

The Digger Derrick Periodic Inspection course features five individual segments covering the Terex Utilities Digger Derrick Platform Periodic Inspections. The training outlines the Terex Utilities inspection form as well as inspection points and criteria for the Digger Derrick Periodic Inspection.

## **1. Digger Derrick Periodic Inspection Forms**

- a. This lesson breaks the Terex Utilities Periodic Inspection form down, detailing the information that needs to be captured and providing explanations and examples on how the form is meant to be used.

## **2. Chassis / Body**

- a. The second lesson focuses on the components that fall into the Chassis and Body section of the inspection sheet. This section is broken into two separate lessons: Cab Controls and Body / Flatbed. Pictures and descriptions are used to provide examples of areas that need to be checked for each inspection point.
- b. Cab Controls
  - i. Master Switch Panel
  - ii. Strobe Lights / Beacons
  - iii. PTO Shift Control (cable, air, electric)
  - iv. PTO Indicator Light
  - v. PTO Warning Label Present
  - vi. Stowed Height Placard
  - vii. Start / Stop, Throttle Controls
  - viii. Auxiliary Brake Control
  - ix. Back Up Alarm
  - x. Operators Manual With Truck
- c. Body / Flatbed
  - i. Headlights, Stop, Tail, Turn, Hazard
  - ii. Fire Extinguisher
  - iii. Wheel Chocks
  - iv. Outrigger Pads
  - v. Unit Grounding Equipment
  - vi. Cab Guard / Headache Rack
  - vii. Steps / Accessibility
  - viii. All Safety Decals - Legible and Proper Location

### 3. Digger Derrick Unit

- a. The Digger Derrick Unit segment is broken into twelve lessons: Basic Hydraulic System, PTO/Pump, Outrigger System, Pedestal, Controls, Turntable, Lift Cylinders, Main Boom Assembly, Boom Extension System, Platform, Digger / Auger, and Boom Winch. Pictures and descriptions are used to provide examples of areas that need to be checked for each inspection point.
- b. Basic Hydraulic System
  - i. Reservoir - Breather Cap
  - ii. Filters
  - iii. Amount and Condition of Oil
  - iv. Gate Valves, Hoses, and Fittings
- c. PTO / Pump
  - i. PTO / Pump Mounting
  - ii. PTO / Pump Noises and Leaks
  - iii. PTO / Pump Hoses and Fittings
  - iv. All Pressures (SYS, D/W, HOP)
- d. Outrigger System
  - i. Welds, Metal Structure, and Mounting
  - ii. Anchor Bolts
  - iii. Hydraulic Cylinders - Leaks
  - iv. Cylinder Pins and Keepers
  - v. Foot Assembly and Pins
  - vi. Holding Valves / Locks (Drift Test)
  - vii. Hose Condition, Routing Under Chassis
  - viii. Control Valves
  - ix. Boom Interlock System-Jan. 2005 On
  - x. Outrigger Motion Alarm-Feb. 2000 On
  - xi. Relief Valve Setting
  - xii. Auxiliary Let Down System
  - xiii. Chassis Level Indicator-Jan. 2003 On
  - xiv. Chassis Tire Pressures
- e. Pedestal
  - i. Welds - Metal Structure and Mounting
  - ii. Collector Block - Mounting Bolts,
  - iii. Hoses / Fittings
  - iv. Pedestal Valves and Controls.
  - v. Leaks in Pedestal Area
  - vi. Rotation Bearing and Fasteners

