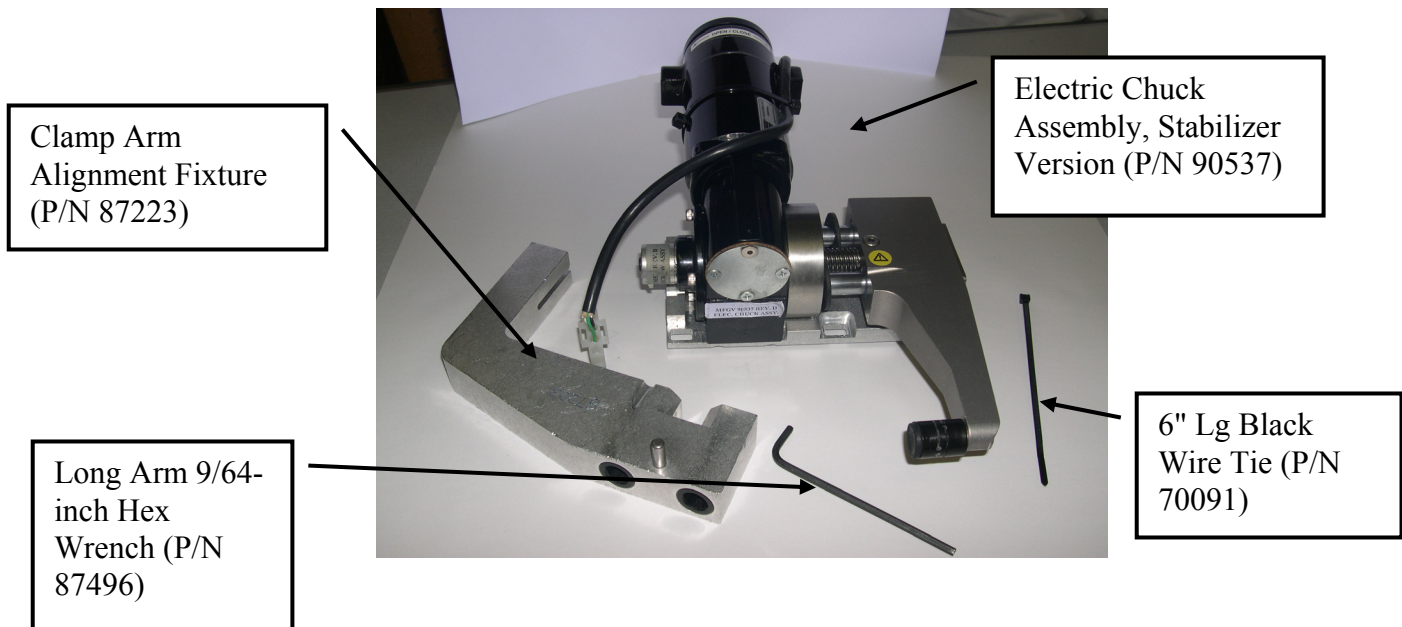


**11190376 6E-6ES-7E -- Replacement of the Electric Chuck Assembly  
Procedure**

**Contents of Kit**



**Not Shown in Picture**

Four (4) 1/4-inch Lockwashers

Four (4) 1/4-20 x 5/8-inch Stainless Steel Sockethead Capscrews

There may be a UPS ARS tag (not shown in picture) included as well. If so, you will use this tag to ship the old Electric Chuck Assembly back to National Optronics.

**NOTE**

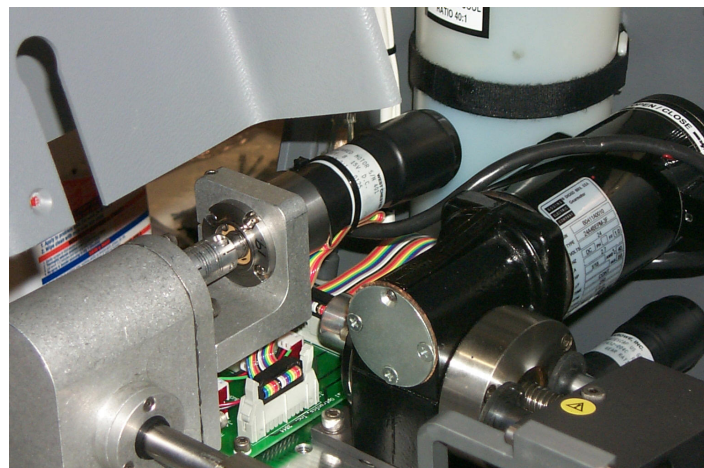
The procedure is the same for any 6E edger and for 7E edgers with an Electric Chuck. (Refer to "11190934 7E-7EA -- Replacement of the Pneumatic Clamp Assembly" for directions to replacing a pneumatic chucking system.)

