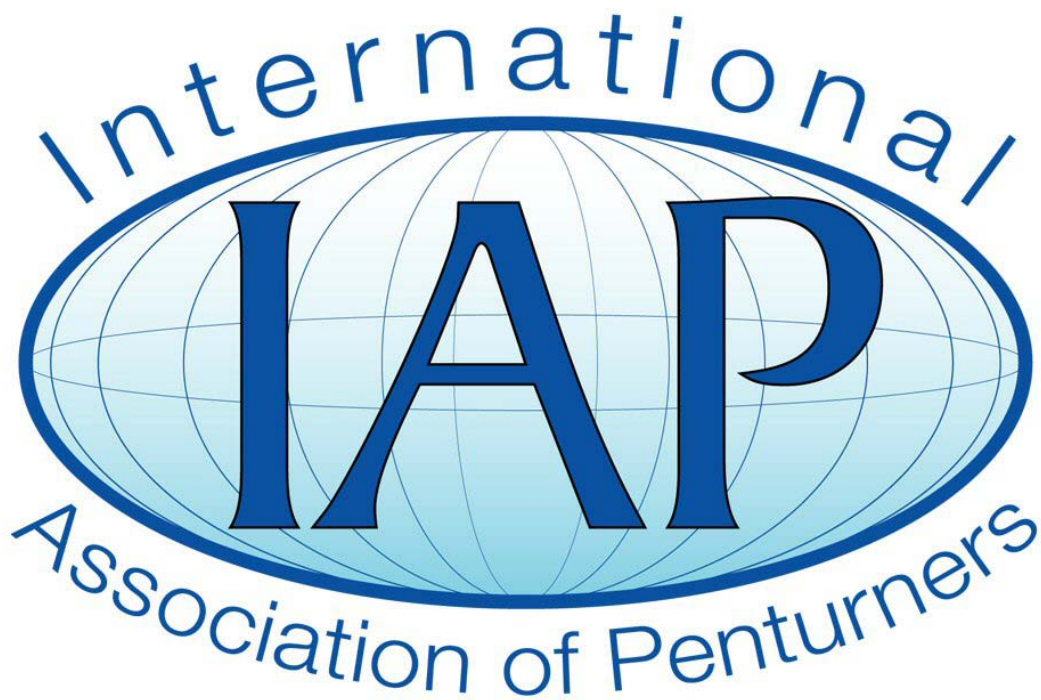


MagSteady

Contributed by: David Reed Smith



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MagSteady by David Reed Smith

If you have comments, questions, or suggestions I'd enjoy hearing from you. Just send me an email. My address is David@DavidReedSmith.com.

This article was published as a tip in the Summer 2002 AAW Journal.

I've found that a two-wheeled Back Steady can be very useful in suppressing chatter when turning thin spindles. Since it only has two wheels and the Magnetic Base has limited grip, it won't secure heavy spindles or suppress a catch. However using the Magnetic Base means it can be mounted on the lathe in seconds without even turning the lathe off, and relocated with one hand if needed.

You can get a Magnetic Base from any Industrial Supplier (\$14.07 at www.mscdirect.com). Remove the plastic label from the front of the Magnetic Base. This will let you take out the screws that hold the front plate on. Shake the magnet out far enough to grab and remove it. Drill and tap for two 1/4x20 bolts on the mid-line of the back of the base, about 1/2" from the top and bottom, then replace the magnet and front plate.

