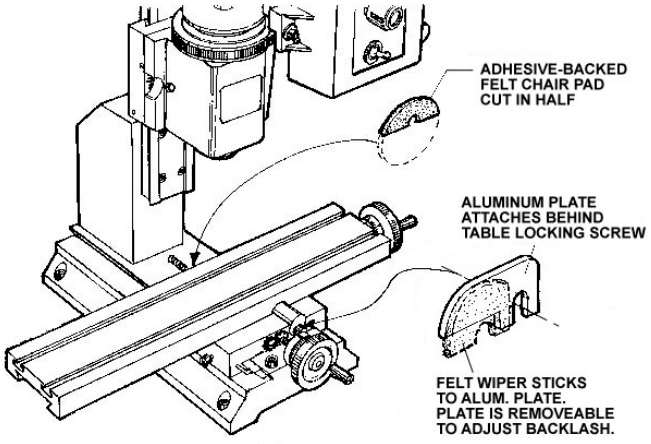
SHERLINE PRODUCTS
INCORPORATED 1974

TIP 17 — Mill Y-Axis Leadscrew Wiper/Larry Mortimer

Leadscrews on just about all axes of Sherline lathes and mills are under tables or behind columns, which pretty much keeps them safe from flying chips. However, the Y-axis leadscrew on the mill is exposed. Rather than come up with complicated accordian way covers to keep chips off the leadscrew, Larry Mortimer came up with a simple and inexpensive item that wipes chips off the leadscrew before they can enter the nut.



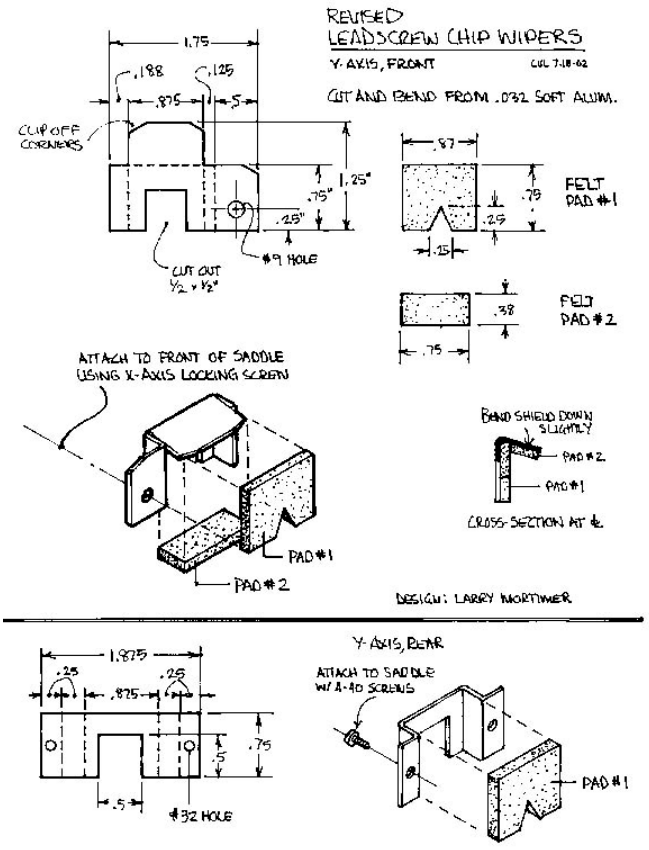
NOTE: *Wipers and plate are shown oversize in relation to the mill.*

Larry bought a card of adhesive-backed felt chair leg pads at the supermarket. He cut one in half and made a notch for the leadscrew. On the back side of the mill table, he stuck the protector right to the table, locating it so that the notch wipes the leadscrew. On the front, he made a simple half-round aluminum plate that attaches to the table locking screw. The other half of the felt wiper is stuck to the aluminum plate. The plate and wiper can easily be removed if a backlash adjustment is needed.

An added bonus of this system: Put a little oil on the felt and the wiper not only keeps chips from entering the nut, it also lubricates the leadscrew every time it moves. When the felt wiper gets dirty or worn, just cut and stick another felt wiper.