## Removing the Old Electric Chuck Assembly

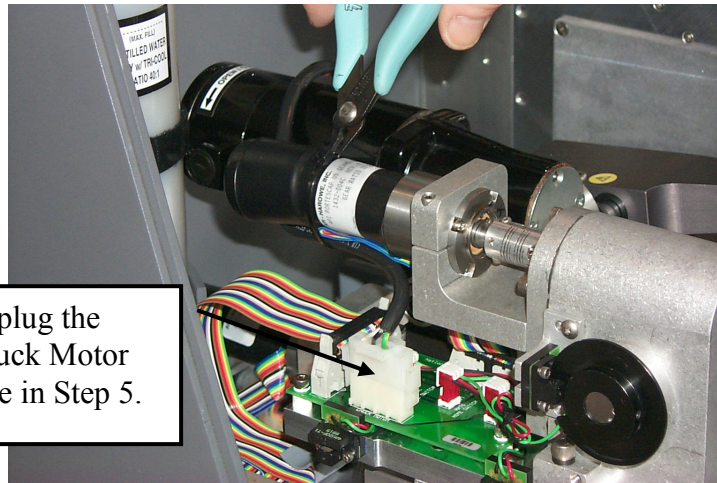
1. Turn off the power switch on the edger.
2. Using a 3/32-inch hex wrench, remove the #8-32 screws holding the motor cover in place.  
**NOTE:** Depending on the age of the machine, there may be 3 or 4 screws—remove all of them.



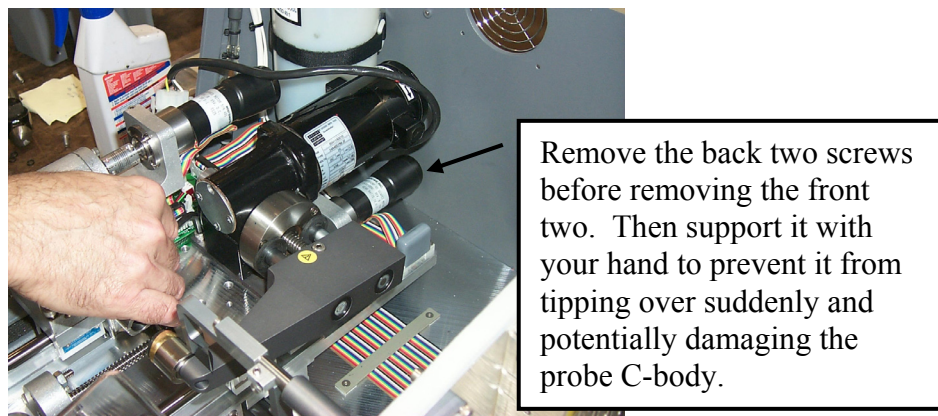
3. Remove the motor cover.



4. Clip the Wire Tie on the Axis Servo Motor as shown below:

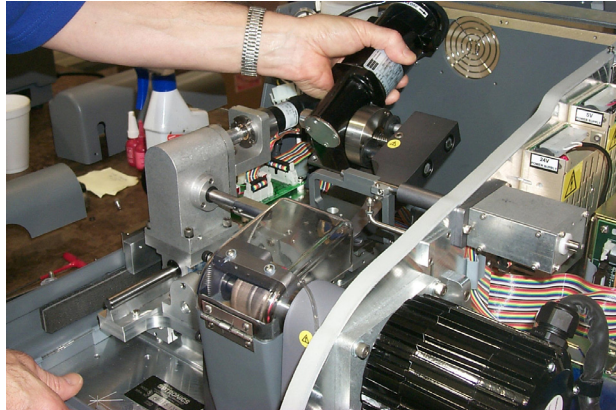


5. Unplug the Chuck Motor.
6. Using a 3/16-inch ball driver or a 3/16-inch hex wrench, remove the four (4) 1/4-20 screws holding the electric chuck assembly in place. **NOTE:** Depending on the age of the machine, there may be a rectangular block under one of the screws—if so, remove it as well.

