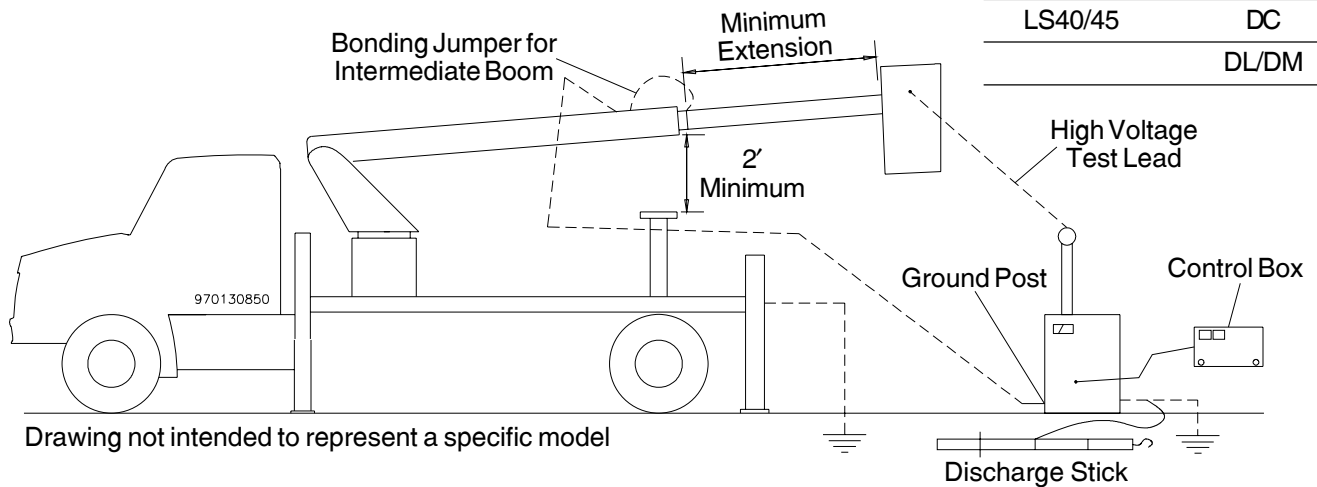


DC Periodic Dielectric Test For All Category A, B, and C Insulating Telescopic Aerials and Insulating Digger Derricks (For DC Test Device With Output Current Metering Only)

Upper Boom Test - - - - -

Upper Boom Extension	
35" Minimum	40" Minimum
AT30-G	D2A/3A/4A
AT30-GV	DB
LS40/45	DC
	DL/DM



Procedure

1. Read and understand the dielectric test information in the Maintenance Manual, ANSI requirements, and the manual for the test device being used.
2. This procedure is for a DC test device with output current metering only. Do not use this procedure when using a DC test device that measures the return current instead of the output current. If equipped with a selector switch, set the switch to Ground Return.
3. The test area should be dry and appropriately roped off to prevent bystanders from entering the test area.
4. Ground chassis, test device or control box, and discharge stick as shown.
5. No isolation pads are required under the vehicle tires or outriggers.
6. Set up booms to maintain at least 2' (61 cm) of clearance between conductive components as shown.
7. Electrically bond all metal at the boom tip to ensure all possible current paths are considered. Include all conductive brackets, air plunger switches, hydraulic valves, controls, cylinders, jib brackets, etc.
8. Extend upper boom to minimum extension length for dielectric test. If possible, fully retract all intermediate booms extending only the insulating upper boom. Attach a bonding jumper between intermediate boom tip, if so equipped, and lower base boom.
9. Attach the high voltage test lead and bonding jumpers as shown for the upper boom test.
10. It is not necessary to use the meter receptacle on the upper boom of Category A and B machines for the upper boom test. However, whether the meter receptacle is used or not, all internal connections to this receptacle must be checked to verify that all current paths through the boom are properly connected to ensure proper function.
11. Voltage and maximum allowable leakage for the upper boom test are as follows.
 - a. Derricks and Category C – 46 kV and below – 56 microamps at 56 kV after 3 minutes
 - b. Category A/B – 46 kV and below – 28 microamps at 56 kV after 3 minutes
 - c. Category A/B – 69 kV – 42 microamps at 84 kV after 3 minutes
 - d. Category A/B – 138 kV – 84 microamps at 168 kV after 3 minutes
12. To test the upper boom, it may be helpful, though not required, to increase the angle of the boom to help keep the high voltage lead from contacting the ground or other conductive components. Gradually increase the voltage to the proper level. Hold for 3 minutes. If flashover occurs or the leakage rate exceeds the maximum value, the unit has failed the test. Record leakage reading.
13. If the derrick is equipped with a personnel jib, perform a second test with the jib in place, platform mounted and pull-out controls connected. Attach high voltage lead to the new platform position at the end of the jib with all conductive components properly bonded. Repeat the upper boom test procedure and record leakage reading.

General Information

Model number d945 Serial number truck 8 3761813Test device number PTS-100 Category/voltage rating C**Conclusion**

Upper boom leakage reading (microamp) 13Pass OK Fail (reason) _____Comments _____
_____Signature of technician GARRY CRUM Date of test 6-2-17