

Sundry Snippets 19 - Quartering – that final ‘tweak’

Despite all the verbiage on “how to quarter driving wheels” we can still end up with a *slight* lurch, which, after all our efforts, can be very frustrating. I find the following procedure will usually sort it out.

Because we have to make our coupling rod holes oversize to accommodate movement of the hornblocks, some ‘backlash’ does result in the relationship between wheels (?wheelsets?). This can be used as a guide in sorting out the offending lurch.

Using the driven axle (that is the one with the motor) as a datum, you should set the rods on the side away from you to the highest position, meaning that the cranks will be vertical, and this should leave the rods which face you at the ‘horizontal’ position – see the sketch. Now, working in units of two axles at a time, begin with the driven axle and the adjacent one (Axle 2 in the sketch). While holding the driven axle still, rotate the test axle (i.e. Axle 2) to take up the slack, both up and down (A and B in the sketch). For example, if A is greater, then tweak slightly downward the test axle *only*, till A and B are equal.

Now it is the first test axle which must be held steady, and the process repeated with Axle 3 as the test axle. The amount of backlash (or ‘slop’, if you prefer!) is not critical, as long as you move the wheel to take up *all* of it, or you will get a false reading. Don’t worry if your driven axle does not have the cranks set exactly at 90°; it will not matter if they vary from 88° - 92°, but once you have set them, match all the test axles to that driven axle and leave it itself strictly alone!!