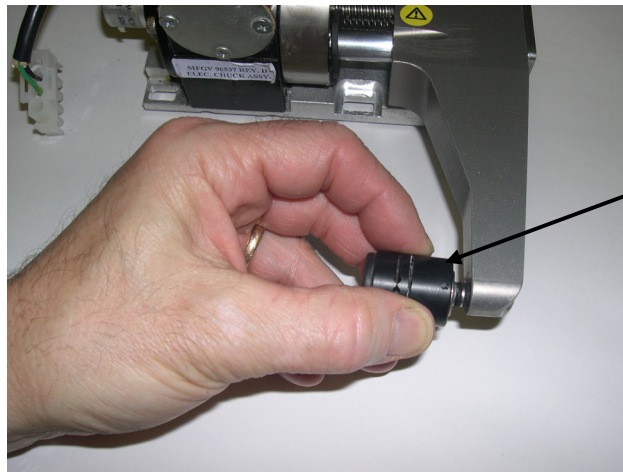


7. Discard the screws (and the block if it had one) that you removed in the previous step.

8. While ensuring that you do not damage the probe C-body, carefully lift the old Electric Chuck Assembly out, as shown below:

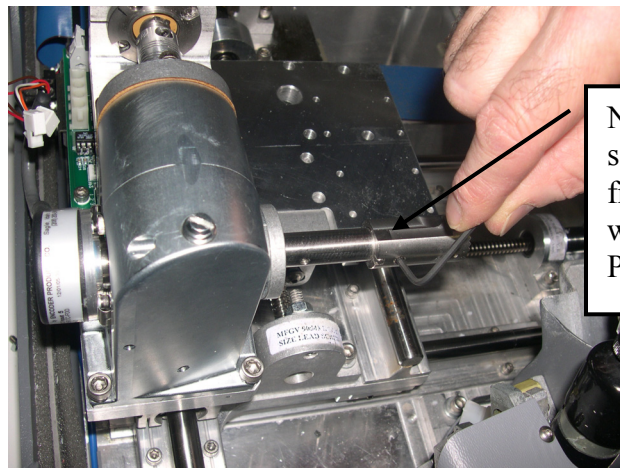


9. Remove the Right Side Clamp from the old Electric Chuck Assembly and set it aside to be attached to the new Electric Chuck Assembly. Also, save the old Electric Chuck Assembly to be returned to National Optronics.



Remove the Right Side Clamp and set it aside for later use.

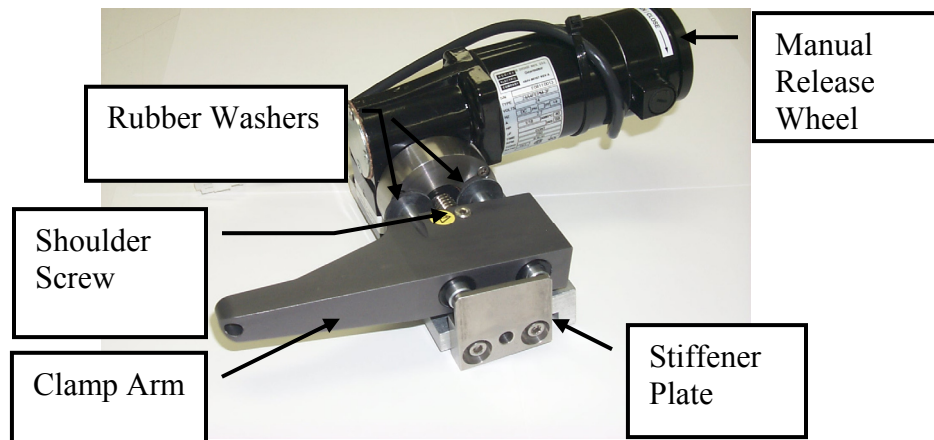
10. Using a 3/32-inch hex driver, loosen the set screw and remove the Replaceable Chuck from the unit as shown below:



