

Service Call:

Barehand Components

Tools Required:

Multimeter

Model(s):

RMX, TCX, TM and TL80

Tech Tip Safety Rules



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.

Introduction

Category A units rated below 138KV require the following components for barehand work:

1. Boom monitor circuit
2. Boom tip bonding with decal
3. Aluminum platform liner
4. Conductive shield test band
5. Vacuum prevention system, which includes atmospheric vent checks on all lines passing thru the boom and foot valves
6. Final assembly with test bar (insert shunt) and clearance decal (phase to ground, phase to phase clearance)
7. Test Bar Install (includes method for storage)

Category A units rated above 138KV also require the following components:

1. Gradient control device (corona ring)

The following steps outline each of the components listed above for barehand work.

Step 1

The boom monitoring circuit will allow the monitoring of certain components for leakage.

For unit specific information, consult the following kitsheets:

- TM
 - 474914
- TCX and RMX
 - 9156499
- TL80
 - 623501

See Tech-tip 95 for more information on Dielectric testing.

Step 2

Boom tip bonding keeps all the metal components at the same voltage.



For unit specific information, consult the following kitsheets:

- TM
 - 484623
- TCX, RMX
 - 491482
- TL80
 - 603961

Step 3

An aluminum platform liner is used to bring the platform to the same potential as the powerline when performing barehand work.



For more information, consult the following kitsheets:

TM: 491130

RMX, TCX and TL80: H25819A

Step 4

The test band shield prevents induction that comes through the air from hitting the test bands and diverts all induction to the steel structure.

This increases the accuracy of the boom leakage because the monitor circuit only measures current through the boom; which is all the machine can control.



For unit specific information, consult the following kitsheets:

- TM
 - 605392
- RMX & TCX
 - 449971
- TL80
 - 623600

Step 5

The vacuum prevention system includes atmospheric vent checks on all lines passing through the boom and foot valves. Foot valves are check valves in the main pressure lines and return lines to keep a column of oil in the hydraulic lines.



TM: 601990 and 611984

RMX & TCX: 9150499

TL80: 628217

See Tech Tip #27 for test procedure

Step 6

Final assembly with test bar (lower boom insert shunt) and clearance decal (phase to ground, phase to phase clearance)

Test Bar Install (includes method for storage)

Decal 420289 is required to present to instruct the operator to remove the bonding wires to the controls if the unit is not being used for barehand work. This is to isolate the control handle from the rest of the boom tip in case of contact with an energized line.

For more information, consult the following kitsheet:

TM: 477205

RMX & TCX: 493345

TL80: 627425

Step 7

Corona Ring:



For unit specific information, consult the following kitsheets:

TM: 494042

RMX & TCX: 496813

TL80: 626398

If you have any questions, contact Terex Utilities Technical Support at 1-844-Terex4U (1-844-837-3948) or utilities.service@terex.com.