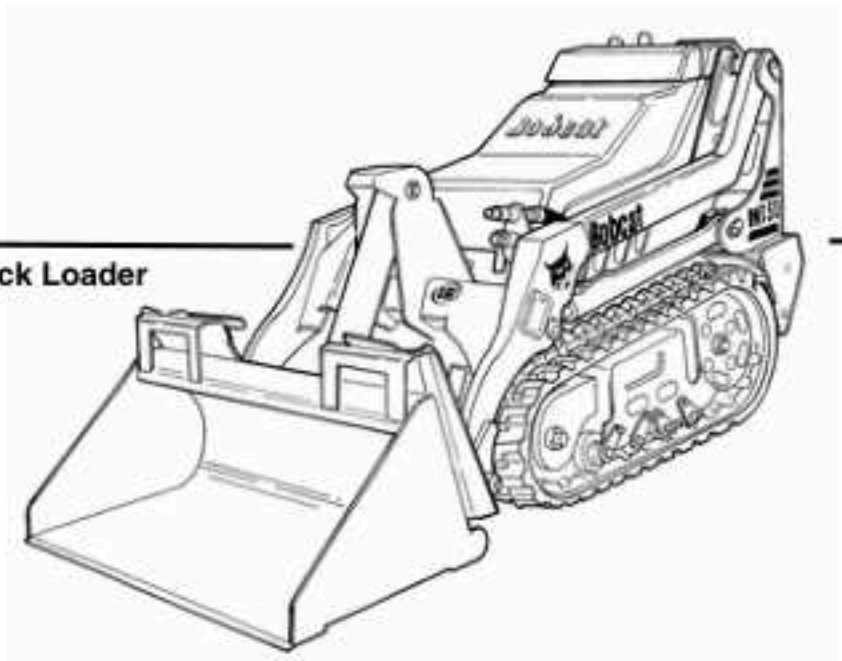
MT50

Bobcat®

Service Manual

S/N 520611001 & Above
S/N 522411001 & Above

Mini Track Loader



6901510 (3-06)

Ingersoll Rand
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Hydraulic Drive Troubleshooting Chart

The following troubleshooting chart is provided for assistance in locating and correcting problems which are most common. Many of the recommended procedures must be done by authorized Bobcat service personnel only.

⚠ WARNING

Check for correct function after adjustments, repairs or service. Failure to make correct repairs or adjustments can cause injury or death.

W-2004-1285

PROBLEM	CAUSE
No drive on one side, in one direction.	1, 2, 10
No drive on one side in both directions.	2, 3, 4
The loader does not move in a straight line.	2, 3, 4, 10
The hydraulic system is overheating.	4, 5, 6, 7, 8
The oil light comes ON.	9
Fast or slow travel speed	11
Speed control adjustment knob has no effect on drive or auxiliaries.	12
Complete drive system inoperable.	13, 14, 15, 16, 17
Travel inoperable forward or reverse. (Right or Left side).	19, 20, 21, 22, 23, 24, 3, 25, 26, 18
Travel Power.	27, 28, 29, 24, 30, 19, 31, 24
Speed to slow.	28, 32, 33, 34, 21
Machine not running straight.	24, 35, 36, 37, 38, 19, 20, 25, 39, 40
Machine will not hold on slope. (Engine ON.) *	41
Machine travel speed is too fast or too slow.	11, 42
Speed control adjustment knob has no effect on drive or auxiliaries.	43

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COUNTERWEIGHT

Removal And Installation

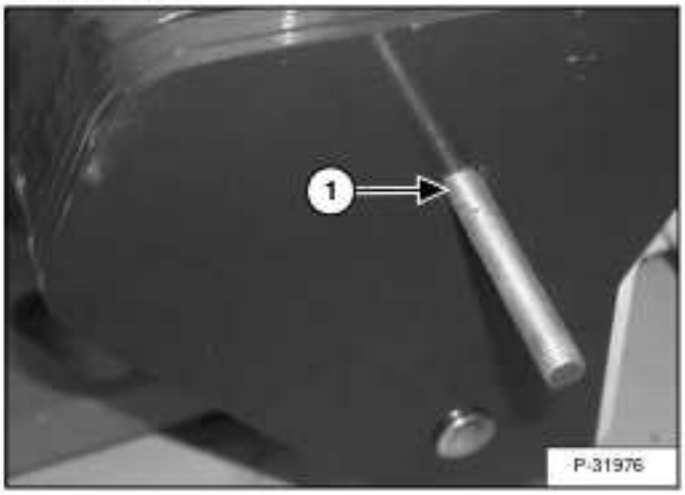
Open the Rear Door.