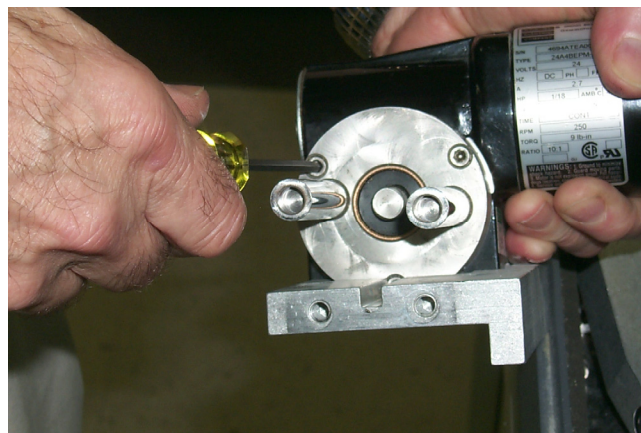
Note the orientation of the set screw: If it is facing the front, as shown here, you will reinstall it that way on Page 9.

### **Installing the New Electric Chuck Assembly, Stabilizer Version (P/N 90537)**

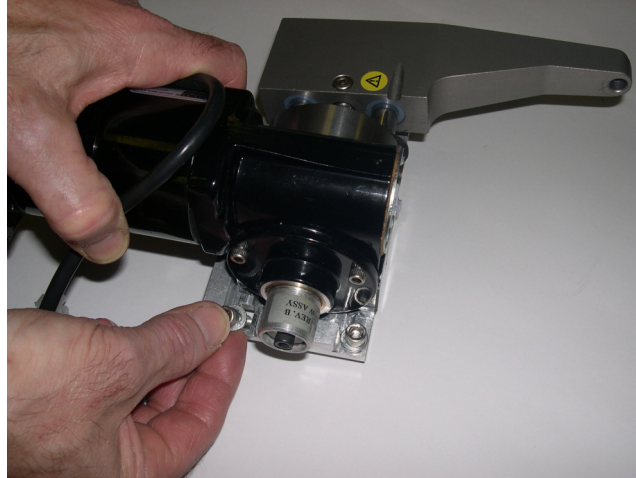
1. Remove the contents of the Kit, setting the box aside for reuse when shipping the old Electric Chuck Assembly back to National Optronics.
2. Disassemble the Stiffener Plate, the Clamp Arm, and the rubber washers from the Electric Chuck Assembly:
  - A. Using a 3/16-inch hex driver (the one on the hex cluster from the edger's Accessory Kit will work), remove the two (2) ¼-20 sockethead capscrews securing the Stiffener Plate and set them aside for reinstallation.
  - B. Pull the Stiffener Plate off; you may have to wiggle it a little to get it to release.
  - C. Rotate the Manual Release Wheel 1-2 turns counter-clockwise (in the direction of "Close").
  - D. Using a 1/8-inch hex driver, remove the ¼ x 5/8-inch stainless steel shoulder bolt and set it aside for reinstallation.
  - E. Slide the Clamp Arm off and set it aside.
  - F. Remove the two rubber washers and set them aside.



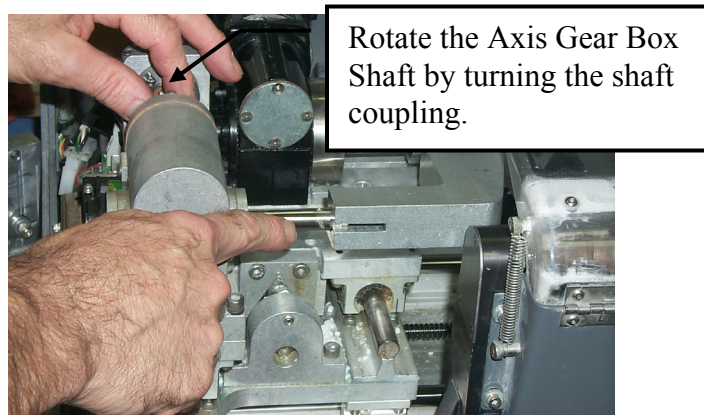
3. Using the Long Arm 9/64-inch Hex Wrench (P/N 87496) that comes with the kit or a 9/64-inch hex driver, loosen the three screws that position the Thrust Cap on the new Electric Chuck Assembly as shown below:



