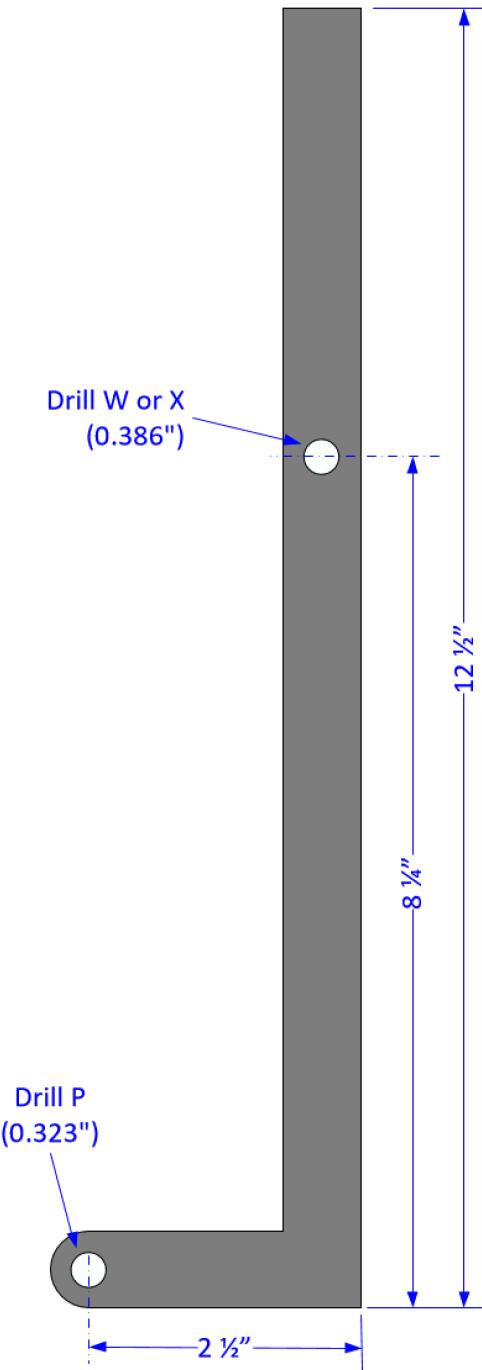


## Amplitude Adjuster for an MDF Rose Engine

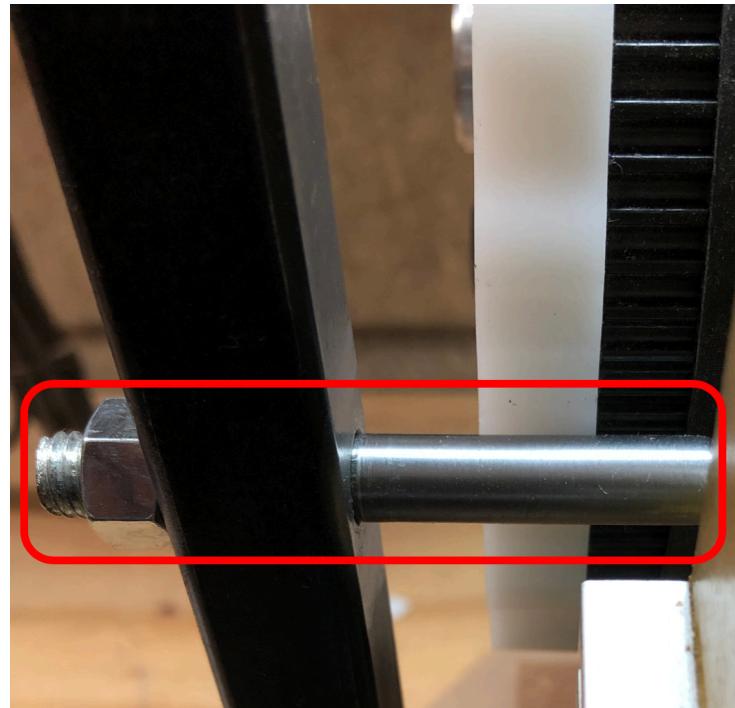
The black **lever arm** is made from 0.75" square steel tubing.



