

DP-220 Spindle Bearing Installation Tips

(New Departure 88100)

Remove Drill Press from Power Source First !!

1 – Removal

Prepare the quill for removal by first locking the quill firmly with the quill lock lever. Loosen the two jam nuts holding the quill return spring housing on the left hand side and (with a gloved hand) lift the housing cover free and allow to **slowly** unwind. Remove the nuts, followed by the **cover and spring as one unit**. From the right hand side, pull the pinion out of the drill press head. Release the quill lock lever, and the quill with spindle should drop free from the drill press head. **Be sure to catch it.**

Remove the top collar (set screw), and slide out the spindle. Remove the spanner nuts holding the bearings on both ends. The old bearings should just lift out with a pull of your finger, if not, poke them out gently with a wooden dowel.

2 – Inspection

Inspect the spindle carefully for any rough spots or burrs, dressing them smooth with a smooth file. (The set-screw from the top collar is notorious for this.) Polish any rust and dirt off the spindle with a Scotch-Brite type abrasive.

Apply a thin protective coat of light machine oil, such as 3-1 oil, to the spindle and test fit the new bearings on the spindle. The bearings should slide the length of the spindle smoothly, with no binding.

Clean the internal threads of the bearing journals with a wire brush or Scotch-Brite.

3 – Installation

Install the bearings in opposite ends of the quill with the **slotted side pointing out**. The bearings should drop in place needing only a little pressure from your finger.

The new bearings are a little thinner than the original ND-88100 bearings but there is sufficient threads to tighten securely. Don't over tighten the spanner nuts; just tighten the spanner nuts are snug and all play is removed.

Slide the spindle into the lower bearing making sure to **align the slots** over the pins in the bottom of the spindle. Then slide the top collar down the spindle, again making sure the tabs on the collar enter the slots in the top bearing. Tighten the set-screw securely.

Slide the quill assembly into the drill press head while slowly rotating, so as to align the spindle with the splines in the pulley bore. Re-install the pinion, the spring w/ cover, and the jam nuts. Wind the spring housing (counter-clockwise) until just enough tension is developed to hold the quill up. Don't overdo it, you can always adjust it later. Snug down the jam nuts.