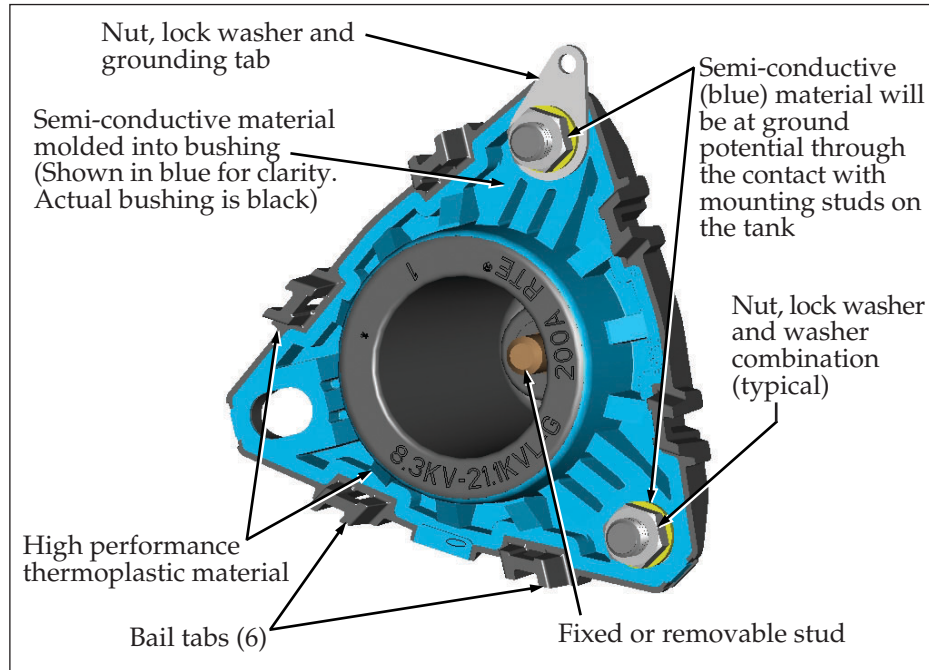


Tri-Clamp Bushing Well Grounding Procedures



Background

The Tri-Clamp Bushing Well (800-32) introduced in May 2004 has been designed to replace the existing bushing well and metal clamp combination. There have been several questions regarding the grounding procedures for the Tri-Clamp Bushing Well. The information below will try to clarify these procedures and answer the questions raised.

Questions and Answers

Q – How do I ground the Bushing Well Insert, when there is no metal clamp?

A – All Cooper transformers will be equipped with a stainless steel grounding tab mounted off of one of the mounting studs. See above drawing and Figure 1.

This tab will accommodate a #14 wire and should be installed per our standard recommendations as described in loadbreak insert installation instruction sheet S500-12-1 (same for all wells and inserts regardless of their mounting configuration).

Q – How do I attach and ground the Feed-Thru Insert (LFI215 and LFI225), when there is no metal clamp?

A – There are six (6) bail tabs (two on each side of the well) that should be used to attach the bail hooks from the Feed-Thru Insert mounting bracket. Each tab is capable of handling 400 lbs of force and 160 lbs of torque. See Figure 2.

Standard grounding procedure for the Feed-Thru Insert should be followed, which requires the use of a ground wire from the Feed-Thru grounding tab to the tank wall (typically the metal clamp of the well or the grounding tab of the Tri-Clamp Well). It is NOT recommended to solely rely on a ground connection through the Feed-Thru bail assembly. See installation instruction sheet S500-13-1 for details.

Q – If I don't have a grounding tab on my transformer, how do I attach the ground wire?

A – There are several options.

1. Order the Grounding Tab, part number 0739658A02 from your local Cooper Power Systems representative and add to one of the mounting studs (remove one nut, if a double nut is used – add the Grounding Tab and re-install the nut. Or, add the tab and one additional nut). Install a #14 copper wire between the grounding tab and the insert grounding tab.
2. Wrap the wire once or twice around one of the studs and, if desired, add a nut for additional security. See Figure 3. Attach wire to the insert grounding tab.
3. Create a pigtail by crimping a Ring Tongue Terminal to a short piece of #14 wire (See Figure 4) and attach terminal to one of the studs as described in 1 above. Secure the wire to the Feed-Thru Insert or the Bushing Well Insert grounding tab as shown in Figure 3.

