

How To Do A High Speed Adjustment

Warning

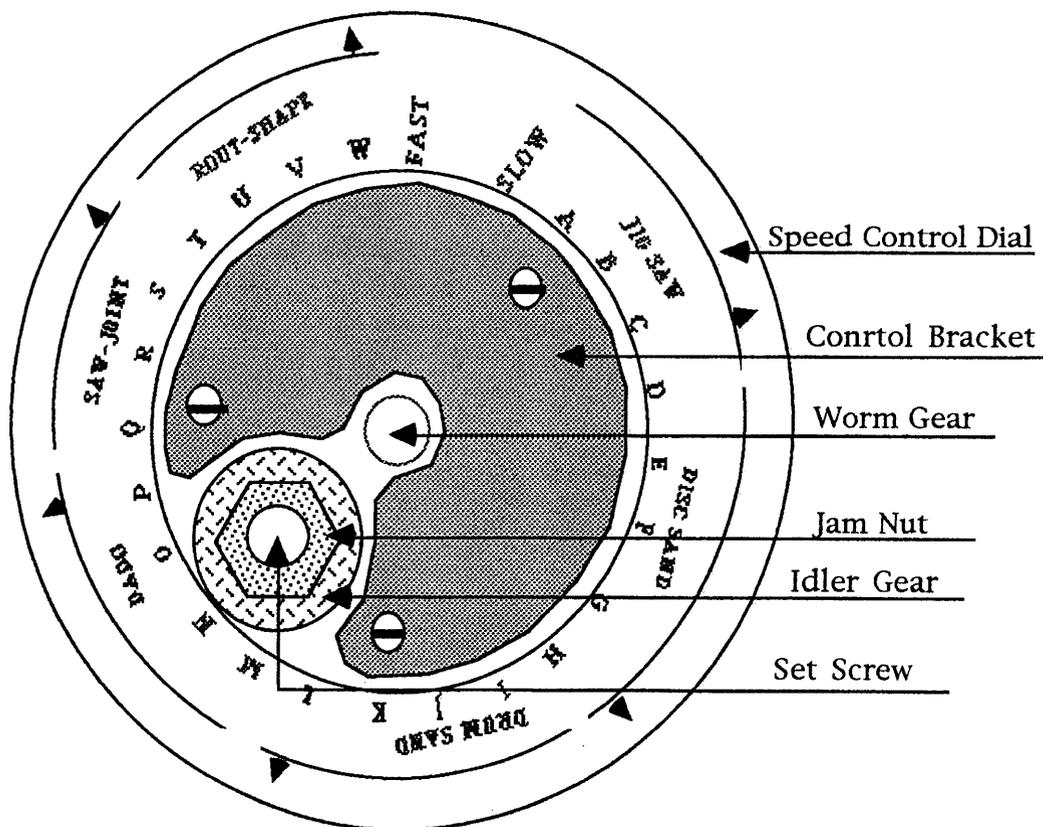
Since some of these steps are done while the Mark V plugged in and/or running, keep your hands and other parts of your body away from the moving and electrified parts of the machine.
DO NOT stand in line with the moving parts!

Warning

Tools needed:

3/32" Allen wrench
Small - Phillips screw driver
Tachometer (Not required)

Padded Pliers
Small - flat screw driver
7/16" Open end wrench



The Mark V spindle speed is factory set to 5,200 rpm. The high speed is determined by setting the set screw (138630) which acts as a stop against the quadrant (504221). Under normal conditions, the high speed is properly set when the top of the set screw is flush with the jam nut (1248418). If the motor runs too fast at that adjustment the following procedure should be followed. NOTE: Once the high speed is set the low speed automatically is correct.

If you DO NOT have a tachometer...

1. Remove the belt cover and secure out of your way to your left with tape or string. Slide the headstock and carriage to the right (towards the base mount) as far as they will go. Secure the headstock and carriage locks.
2. Turn on the Mark V and turn the speed dial towards high speed until the drive belt is from 1/8" to 1/16" away from the outside edges of the motor pulley or the high speed stop is engaged.
3. Remove the control handle assembly with a long handle 3/32" Allen wrench.
4. Hold the set screw and loosen the jam nut. Then loosen the set screw.
- 5a. If the drive belt becomes 1/8" to 1/16" away from the outer edge of pulley before the high speed stop setting was encountered, turn the set screw clockwise until it becomes solid against the quadrant assembly and lock down the jam nut.
- 5b. If the high speed stop was encountered before the drive belt was within the 1/8" to 1/16" away from the outer edge of the pulley, rotate the set screw counter clockwise while rotating the worm shaft clockwise with a pair of padded pliers. Do this only until the belt is 1/8" to 1/16" away from the outer edge of the motor pulley.
6. Turn off the Mark V and adjust the speed dial to read "Fast" by pressing in and rotating.
7. Replace the control handle. Make sure the set screw in handle seats properly in the countersink of worm gear shaft
8. Replace the belt cover.

If you have a tachometer available....

1. Remove the control handle assembly with a long handle 3/32" Allen wrench.
2. Hold the set screw and loosen the jam nut and set screw.
3. Switch the motor on and use the tachometer to monitor the speed on the spindle. Rotate the worm shaft clockwise with

padded pliers until the spindle speed is at 5,200 rpm.

4. Switch the motor off and turn the set screw clockwise until it becomes solid against the quadrant assembly. Then lock down the jam nut.
5. Turn off the Mark V and adjust the speed dial to read "Fast" by pressing in and rotating.
6. Replace the control handle. Make sure the set screw in handle seats properly in the countersink of worm gear shaft.