A Revision to Larry's Original Plan

After trying the above method for a while, Larry and others noticed that oil eventually breaks down the adhesive backing on the felt pad and it no longer sticks to the saddle or mounting plate. For those who use the felt pad for lubrication as well as wiping action, Larry has come up with the design shown below. He cut the shapes from .032" soft aluminum and bent them on the dotted lines. He then stuck the felt pads to the holders and screwed the holders to the machine. The pads are then contained between the holder and the saddle, so they can't fall out if the glue on the pad gives up.

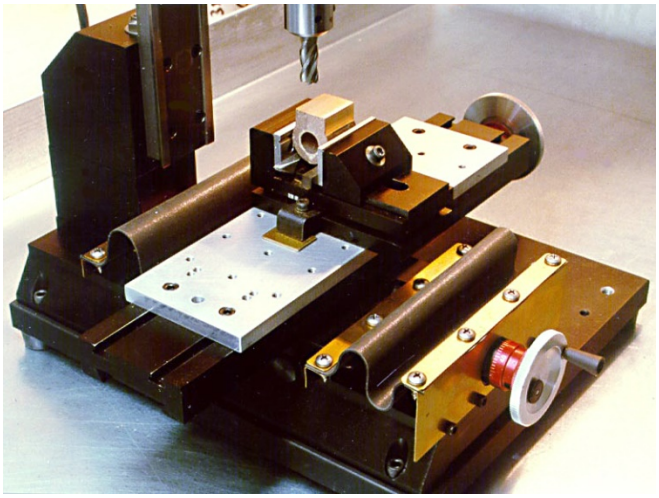


See Page 3 for a larger version of this plan.

SHERLINE PRODUCTS INC. • 3235 Executive Ridge • Vista • California 92081-8527 • FAX: (760) 727-7857
Toll Free Order Line: (800) 541-0735 • International/Local/Tech. Assistance: (760) 727-5857 • Internet: www.sherline.com
RETURN TO THE TIPS PAGE

Another way to keep chips off the Y-axis leadscrew/ Tim Schroeder

Tim Schroeder was looking for a neat way to keep chips off his Y-axis leadscrew and came up with this professional looking solution. As you can see from the photo, he combined some bent brass plates with rubber material. It would appear that this solution has eliminated the function of the X-axis locking barrel, so you will have to consider the importance of that feature if you select this solution to the chip problem. (In some positions it may still be possible to get to the locking screw under the rubber, but it looks like it would be difficult.) It also appears that a small amount of potential Y-axis travel may be lost due to the addition of the plates, but the way he has cleverly overlapped the front and rear mounting plates so they don't align with each other probably takes care of most of this. In any case, it is certainly a functional and good looking solution to keeping the only exposed leadscrew on a Sherline mill clean.



Tim Schroeder's manual mill features simple flexing leadscrew covers made from rubber tire innertubes.