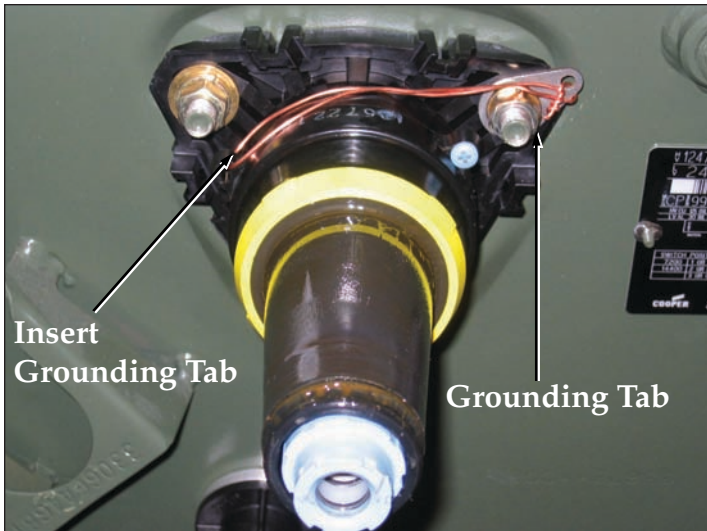


Figure 1
Bushing Well Insert with a #14 ground wire attached to Grounding Tab.

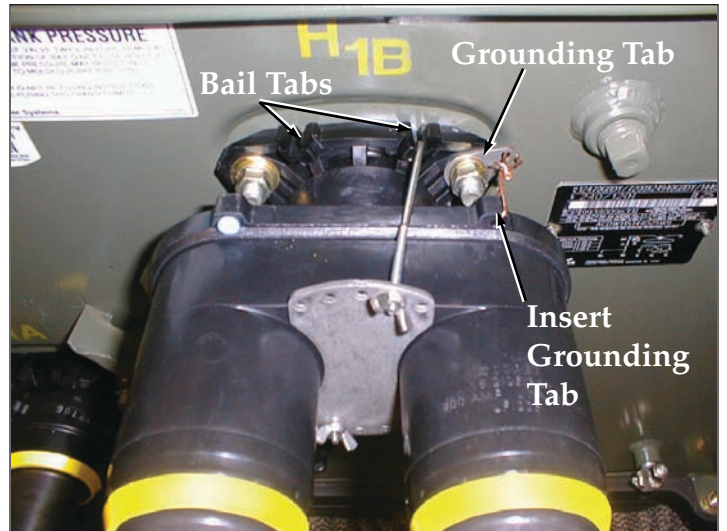


Figure 2
Feed-Thru Insert with bail hook attached to bail tab on Bushing Well. Ground wire attached to Grounding Tab.



Figure 3
Option 2 – Bushing Well Insert with a #14 ground wire wrapped around stud with nut added.

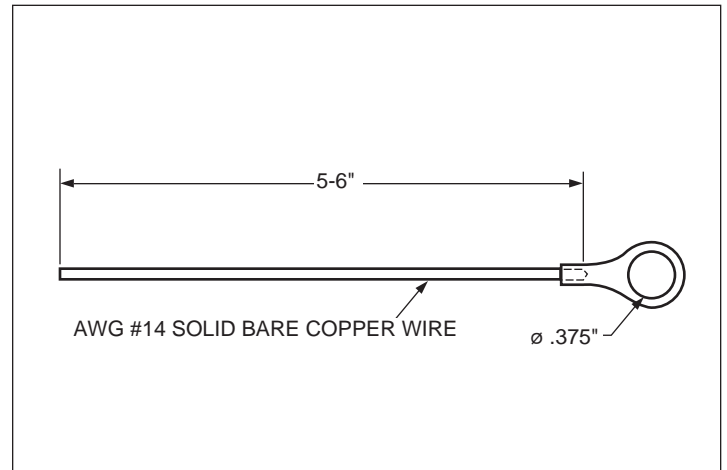


Figure 4
Option 3 – Pigtail with a ring tongue terminal to fit one of the 3/8" studs.