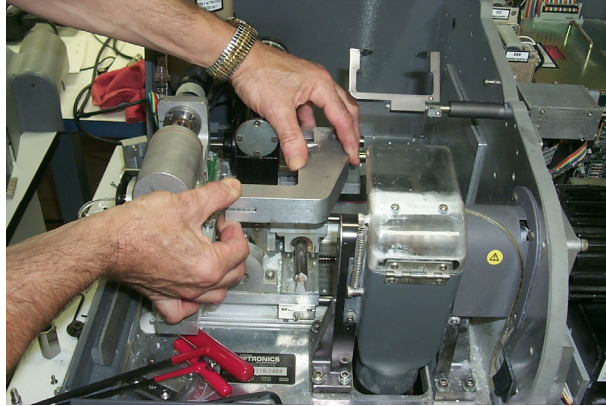
- Using the four screws and lockwashers supplied with the kit, position the four screws and lockwashers in the slots as shown below:



- Place the Electric Chuck Assembly in the area where it will go but do not screw it into place yet.
- Hold the Electric Chuck Assembly in place with one hand while placing the Clamp Arm Alignment Fixture on the two Electric Chuck Shafts and the Axis Gear Box Shaft.
- Slide Clamp Arm Alignment Fixture down far enough to determine if the Locating Pin is aligned with the slots on the Clamp Arm Alignment Fixture.
- Rotate the Axis Gear Box Shaft, if needed, to align the Locating Pin with the slots on the Clamp Arm Alignment Fixture, as shown below:

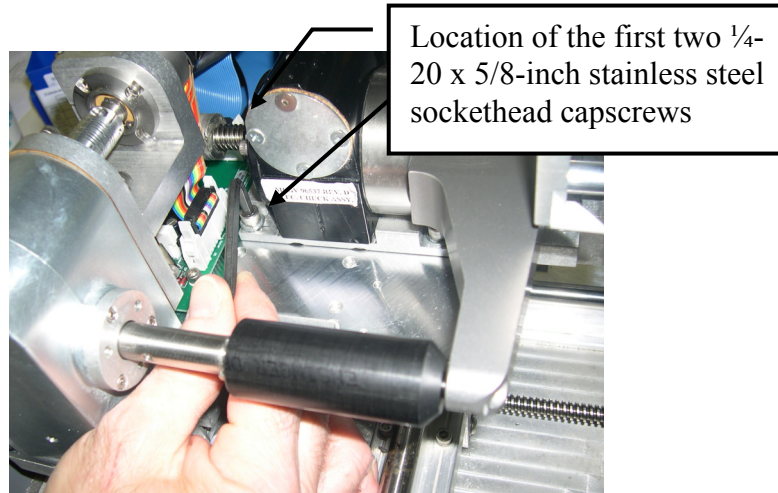


9. Push the Clamp Arm Alignment Fixture on the Electric Chuck Shafts and the Axis Gear Box Shaft as far as it will go, until it bottoms out on the Locating Pin:



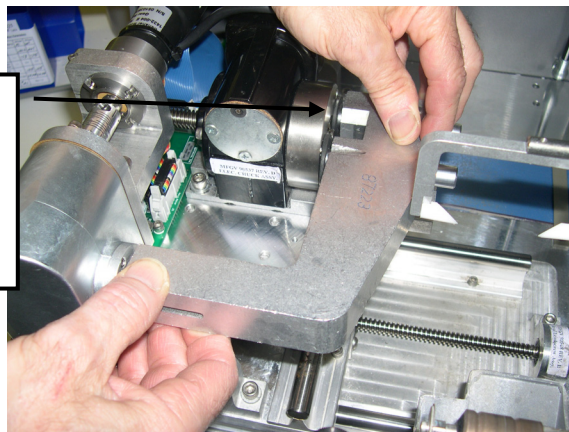
10. Push the Electric Chuck Assembly to the right as far as it will go so that the edges of the left mounting screws are against the left edges of their slots. (This will cause the Clamp Arm Alignment Fixture to be retracted slightly on the Axis Gearbox Shaft.)

