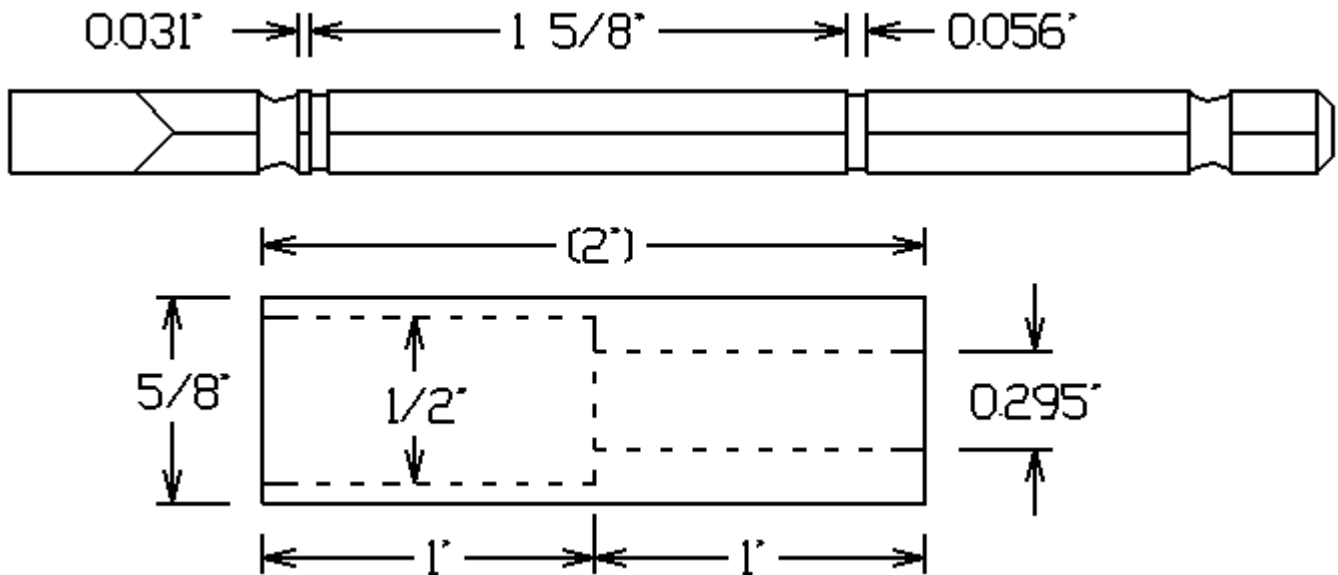


Powered Screw Driver for Slotted Head Screws

E M (Ted) Edwards

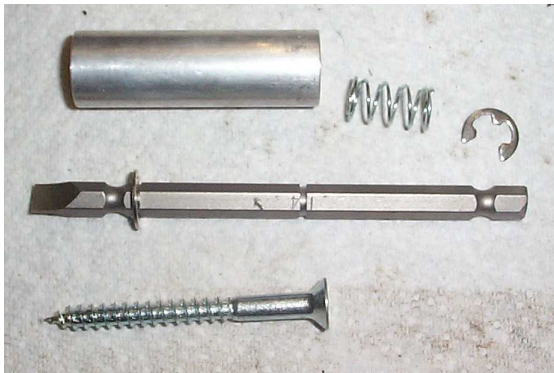
It's hard to beat a power screw driver when there's lots of screws to drive. Standard 1/4" hex bits work fine for Robertson, Allan or Phillips heads but leave a great deal to be desired for slotted head screws. Maybe you are better at it than I but any attempt I've made to use power on slotted heads has ended with marred work. I made the device described here to keep the bit in the slot.

I started with a commercial 4" double ended bit of good quality. I cut two grooves in it to accept 1/2" OD E-rings. The grooves need to be wider than the thickness of the E-ring but the width is not critical. I used 0.056" because I have a carbide parting tool of that width. The groove nearest the end should be close to the tool retainer groove but leave a little bit of meat for strength. The unused bit at the other end was ground off so the groove that retains the bit in a quick change chuck would be close enough to the end.



The sleeve is made in the lathe from a piece of 5/8"D aluminum round. A 1/2"D hole was drilled in 1" total depth. A 9/32" hole was drilled the rest of the way through. The bottom of the 1/2" hole was then squared up with a 1/2" end mill.

Two 1/2" OD E-rings and a compression spring complete the parts. The spring needs to be about 3/4" long and with an ID that will give a loose sliding fit on the hex bit. My spring was 3/8" OD. The spring should be stiff enough to hold the cage against the work but that's about all. Don't make it too stiff. It should be easily compressed enough that the end of the cage can be pushed back to expose about 1/4" of the bit.



Install the E-clip nearest the end. Slide the cage on with the 1/2" bore over the E-ring, slip the spring on, compress it enough to allow installation of the second E-ring. Your tool is complete. Enjoy!

Here you see my neighbour trying it out. It worked flawlessly.

