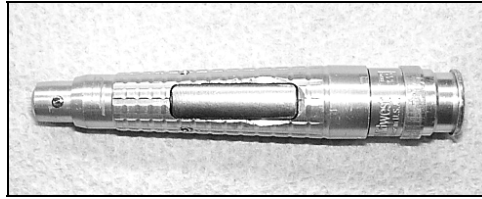


MIDWEST LATCH STYLE NOSECONE REPAIR PROCEDURE

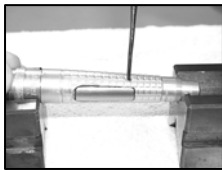


The Midwest Latch Style Nosecone is very popular and will likely be encountered in the field. Midwest has discontinued this particular model and therefore, some replacement parts have become difficult to find. Most often, the nosecone will simply need to be cleaned and adjusted to make it work properly. As always, try to determine the problem before disassembling the nosecone.

Some of the most common problems with this handpiece are:

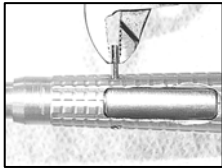
- The chuck fails to hold a bur securely.
- The bur spins roughly.
- It is hard to press the latch in order to release the bur.

The repair procedures for each of these problems is addressed below



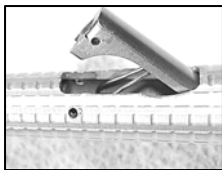
STEP 1

Place the nosecone over two v-blocks. This will allow the latch pin to be driven out of the nosecone housing. Using a straight, thin punch and hammer, tap out the latch pin.



STEP 2

If the latch pin is not driven completely out of the housing, it will still be necessary to remove it. Pull the latch pin out of the nosecone with a small pair of pliers.



STEP 3

Remove the latch and latch spring. The technique used here is to press the rear of the latch down and back as you would during normal use of the nosecone. This will force the front of the latch out. Then simply pull out the latch spring.



STEP 4

Tighten the base piece of the nosecone in a 9/16 collet as shown in the picture.

STEP 5

Wrap the nosecone with a rubber strip (00032). Unscrew the nosecone housing from the base piece. The nosecone has regular threads so turn counterclockwise to loosen.

STEP 6

Remove the nosecone pieces from the collet.

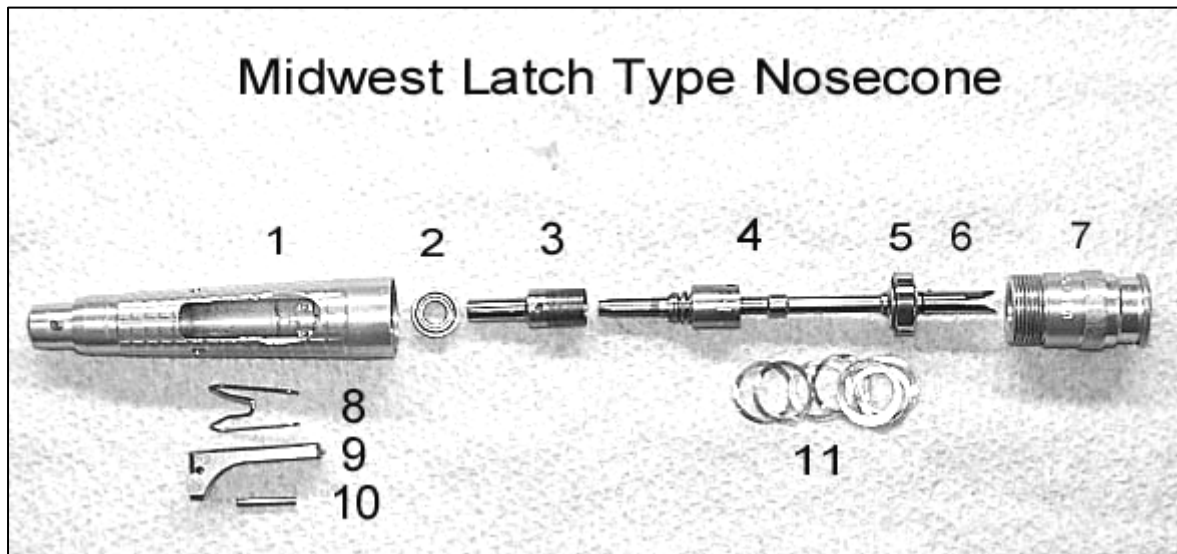


STEP 7

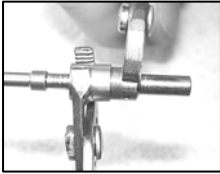
Remove the spindle/chuck assembly from the nosecone. Make sure to get all of the spacer washers out of the housing (shown in picture below).

