SHERLINE PRODUCTS
INCORPORATED 1974

Sherline Mill Saddle with Oiler

Introduced March, 2010

About the Mill Leadscrew Oiler

Most things that wear out or go wrong with any machine are the result of insufficient lubrication. The introduction of computer control (CNC) to Sherline machines has increased demands on leadscrews and other moving surfaces due to the fact that a stepper motor is a tireless worker that can introduce a lot more motion in a given amount of time than any human operator. Whereas a machine operated manually can get by with a daily application of oil to the leadscrews, a machine run for long periods of time with CNC needs lubrication more often in order to keep from wearing out prematurely. The Sherline mill saddle oiler now maintains a reservoir of lubricating oil that bathes the X and Y leadscrews, reducing the number of times the operator must attend to oiling duties. Just keep the reservoir topped up and the leadscrews will never run dry. What is good for a CNC machine is also good for a manual machine, so the new oiler will be available as an option on manual machines. Once supplies of the old non-oiling saddles are exhausted, the new oiling system will be a standard feature on both CNC and manual mills.

How It Works

Oil passages have been drilled into the mill saddle that connect the oil reservoir to the space between the slide screw insert and the anti-backlash nut on the X and Y axes. Set screws are used to block the ends of the passages. Oil is retained around the leadsrews and is kept from escaping from the saddle by the slide screw insert at one end and the anti-backlash nut at the other end. For this reason it is important that you maintain proper adjustment of the anti-backlash nut or oil can leak out.

A small amount of oil will be pulled through the threads of the leadscrew nuts with each rotation, so monitor the oil level in the reservoir periodically to make sure the leadscrews do not run dry. This is particularly important during continuous CNC operation. The advantage of the oil reservoir is that it gives one easy to access point to apply oil for both leadscrews rather than having to apply it directly to the screws. Because the X axis screw is underneath the table, oil was usually applied by putting it on the operator's finger and spreading it along the leadscrew. This new method is not only easier, it is much cleaner for the operator.

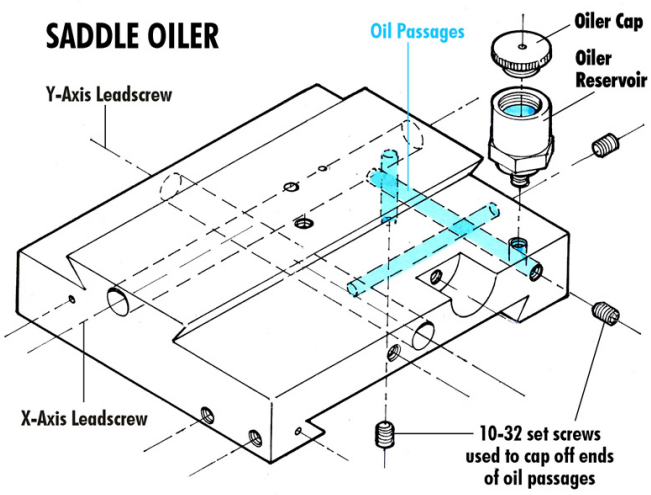

FIGURE 1—Oil passages are shown in blue.

Upgrading Existing Saddles

Sherline does not recommend replacing the saddle on an existing mill to add this feature. While the additional charge to include it on a new machine is a good investment, we feel the cost of a new saddle and oiler plus the labor to install it would be excessive for the benefit received. If, however, you do wish to install a new saddle with oiler in place of your existing saddle, they are available as P/N 50911. If you want Sherline to do the installation for you there will also be a charge for one hour of labor plus the cost of return shipping.

Thank you,
Sherline Products Inc.