Figure 40-80-1



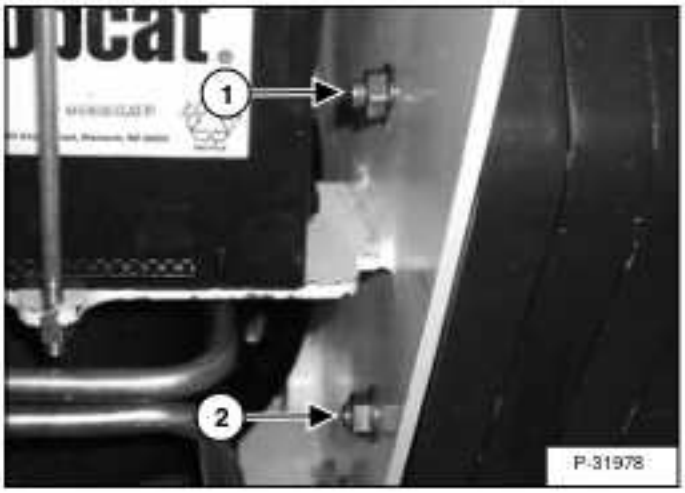
Remove the top nut and bolt (Item 1) **[Figure 40-80-1]** from the loader and the weights.

Figure 40-80-2



Install a twelve inch threaded shaft (Item 1) **[Figure 40-80-2]** into the weights and loader.

Figure 40-80-3

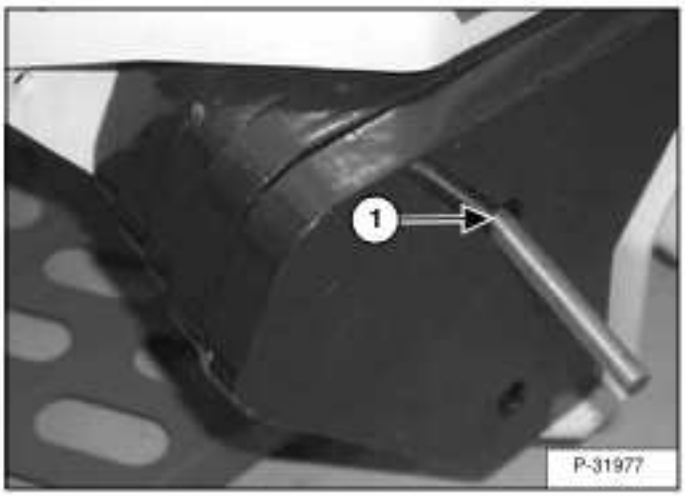


Install a nut on the threaded shaft (Item 1) **[Figure 40-80-3]**.

NOTE: Make sure to support the weights when removing the last bolt and nut. The weights may slide off the threaded shaft if not supported.

Remove the bottom nut and bolt (Item 2) **[Figure 40-80-3]** from the loader and weights.

Figure 40-80-4



Slide the weights one at a time off the threaded shaft (Item 1) **[Figure 40-80-4]**.

