Effective Date: January, 2001 - June, 2011

SL-10 - Tailstock - Alignment

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1. Insert the tailstock alignment bar into the tailstock quill.

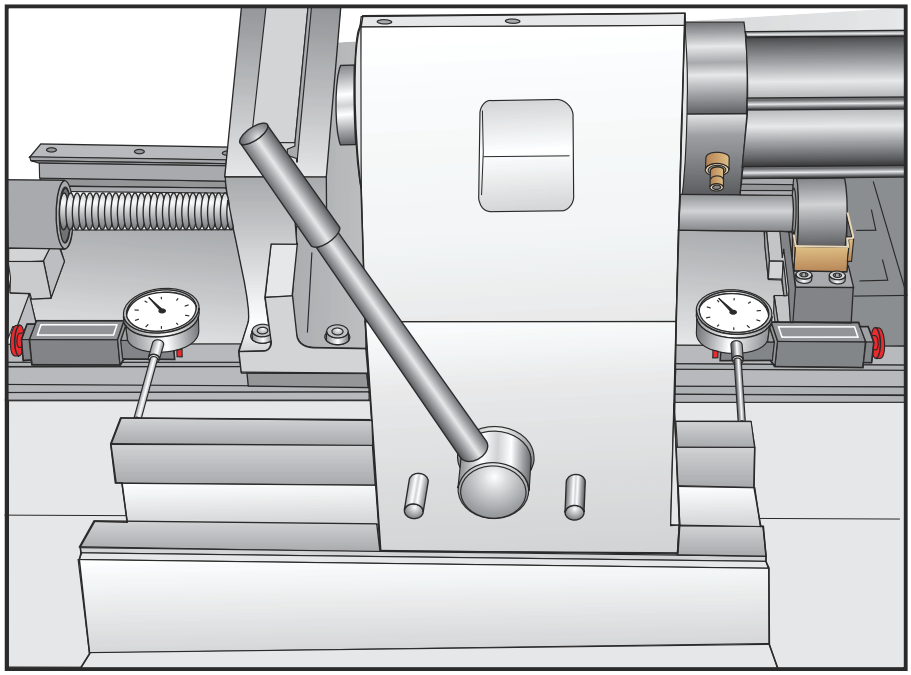
2. Place a 0.0001” indicator onto the turret. Position the X-axis so that the flatness and parallelism of the alignment bar can be measured.

3. Place the indicator stylus onto the side of the alignment bar and sweep along the Z-axis. The tailstock should be parallel with the Z-axis within 0.0004” over the length of the tailstock alignment bar. If the Z-axis parallelism is not within 0.0004”, the tailstock foot will need to be adjusted.

4. Loosen the four SHCS that attach the tailstock foot to the lathe base and back out the set screws at the base of the foot. Push the tailstock foot as close to the turret as possible. Place the indicator stylus onto the machined surface along the backside of the tailstock foot. Jog the Z-axis to sweep along this surface. Adjust the position of the tailstock foot until the runout along this machined surface is less than 0.0001” along the entire length.

5. Install the spindle alignment bar onto the end of the spindle. Install a 0.0001” dial indicator into the end of the spindle.

6. Set up two travel dial indicators at the extreme ends of the tailstock foot.



7. Measure the side to side runout of the concentricity of the spindle to the tailstock quill. The total side to side runout cannot exceed 0.0005”.

8. Using the set screws in the tailstock base, move the entire tailstock assembly until the total side to side runout does not exceed 0.0005”. Maintain the parallelism with the Z-axis by ensuring that the travel indicators move an equal amount.

9. Torque the SHCS that attach the foot to the lathe base in an even and gradual pattern to 200 ft-lb. Verify that the runout has been maintained after the tailstock foot is torqued.