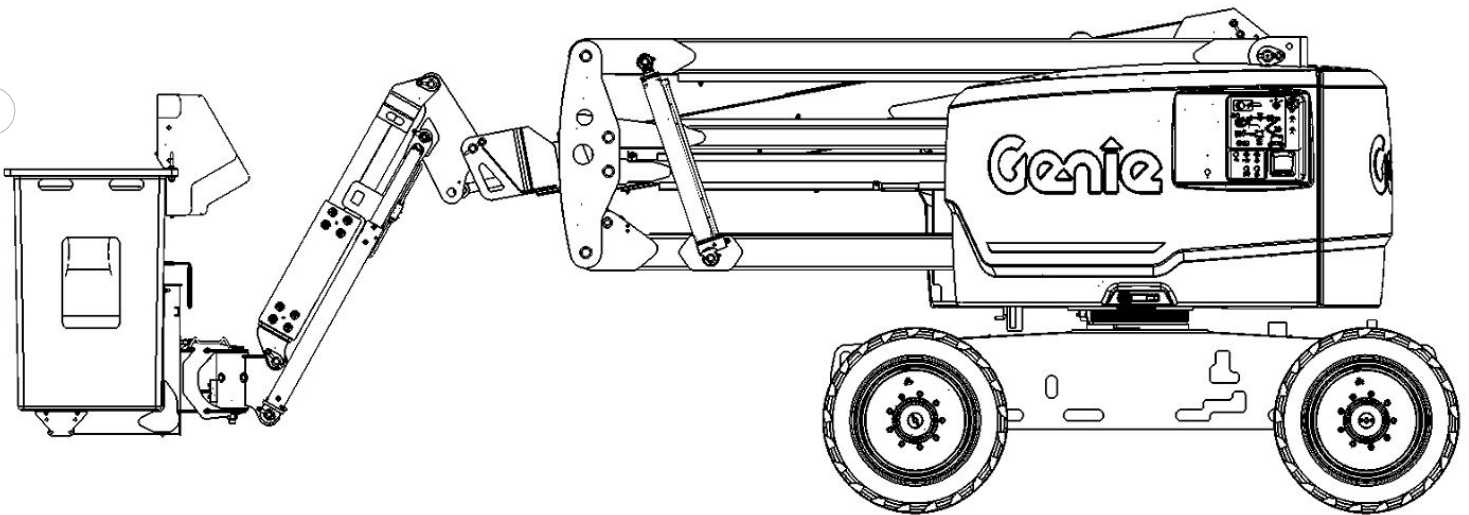# TEREX

TECH TIPS

CALIBRATION OF THE LOAD CELL FOR A Z45 SUB

NO. 209

SERVICE CALL:
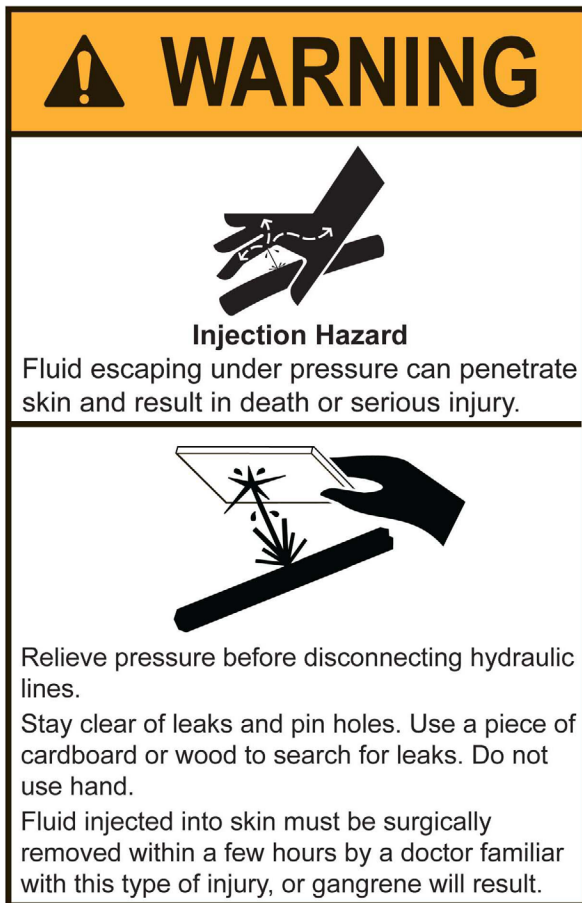CALIBRATION OF THE LOAD CELL
FOR A Z45 SUB

MODEL(S):
TEREX UTILITIES Z45 SUB

TOOLS NEEDED:
MULTIMETER
BATTERY LOAD TESTER
FULL LOAD CALIBRATION KIT
P/N 635767
CHAIN HOIST
1000 LB WEIGHT

WARNING

Injection Hazard

Fluid escaping under pressure can penetrate skin and result in death or serious injury.

Relieve pressure before disconnecting hydraulic lines.

