



### PROGRAM OUTCOMES:

Obtain the basic knowledge and skills needed to service and repair diesel and gas-powered equipment. Learn to repair and test diesel fuel systems, engines, electronic control systems, power trains, brakes and electrical systems.

### PROGRAM LENGTH:

360 hours of related instruction &  
2-3 years of on-the-job learning

### ON-THE-JOB LEARNING COMPETENCIES:

- Inspect mechanical components of vehicles to identify problems
- Service vehicles to maintain functionality
- Repair defective engines or engine components
- Replace worn, damaged, or defective mechanical parts
- Rewire electrical or electronic systems
- Repair non-engine components



### CLASSROOM INSTRUCTION:

- Safety & Introduction to Diesel Technology Shop Procedures
- Operations Manual & Schematic Reading
- Basic Preventative Maintenance
- Equipment Operations
- Contextualized Writing & Communication
- Basic Electrical
- Introduction to Mechanical Systems
- Basic Hydraulics
- Introduction to Electronics

### JOB FUNCTIONS:

- Maintain, repair, and overhaul farm machinery and vehicles, such as tractors, harvesters, and irrigation systems.
- Examine and listen to equipment, read inspection reports, and confer with customers to locate and diagnose malfunctions.
- Repair or replace defective parts, using hand tools, milling and woodworking machines, lathes, welding equipment, grinders, or saws.
- Test and replace electrical components and wiring, using test meters, soldering equipment, and hand tools.
- Reassemble machines and equipment following repair, testing operation and making adjustments, as necessary.
- Record details of repairs made and parts used.

### SKILLS:

- Repairing, Troubleshooting, Operation and Control, Operations Monitoring, Critical Thinking