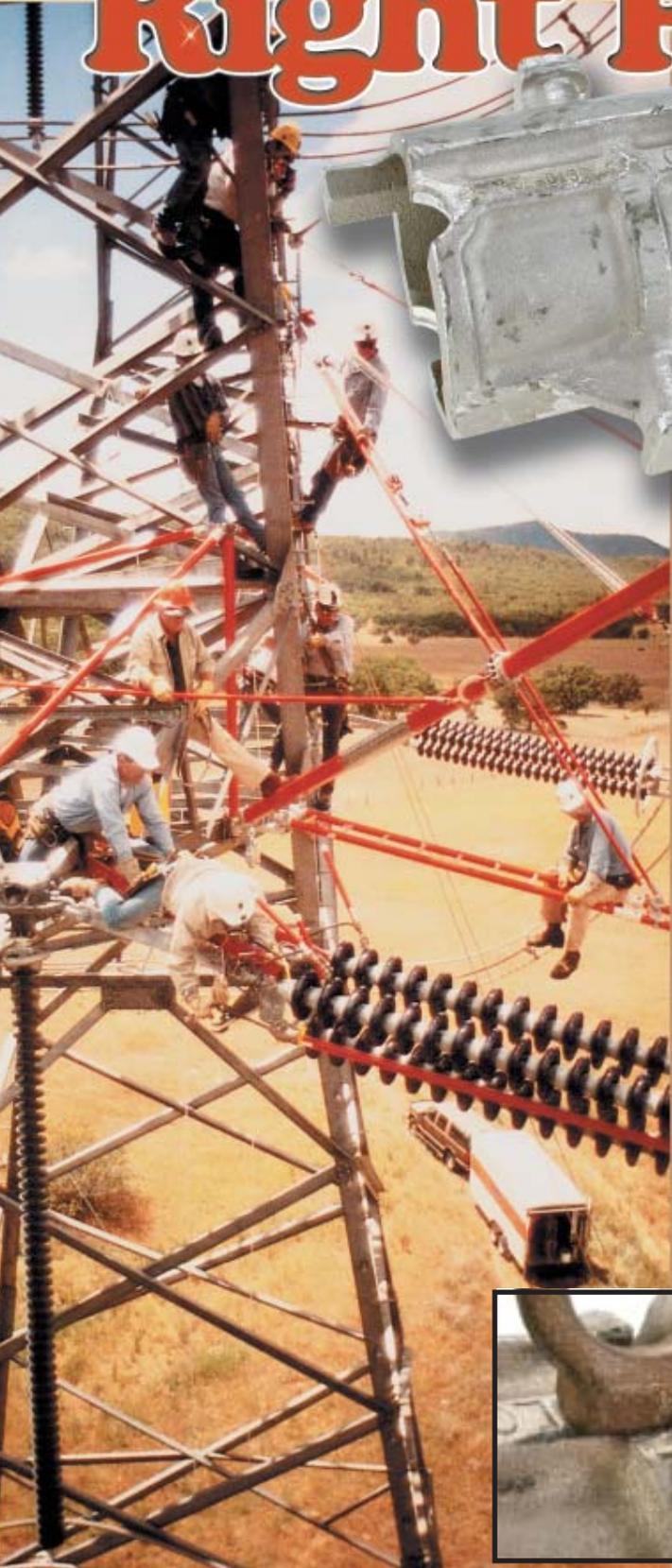


Big Job. Right Products.



A sliding clamp is used on each adjustable strain pole to place the bearing points at the proper spacing for the insulator string being worked. It slides on the pole and is positioned on the desired cross pin in the pole. The locking ring is then lifted and rotated to lock the collar against the adjacent cross pin.

Photo below: This is a close up showing a damaged clamp. The boss that prevents the locking ring rotating has been sheared off. This damage will now allow the locking ring to rotate freely thereby possibly disengaging the pin and losing the strain.

⚠ WARNING
Do not use a clamp that is in this condition.



**Boss
Missing**

Safety is the highest priority when performing hot line work. Working transmission voltages puts additional emphasis on safety because of extreme heights, working loads, and environmental factors.

A crucial component of any job is the inspection of the tools and equipment required. In transmission maintenance, the loads tools must support are higher than in distribution or substation work, so inspection of tools before use is very important. Here are some tips.

