

How to Tension the Quill Feed

The quill feed should be tensioned so that the quill retracts easily and smoothly, but not so tight that the spring binds when the quill is fully extended. If you should need to adjust or restore the tension on the quill, follow this procedure.

WARNING

Turn off and unplug the MARK V before performing the following procedures.

1. Remove the quill. On top of the headstock, between the quill lock and quill feed stop, there is a setscrew that keeps the quill from advancing all the way out of the headstock. If your machine has never been worked on before, this screw is covered with gray putty. Dig out the putty with a pen knife, and back out the setscrew 2 full turns. See Fig. 29. Advance the quill until you feel the rack disengage from the quill feed pinion. Do not let go of the quill feed lever. Continue to hold onto the lever and pull the quill assembly out of the headstock. See Fig. 30. When you have removed the quill assembly, set the quill feed stop at 4-1/4". Tighten the stop lock. See Fig. 31.

CAUTION

Do not tighten the quill lock. This will damage parts.

2. Adjust the tension. With your hand holding the quill feed lever, release the quill feed stop lock and slowly let the lever unwind. As it does so, make sure you keep holding the quill level with each revolution—do not release the lever. When the tension has been relieved, rewind the lever 3 full turns clockwise (as you look at the headstock from the speed dial side). This will restore the tension to its original factory setting.

3. Install the quill assembly, by simply reversing the procedure you used to remove it. Turn the main spindle until it slips into the drive and ring assembly. Also, the groove in the top of the quill must line up with the setscrew in the top of the headstock. Tighten this setscrew until it "bottoms out" in the groove, then back it out 1/16" turn.

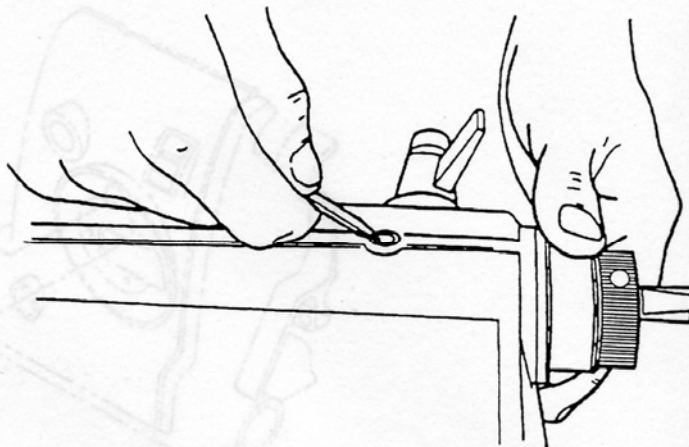


Fig. 29

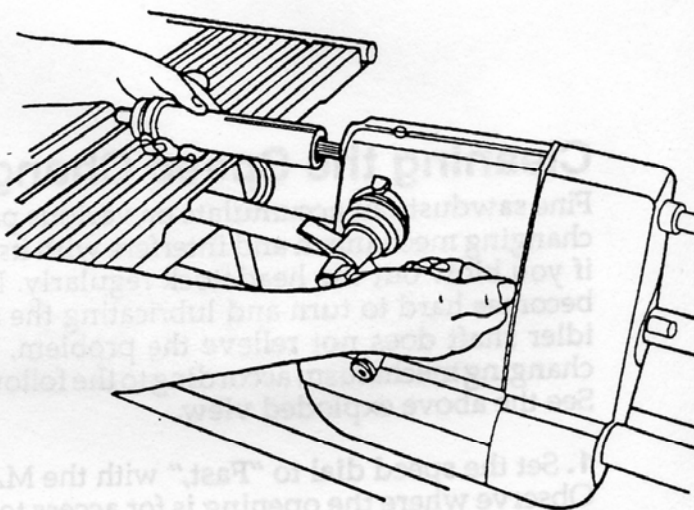


Fig. 30

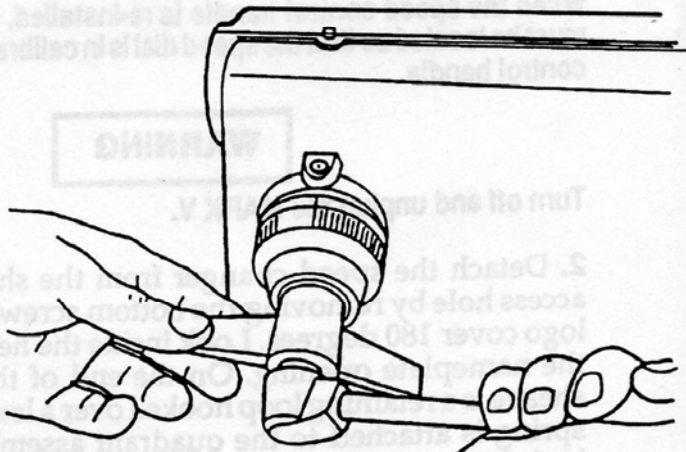


Fig. 31