



Shearer Electrical Systems Troubleshooting Training

Course Duration

3 days

Target Audience

Mine maintenance personnel and service engineers.

Description

The class covers troubleshooting of the Shearer electrical system. After realistic faults are created on an electrical system training panel the students use the electrical schematics, controller case drawings and the FaceBoss Diagnostic Display to generate the possible causes of the faults. Testing on the training panel is done to verify the cause of the fault.

After correcting each fault, the student highlights the circuit on the schematic and identifies the location of the fault on the controller case drawing. The highlighted prints become a reference for the student for future use.

The course focus is on combining diagnostic screens, circuit and controller case knowledge to correctly troubleshoot problems on all machine circuits. This will be followed by a review.

The goal of this course is to cover all machine electrical circuits.

Prerequisites

Students should have a basic knowledge of the Shearer electrical system.

Course Location

Customer Site or Franklin

Course Objectives

Upon completion of this course the student will be able to:

- Analyze and interpret machine electrical schematics and controller case drawings for the purpose of troubleshooting and repair
- Navigate and interpret the various screens of the Face Boss Diagnostic Display to determine electrical system faults
- Identify and locate machine electrical components on the controller case drawings
- Troubleshoot electrical system.

Main Concepts

- Electrical component application and function
- FaceBoss Diagnostic Display screen navigation and interpretation
- Electrical schematic and controller case drawing analysis
- Electrical schematic interpretation of each machine function electrical circuit.
- Electrical maintenance and troubleshooting

Day 1, Day 2, and Day 3

Overview

- Pre-assessment
- Laptop computers are set up displaying FaceBoss screens
- Distribute electrical schematics, a machine technical manual, pocket guides
- Create a fault on the training panel
- Using the FaceBoss diagnostic screens, electrical schematics, technical manual, and pocket guides, the trainee will identify possible causes and faults
- The goal of this course is to cover all machine electrical circuits
- The trainee locates the faults on the training panel using a multimeter, then highlights the corresponding circuit on the electrical schematic and locates components on the controller case drawings.