Mounting the Shan 6” Vertical Gauge on a Delta 15” Planer

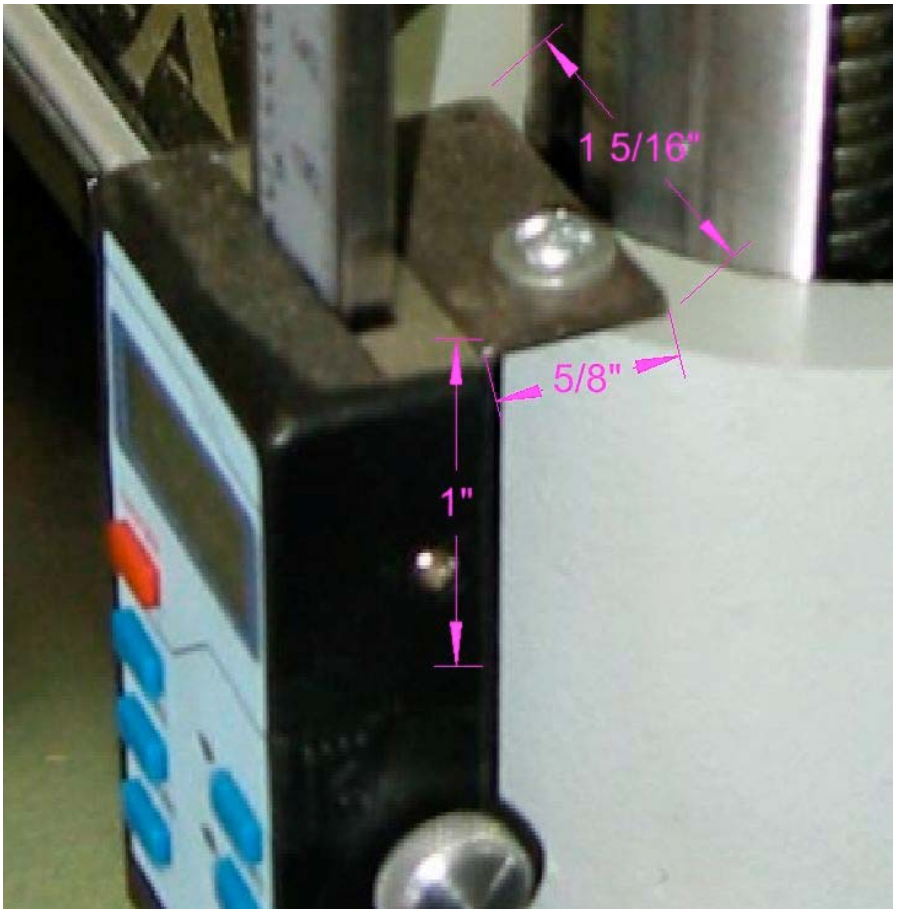
The following instructions will cover the installation of the Shan 6” Vertical Digital Scale (#271-520) on a Delta 15” Planer. The planer in question is Delta’s X5 model, however these instructions should apply to previous models, or other similar planers.

The overall intent was to minimize the number of holes to be drilled and tapped, and minimize any destructive change to the planer so as to allow the removal of the gauge in the event the planer was sold. The gauge could then be transferred to the new machine.

No modifications to the Shan gauge are required, except to reverse the lower mounting bracket. This is not mandatory, but was done to facilitate mounting the entire assembly as close as possible to the planer casting. Keep in mind, there can be some sizable pieces of wood banging around in this area, and any unnecessary protrusions increase the risk of damage to the gauge. Also, you will note the gauge is attached at three points: the body of the gauge and both the top and bottom of the arm. While it may only be necessary to attach either the top or bottom only of the arm, this more robust method minimizes the risk of having an errant piece of wood knock the gauge out of alignment.

So, let’s get started, shall we?

The installation is quite straightforward, with only two small angle brackets and a spacer to be fashioned. You will need to drill and tap two holes in the planer. The third mounting screw takes advantage of the existing hole at the top of the existing depth scale. Note: it is important that the body of the gauge travels parallel to the movement of the planer. For that reason it is advisable to fashion the bracket for the gauge body and attach it to the planer first, then fine tune the upper spacer and lower mounting hole so that the gauge body travels perfectly parallel to the planer when raising and lowering the cutterhead.

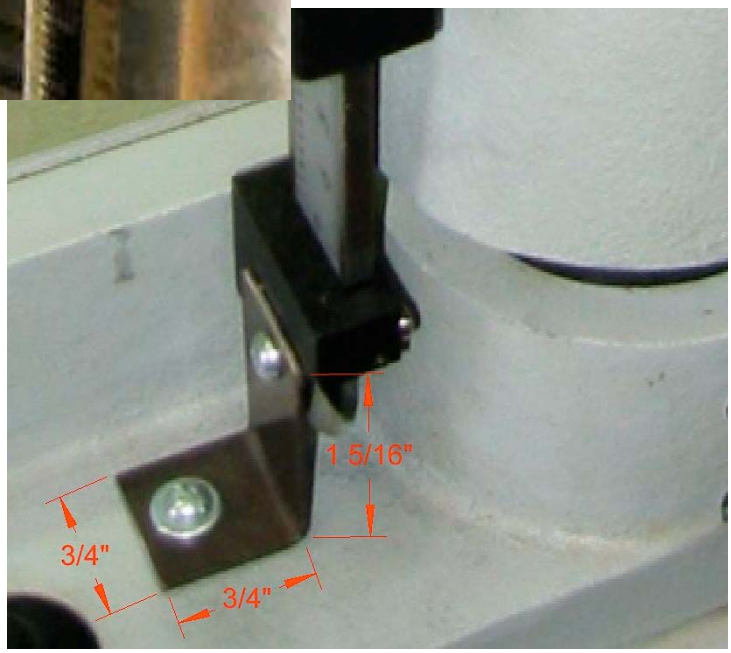


The bracket can be made of just about any material – an old piece of thin steel is used in this example. Cut as per the dimensions shown, and mount to the gauge body using existing holes and screws. NOTE: be very careful to use the supplied screws to attach to the body, as they are sized so as to not damage the inside of the gauge body. You supply the #8x1/2” machine screw to attach to the planer. The supplied mounting bracket can be used as a template for drilling the holes in your bracket. Also note the bracket is attached to the planer with only one tapped machine screw (#8 in this case). This should be sturdy enough, and eliminates the need for a second hole. Actual hole location is not critical, but should place the gauge body as close as possible to the planer casting.

The top of the arm is then affixed with a machine screw and spacer. The spacer length should be approximately 5/8”, however that may vary slightly depending on exactly where your mounting hole for the body was placed.

Again, just about any material can be used for the spacer. In this example, it was some scrap steel tube (approx 3/16”) with a washer at either end – totaling 5/8”. The existing depth gauge mounting screws are metric, so you will either need to get a longer screw of the same size (4mm I believe), or just re-drill and tap the hole to #6 or #8.

shown, and attach first. Then mark of the bracket. Run way up and down moves. At this adjust the length spacer, and/or bracket on the bottom mounting (excessively) motion of the and tap for the and you’re done.



Finally, cut another small piece of angle as per the dimensions to the gauge bracket the hole for the bottom the cutterhead all the and note if the bracket point you may have to of the top mounting slightly bend the angle body so that the does not move through the range of cutterhead. Then drill bottom machine screw

Now all that’s left to do is calibrate the gauge, and then start making some very precisely thicknessed pieces of wood!