



Feeder Breaker Electrical Hydraulic and Mechanical Systems Training

Course Duration

3 days

Target Audience

This training is for Mine Maintenance and Service personnel responsible for preventative and corrective maintenance and servicing of Joy Feeder Breakers.

Description

The course covers the maintenance and troubleshooting of the Joy Feeder Breakers. It focuses on critical knowledge and skills required in supporting the feeder breaker. All electrical, hydraulic and mechanical systems and adjustments are discussed. Recommended preventative and corrective maintenance procedures and practices are also discussed.

Prerequisites

Students should have a basic knowledge of electrical, hydraulic and mechanical terminology and practical experience with maintenance equipment.

Course Location

Customer Site

Course Objectives

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

- Locate and identify major electrical, hydraulic and mechanical components.
- Identify and describe general purpose of electrical, hydraulic and mechanical systems and components.
- Use the PLC Diagnostic Display to locate relevant information.
- Identify required engineering drawings to troubleshoot, repair and maintain the feeder breaker.
- Analyze and interpret engineering diagrams to trouble shoot and repair systems.
- Perform maintenance adjustments and repair.

Main Concepts

- Main hydraulic systems: schematics, component location and function
- Electrical power and control systems ; schematics, component location and function
- PLC Diagnostic Display
- Removal and replacement of major mechanical components. This includes the crawler drives, conveyor.

Day 1

Overview

- Pre-assessment
- General arrangement
- Describe all training materials
- Explain electrical schematic functions
- Identify and explain function of all electrical components
- PLC Diagnostic Display screen navigation and interpretation

Day 2

Overview

- Initiate fault on electrical training panel
- Divide trainees, allowing approximately 20 percent of the class to utilize the training panel to diagnose and locate the fault.
- Continue the same process with the next group on the training panel.

Day 3

Overview

- Explain all hydraulic piping diagrams and schematics
- Explain relief settings on hydraulic piping diagrams.
- Explain each hydraulic components function and the proper troubleshooting processes.
- Explain how to remove and install all major mechanical components.
- Crawler drives
- Conveyor
- Cover fire and dust suppression
- Explain and show all machine lubrication points
- Administer post class assessment test