

Chief Judge: Justin Weaver
Email: jweaver@gibsonemc.com

Journeyman Team

VC1-2 Insulator Change

Mean Time: 20 minutes

Drop Dead Time: 25 minutes

Event Summary:

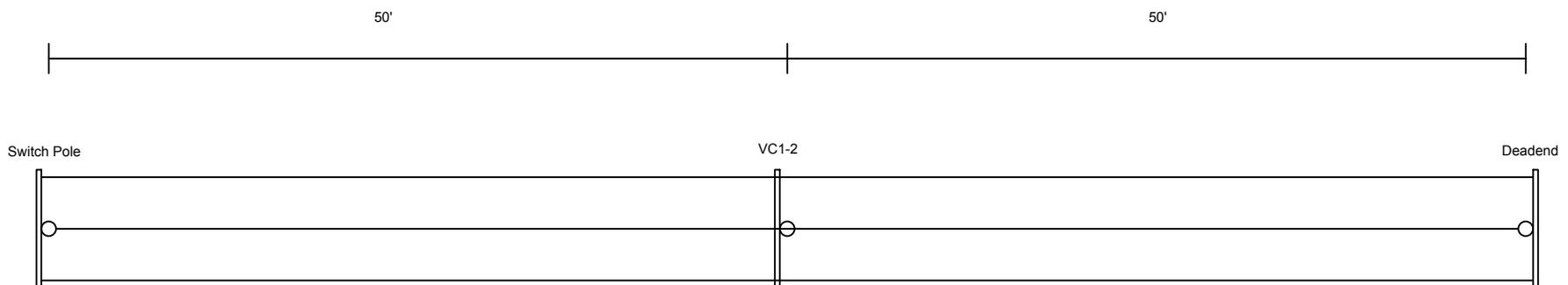
This event will require the competitors to de-energize and ground a 25 kV three phase line; change the insulators on a VC1-2 with 6' neutral spacing, then re-energize the line.

Event Description:

1. All general rules apply. Judging will start when the team enters the event and continue until they exit the event. The team will be allowed a 5 minute setup/ question time. Rubber gloves and voltage testers can be checked during the 5 minute setup time. It is recommended that it is called to a judge's attention. The team will be given a new set of Super Top Ties when they enter the event.
2. Time will begin on the judge's signal with the team standing next to the tarp. The linemen will be allowed to have their climbing tools on. All other tools and material must be on the tarp when the time begins. The hand-line block must be on the tarp, but the rope can be stretched across the ground.
3. The team must open three solid blade cutouts from the ground and tag the pole. More than one person may open the blades. All cutouts must be opened before a lineman can ascend the VC1-2. Sticks must be returned to the tarp.
4. The team must use a voltage tester to test the line and install the grounds. They do not have to simulate brushing the wire. Two people may install grounds at the same time, as long as they are working on the same phase. The team may use either bracket or equipotential grounding.
5. All three insulators must be changed and tied back in using new Super Top Ties. A knife cannot be used to remove the old Super Top Ties. The linemen can do whatever they wish with the phases while changing the insulators (float, lay on arm, hold, etc.).
6. Once all the phases are tied back in, the linemen may remove the grounds. Two people may remove grounds at the same time, as long as they are working on the same phase.
7. When both linemen are on the ground, the blades may be closed back in and the tag removed. Someone must say "coming hot" before closing the blades. More than one person may close the blades.
8. All tools and material, including the tag, must be on the tarp when the time stops. The linemen will be allowed to keep their climbing tools on.
9. Time will stop when the team says "time".

