

# Rail Bender

16-21mm profiled rail

## INSTRUCTIONS



**Warning:** Do not use flat bar. Only profiled rail will work safely

### **Work Area**

**MAKE SURE (if possible) YOUR WORK AREA IS:**

- Free of damp, wet or rainy conditions.
- Well-lit.
- Clean and uncluttered.

### **Before Operating**

- For ease of use we would recommend securing the bender in a vice fixed on a sturdy bench. Check to make sure the vice/bench can not only support the bender but also the rail protruding out from either side. This is especially important when using heavier steel
- Make sure the rail bender is securely clamped and secured in place so it cannot fall and cause injury.
- Oil spindles (marked #2 on picture) + ones on the lower side.

### **Operation**

Never force the tool to do the work of a larger industrial tool. It is designed to do the job better and more safely at the rate for which it was intended - 16-21mm rail. **Oil spindles** before and during use to reduce wear on rubbing surfaces.

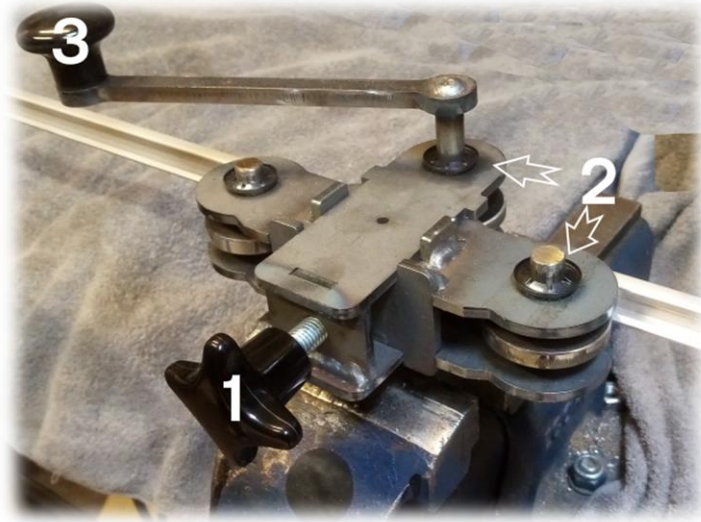
**Step 1)** Determine the size of radius you wish to obtain by -

- Marking an arc on the ground using a tape measure and piece of chalk
- Or bend rail to the curve of your track bed

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Step 2) Move the Adjustable Wheel (#1 see picture above). Back it off to allow the rail to slip in without any resistance. Roll the rail to the start/end.

Step 3) To curve the rail tighten the adjustment until you feel quite a bit of resistance. Turn the handle (#3) until the rail has passed fully through. If handle 1 will not turn by hand take rail out and adjust before re engaging the rail.

Step 4) If the radius needs to be tighter turn handle 1 clockwise to tighten the rollers. Half a turn for slight adjustment, a couple of turns for major increase.

Step 5) To reengage the rail wind handle 3 while pushing the rail into the bender. If you over bend the rail you can simply back off the adjuster 1, turn the rail over and re feed it through.

Step 6) WARNING – once you have the correct radius on your first piece of rail do not feed the next piece of rail through without slackening off adjuster 1. Failure to do so will result in the following rail being over bent.

NOTE – adjustment can be made with the rail in the bender but do not force handle 1. Take rail out if you cannot wind the handle in.

## **SUGGESTED METHOD OF WORK**

1. Practice on a scrap of rail to get a feel for the bender.
2. Mark out an arc for the desired curve.
3. Have a good guess at setting required and wind the rail straight through.
4. If the rail is too tight wind handle 1 anticlockwise. If not tight enough wind clockwise.
5. Wind next piece of rail and follow step 4 if necessary
6. Wind remaining rail through.
7. Go back and re roll first pieces of rail. Turning to straighten if necessary.

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