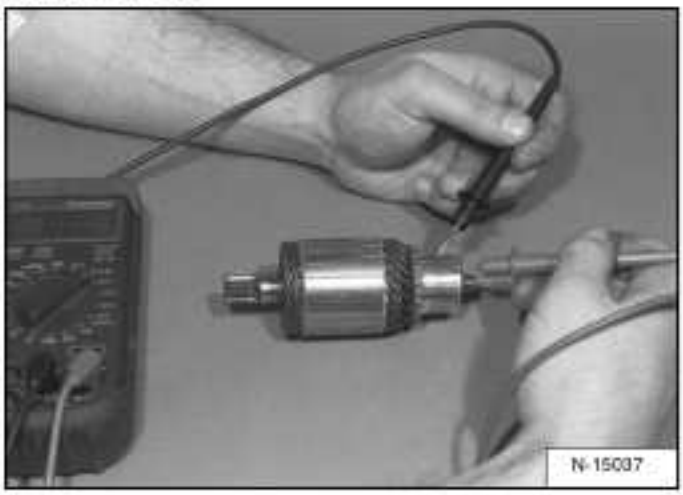
Reverse the procedure for installation.

Repeat this procedure for the other side.

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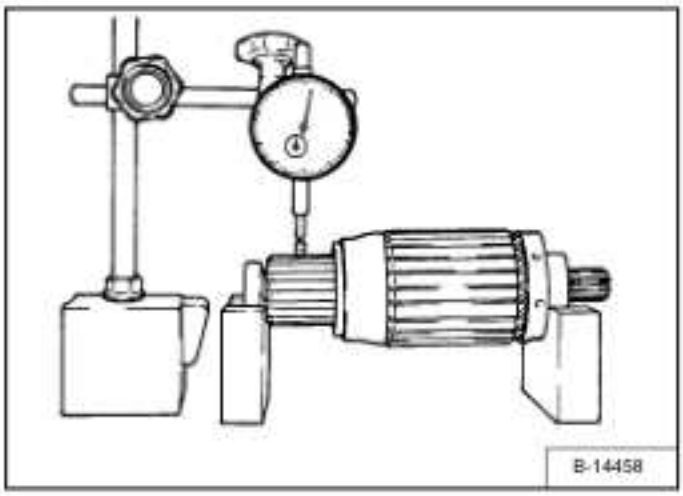
Inspection And Repair (Cont'd)

Figure 50-40-30



Armature Winding Continuity Test: Use a circuit tester, touch the probes to two commutator segments **[Figure 50-40-30]**. There must be continuity at any point. If there is no continuity, the winding is open-circuited, replace the armature.

Figure 50-40-31

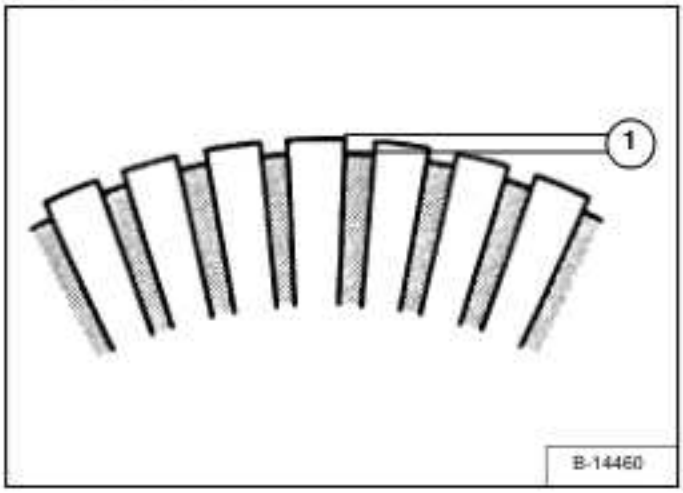


Commutator Run-Out Test: Check the commutator run-out as shown in **[Figure 50-40-31]**.

Service Limit - 0.020 inch (0,4 mm)

If the commutator exceeds the service limit, repair as needed.

Figure 50-40-32



Measure the segment mica depth (Item 1) **[Figure 50-40-32]**.

Service Limit - 0.008 inch (0,2 mm)

If it is worn, replace the armature.

Check the commutator surface for burned spots which usually indicates an open-circuit, and correct it using #400 sand paper.

Figure 50-40-33



Check the field windings for wear and damage.

Check all the connections for clean and tight solder joints.

