

## Adopting GSO Crayford to Orion Intelliscope

*By Cliff Hedgepeth*

Well I finally did it; I added the focuser that I bought at East Coast Star Party to my xt12. It seems to work just fine. It is also smaller so you do have to drill 4 holes. Here's how, first get your scope aligned with the R&P focuser. Collimate using the cap. Now remove the old focuser. Put the cap in the new focuser, place the new focuser over the hole and move it around until the dot is centered in the circle. Mark your holes but drill them oversize (I used a 1/8" bit) so you can move the focuser around. Mount and use. You will find that it is exactly in the same spot as the old one. This is not intended as a lesson on collimation, only a method of placing new focuser where old one was.



GSO Crayford



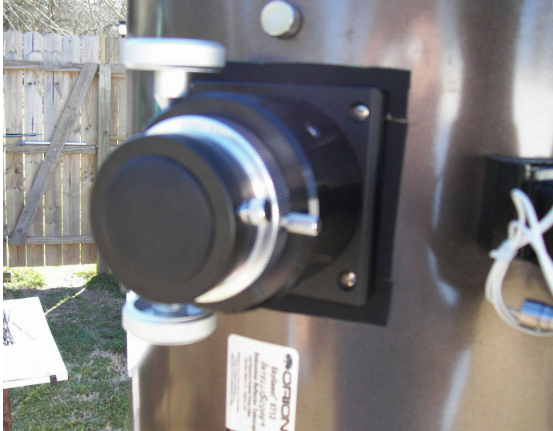
Orion/GSO R&P

The R&P is an excellent, well made, focuser. The problem is that unknowing people, like me, tend to adjust the lateral slop using the knob on the side. This is only a lock and will make the slop worse as it messes up the Teflon strip inside.

You will notice that the Orion focuser is actually made for an 8" tube and has a plastic adapter to fill the gap. You can use foam to fill the gap. Hardin just bolted it to the tube and didn't fill it. I used rubber strips under the focuser to cover the Orion screw holes and edges of old focuser hole. It also filled the gap between the tube and sides due to radius difference. Neat thing is you can put the old one back on and everything is as it was.

I find it to be very smooth, as smooth as any other focuser of much higher price that I have used. After a little practice I was able to easily focus on Saturn at 536X using a Nagler 6mm Type 6 plus a Televue 2.5 Powermate Barlow. The toughest part is not to focuser being too coarse but to the image moving quite rapidly at that power.

The focuser is now closer to the tube than before so you may find that you have to move ep out about  $\frac{1}{4}$ " to achieve focus. On my one 2" ep, I had a vacuum cleaner belt that fit it just fine and jacked it up to a point that focus was achieved. On the 1.25 ep's, Put a large O' ring or cut a ring from a 2" cap to place adapter out about  $\frac{1}{4}$ " and you will be set. Another option would be using thick rubber under focuser to place it  $\frac{1}{4}$ " higher.



Finished product. Rubber covers larger hole & Orion screw holes.

This GSO focuser is standard on the Deep Space Hunter scopes that Hardin marketed. Someone else is selling them now. I bought mine from Jeff Norwood at Camera Concepts. It sold for \$105 so it is less expensive than some others.