

MP1002

PowIVac Strut Installation

Oct. 27, 1998

The following instructions outline the installation of support struts on the PowIVac circuit breaker. This procedure is applicable for all ratings and models.

PHOTO # 1

Locate the breaker to a convenient working location.

Remove the interphase barriers. Note that the nylon hardware will usually require replacement. Note the orientation of the hardware used to assemble the live parts. The correct orientation of the hardware during reassembly is very important. The following instructions will address the procedure for one pole assembly. At this time it is prudent to conduct a thorough inspection of the breaker. Replace any suspect components before proceeding.

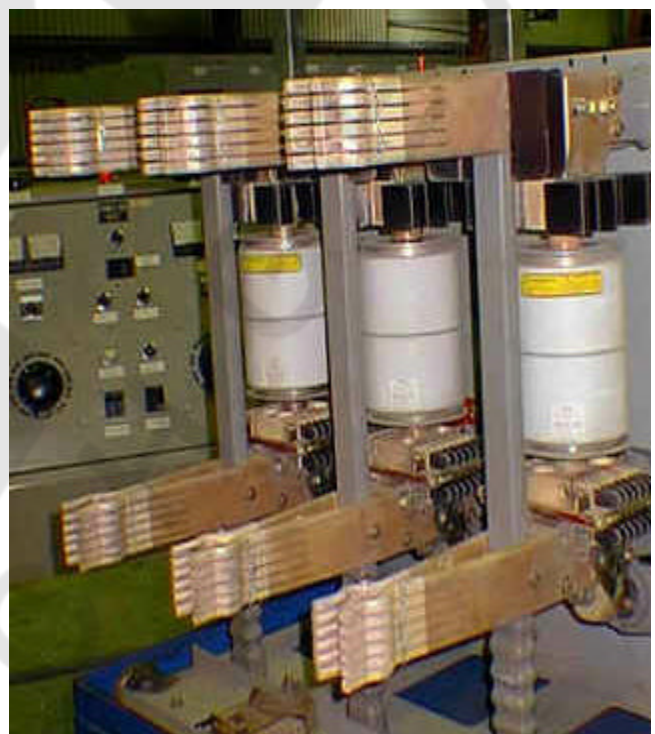


PHOTO # 2

Prior to initiating the strut installation, the breaker must be closed for measurement of the "nut gap". Record this measure for reference after the modification is completed.

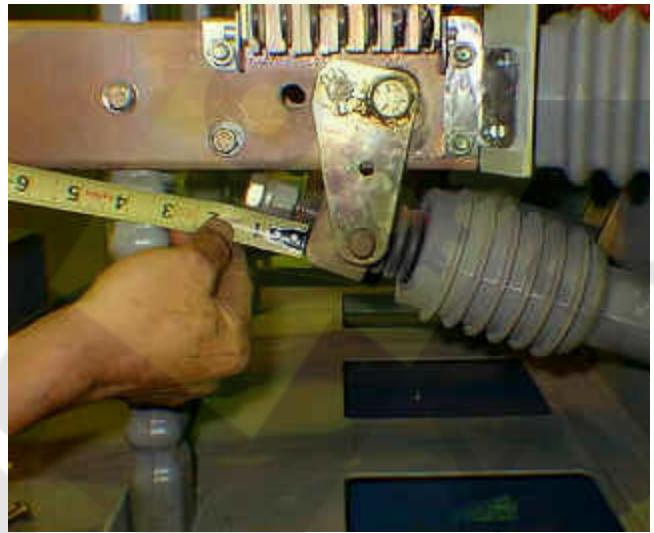


PHOTO #3

A tape measure can be used for the "nut gap" measurement, but an end gauge and dial caliper will yield a more accurate reading.

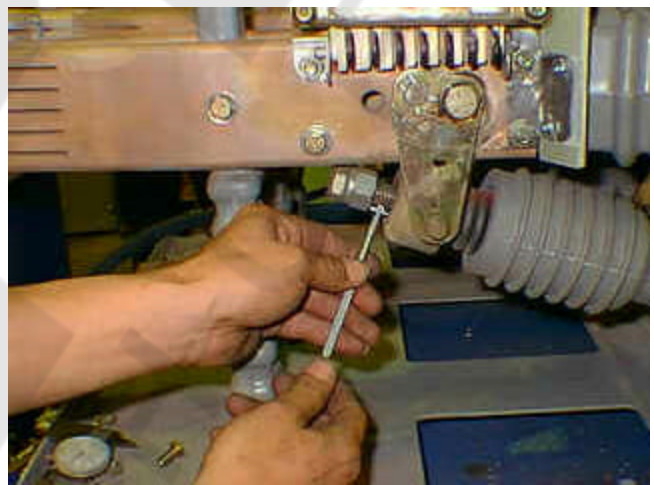


PHOTO #4

The end gauge facilitates easy measurement with a dial caliper or other measuring device.

NOTE: Before proceeding, verify that the breaker is open and the "charged/discharged" flag reads discharged, indicating that the main spring is not compressed..

