

Radial Arm Saw Sanding Disk

Last Updated: Monday, September 27th, 2010, Created: Wednesday, September 16th, 2009

I have a copy of your Fine Tuning Your Radial Arm Saw , am interested in the article on page 52 relating to planning the table flat, but I can't seem to find anyone that knows where to obtain the rigid sanding disk that is shown in figure 3-46. I hope you might know where to obtain one. - William, Chilliwack B.C.

Hello William, Many years ago both DeWalt and Craftsman made sanding plates for their radial arm saws -- but as you found -- good luck finding them now. The critical engineering details of those plates were that they were specifically threaded for the motor shafts and the back-side of the hub was machined parallel to the face of the sanding disk -- meaning what when tightened up against the arbor nut, the face was forced wobble free perpendicular to the shaft. Also the outer lip, just under the outer edge of the self adhesive sandpaper was slightly beveled. This bevel was light enough that the sandpaper would conform to the slope without popping up, but just strong enough that it gave a sloped leading edge to sweeping the sanding disk across a surface without the paper digging in. There is a 10" sanding plate on the market (Freud #CD-008) but it does not have a hub, so it could be used effectively as a great sanding backer for general work but cannot be put full flat down to the table because there will be a nut in the way. In addition, to use a sanding disk as a planner, it must have a slight bevel on the outer edge to avoid digging in. The Freud blade is perfectly flat.

The best home made disk I have seen for this use is as follows: Start with some self adhesive sanding disks that are easily available to you -- probably about 6 or 8 inches in diameter (the DeWalt disk was 8") -- and build the sander to match the paper. Take a quality piece of 3/4 plywood to make the basic backer disk. You do not have to be too perfect in terms of round or centered at this point as we will "balance" it later. Build a fairly substantial hub with built up layers of plywood -- good glue and symmetrically placed screws. This hub needs to be fat enough to allow for the arbor nut to end up totally recessed. The nicest one that I have seen had a metal bushing that fit smoothly over the arbor and press fit into the wooden hub -- to prevent wear of the mounting surface. Remember that just like with the original disk, the back side of the hub pushing against the stabilizing washer is what squares it all up.

Build the sanding disk and mount it -- then use that set-up like a lathe to perfect the round and flat of it all. For instance bring the disk down close to the table (flat) and hold a sanding block firmly to the table and move it slowly into the spinning disk and you will true the circle to the shaft. You could do the same thing by putting the disk in a vertical sawing position and dropping it into a sanding block or drawing it forward to an angled sanding block. You may even need to true out the sides of the hub in order to stop any vibrations. To do this make a taller sanding block that can be fixed to the table and reach the hub when the the disk is put in the vertical position -- drop slowly to the block until it spins true. Put sandpaper on the table and drop the disk slowly and it will square the face. Set the bevel of the saw to about 5 to 8 degrees off of the disk in a horizontal position and drop to the sandpaper on the table to create that beveled edge. On the DeWalt disk that bevel was only about 3/8" in from the rim of the disk.

Once this is all done I would recommend a good hard finish on the disk, like a Verathane, so that the sanding disks stick well, and remove well, without wear on the face -- and then be careful not to gouge into this beautifully balanced tool of yours. If you are really looking for passionate information and discussion you might want to check out the DeWalt Radial Arm Saw Forum . You can see most of it by signing up for a free DelphiForums Basic membership. I hope this helps jon

Keywords:

Accessories, Grinder, Installation, Jigs, Maintenance, Power Tools, Radial Saw, Sanding, Saws, Techniques, Tip, Tune-Up, Woodworking, Workshop

