

Training Objectives

Participants will be presented with the knowledge and skills required to safely inspect, maintain, troubleshoot, and repair Terex Digger Derricks.

Safety & Regulatory Compliance

- ANSI A10.31 and OSHA requirements
- Safety manuals, decals, and placards
- Wind speed limitations and safe operation practices
- Inspection records and maintenance documentation

Unit Identification & Documentation

- Unit nomenclature and identification
- Serial number location and interpretation
- ID placards and equipment specifications
- Lubrication charts and quick reference guides

Dielectric Testing & Insulation

- Digger derrick insulation requirements
- Qualification testing requirements
- Fiberglass boom insulation principles
- Dielectric maintenance best practices

Inspection Programs

- Frequent and periodic inspections
- Annual inspection documentation
- Critical weld identification and inspection
- Structural condition assessment

Hydraulic Systems & Components

- Hydraulic reservoirs, filters, and fluid maintenance
- PTO operation and troubleshooting
- Hydraulic pump operation, cavitation, and aeration
- Hydraulic control valves and relief circuits
- Cylinders, holding valves, collector blocks, and slip rings

Boom & Rotation Systems

- Boom structure and section components
- Extension cylinders and wear pads
- Fiberglass boom maintenance and repair
- Rotation bearings and gearboxes
- Backlash, deflection, and worm gear inspections
- Pole guide systems and interlocks

Digger & Winch Systems

- Digger drive operation and troubleshooting
- Digger speed and auger release systems
- Winch assemblies and brake systems
- Rope, hook, and load line inspection
- Hanger brackets, latches, and auger storage systems

Outriggers & Interlock Systems

- Outrigger types and operation
- Leakage testing and maintenance
- Outrigger cylinder lock valves
- Boom and outrigger interlocks
- Boom stow protection systems
- Troubleshooting interlock faults

Load Charts & HOP Systems

- Load chart interpretation and application
- Stability versus structural capacity
- Boom Hydraulic Overload Protection (HOP)
- Rotation HOP operation and adjustment
- HOP system components and diagnostics
- X-Boost and dual lift systems

Hands-On Workshop Activities (Hands-On activities may vary)

- PTO and hydraulic troubleshooting
- Pump flow and pressure testing
- Valve disassembly and repair
- Cylinder rebuilding and holding valve adjustments
- Fiberglass damage evaluation and repair
- Outrigger testing and interlock diagnostics
- HOP setup and adjustment
- Rotation bearing inspections
- Digger drive and winch diagnostics
- Complete periodic inspection exercise