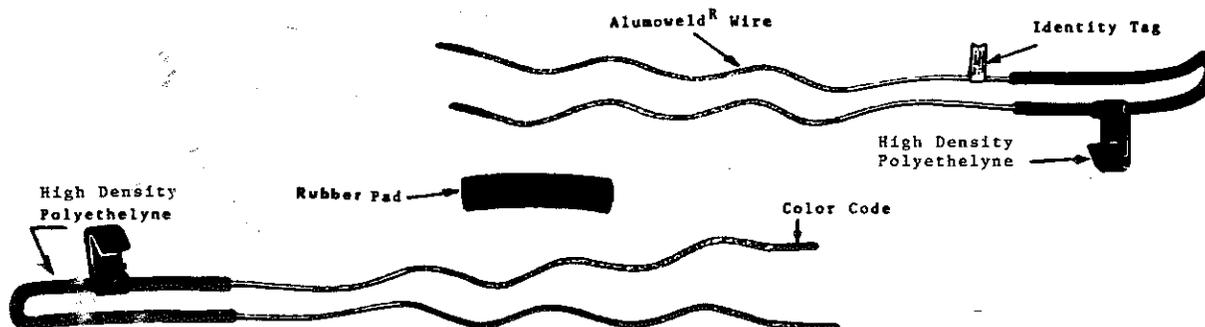
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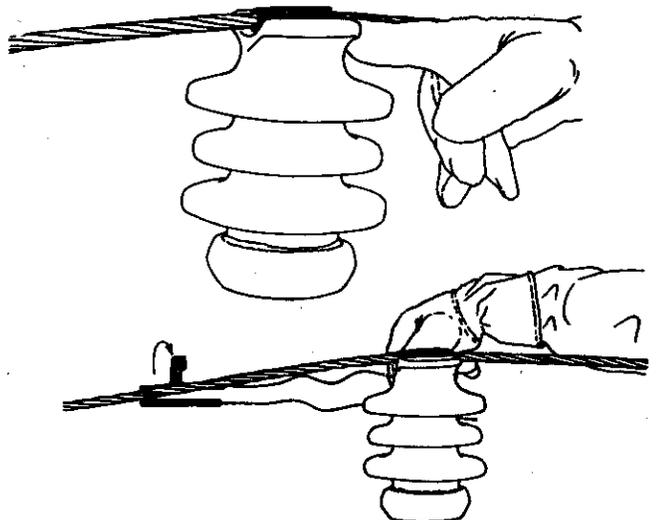


INSTALLATION INSTRUCTIONS

SUPER TOP TIE® LINE TIE INSTALLATION BY HOT LINE TOOL AND BY HAND



Same tie installation can be used by hand or hot line tool. During installation, the "hook" legs should always remain on top and are applied first. The bottom most tie legs are always applied after the hook legs.



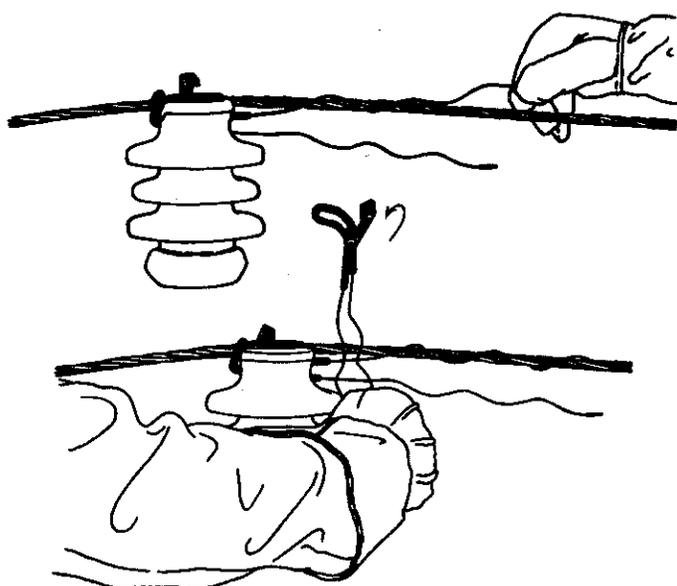
Step 1

Place pad on conductor with open slit pointing upward. Slide pad along conductor and position it over the top-groove of the insulator. Be sure slit always points upward.

Step 2

With the hook at the first bend in the tie loop rotate upward. Position tie wire so the conductor is between both legs and the hook pointed upward. Hook leg is always applied first.

NOTE: Tie loop is always positioned so it tightens insulator if unbalanced load occurs. Hook will be backwards if tie is positioned to loosen insulator.