The **rosette touch** (the chrome part shown in the picture to the right) is a partially threaded, hex head,  $\frac{3}{8}$ -16 screw with the head cut off. Part number [91257A636](#) from [McMaster-Carr](#) is an example.

This hole drilled for this is with a W or X bit (around 0.386" – W gives a tight fit for a 3/8" bolt's threads).

The hole is drilled in the arm so that the hole is vertically aligned with the spindle's axis. In my case, that was 8.5" up from the bottom of the lever. Dimensions are shown on the previous page.

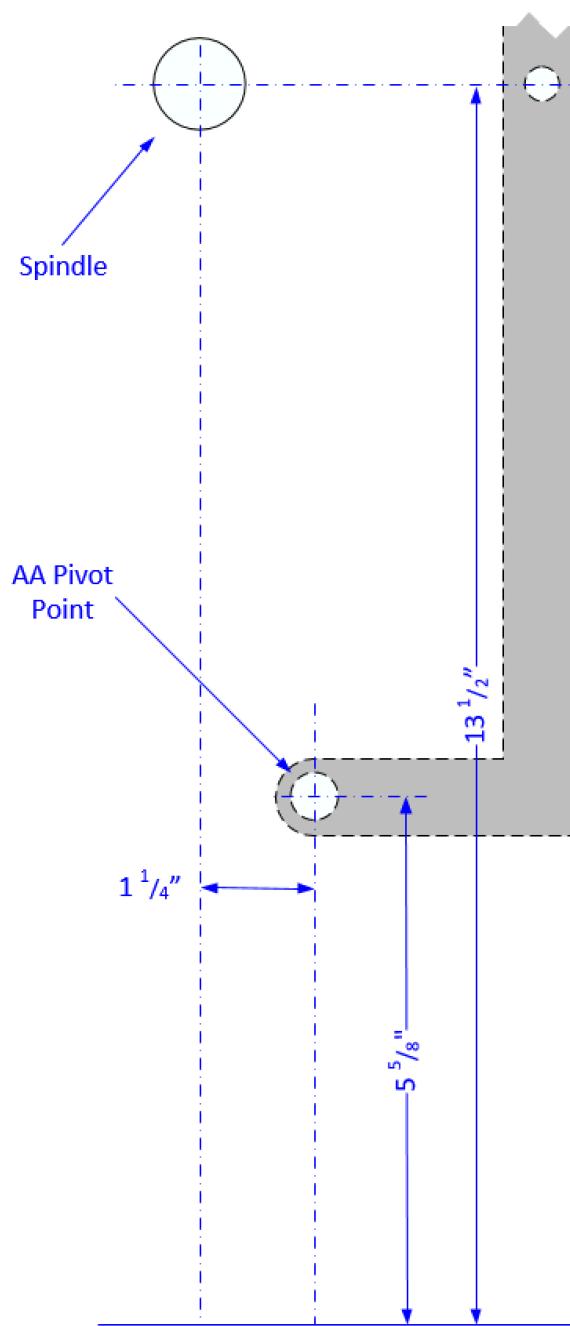
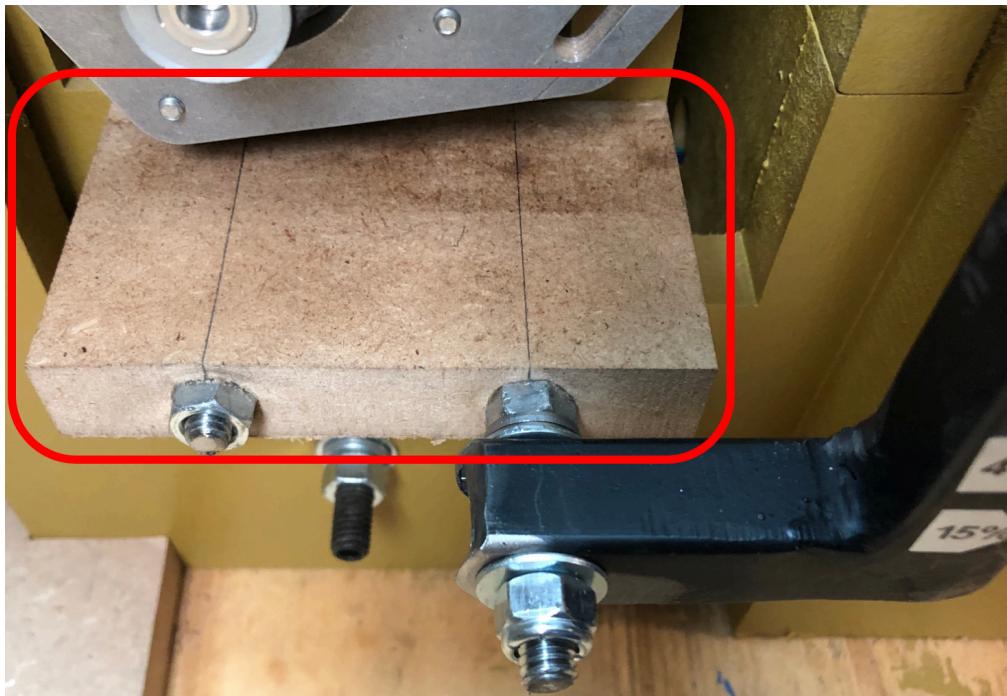


