Northwest Marine Technology, Inc.

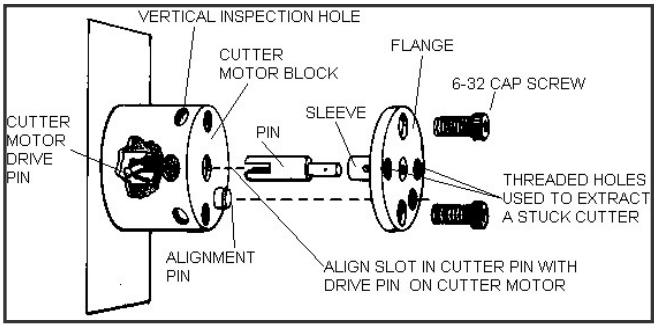
MKIV Cutter Installation and Cut Edge Selection

Technical Note TNC02

A MKIV cutter will routinely cut 300k-400k plus tags if properly maintained. Other factors that determine the life of a cutter include maintenance of the wire path and slight variances in the carbide itself. Writing the cutter's serial number, the cut edge you are using, and the injector's total tag count ("T INJ") in the log book whenever using a new cut edge is very useful to monitor how many tags a given cutter has cut.

To make sure you are always installing the cutter on the cut edge you intend to use, follow the steps below.

1. Turn on the MKIV Injector. If you do not have a QCD attached, press the OK button when prompted "NO QCD OK?" on the display.



2. Go to the adjustment menu, "ADJ", and scroll, using the +1 or -1 keys, until you see "CUT EDGE [X]" on the display. X represents 1-4 depending on which cut edge the MKIV injector is set up on. Remember this number.

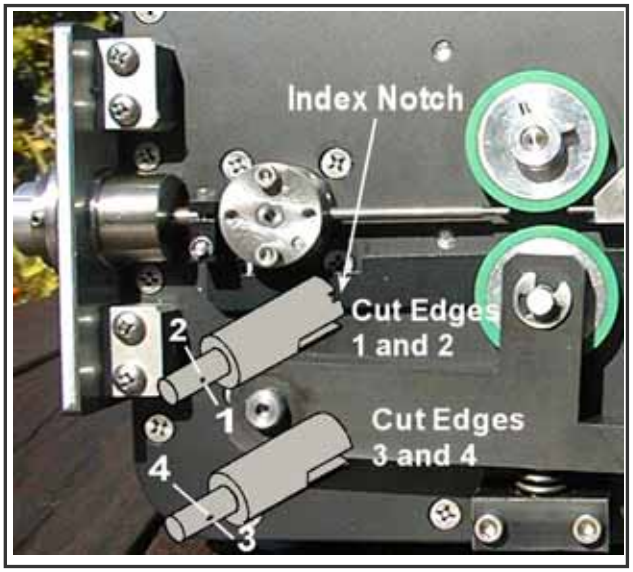
3. Cycle the injector once by pressing the "TAG" key. Ignore the "No Wire or Stuck" error message.

4. Locate the index notch on the cutter pin (right diagram).

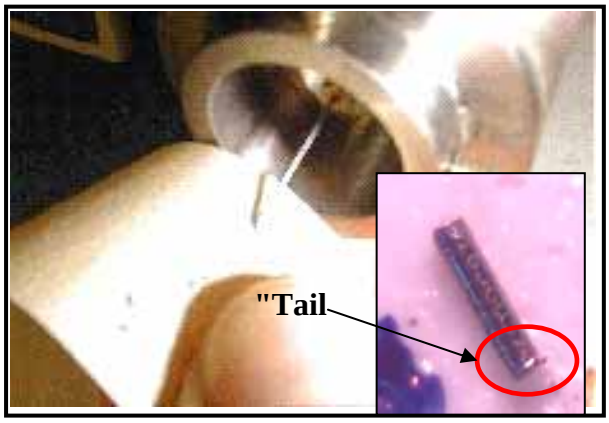
5. Orient the pin's index notch according to the diagram to the right, depending on the cut edge noted in step 3. Insert the pin into the cutter block.

6. Secure the cutter sleeve over the pin and fasten the flange to the cutter block.

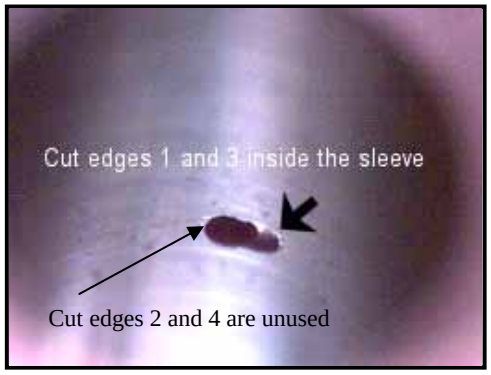
7. The cutter is now installed in the MKIV in the correct orientation. Select the desired cut edge in the adjustment menu (step 3) and cycle once.



MKIV Cut edge Inspection

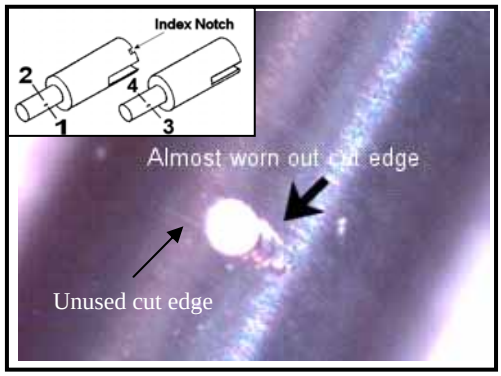


Tag quality can be a key indicator on the condition of a cutter / cut edge. Laying tags on a piece of tape is an easy way to inspect tag quality and length. Standard length tags should be between .040"-.042". Tags should be free of "tails".

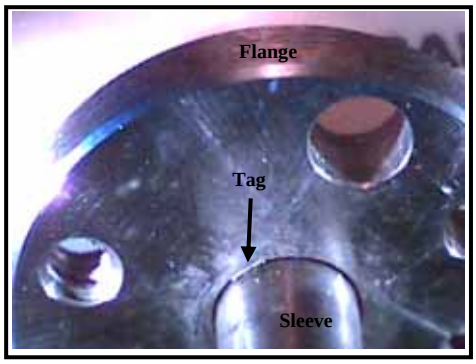


This picture shows inside the sleeve. Where the pin has 4 unique cut edges, the sleeve only has 2 unique cut edges. The cutter pin's cut edges 1 and 3 share a cut edge of the sleeve and the pin's cut edges 2 and 4 share the other edge of the sleeve.

It is good practice to divide the wear on the sleeve equally between all the edges of the pin. This can be achieved, for example, by switching cut edges every 50k tags.



This picture shows the cut edges on one side of the pin. This is normal wear. The used edge shown could cut 1000's more tags. Start checking the quality of the tags more frequently or switch cut edges. If half length tags are being cut then the condition of the cut edge becomes more critical.



Inspecting the flange and cutter block surfaces for stray tags can prevent wire jams and possible damage to the cutter.

An Arkansas stone (MKIV tool kit) can be used to take down any high spots from dents created by tags caught between the flange and cutter block surfaces.