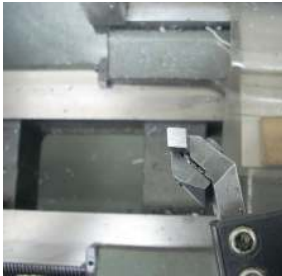


Setting the Height of a Lathe Cutter, version 1

By R. G. Sparber

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There are countless ways to set the height of a lathe cutter at the correct height. This article, intended for those new to the metalworking hobby, provides a few of them.



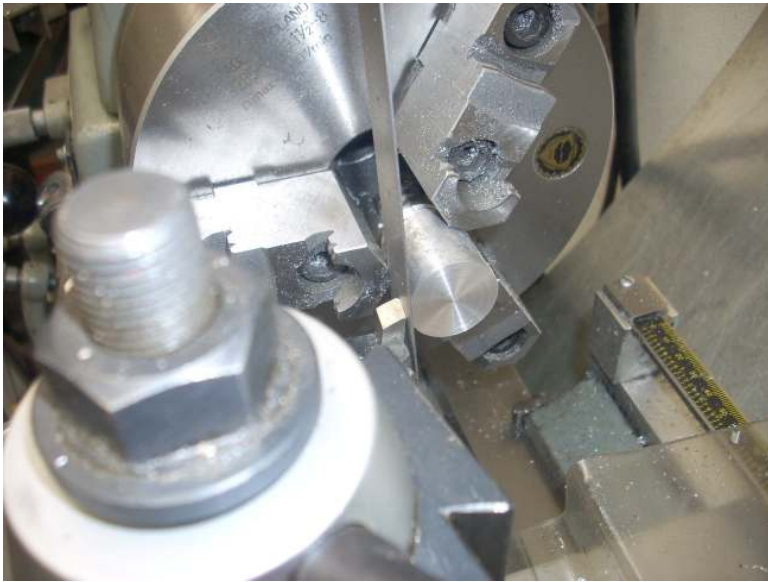
Regardless of the method, it is good to test the result until you are confident. The best way I know to verify tool height is to take a test cut on a scrap of aluminum.

In order to better show the cut surface, I have put a dot of layout dye on the bar.



After making a pass with my cutter, I was left with this nub. Only a close inspection tells me if the cutter is too high or too low. When set exactly on the height of the center of rotation, there will be no nub.

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Maybe the most elegant and popular way to set a cutter is to use a small steel ruler. Simply pin the ruler between a piece of round stock and the cutter. When the ruler sits vertically, the cutter is right on the center line.



Another way to set the cutter at the center line is to chuck a "spud" into the tail stock. However, as can be seen here, sometimes the tool holder can block the way.



In that case, you may be able to chuck the spud into the head stock's chuck.



This next approach has the advantage of not needing access to the chuck or the tail stock. I pulled a piece of extrusion from my junk pile. It will sit on my lathe ways which are flat. At approximately the height of the centerline, I have put on a stripe of layout dye.



I then take my cutter which has already been set exactly on the center line, and press it against the extrusion.



Then I run the cross slide in, causing a line to be scribed. I now have a cutter height tool that can tell me when my cutter is at the lathe's center of rotation height.



Here I'm using my cutter height tool to set my cutoff tool.

I am confident that there are dozens of other ways to set the proper height of a cutter. Send your favorite technique to me and I will include it in this article along with proper credit.

I welcome your comments and questions. All of us are smarter than any one of us.

Rick Sparber
Rgsparber@aol.com