



From My Shop

A Tool to Turn Over the Engine

by Phil Lawrence

Now, as promised, a tool to help with engine work. Ever have a hard time turning over a crank shaft? Sometimes it can be difficult when working on the Model T short block mounted on a engine stand or sitting on a bench. To overcome the problem, you need to make a wrench to help give you some leverage to turn that stiff crank over.

Anybody can make this wrench with simple hand tools. Let's get started! First, you need a piece of scrap metal bar. I used a piece that has been lying around my shop for years. It measured $\frac{3}{4}$ " x 1" x 40" long. Anything you have would probably work even pipe or angle iron. The bar will need to be 1" to 1 $\frac{1}{2}$ " wide and at least $\frac{1}{4}$ " thick. A 24" long bar will give you more leverage to help free a stuck engine. I cut 16" off the bar give me 24" total length. Find the mid-point and make a punch mark on the wider side of your bar a $\frac{1}{2}$ " from either edge centering the punch mark on the bar (if your bar is 1" wide). Next, make two more punch marks like the first exactly 1 $\frac{5}{8}$ " on each side (left and right) of the first mark, again centered on the bar.

The next step will be to drill through the bar on each of your last two punch marks. You can do this one of two ways. You can drill $\frac{25}{64}$ holes then tap the holes to 7/16-20 (fine thread) if you are using a bar thicker than $\frac{1}{4}$ ". This will save you the trouble of always looking for lost bolts when you want to use the wrench. Or, to make it simple, just drill the holes out with a $\frac{29}{64}$ drill and bolt the wrench to the crankshaft flange with 7/16-20 x 1" machine bolt and nuts if you are using $\frac{1}{4}$ " bar stock for your wrench. A drill press is handy, but not necessary. When drilling, use a $\frac{5}{16}$ drill bit first then follow with the larger drill. If you use thicker bar stock for your wrench like I did and thread the bar, use 7/16-20 machine bolts 1 $\frac{1}{2}$ " long with nuts to attach the wrench to crankshaft flange. Just remember to screw the nuts back on the wrench when you're done using it so they will be ready to use next time.

By making your wrench with a thicker bar it will take a little pounding if you need to use some force to free a frozen block. As another option, drill additional holes starting 1" or 1 $\frac{1}{2}$ " from one end of the bar. Layout another pair of bolt holes using the same 3 $\frac{1}{4}$ " center-to-center measurement as you did in the center of the bar. This will give you a choice of a two, 12" handle wrench using the center bolt holes or a single handle 24" long wrench using the end bolt holes.

Any questions? Feel free to give me a call!