

# Mobile Railroad Tie Clipper Controls

## Challenge

John Henry Foster Company was asked to design, build, and startup an electronic control system for clipping and declipping railroad tie hardware. The system would be on a custom built rail car and had to withstand the elements while providing uninterrupted, maintenance-free service in remote locations. Previous plans utilized industrial controls hardware not rated for these conditions. *JHF was the first to propose a mobile rated system, capable of holding up to extreme conditions.*

## Goals

- Control system rated to withstand harsh environment conditions, including temperature, humidity, and vibration
- Expandable for future additions
- Easy operation – Operators to need minimal training
- Consistent, reliable, and maintenance free operation

## System Features

- IFM Efactor Mobile rated PLC
- IFM Efactor Mobile rated operator interface
- 12VDC control system
- Integrated CANBus communications
- Joystick Control
- Railroad approvals
- Startup assistance by JHF Engineering

## Project Successes

- Railroad approved hardware
- Consistent operation
- Completed within customer specification
- All screwless wiring connections for vibration resistance
- Mobile rated PLC and Interface Screen

