

July
2003

Pressman's Toolbox

Removing stubborn press parts takes right tools

By Frank Bourlon

Gear pullers, hydraulic pullers and bearing pullers will remove most parts from a press, but in some cases these tools won't fit or are very awkward to use.

Slide hammers work great but have to be bolted on in most cases. Figure 1 shows a pair of locking pliers with a slide hammer attached. To make this handy tool, get a pair of locking pliers, a half-inch steel rod 18 inches long, a half-inch nut and a piece of 1-1/2-inch-by-4-inch round steel.



Fig. 1

The first step to make this device is to grind a taper on one end of the half-inch steel rod and then weld the rod to the locking pliers.

Next, center drill the 1-1/2-inch round steel and slide it on the half-inch rod. Finally, drill through the half-inch nut with a half-inch drill bit so that the nut will fit snugly on the half-inch rod. Weld the nut to the end of the half-inch rod and you're done.

Make your own

Design your own puller. Locking pliers come in a variety of styles, any of which may suit your needs better than the one I just described. The puller

can be used to remove almost anything from a press that you can grasp, including hand wheels, brackets, locking collars or other stubborn items.

Most of the pressrooms I have visited in the past had a bar that had a large half moon on one end and a smaller one on the other.

This tool is called a feather key bar and is meant to remove feather keys (see figure 2).



Fig. 2

What is a feather key? It is a square key that was tapered slightly on one edge and looked sort of like a railroad spike. The purpose of the feather key was to lock a gear to a shaft. When the key was pulled, however, it allowed easy removal of the gear. The key bar is very useful in tight areas when you have to remove specific parts from a press quickly.

If you don't have a feather key, you can make one. A local machine shop can fabricate the tool easily using a plasma cutter. Another alternative is a nail bar. These nail bars are very useful if you have to remove ink fountain cylinders from a Community press manufactured by Goss (see figure 3).



Fig 3

Tough to remove support pins

Support pins can be very difficult to remove from a press frame. The pins can be removed with a collet set (see figure 4).



Fig 4

The collet set is normally used to support end-mill bits in a milling machine. The collet holder is threaded on one end, which will accept a threaded rod. The assembly of the pin-puller is similar to constructing a locking-pliers puller.

To pull a pin, place the collet in the collet holder and you're ready to pull. If a pin puller or collet set is not available, drill and thread the pin you want to remove. Once this procedure has been completed, a threaded rod/slide hammer assembly can be added to the pin for removal.

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