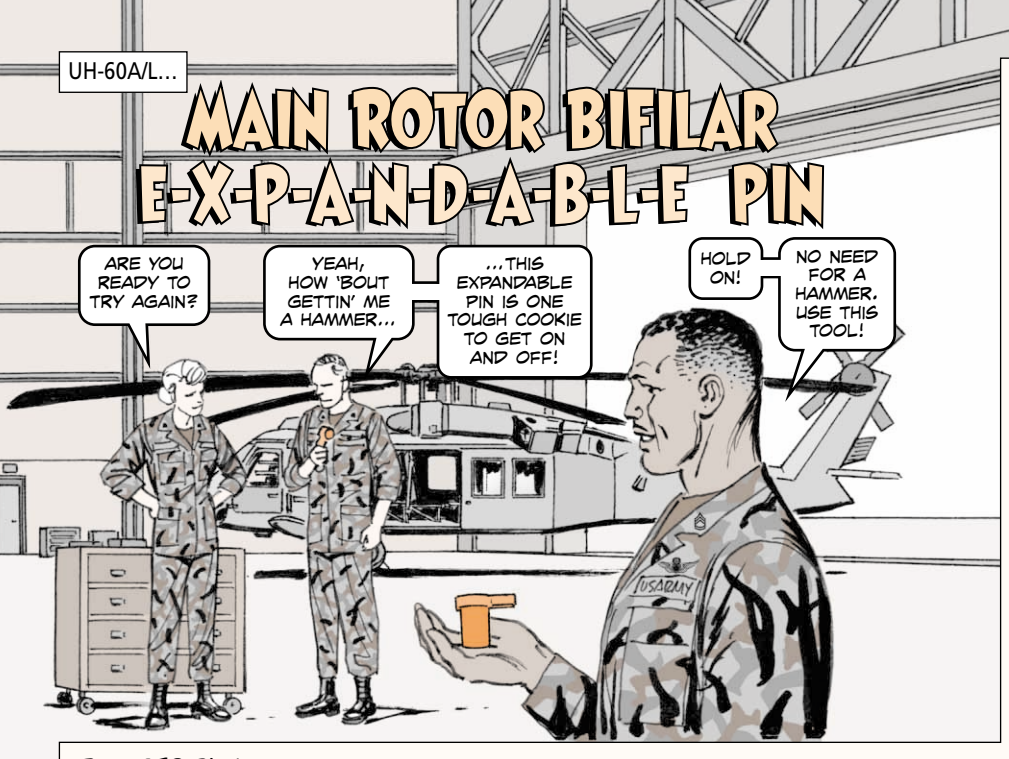
MAIN ROTOR BIFILAR E-X-P-A-N-D-A-B-L-E PIN



Dear SFC Blade,

The Black Hawk's bifilar expandable pins, NSN 5315-01-112-2991, are tougher than nails to remove.

The procedure in paragraph 5-4-27 of TM 1-1520-237-23-3 makes good sense. It tells you to hold the pin with a hex wrench to remove the expandable nut, NSN 5310-00-923-4219.

However, when we try to remove the bifilar expandable pin with a crow's-foot wrench and a breaker bar or an open-end wrench, there's only limited space inside the bifilar to get a turn on the nut.

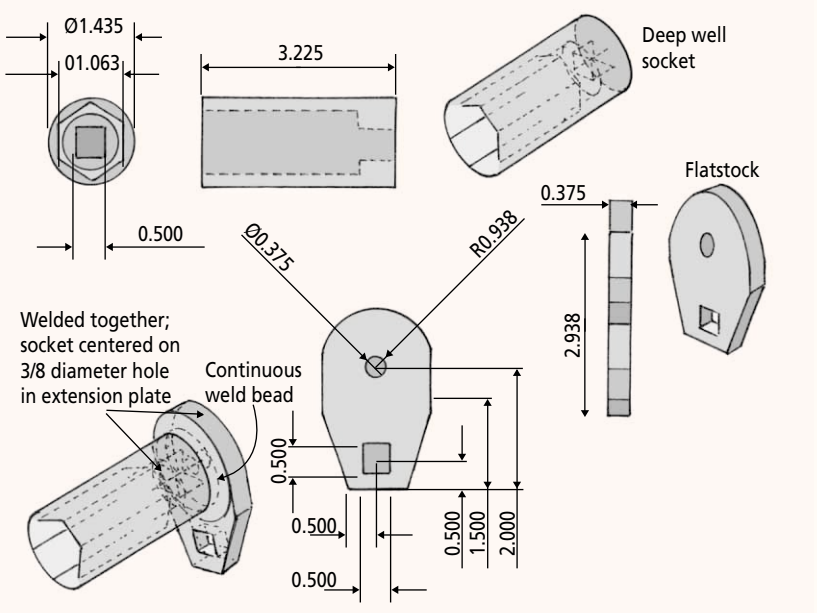
And when reinstalling the nut, we have trouble torquing the nuts to the required 1,090 to 1,205 in-lbs using a crow's-foot.

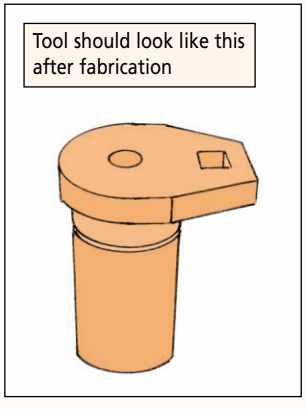
We solved the bifilar space problem by using a 1 1/16-in, 1/2-in drive hex head deep well socket, NSN 5120-01-431-3859. We weld a piece of 0.375-in flat stock on top of the socket and drill a hole through the center for the hex wrench. We also cut a 1/2-in square hole into the stock for a breaker bar or a torque wrench.

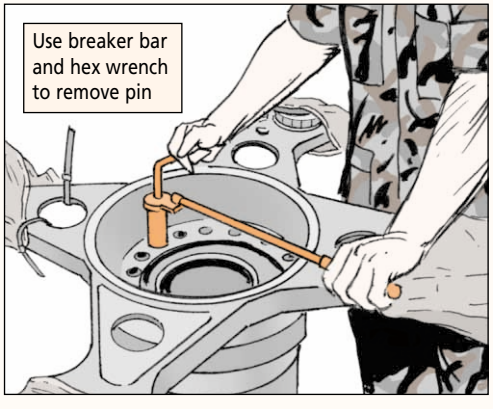
Using this method brings the wrench out of the bifilar into the open area to make it easier to remove and install the pin and properly torque the nut.

When torquing the nut, be sure the tool is at a right angle to the wrench. That way, you don't have to refigure the torque valve.

Here are the plans a tool shop can use to make the tool.
The cost is around $22.







SGT Andres Chamorro, Jr
MA Army National Guard

Dear SGT Chamorro,
This smart idea adds another tool to a mechanic's arsenal of tools. Keep the ideas coming in.
Rotor Blade