STEP 8

Place the spindle/chuck and housing assembly into the ultrasonic cleaner.

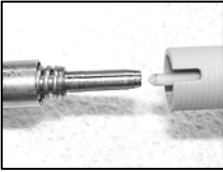


Picture Number	Part Number	Description
1	N/A	Main Housing
2	40436	Front Nosecone Bearing
3	N/A	Chuck Cap
4	N/A	Main Spindle
5	40470A	Rear Nosecone Bearing
6	40485	Drive Fork
7	N/A	Base Piece
8	N/A	Latch Spring
9	N/A	Latch
10	N/A	Latch Pin
11	40482A	Spacer Washer



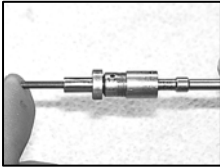
STEP 9

If the nosecone will not hold a bur, you will need to adjust the chuck cap. First, unscrew the chuck cap using two pairs of pliers (as shown in the picture to the left). It has regular threads. Once the cap has been removed ultrasonically clean again and look for any remaining debris. It is very common for the plastic shafts from prophy heads to break off in the chuck (see picture to the lower left). You can usually remove this plastic by prying it out with a needle or razor blade.



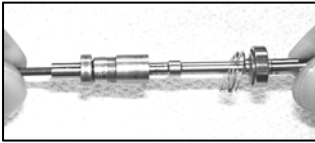
STEP 10

Once any debris has been removed, place a lab bur in the chuck. Tighten the chuck cap onto the chuck until the bur cannot be pulled out with your fingers.



STEP 11

Place the 40436 bearing back onto the spindle (as shown). Sometimes, this bearing is still stuck up in the housing of the nosecone. Tap the housing firmly on your work surface to dislodge the bearing. Replace this bearing if there is any roughness to its rotation.



STEP 12

Reinstall the spacer washers back over the spindle/chuck (as shown).

Note: Did the lever originally have to be pressed extremely hard to remove the bur? If so, add more spacer washers one at a time, until the lever tension is acceptable.

Note: Did the spindle spin freely with a bur in it. If not, remove spacer washers one at a time until it spins nicely. As in Step 11, be sure the bearings are not damaged, as this would also cause the spinning motion to be rough.



STEP 13

Place the chuck/spindle back into the nosecone housing.

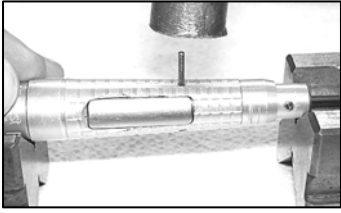
STEP 14

Screw the back piece into the rear of the main housing. Screw this in hand tight. We will tighten the nosecone securely in a later step.

STEP 15

Place the latch spring back into the housing. Notice there are two countersunk holes in the housing where the legs on the latch spring sit. Next, install the latch over the latch

spring. If done correctly, the latch will pop into place quite easily. If this does not happen, you may need to reposition the latch spring.



STEP 16

At this point, we need to reinstall the latch pin. Place the nosecone over the two v-blocks. Insert the latch pin into one of the drilled out holes (as shown at left). Once the latch pin is in position, tap it all the way into the hole with your hammer.

STEP 17

Place the nosecone base piece back into your 9/16 collet and tighten the collet holder. Once again, wrap the nosecone housing with a strip of rubber. This nosecone has regular threads so you will tighten by turning the housing in a clockwise manner. Do not over tighten, as this can cause the spacer washers to crush the rear bearing. Use a small amount of Loctite on the threads and tighten appropriately.



STEP 18

Check the operation of the nosecone by spinning the bur and operating the latch mechanism. If all is well, your repair is complete. Otherwise, return to **STEP 9**.