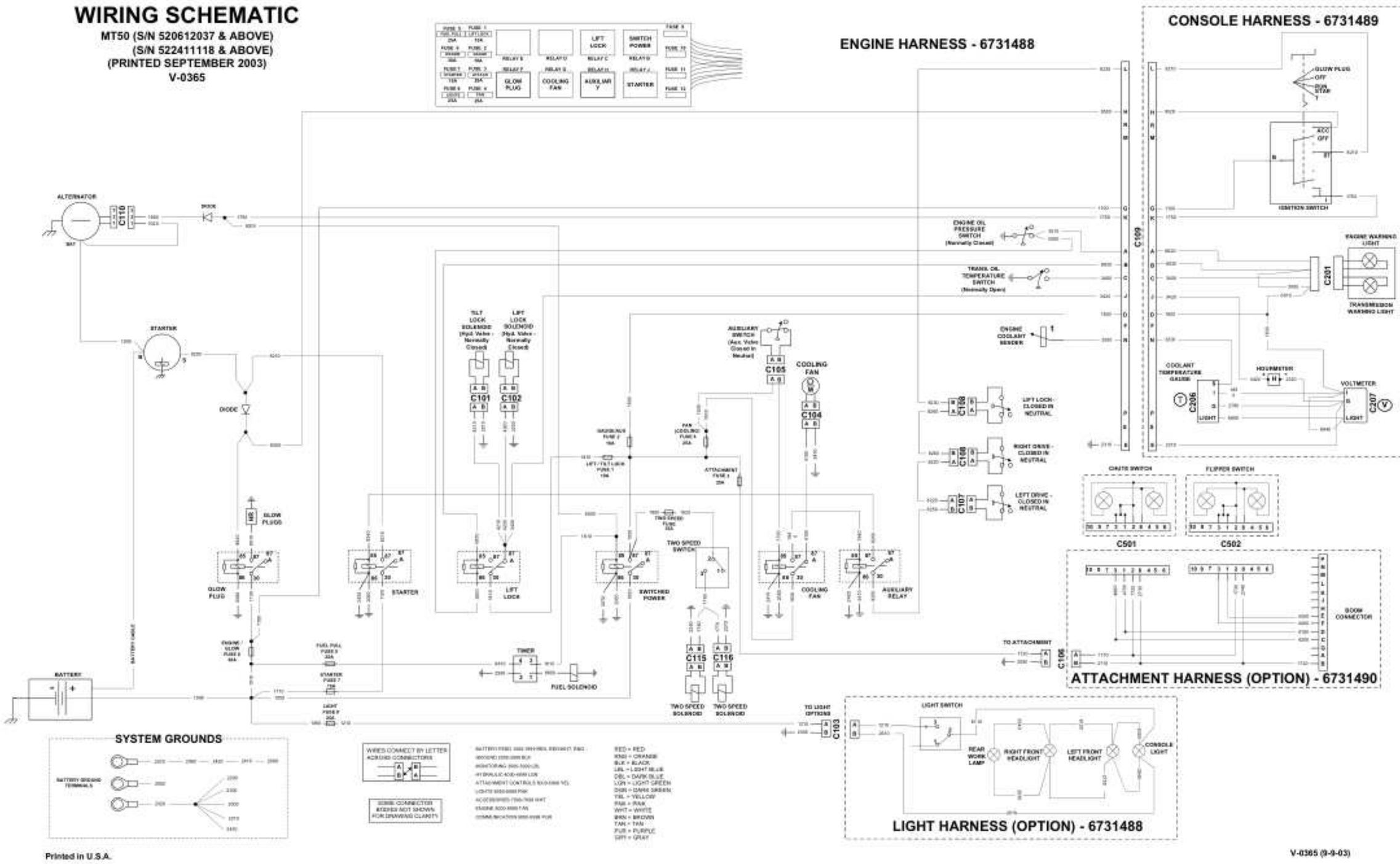
Field Winding Ground Test: Use a circuit tester, touch one probe to the field winding end of the brush and the other probe to the surface of the frame **[Figure 50-40-33]**. There should be no continuity. If there is continuity, the field windings are grounded.

Replace the field windings.

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WIRING SCHEMATIC

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