

A-04

ELECTRICIAN TRAINING

TRAINER'S GUIDE

Duty A: Power Distribution (above 600V)

A-04: Connect Tie Breakers

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Instructions To The Trainer

1. The Learner will contact you when ready to practice connecting the tie breaker.
2. Be prepared to demonstrate the steps for this task.
3. Ask the Learner to contact the Evaluator when ready for the Skill Check.



Skill Objective

Given a request to restore electrical power to the de-energized side of a double-ended substation, connect the tie breakers.

Task Standards

1. The main breaker on the de-energized side must be opened.
2. The disconnect to the primary transformer on the de-energized side must be opened.
3. The tie breaker must be closed.
4. All required safe practices must be demonstrated.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before connecting the tie breakers.



- Follow all Caterpillar facility safety standards when performing this task.
- A key and locking mechanism is built into the main circuit breaker. The same key unlocks the primary side disconnect and locks it open.



- crank for racking out the main circuit breaker
- key from the main breaker
- rod for operating the primary disconnect



- power system Electrician



Practice Set-Up

The Learner may perform the following practice to help prepare for the Skill Check. Set up the practice for the Learner. Assist the Learner during the practice, if necessary; answer any questions concerning the task; and be prepared to demonstrate the task to the Learner. Make sure the Learner follows safe work practices while practicing the task.

Practice

Designate a double-ended substation for the practice activity. De-energize one side of a double-ended substation. Ask the Learner to:

- rack out the main breaker on one side of a double-ended substation
- disconnect the primary of one transformer of a double-ended substation and close the tie breaker
- restore a tied double-ended substation to normal operation

The Learner is required to follow all the recommended safe practices associated with this task.

Practice Objective

The main breaker on the de-energized side must be racked out and locked. The disconnect to the primary of the transformer on the de-energized side must be unlocked, opened, and re-locked open. The tie breaker must be closed. All required safe practices must be demonstrated.

Next Step

Allow the Learner to continue practicing and developing skills needed to demonstrate the task. The Learner should ask the Evaluator to schedule a Skill Check when ready to demonstrate the task unaided and meet all the task standards and safe work practices.