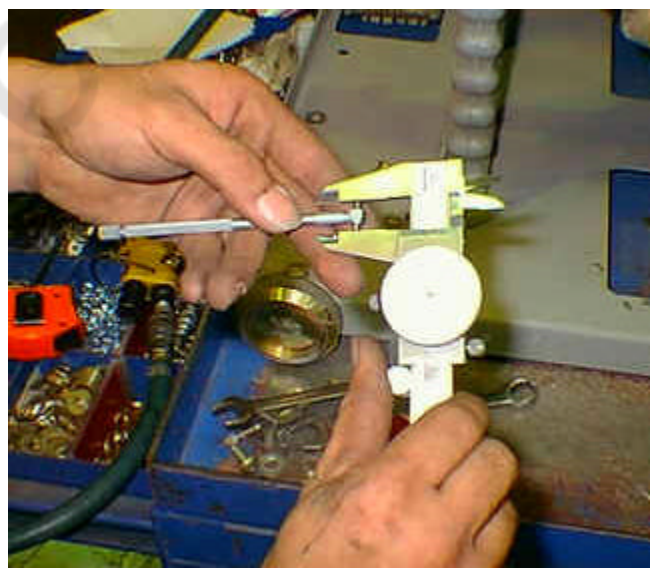
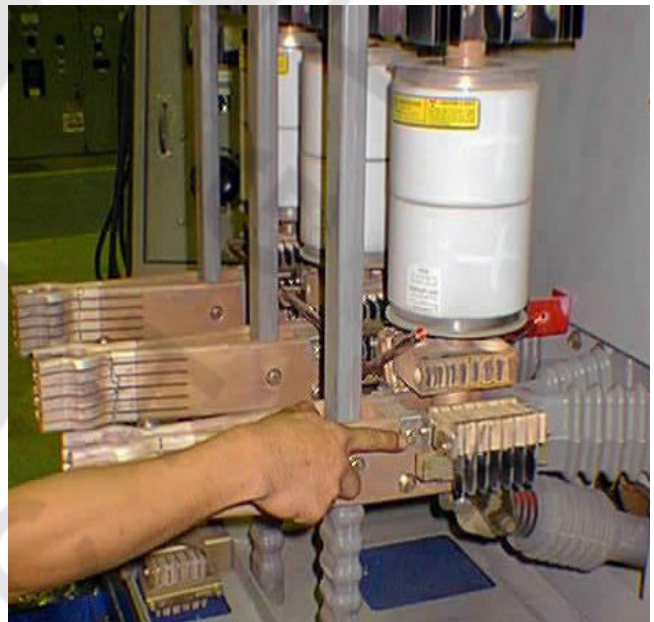


PHOTO #5

Remove the (2) 5/16"-18 button head screw cap screws from the red spacers with an Allen wrench. It is necessary to remove the screw from only one side of the spacer. Secure the red spacer if it moves, loosening the opposite screw.

**PHOTO # 6**

Rotate the sliding contact assembly (SCA) to expose the contact surfaces. Remove the bolt holding the rear support bracket for both sides of the SCA.

**PHOTO# 7**

Remove the two halves of the SCA.

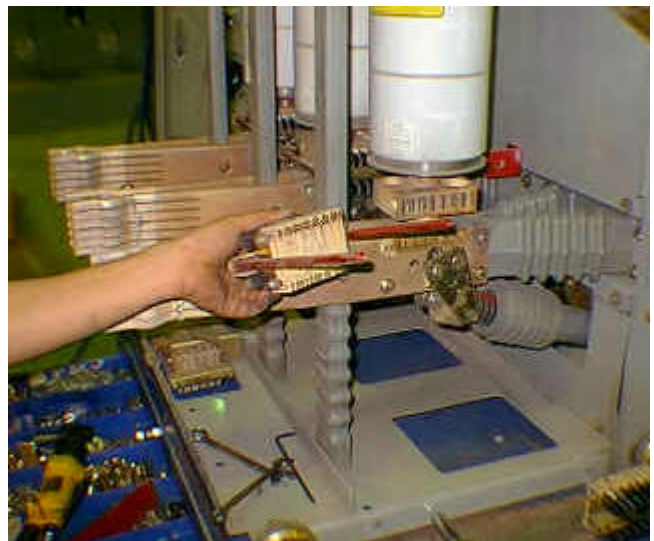


PHOTO #8

Measure center line of the wishbone assembly. The part line should measure 10 1/2" from the base pan. If this measurement varies by more than 1/32", the wishbone placement must be adjusted. If required, loosen the four clamping bolts, adjust the wishbone, and tighten the hardware. The wishbone must also be level. Caution: Torque this hardware to 16 - 18 ft. lbs. Over tightening may damage the wishbone.

