TC820si Gib Adjustment

Help Machine Assembly assemble and deliver properly set up Turning Centers.

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Torque Screwdriver



INTRODUCTION

Adjust the gibs on a TC820si, single side and double side. Inspect each gib first and replace any that is bent, twisted or burred.

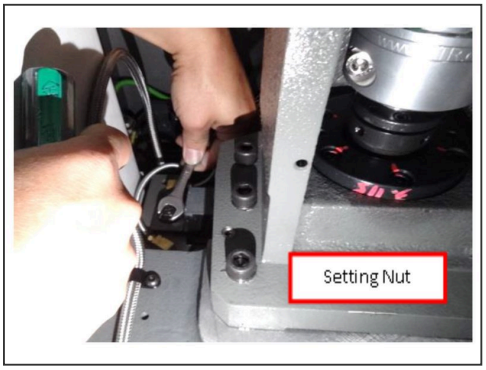
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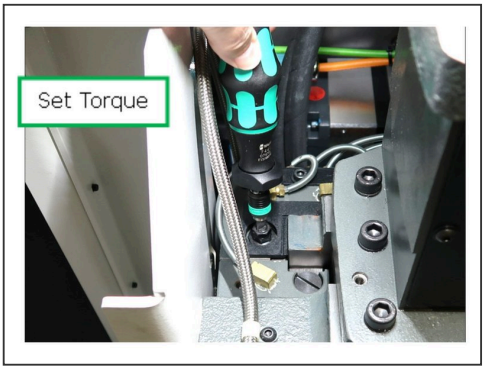
Step 1 — Gib Adjustment Overview

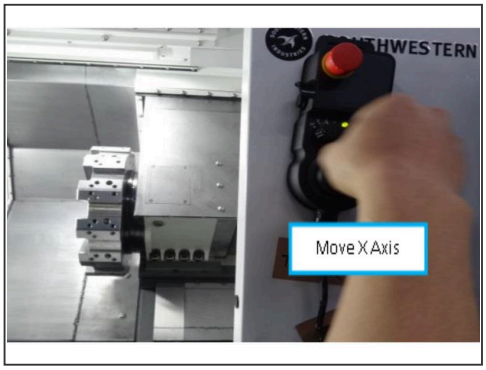


- Inspect each gib to ensure it is flat, untwisted, burr-free, and free of oil passage blockages.
- Replace any gibs that are scarred or damaged.
- Never shim gibs, this does not produce acceptable results.
- Do not clean gibs or ways with shop air, as it may blow chips into the sliding surfaces.
- Gib wear occurs naturally over time due to carriage and bed friction.
- After adjusting, jog the axis multiple times to help settle the gib.
- Use a torque screwdriver when adjusting gib screws.
- Torque spec for all gib adjustments: 1.2 Nm (11 in-lbs).

Step 2 — Single Side Gib Adjustment

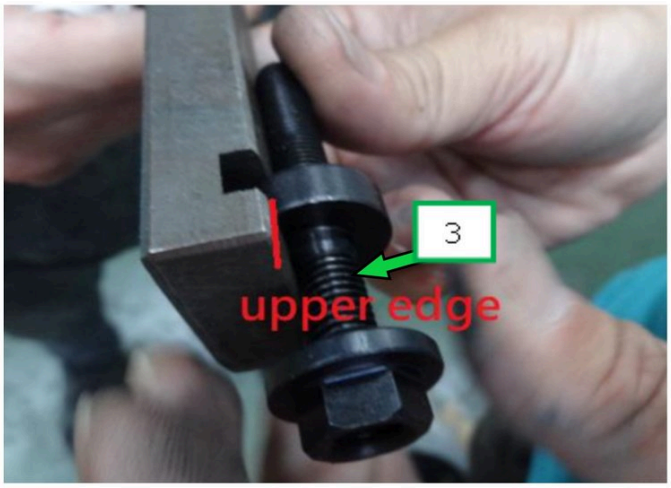


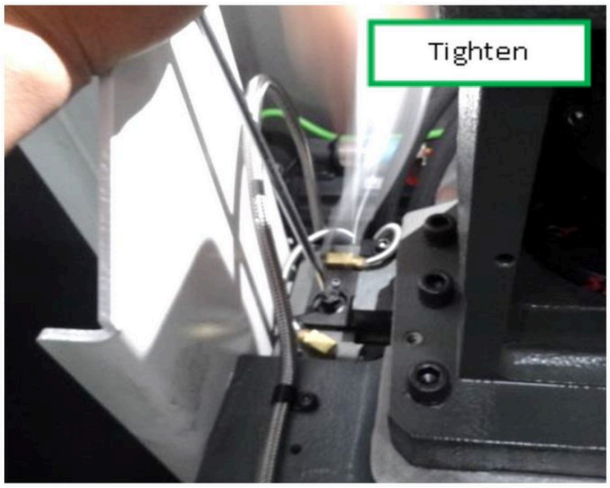




- Loosen both setting nuts on the gib adjustment screw.
- Use a flathead torque screwdriver to tighten the adjustment screw to 1.2 Nm (11 in-lbs).
- Move the X-axis back and forth several times to settle the gib.
- Retighten the adjustment screw to 1.2 Nm (11 in-lbs) after movement.
- Repeat the process at least two times to eliminate any remaining gap.
- Confirm the gib is seated by checking for smooth, consistent axis motion.
- Do not overtighten, excessive preload can cause binding or premature wear.
- Only proceed once motion is smooth and free of play.