A **block** is needed to move the steel lever arm 2.5" out from the headstock. This is to ensure the lever has room to clear 1 or 2 rosettes. This block (the unpainted MDF in the picture below) is 4" x 2.5" x 0.75".

The bolts attaching this block to the headstock are 5/16" – 18 carriage bolts.

- The left one is 3.5" long
- The right one 5". It is held in place with a standard nut, and the steel lever arm is held in place by a lock nut. The use of a lock nut allows the lever arm to pivot back and forth without loosening the nut.

The alignment of the block relative to the spindle is shown in the diagram to the right. The right bolt is the AA's pivot point.

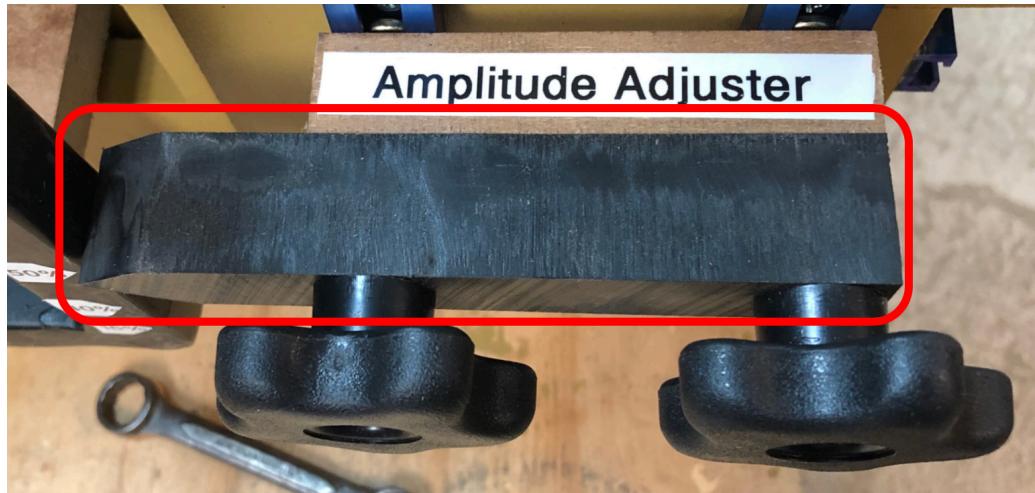


The **amplifying touch** shown here is made from [Delrin](#), but it could also be made from aluminum or something else (if using aluminum or steel, a roller end is a good option worth exploring).

It slides up and down to adjust the amplitude and is affixed in place using T-track (the blue parts – best shown in the picture on the first page).

It also has slots cut in it to allow it to slide in and out (left and right in this picture). This is to allow the **amplifying touch** to align the headstock properly.

The one I made is 5.25" long x 1" tall x 0.75" thick (same as the MDF spacer).



The **MDF spacer** (the unpainted MDF in the picture with the label, "Amplitude Adjuster") is used to align the amplifying touch with the lever arm. It is 3.75" long x 0.75" square.

