

Tip #58 MARK V Cleaning Tips

Here are four helpful MARK V Cleaning Tips that will help you to keep your MARK V running accurately and safely.

1. Cleaning MARK V Pinion Gears
2. Cleaning MARK V Headstock
3. Oiling The MARK V
4. Waxing The MARK V

1. Cleaning MARK V Pinion Gears

The pinion gears on the Mark V that drive the saw table up and down are made of copper and iron. Running on steel back teeth, they need no lubricant. However, after some use, sawdust builds up and collects in the rack and pinion teeth. This can cause the pinion gears to strip off these teeth – so the sawdust has to be cleaned out periodically.

To clean the rack and pinions, use a stiff bristle brush. Removing the pinions to clean is easy:

First, remove the saw table assembly from the carriage. Then remove the table height locking handles, washer, and lever assembly. Slide the square pinion shaft out the rear of the carriage and each pinion will slide out, one to the front and one to the rear. Don't worry about getting them mixed; they're identical.

To reassemble, just reverse the procedure. This whole cleaning process takes 5 minutes and should be done whenever stiffness develops in raising or lowering the table – or you may strip off the teeth!

2. Cleaning MARK V Headstock

No matter how long you've owned your Mark V, it needs a little tender loving care after every 10 hours of operation. This will guarantee trouble-free woodworking year after year.

Run you Mark V up to high speed, turn off and unplug it. Remove the screws holding the belt cover and slide it away from the headstock. Also remove the nameplate with a screwdriver. (This plate can't be removed on 1953 and 1954 models drop the motor instead.)

Clean the sawdust out of the headstock with an air compressor, vacuum cleaner, or tire pump. Check the belts for wear, then lubricate the motor shaft and sheave with two drops of 3-in-1 oil. To make it easier to see the oil hole in the motor sheave, separate the spring loops, two turns from the sheave, with a screwdriver. Turn the spindle until the hole in the control sheave can be seen and put two drops of oil in it. Replace the nameplate and the cover.

We can't stress the importance of this service enough. Cleaning out the sawdust periodically will prevent your bearings from drying out. Oiling prevents damage to the speed changer. If you have trouble changing the speed, or your machine sounds a little noisy, the time to do this maintenance is now.

3. Oiling The MARK V

For those of you who have Mark V's manufactured before 1955, serial #312507 and smaller, do not follow the oiling instructions in the new Owner's Manual. Pre 1955 models do not have an access hole behind the nameplate. If you try to remove it as stated in the new Owner's Manual, you'll probably break it. To oil the intermediate shaft, remove the belt cover and oil it from the side with a piece of wire dipped in oil. Procedures of oiling the motor are the same from all Mark V's.

Due to the many letters we have received, I would like to supplement the oiling instructions in the Mark V Owner's Manual. The Owner's Manual says when oiling the motor shaft, pry off the plug button located on the

belt cover. This is to expose the oil hole located on the motor sheave. Using this procedure, it's very difficult at times to locate the oiling hole without having X-ray vision.

If you have the problem, the procedure to oil the motor shaft is as follows:

1. Before oiling, turn off and unplug your machine.
2. Rotate the speed dial up to "Rout-Shape" range.
3. Remove both screws located on either side of the belt cover and take off the belt cover. With the belt cover off, the entire motor shaft assembly is visible.
4. Locate the oiling hole - it's located at the base of the moveable sheave, underneath the spring. A screw driver can be used to pry apart the spring coils two of 3 coils from the sheave. With the coils separated, the oil hole will be clearly visible.
5. Dip a wire or slender stick in a good light weight oil and allow three or four drops to drip into the exposed hole.
6. Replace the belt cover and mount your 12" Sanding Disk to the main spindle.
7. Rotate the Disc by hand as you Gently turn the Speed dial down to the "Slow" position.
8. Plug in your unit, turn on and run the machine through its entire speed range a few times.

4. Waxing The MARK V

Here are some pointers on waxing your Shopsmith.

An application of wax will keep your machine clean, protect the metal and allow your work to slide with ease across the table surfaces.

It's best to use a good, hard furniture or floor paste wax. Johnson's Floor Wax or clear Trewax seem to work the best. Do not use liquid wax, auto wax, oil or silicones. Auto and liquid waxes never dry properly, thus making it difficult to polish. Oil and silicone leave a residue which is sticky and has a tendency to collect sawdust and grime.

Before waxing, clean off all of the parts to be waxed with wood alcohol or some form of paint thinner. Never wax your Shopsmith before cleaning it thoroughly. If the wax is applied over a coating of oil or grit, the wax will not "set" properly and will make polishing impossible.

The following are the parts and places of the Shopsmith that should be waxed:

1. Both way tubes and bench tubes.
2. Both saw and extension table tops.
3. Extension table mounting tubes.
4. Saw table mounting tubes.
5. Inside each hole that the extension table tubes fit into.
6. Inside the two carriage holes where the saw table tubes fit.

After applying the wax, make sure it dries thoroughly to provide a hard finish. When the wax is dry, buff all of the waxed parts vigorously.