- f. Controls – Lower, Command Post, Handle Rack, Upper
  - i. Operation Of All Controls, Leaks
  - ii. Control Labels
  - iii. Throttle Control - Hoses, Fittings, Reservoir
  - iv. Electrical Components
  - v. Air Cylinders, Hoses, Fittings
  - vi. Engine High RPM
  - vii. Boom Angle Placard
  - viii. Boom Angle Indicator
  - ix. Boom Load Chart
  - x. Emergency Stop - June 2006 On
  - xi. Digger and Pole Guide Disable with Upper Controls - ANSI A10.31-2006 Platform Controls
- g. Turntable
  - i. Welds - Metal Structure
  - ii. Rotation Bearing and Fasteners
  - iii. Rotation Gearbox and Motor
  - iv. Lift Cylinder Pin Boss Area
- h. Lift Cylinders
  - i. Cylinder Rods
  - ii. Cylinder Seals
  - iii. Holding Valves - Load Test
  - iv. Welds
  - v. Pins and Bushings
- i. Main Boom Assembly
  - i. Welds and Pivot Pins
  - ii. Metal Structure Condition
  - iii. Boom Fittings, Bolts, Sheaves
  - iv. Fiberglass Boom Condition
  - v. Jib and Jib Attachments
- j. Boom Extension System
  - i. Cylinder Rods
  - ii. Cylinder Seals
  - iii. Cylinder Holding Valves
  - iv. Cylinder Pins and Bushings
  - v. Rollers and Wear Pads
  - vi. Hoses, Hose Carriers, Slide Tubes
  - vii. Cables

- viii. Sheaves, Pins, Bushings
- ix. Pole Guides
- x. Pole Guide Cylinder
- xi. Pole Guide Tilt Cylinder
- k. Platform
  - i. Bucket Condition
  - ii. Bucket Liner
  - iii. Mounting Hardware
  - iv. Bucket Cover
  - v. Bucket Leveling, Brake Assembly
  - vi. Lanyard Anchor Point
  - vii. Safety Harness and Lanyard
  - viii. Non - Skid Bucket Step
- l. Digger / Auger
  - i. Digger Hoses, Fittings
  - ii. Stow Cable / Strap / Rope
  - iii. Over Stow Protection Valve
  - iv. Digger / Auger Mounting
  - v. Latch Assembly
  - vi. Digger Gearbox - Oil Level
  - vii. Auger, Teeth, Pilot
- m. Boom Winch
  - i. Mounting, Wire or Braided Rope
  - ii. Hook, Safety Latch
  - iii. Hydraulic Motor - Leaks, Noise
  - iv. Brake - Operation
  - v. Hoses, Fittings

#### 4. General

- a. The fourth segment is broken into three lessons: Auxiliary Winch, Hydraulic Tools, and General Lubrication. Pictures and descriptions are used to provide examples of areas that need to be checked for each inspection point.
- b. Auxiliary Winch
  - i. Cable / Line
  - ii. Hook, Safety Latch
  - iii. Motor - Electric, Hydraulic
  - iv. Controls - Cord, Hoses, Fittings
  - v. Mounting Bolts
- c. Hydraulic Tools
  - i. Impact, Tamper, Saws
  - ii. Tool Hoses, Fittings
  - iii. Pole Puller, Base, Chain
  - iv. Tool Hose Reel, Hoses, Quik Couplers
- d. General Lubrication
  - i. Boom Extension Parts
  - ii. Control Linkages
  - iii. Rotation Bearing
  - iv. Hinge Points
  - v. Gearboxes

#### 5. Red Tag Items

- a. The final lesson installment covers “Red Tag” inspection items, providing details and examples to help the technician identify these deficiencies. This lesson is broken into four parts, each covering different items on the inspection sheet.

### Quizzing and Testing

#### Entrance Exam

The entrance exam is provided to help you gauge your knowledge on the topics that will be covered in this training. It also provides the instructors with valuable feedback, allowing us to modify and expand the training to ensure it is as effective as possible. The entrance exam can be taken only once and should be completed before starting any of the training lessons. This exam has no effect on the final grade for the course.

**Review Quizzes**

A review quiz is provided after each lesson segment to allow the technician to gauge their knowledge and understanding of the topic. The review quizzes can be taken as many times as desired and have no effect on the final grade for the course.

**Digger Derrick Periodic Inspection Final Exam**

The final exam consists of 80 multiple choice and true/false questions. To successfully pass this course, the technician must achieve a score of 90% or higher on the final exam in a maximum of 2 attempts. Upon the successful completion of this course, the technician will receive a Certificate of Completion for the course.