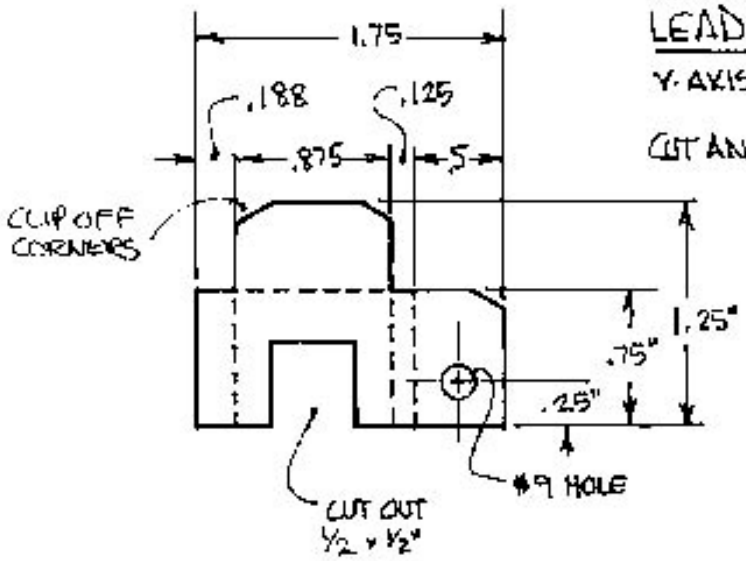
RETURN TO THE TIPS PAGE

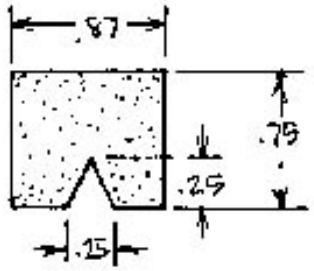
REVISED
LEADSCREW CHIP WIPERS

Y-AXIS, FRONT

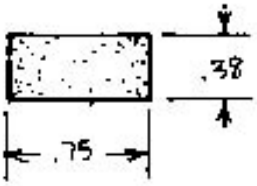
COL 7-18-02

CUT AND BEND FROM .032 SOFT ALUM.

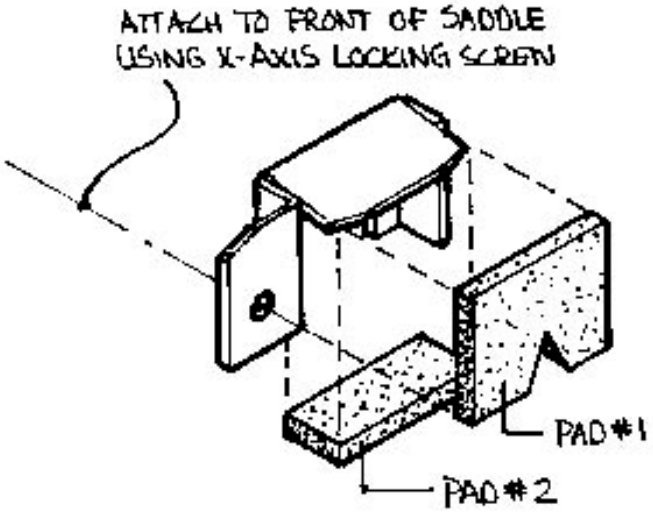


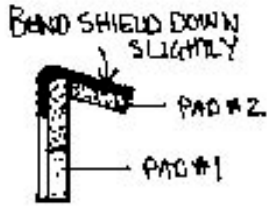


FELT PAD #1



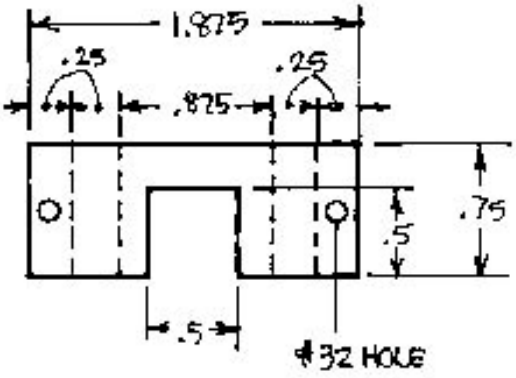
FELT PAD #2



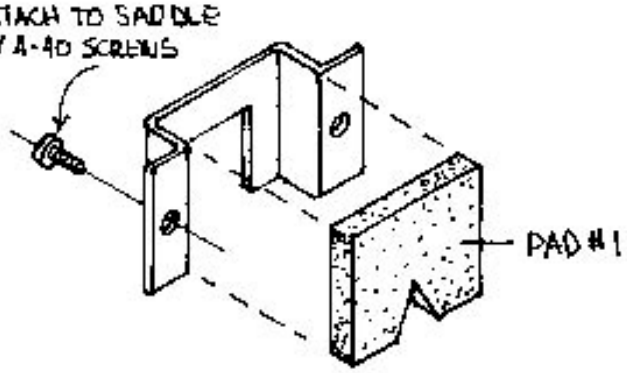


CROSS-SECTION AT ℄

DESIGN: LARRY NORTHMER



Y-AXIS, REAR



RETURN TO THE TIPS PAGE