Strain poles, also known as “deadend poles,” or “deadend jacks” are used with yokes to engage insulator hardware to slack insulators for removal. These tools, while installed, support the entire strain of the transmission line at the deadend location. They are also used for changing tangent strings of insulators. It is very important to carefully inspect each component for wear or damage that might affect the strength or operation of the tool.

... continued 

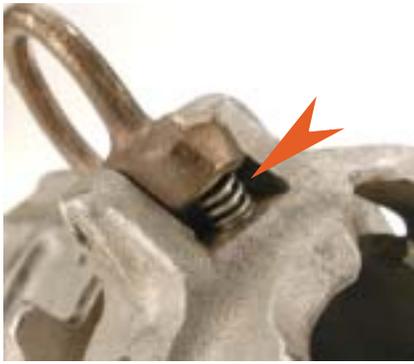
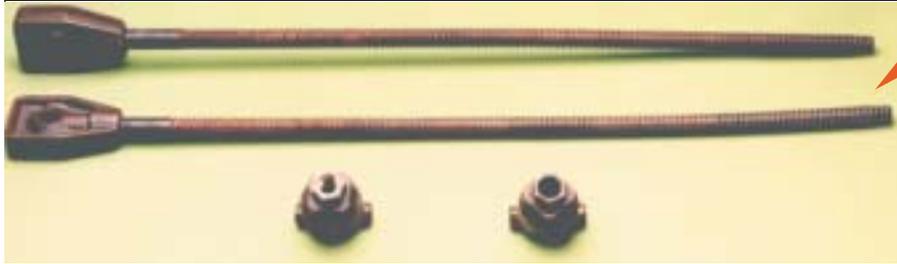


Photo at left shows the spring that keeps the lock ring in position. Ensure this spring is in place and not distorted. Move the lock ring up and down to ensure free movement throughout the travel.

Inspect the strain pole to check for bent cross pins, cracked fiberglass, and damage to the end fittings. The surface of the tool must be glossy and be free of contamination. Clean the pole with Moisture Eater II cleaning solvent and wipe with a silicone treated cloth. Test the section of the tool between the pins and the end fitting with a portable hot stick tester to verify the electrical integrity of the tool. Reject and do not use any tool that does not pass the tests or exhibits any damage.

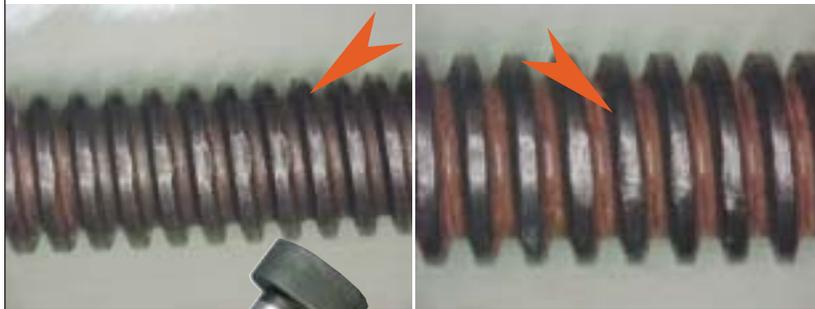


Bent Strain Screws
These screws have been improperly applied which resulted in bending of the threaded portions.

! WARNING

Do not use screws that are damaged.

Flattened Threads - this will damage the trunnion threads



This trunnion has been used on damaged threads or severely overloaded. The "spring" on the right is what remains of the internal threads of the trunnion after stripping out.



Threads stripped from trunnion

! WARNING

Do not use trunnions that are damaged.



Trunnion Gage, Catalog Number T401-2265, is used to check the wear of the internal threads of trunnions.

! WARNING

If this gage will thread completely into the trunnion, discard the trunnion because the threads are too worn for safe use.

The length of the trunnion was increased to reduce the unit stress on the threads, thereby increasing the life of the tool.

Using jack screws that have been damaged from abuse or are excessively worn causes damage to the trunnion as shown above. Obviously, using equipment with this damage is hazardous and unacceptable. Inspect jack screws for damaged, bent or rusted threads. If the threads are un-damaged but rusty, wire brushing and lubricating with dry film lubricant will restore them to proper working order.

A length of common PVC water pipe provides protection for the screws in storage. Cut a length that will accommodate two screws, one inserted from each end. A tarp strap bungie hooked between the bronze eyes will keep everything in place in the truck or trailer and help prevent damage to the threads. ■