11. Using a 3/16-inch ball driver or hex driver (a long ball driver works better), firmly tighten two of the new 1/4-20 x 5/8-inch stainless steel sockethead capscrews and 1/4-inch lockwashers on the left side of the Electric Chuck as shown below:

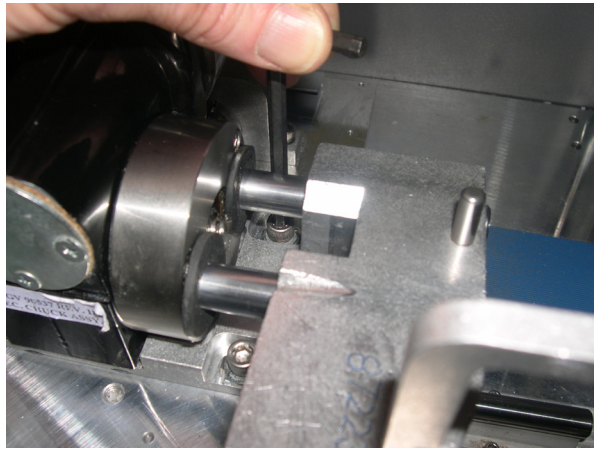


12. Slide the Clamp Arm Alignment Fixture out far enough to access the other two screw holes on the mounting plate.

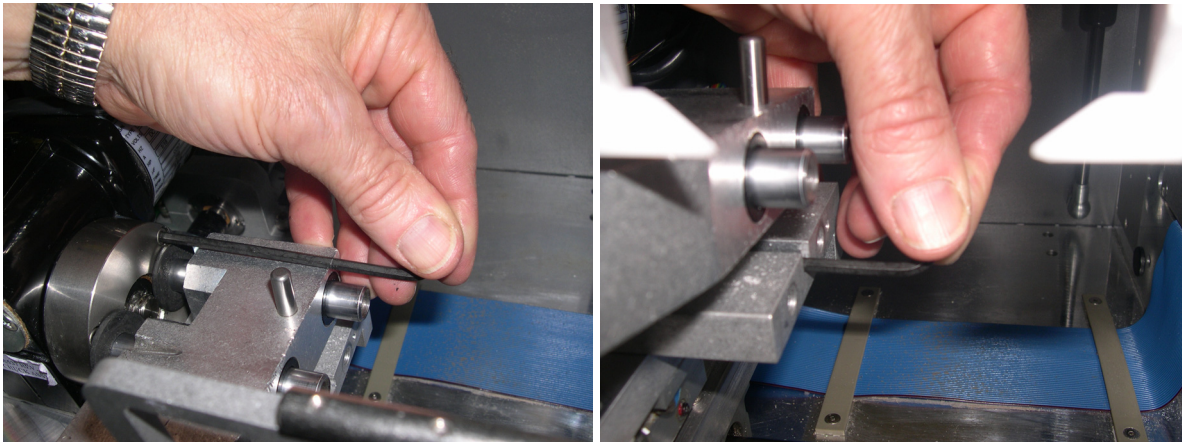
If the Alignment Fixture does not slide with the force of your hands, pry gently with a screwdriver resting against the lead screw.



13. Using a 3/16-inch ball driver or hex driver (a long ball driver works better), firmly tighten the other two of the new 1/4-20 x 5/8-inch stainless steel sockethead capscrews and 1/4-inch lockwashers in the location shown in the picture below:



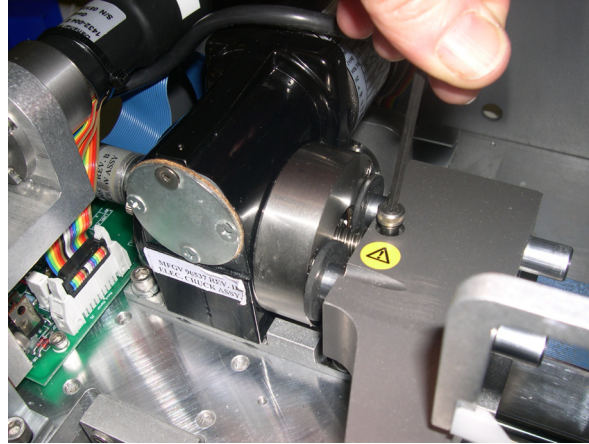
14. Using the Long Arm 9/64-inch Hex Wrench (P/N 87496) that came with the kit, first snug down, but do not tighten completely, each of the three screws on the thrust cap, accessing two of the screws above the Clamp Arm Alignment Fixture and from one underneath it) as shown in the picture below. Then go back and tighten each screw completely, placing equal pressure on each.



