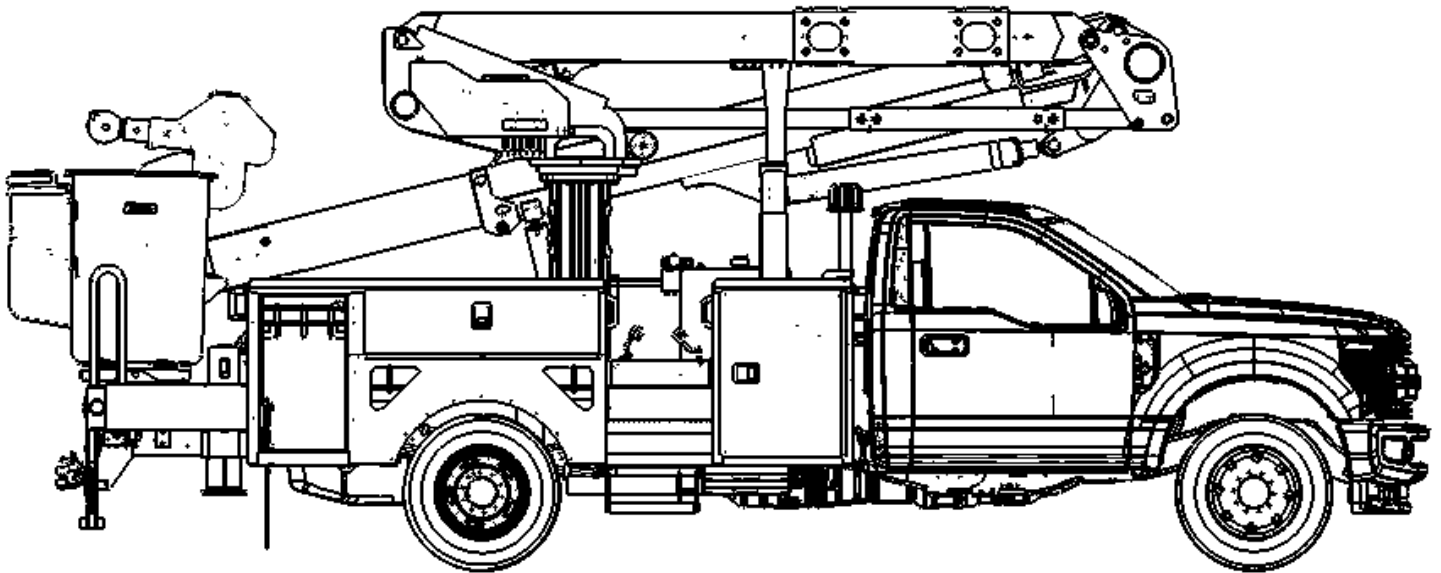




TECH TIPS

PERIODIC AND QUALIFICATION DIELECTRIC TESTING

NO. 195



SERVICE CALL:
PERIODIC AND QUALIFICATION
DIELECTRIC TESTING



MODEL(S):
INSULATED AERIAL DEVICES AND
DIGGER DERRICKS



TOOLS NEEDED:
AC DIELECTRIC TESTER
DC DIELECTRIC TESTER

TEREX UTILITIES TECHNICAL SUPPORT TEAM

PHONE: 1-844-TEREX4U (1-844-837-3948) | EMAIL: UTILITIES.SERVICE@TEREX.COM



DANGER

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury.

Many of the hazards identified in the Operator's Manual are also safety hazards when maintenance and repair procedures are performed.

DO NOT PERFORM MAINTENANCE UNLESS:

- ✓ You are trained and qualified to perform maintenance on this machine.
- ✓ You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- ✓ You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this Tech Tip is a supplement to the Service Manual. Consult the appropriate Service Manual of your machine for safety rules and hazards.



TECH TIP 195 | RELEASED 03.08.2023 | VERSION 1.3
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STEP 1 - Qualification Testing

- Can only be done with an AC testing machine
- Performed by the aerial device or digger derrick manufacturer
- Can be used for the annual
- Performed when the fiberglass boom section is replaced

STEP 2 - Periodic Testing

- AC or DC testing machine can be used following the procedures shown in ANSI A92.2 and A10.31 for the specific test
- Must be done anytime repairs have been made to components that cross the insulating section

STEP 3 - Annual Test

- Must be performed annually
- AC or DC testing machine can be used following the procedures shown in ANSI A92.2 and A10.31 for the specific test
- Can be a qualification test or the maintenance test.

STEP 4 - Installer

After the aerial device or digger derrick is installed on the chassis, one of the following dielectric tests are required based on the voltage rating:

- Qualification Test with AC equipment
- If the installer accepts the qualification test from the manufacturer, then they can perform either of the maintenance dielectric tests using AC or DC equipment
- Periodic Test using DC equipment

AC or DC testing must follow the procedures shown in ANSI A92.2 and A10.31

Note: This section applies to unit transfers also if no components are changed that cross the insulating section. Reference **PA704** for additional information on remounting aerial devices and digger derricks.

STEP 5 - Boom Replacement

A QC (Quality) dielectric test is performed at the factory prior to shipment, but it cannot be considered a Qualification test because the unit must be fully assembled and operational with all components crossing the insulated section installed.

A Qualification test is required for a replacement boom before returning to service

- ANSI A92.2 - 8.2.4(16)(d)

Qualification testing is required after the unit is fully assembled when replacing an upper or lower insulated boom

- The replacement of the boom is considered an alteration/modification of the unit, making the unit qualification test invalid per ANSI A92.2 - 5.3.2

STEP 6 - High Resistance Control Handle

- Must be tested on units
- ANSI A92.2 - AC or DC tester may be used
- Testing will be performed annually or whenever maintenance is completed that may affect the dielectric integrity of components
- Reference the unit specific maintenance manual or contact Terex Technical Support for units built prior to 3/1/2010



FOR FURTHER ASSISTANCE,
CONTACT THE TEREX UTILITIES TECHNICAL SUPPORT TEAM
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