Stay clear of leaks and pin holes. Use a piece of cardboard or wood to search for leaks. Do not use hand.

Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type of injury, or gangrene will result.

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.

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INTRODUCTION

The Z45 Sub is a Category E insulated boom. All wires that were originally routed through the boom for the upper controls and load cell have been removed and replaced with a fiber optic cable. The upper controls and load cell are now powered up by a small 12V battery located at the platform.

This battery will need to have at least 12V to power up the upper controls and load cell. If the battery falls below 12V, the load cell will not send a signal to the lower controls and the unit will sound an alarm and the engine will shut off. When this happens a load cell fault can occur, preventing the unit from starting and causing an alarm to sound until the load cell is calibrated.

When the load cell needs calibration, the display screen will show fault code "7617" to indicate the load cell is not calibrated.
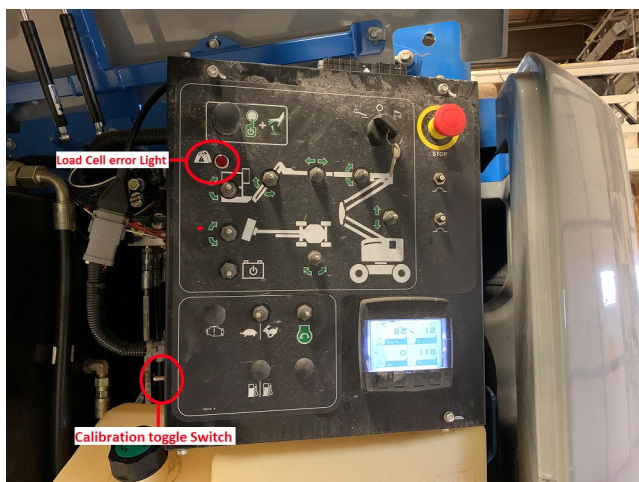
Replace/recharge the platform battery before proceeding with calibrating the load cell.

To calibrate the load cell, the upper controls will need to be awake/powered up.

STEP 1

Using a multimeter, test the platform battery to make sure it has 12 volts. A load test should also be performed to verify the battery is good.

If not, charge or replace the battery as needed, then continue to set Zero calibration.

STEP 2

Open the unit side cover to access the calibration toggle switch located on the side of the lower controls.

STEP 3

Prior to completing this step, make sure all booms are in the stowed position.

Wake up the upper controls by pulling out the E-stop at the upper controls, then pressing and holding the start toggle for 2 seconds. The light on the back side of the breakaway cable will light up, indicating the upper controls are awake and powered up.

STEP 4

From the lower controls, turn the key switch to lower controls and pull out the E-stop.

STEP 5

Using the toggle on the side of the lower controls, press it up and release 3 times. If the alarm is sounding it should go silent at this time indicating the unit is in calibration mode.

STEP 6

Press the toggle down for at least 2 seconds. An audible alarm will sound indicating the Zero calibration has been accepted and saved.

STEP 7

Press the E-stop at lower controls and turn the key switch off.

STEP 8

Cycle key switch to lower controls and pull E-stop out and press the start toggle - the unit should start. If the unit doesn't start, repeat Steps 3 - 7.

If unit is running and has full operation of boom movements and there is a load cell fault "flashing" on the screen (7617), then the unit has Zero calibrated but will need to have full load (1000 lbs.) calibrated.

STEP 9

Make sure all booms are in the fully retracted/ stored position. Position unit so that a 1000 lb. weight can be attached to a lift point or a Dynamometer can be attached directly under the platform.

STEP 10
Attach full load calibration kit to the platform bracket. The calibration kit can be ordered from Terex Utilities Parts (P/N 635767).

Attaching the weight to a different area of the platform bracket will result in inaccurate load being applied and possible platform bracket damage.

STEP 11
With the upper controls awake, move to the lower control, turn the key to lower control and pull out the E-stop.

STEP 12
Using the toggle on the side of the lower controls, press it up and release 3 times. If the alarm is sounding it should go silent at this time indicating the unit is in calibration mode.

STEP 13
Press the toggle down for at least 2 seconds. An audible alarm will sound indicating the Zero calibration has been accepted and saved.

STEP 14

If using a 1000 lb. known weight, run jib boom up to suspend the load. Presse Toggle UP for 2 seconds and release. Cycle the key switch off and push the E-stop in, then pull the E-stop out and turn the key switch to GCON mode.

STEP 15

Pull the E-stop out and turn the key switch to lower controls, then start the unit. Verify load cell codes are no longer displayed on the screen.

STEP 16

To test full load calibration, with a 1000 lb. load applied to the platform bracket, gently add weight to the platform and the alarm should sound and the unit will shut down.

Remove extra weight and start unit.

With unit running, check the generator output voltage at the platform with a multimeter. The charge voltage should be 13.5 to 14.1 V.

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FOR FURTHER ASSISTANCE,
CONTACT THE TEREX UTILITIES TECHNICAL SUPPORT TEAM
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