15. Slide the Clamp Arm Alignment Fixture the rest of the way off. It will probably come off with the force of your hands, but if it does not come off in that manner, use a long screwdriver to pry *very gently* against the lead screw. You may need to place a piece of foam or rubber against the lead screw to do this.
16. Double-check the four 1/4-20 x 5/8-inch stainless steel sockethead capscrews to ensure that they are tight.
17. Slide the two rubber washers back on the two Electric Chuck Shafts (the rubber washers you removed in Step F on Page 5).
18. Slide the Clamp Arm back in place. NOTE: You will probably need to manually rotate the silver cylinder on the left side of the Electric Chuck to turn the lead screw until the hole in the lead screw is facing upward so that you can align it with the hole in the Clamp Arm.



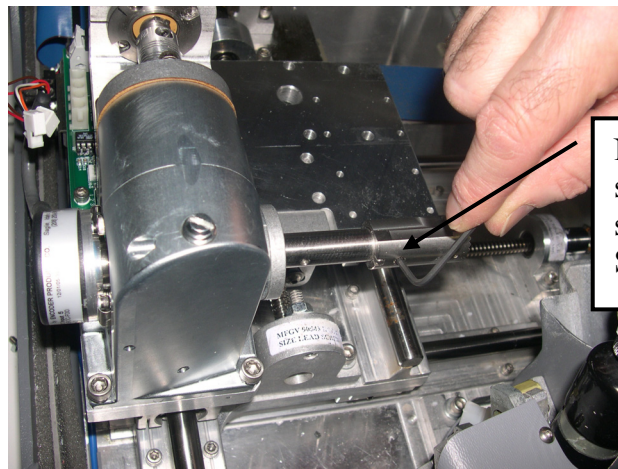
19. Using a 1/8-inch ball driver or hex wrench, reinstall the 1/4 x 5/8-inch stainless steel shoulder bolt you removed in Step D on Page 5.



20. Reattach the Right Side Clamp.

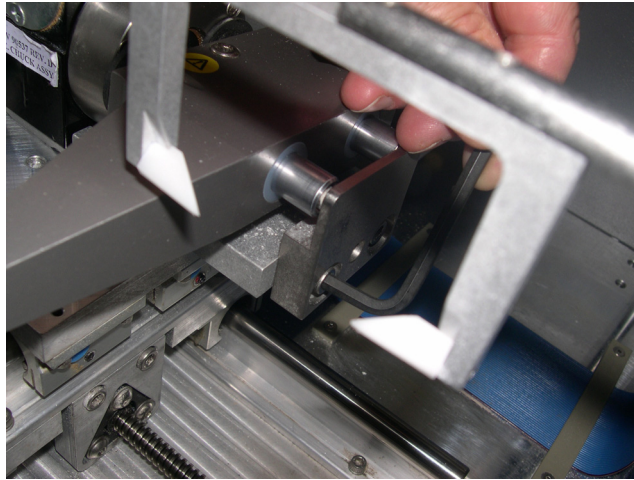
21. Align the slots in the Replaceable Chuck with the Locating Pin on the Axis Gearbox Shaft and then slide the Replaceable Chuck on the shaft as far as it will go. Make sure that the Replaceable Chuck slides to the left until the Locating Pin is fully seated in the slot.

22. Use a 3/32-inch hex driver to tighten the Replaceable Chuck's set screw onto Axis Gearbox Shaft as shown below:



Note the orientation of the set screw: Reinstall it the same way you removed it in Step 10, Page 4.

23. Using a 3/16-inch hex driver (the one on the hex cluster from the edger's Accessory Kit will work), reattach the two (2) 1/4-20 sockethead capscrews securing the Stiffener Plate (the ones you removed and set aside in Step A on Page 5).



24. Plug the new Electric Chuck Assembly into the power source (where you unplugged the old Electric Chuck Assembly in Step 5 on Page 3).
25. Use the Wire Tie supplied with this kit to secure the power cable to the Servo Motor (the same place where you removed the Wire Tie in Step 4 on Page 3).
26. Replace the motor cover. **NOTE:** Depending on the age of the machine, there may be an unused hole in the motor cover (at the location where the rectangular block was removed).
27. Place the old Electric Chuck Assembly in the box that held the new Electric Chuck Assembly (Stabilizer Version).
28. If a UPS ARS tag was supplied with the kit, follow the directions from UPS for applying the UPS ARS tag and shipping the box back to National Optronics.