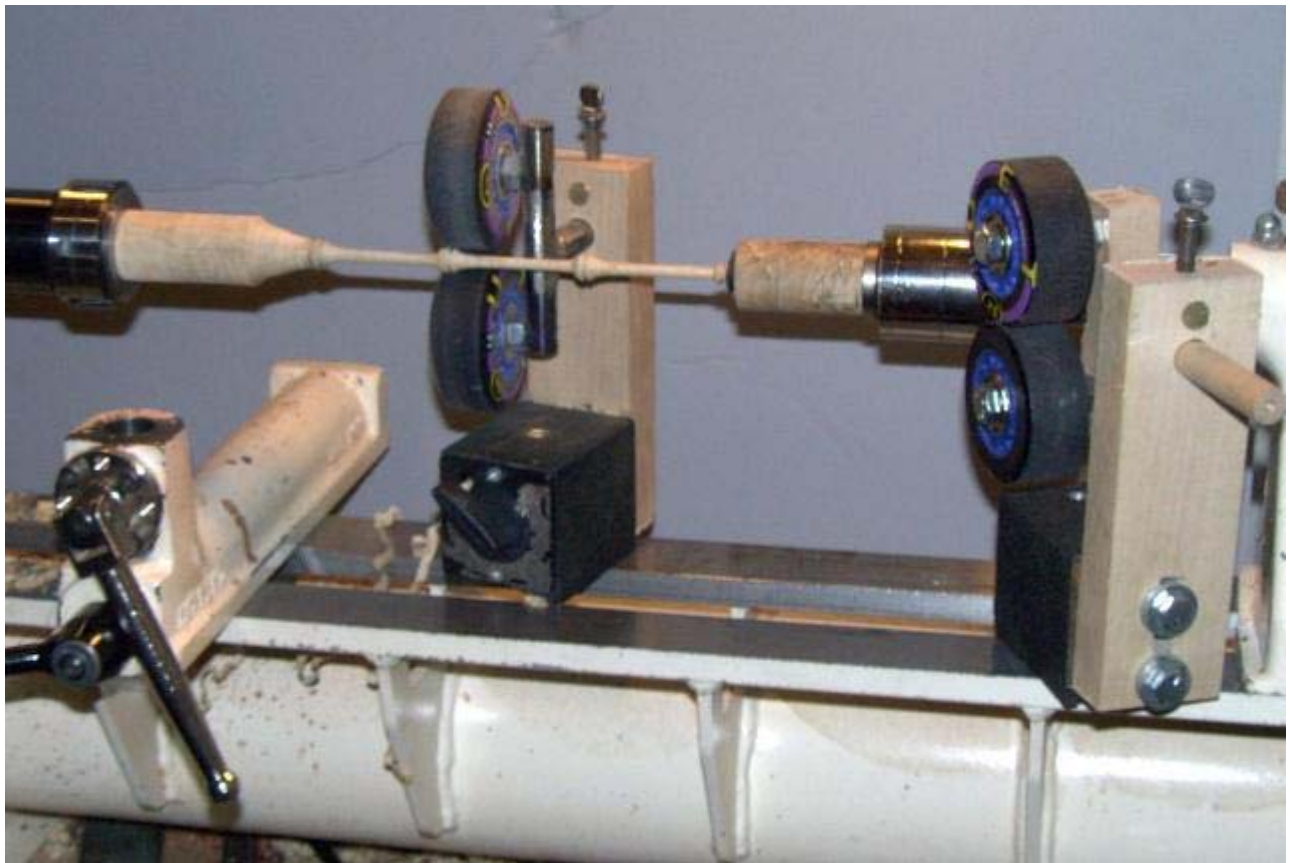
Make a T-shaped support for the roller blade wheels out of metal rod or wood dowel. Drill and tap for 5/16x18 bolts slightly more than one wheel width apart on the arms of the T. Since I do mostly small work I turned down the wheel diameter first by pinning the wheels against a wooden plate with the tailstock.

Make a 2" wide wooden support to mount to the base. Cut a 1/4" by 2" slot in the bottom of the vertical support to allow for vertical adjustment, and a drill a hole to mount the T-shaped support slightly less high than the center height of your lathe.