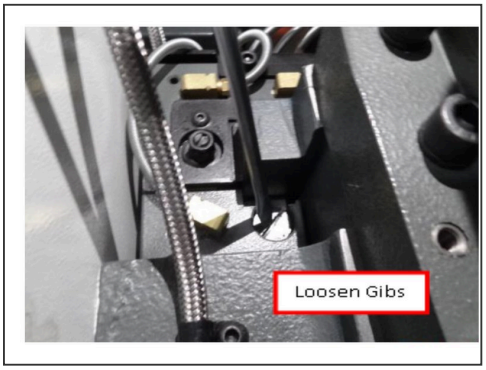
Step 3 — Finalizing Single Side Adjustment

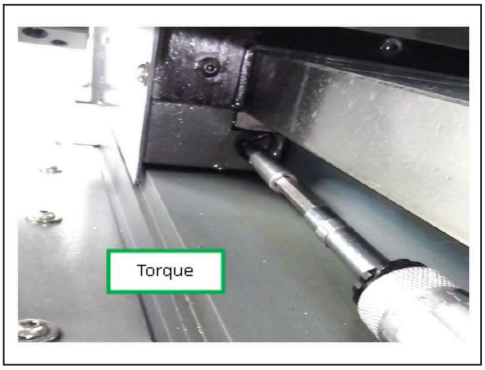




- Slowly turn the adjustment screw counterclockwise until it just contacts the gib's upper edge.
- Hold the screw in place with a flathead screwdriver to prevent rotation.
- Tighten setting nut (2) while holding the screw steady.
- Then tighten setting nut (1) to lock everything in place.
- Verify the gib is snug by jogging the axis and feeling for resistance or looseness.
- Repeat the process if motion feels uneven or loose.
- Ensure both setting nuts are secure and properly torqued.
- Do not overtighten, this may distort the gib.

Step 4 — Double Side Gib Adjustment

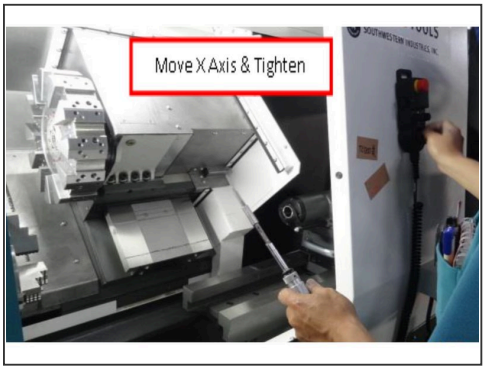




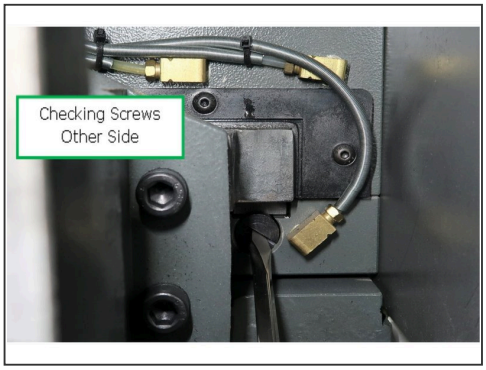


- Loosen both gib setting screws (1) by turning them 2–3 full turns counterclockwise.
- Locate the gib adjustment screws on the opposite side of the carriage.
- Using a flathead torque screwdriver, tighten the adjustment screws to 1.2 Nm (11 in-lbs).
- Jog the X-axis back and forth several times to help settle the gib.
- Retighten the adjustment screws to 1.2 Nm (11 in-lbs) after movement.
- Repeat the adjustment and jogging cycle at least twice.
- Confirm the gib is seated properly by checking for smooth motion.
- Do not adjust both sides at once, always adjust one side while the other is loose.

Step 5 — Finalizing Double Side Adjustment







- Move the X-axis several times, then retighten the adjustment screws to 1.2 Nm (11 in-lbs).
- Repeat the movement and retightening cycle at least twice to remove any remaining gap.
- Check that the gib setting screws are still loose, this is normal before final tightening.
- Lightly tighten the setting screws on both sides, do not overtighten.
- Overtightening can distort the gib and cause binding or uneven wear.
- Jog the axis to confirm smooth, consistent travel without stick or play.
- Recheck all fasteners for proper torque.
- Only finish the process when motion feels correct and secure.

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