inside edge.
6. Assemble the connecting rods to the crossheads with the pin inserted from the back as per the sketch. The vacuum pump rod bracket (8) can now be fixed to the front face of the

offside crosshead with the bracket extending backwards (see sketch). If desired the pump body can be represented by a suitable piece of tubing.

7. Trim the valve spindle castings supplied in the cylinder pack (not included, Comet Models pack LC2) as shown, and replace with the valve rod etches (9). When attaching these to the cylinder rear valve chest, ensure that the valve rod end away from the cylinder aligns with the representation of the rocker arm on the footplate moulding.

Coupling Rods

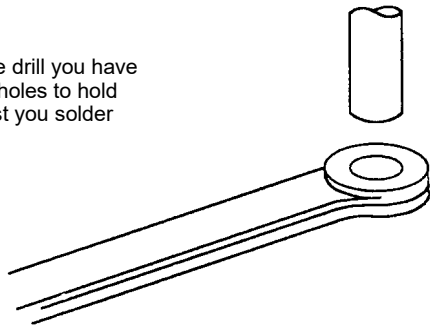


Cut inner rods here if you are jointing them

If articulating the rods use 0.7mm wire through these holes as the crankpin holes do not line up

Arrange over the crankpins as above if you are articulating the rods. If you are not, just solder the front overlays to the uncut backing rod.

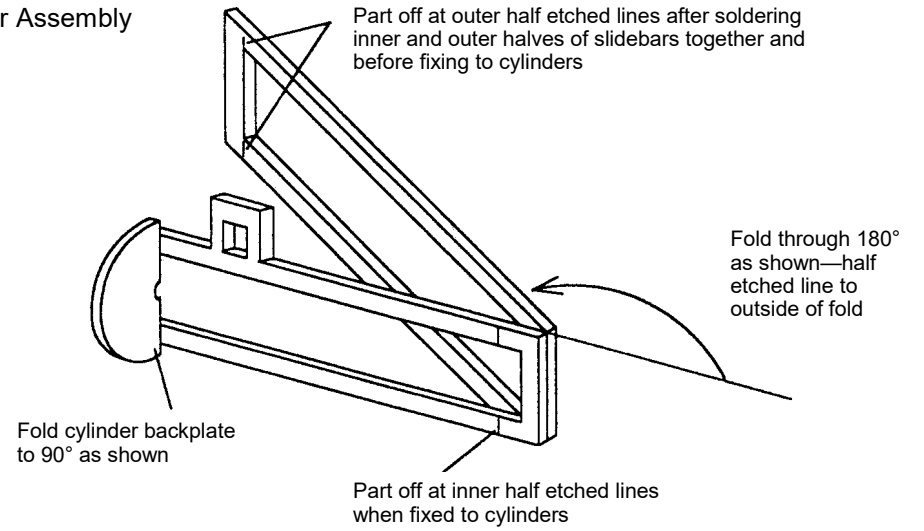
Use the shank of the drill you have used to drill out the holes to hold the rods in line whilst you solder them together



Slidebar support bracket



Slidebar Assembly



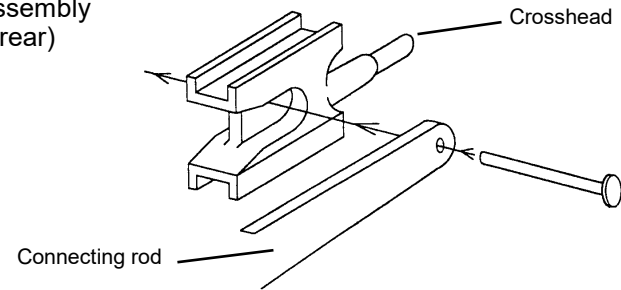
Part off at outer half etched lines after soldering inner and outer halves of slidebars together and before fixing to cylinders

Fold through 180° as shown—half etched line to outside of fold

Fold cylinder backplate to 90° as shown

Part off at inner half etched lines when fixed to cylinders

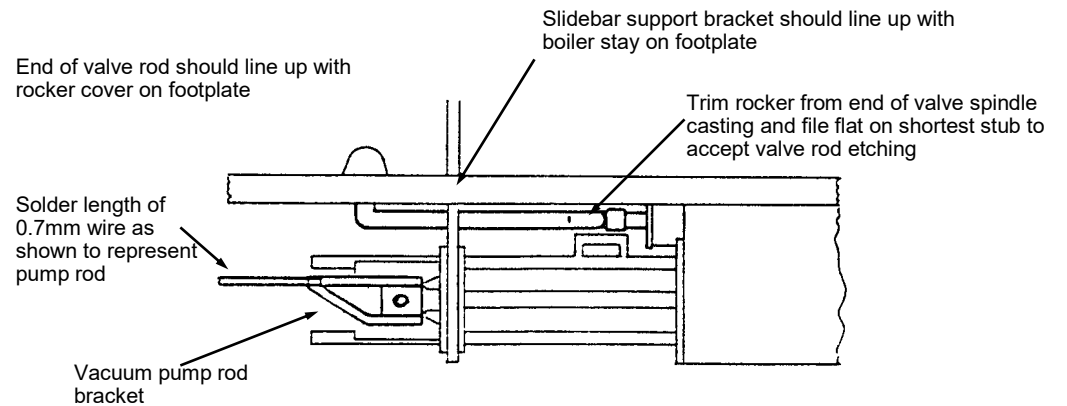
Crosshead Assembly (viewed from rear)



Crosshead

Connecting rod

Arrangement of valve gear



Slidebar support bracket should line up with boiler stay on footplate

End of valve rod should line up with rocker cover on footplate

Trim rocker from end of valve spindle casting and file flat on shortest stub to accept valve rod etching

Solder length of 0.7mm wire as shown to represent pump rod

Vacuum pump rod bracket