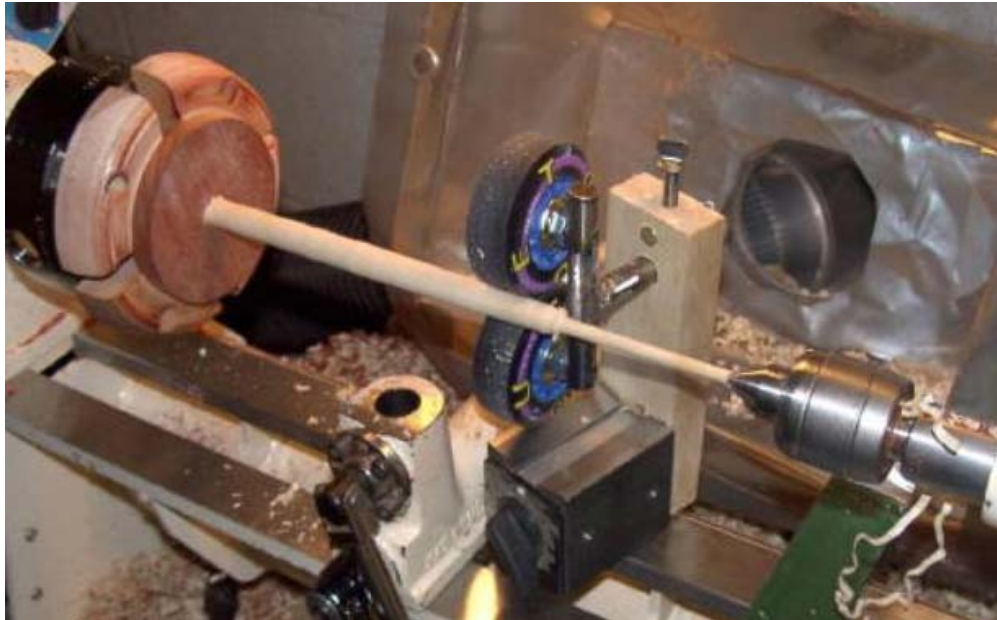
Use a 1/4x20 threaded insert or drill and tap through a cross pin for a thumbscrew to secure the T-shaped support.

Mount the vertical support on the Magnetic Base using a pair of 1/4x20 bolts. Cut the bolts or use washers so that the bolts don't hit the insides of the base. Mount a spindle on the lathe and adjust for height, then tighten the bolts.

To use just set the base on the back of your lathe bed and slide it forwards until the wheels start to turn. Then lock the position using the lever on the Base. The accompanying photo shows a Back Steady in use, with a back view of another back steady so you can see the mounting.



This shows a Back Steady in use, with a back view of another back steady so you can see the mounting. The Tailstock is a SoftCenter: a wooden plug mounted on a One-Way tailstock, with a urethane insert.



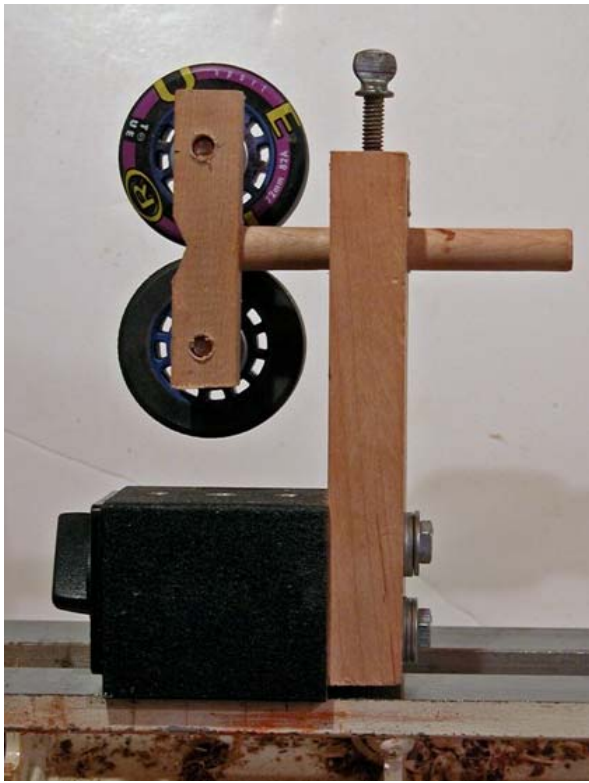
Steadying a drop spindle shaft.



The MagSteady from the Back



The MagSteady from the Front



The MagSteady from the Right



The MagSteady from the Left