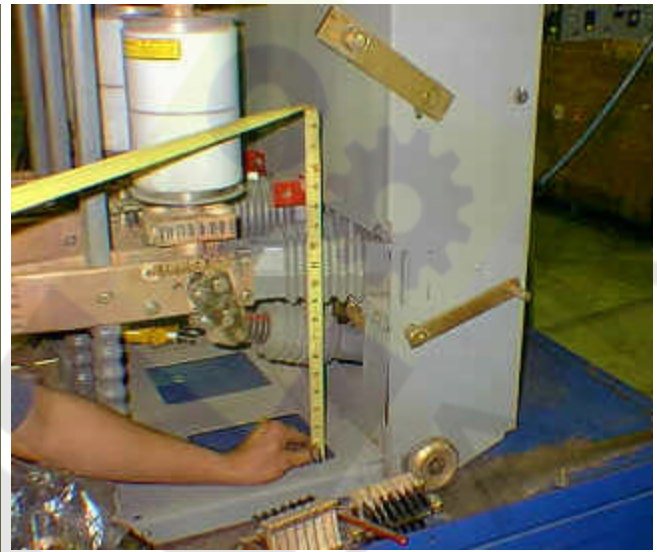


PHOTO #9

Pictured are the struts for one pole assembly. Note that they are mirrored for left and right installation as viewed from the rear of the breaker.



PHOTO #10

The lower strut mounting clip will replace the forward SCA retaining clips.



PHOTO # 11

Remove the two bolts connecting the stab bus to the lower wishbone. The upper bolt also retains the SCA clips which will be discarded.

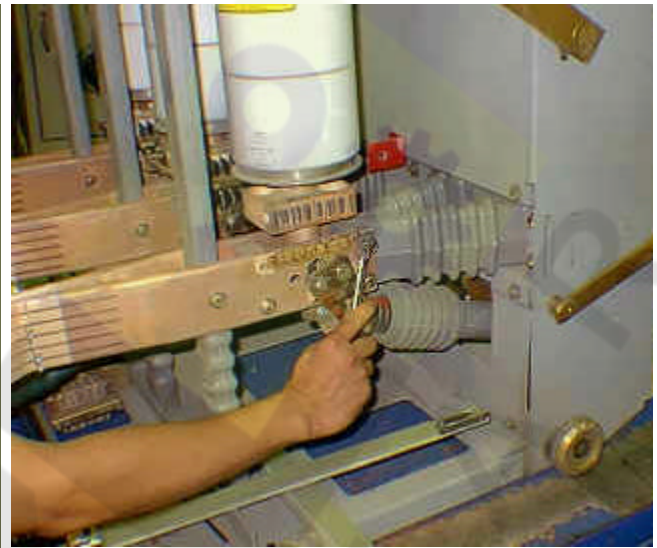


PHOTO #12

Looking in from the rear of the breaker, install the lower left strut assembly through the wishbone.



PHOTO #13

Remove the upper wishbone connecting hardware and replace through the strut assembly. The upper wishbone may require alignment if the clip and hardware does not fit properly. Refer to photo #8 to alignment precautions.



PHOTO #14

Use Loctite on the threads protruding through the wishbone assembly.



PHOTO #15

Install the right hand strut assembly and secure the hardware. Torque the hardware to 20 ft. lbs.



PHOTO #16

Clean the sliding contact assemblies.



PHOTO #17

Apply a thin layer of Mobilgrease28 lubricant to the sliding contact surfaces. Contact PASD parts sales for a complete lubrication kit, part # Powlube101.



PHOTO #18

Reinstall the SCA and retainer clips. Check all replaced hardware for proper torque.

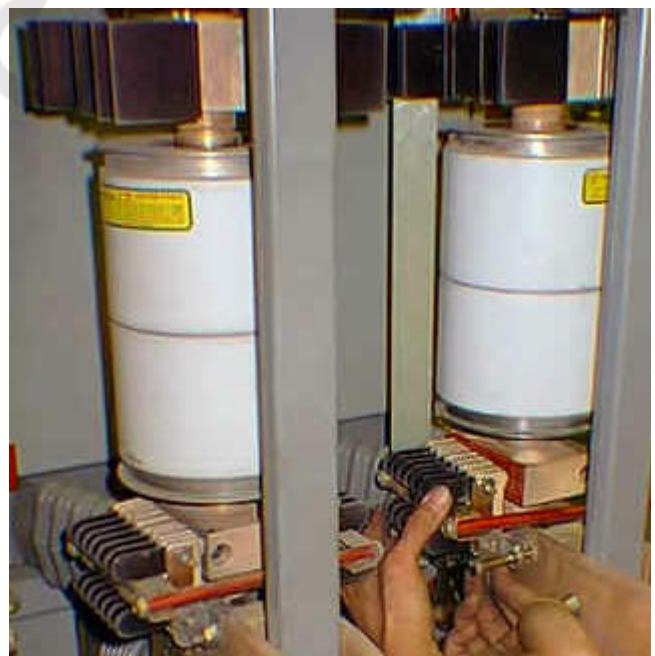


PHOTO # 19

Upon completion of the modification, the breaker must be closed and the "nut gap" verified. If the nut gap is less than the original measurement, contact the factory.

Replace the interphase barriers, perform all normal maintenance operations testing and return to service.

