

# INSTALLATION OF CIRCUIT BREAKERS IN TRANSFORMERS T13 and T14

## SCOPE

This instruction applies to the assembly and adjustment of Type T-13 and T-14 circuit breakers in oil-filled transformers.

## PROCEDURE

1. Bolt breaker firmly in its location.
2. Assemble arm into operating link on circuit breaker.
3. Install the operating handle assembly in the tank and tighten clamping nut to slightly compress the gasket. When a slight bulge appears in the cut edge of the gasket, tightening is sufficient and further tightening is undesirable.
4. Place breaker in the latched position with contacts open. Place operating handle in reset position (arrow pointing to "R" on bearing.) Maintain approximately 0.12 to 0.2 inch clearance from stop on bearing. Adjust threaded connection between rod and link until hole in arm lines up with hole in operating shaft.
5. Temporarily install the cotter pin to connect the arm to the handle operating shaft. Use fingers to prevent cotter pin from falling out. By moving the operating handle, reset and close the breaker, to observe travel between stops on the bearing, and the resetting of the signal light mechanism. (The breaker may be tripped manually by rotating the trip latch.) With breaker reset and closed (arrow pointing to "C" on the bearing), trip the light mechanism only by gently rotating the trip latch. Check reset of light mechanism by rotating operating handle to the "L" position on the bearing.
6. Modify the adjustments of Step #4 until the functions of Step #5 perform freely, within the limits of travel for the handle.
7. Install the cotter pin permanently.
8. Install signal light assembly in the tank wall and tighten the clamping nut only enough to lightly compress the gasket. Excessive tightening abuses the gasket and should be avoided.
9. Position circuit breaker calibration control mechanism at the "NORMAL" position. Position the control lever on the handle bearing to the "DOWN" position. Thread the control spring and wire assembly into the support and lock the connection by pinching the support around the spring.
10. Position the circuit breaker calibration control mechanism in the "NORMAL" position. Hold the control lever on the handle bearing in the "DOWN" position. Insert the operating wire into lever and twist to secure.
11. Connect one leg of the signal light winding to terminal on circuit breaker.
12. Connect the other leg of the signal light winding to signal light.