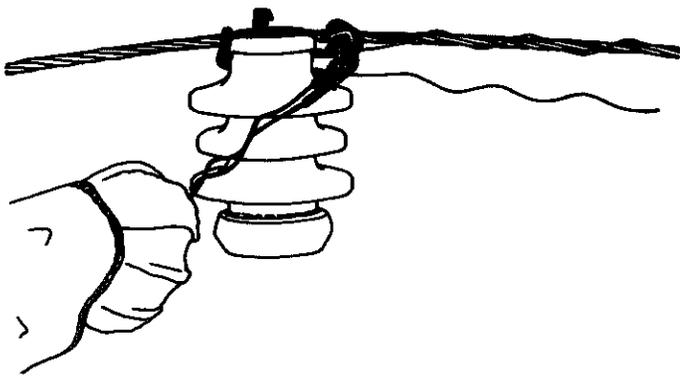


Step 3

Pull tie loop snugly against the insulator neck. Completely wrap hook leg onto conductor. Be certain to snap tie leg end into place. Do not apply remaining leg at this time. Note the hook projects upward along the insulator at this time.

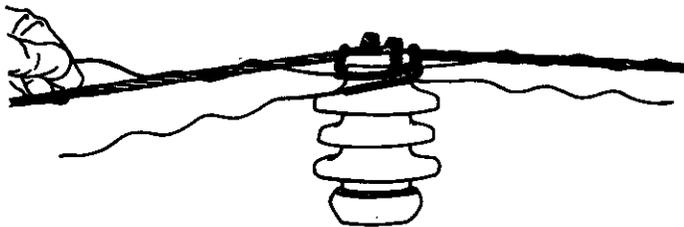
Step 4.

With the hook at the first bend in the tie loop rotate it upward and maneuver the tie between the conductor and applied leg of the first tie wire.



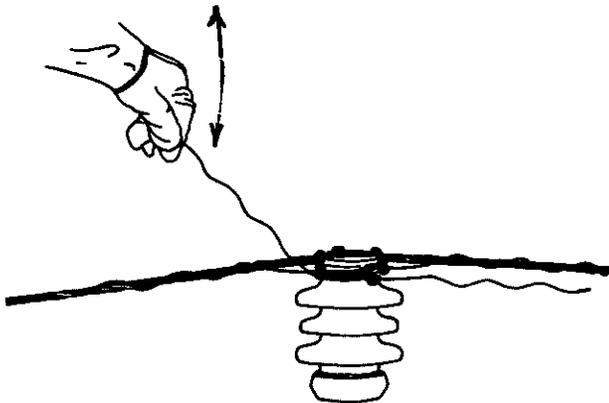
Step 5

Position second tie wire so it points in opposite direction of first tie wire. Keep hook leg uppermost.



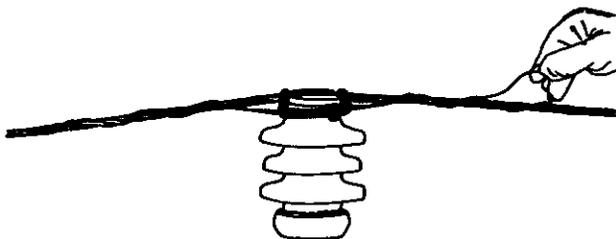
Step 6

With tie loop snug against the insulator, completely wrap hook leg of second tie wire onto conductor being certain leg end is snapped into position. Hook projects upward along insulator at this point.



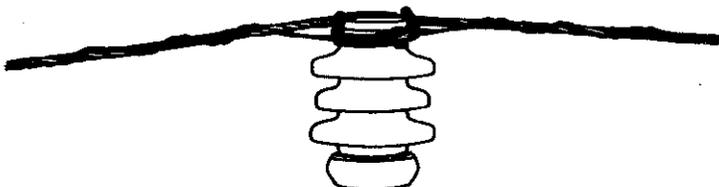
Step 7

Lift leg upward and engage hook. Then bring hook and tie loop around insulator neck and wrap the wire onto the conductor being sure to snap in the end. Note that hook closes around wires of tie loop.



Step 8

Apply remaining leg using same procedure as in Step 7. Note that if tie is improperly applied, hook will not be engaged and will be evident by visual examination.



COMPLETED INSTALLATION

Step 9

A completed installation. To remove tie, simply reverse the process.