

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

1. Aerial 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. Aerial Unit

- a. The Aerial Unit segment is broken into eight lessons: Basic Hydraulics, PTO/Pump, Outrigger/Torsion Bar System, Pedestal and Turntable, Booms and Platform, Platform Controls, Platform Leveling System, and Extension System. Pictures and descriptions are used to provide examples of areas that need to be checked for each inspection point.
- b. Basic Hydraulics
 - i. Reservoir - Oil Amount and Condition
 - ii. Filters, Breather Cap
 - iii. Gate Valves, Hoses, and Fittings
- c. PTO / Pump
 - i. Gate Valves, Hoses, and Fittings
 - ii. PTO / Pump Noises and Leaks
 - iii. PTO / Pump Hoses and Fittings
- d. Outrigger / Torsion Bar 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. Cylinder Lock - Out Valves
 - viii. Torsion Bar Structure
 - ix. Torsion Bar Bushings
 - x. Hose Condition, Routing Under Chassis
 - xi. Control Valves
 - xii. Boom Interlock System-Jan. 2005 On
 - xiii. Outrigger Motion Alarm-Feb. 2000 On
 - xiv. Relief Valve Setting
 - xv. Auxiliary Let Down System
 - xvi. Chassis Level Indicator-Jan. 2003 On
 - xvii. Chassis Tire Pressures

- e. Pedestal and Turntable
 - i. Welds - Metal Structure and Mounting
 - ii. Elevator - Welds and Metal Structure
 - iii. Elevator Cylinders and Holding Valves
 - iv. Elevator Pins, Bushings, and Keepers
 - v. Collector Block / Hoses / Fittings
 - vi. Rotation Bearing and Fasteners
 - vii. Rotation Gearbox
 - viii. Lower Control Valve / Shut-off Valve
 - ix. Relief Valve Setting
 - x. Auxiliary Let Down System
 - xi. Accumulator Operation
 - xii. Nitrogen Setting / Charge
 - xiii. Unloading Valve / Unit Cycling
- f. Booms and Platform
 - i. All Fiberglass for Damage and Finish
 - ii. Booms - Cleanliness Inside and Out
 - iii. Boom Metal Sections
 - iv. Hoses and Hose Protection
 - v. Boom Pins, Bushings, and Nuts
 - vi. Boom Cylinders
 - vii. Boom Lift Rod and Lift Cable
 - viii. Compensation System
 - ix. Boom Cylinder
 - x. Boom Rest and Hold Down System
 - xi. Platform - Mounting, Liner, and Cover
 - xii. Lanyard Anchor - Belt or Fixed
 - xiii. Safety Harness and Lanyard
 - xiv. Non - Skid Platform Step
- g. Platform Controls
 - i. Control and Safety Decals / Placards
 - ii. All Upper Control Operations
 - iii. Start / Stop and/or Throttle Control
 - iv. Auxiliary Let Down System
 - v. Hydraulic Tool Valve / GFI Outlet
 - vi. Control Guards / Covers
 - vii. Winch Gearbox
 - viii. Winch Rope and Safety Hook

- ix. Jib and Jib Tilt Cylinder
- x. Load Chart, Boom Angle Indicator
- xi. Control Valve - Leaks
- xii. Control Valve - Vacuum Vent Valves
- xiii. Platform Rotator, Level, or Dump
- h. Platform Leveling System
 - i. Leveling Cables and Chains
 - ii. Cable Pulleys and Chain Sprockets
 - iii. Cable Sheaves and Clamps
 - iv. Anchor Brackets
 - v. Turnbuckles and Tie Wire or Lock Nut
 - vi. Hinge Points
 - vii. Leveling Cylinders and Shocks
 - viii. Cylinder Holding Valves
 - ix. Leveling Hoses
 - x. Platform Drift
- i. Extension System
 - i. Catrac, Hoses, and Wire Harness
 - ii. Hose / Wire Routing, and Protection
 - iii. All Wear Pads and Rollers
 - iv. All Cable Sheaves and Pulleys
 - v. All Extension Cylinders
 - vi. All Pins and Retainers
 - vii. Cylinder Holding Valves
 - viii. All Limit Switches

4. General

- a. The fourth segment is broken into three lessons: General Lubrication, Auxiliary Equipment, and Misc. Powered Equipment. Pictures and descriptions are used to provide examples of areas that need to be checked for each inspection point.
- b. General Lubrication
 - i. Gearboxes – Pinion Gears, Oil Level
 - ii. Rotation Brake - Oil Level
 - iii. Rotation Bearing
 - iv. Control Linkages
 - v. Cables Sheaves and Pulleys
 - vi. Hinge Points
 - vii. Outriggers - Slip Plate

- c. Auxiliary Equipment
 - i. Capstan
 - ii. Auxiliary Winch
 - iii. Pony Motor Hydraulics
 - iv. Chipper Body Dump
 - v. Hose Reels
 - vi. Hydraulic Tools
- d. Misc. Powered Equipment
 - i. Generator - Condition
 - ii. Battery - Condition
 - iii. Hose and/or Wire Condition

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.

Aerial Periodic Inspection Final Exam

The final exam consists of 70 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.