Gladiator 450, 453, 463, 553, 653, 751, 753, S220, S250, S300, S450, S510, 6681512

Gladiator Bobcat Skid Steer Traction Lock Parking Brake Solenoid User Manual

Models: 450, 453, 463, 553, 653, 751, 753, S220, S250, S300, S450, S510, Part No. 6681512

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Gladiator Bobcat Skid Steer Traction Lock Parking Brake Solenoid. This component is designed to meet or exceed OEM specifications, ensuring reliable performance for your equipment. Please read this manual thoroughly before attempting any installation or service.

2. Safety Information

WARNING: Always prioritize safety. Failure to follow these instructions could result in serious injury or equipment damage.

- Always disconnect the battery before performing any maintenance or installation on electrical components.
- Ensure the equipment is on a stable, level surface and the engine is off before beginning work.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- If you are unsure about any step, consult a qualified technician.
- Keep children and bystanders away from the work area.

3. Setup and Installation

The Gladiator Bobcat Skid Steer Traction Lock Parking Brake Solenoid is a critical component for the safe operation of your Bobcat equipment. Proper installation is crucial for its function.

3.1 Pre-Installation Checks

1. Verify that the new solenoid matches the original part in terms of connectors and mounting points.
2. Inspect the wiring harness for any signs of damage, corrosion, or wear. Repair or replace as necessary.
3. Ensure the area around the installation site is clean and free of debris.

3.2 Installation Steps

Due to the complexity and safety implications, professional installation by a certified technician is highly recommended. The following steps are general guidelines:

1. **Disconnect Power:** Turn off the Bobcat engine and disconnect the battery to prevent accidental activation or electrical shock.
2. **Locate Solenoid:** Identify the existing traction lock parking brake solenoid on your Bobcat skid steer. Refer to your equipment's service manual for the exact location.
3. **Remove Old Solenoid:** Carefully disconnect the electrical connectors and mounting hardware securing the old solenoid. Note the orientation of the wiring.
4. **Install New Solenoid:** Position the new Gladiator solenoid in the same location and orientation as the old one. Secure it with the appropriate mounting hardware.
5. **Connect Wiring:** Reconnect the electrical connectors to the new solenoid. Ensure connections are secure and free from corrosion.
6. **Reconnect Battery:** Reconnect the battery terminals.
7. **Test Functionality:** Start the Bobcat and test the traction lock and parking brake functions according to the equipment's operational guidelines. Ensure the solenoid engages and disengages correctly.

Image 1: Gladiator Bobcat Skid Steer Traction Lock Parking Brake Solenoid. This image shows the solenoid component, which is crucial for the traction lock and parking brake system in compatible Bobcat skid steer models.

4. Operating Principles

The traction lock parking brake solenoid is an electromagnetic device that controls the engagement and disengagement of the parking brake system on your Bobcat skid steer. When activated (typically by a switch in the operator's cabin), the solenoid receives an electrical signal, which creates a magnetic field to move a plunger. This movement either engages the parking brake, preventing the machine from moving, or releases it, allowing for operation.
Proper operation relies on a consistent electrical supply and the mechanical integrity of the brake system it controls. Always refer to your Bobcat equipment's specific operator's manual for detailed instructions on engaging and disengaging the parking brake.

5. Maintenance

Regular inspection and maintenance can extend the life of your solenoid and ensure reliable operation.

- **Visual Inspection:** Periodically inspect the solenoid and its wiring for signs of physical damage, corrosion, or loose connections.
- **Cleanliness:** Keep the solenoid and surrounding area free from dirt, debris, and moisture. A clean component operates more efficiently.
- **Connection Integrity:** Ensure all electrical connections are tight and free of oxidation. Use dielectric grease if necessary to protect against moisture and corrosion.
- **Functionality Check:** Regularly test the parking brake function to ensure the solenoid engages and disengages smoothly without hesitation.

Do not attempt to disassemble the solenoid, as it is a sealed unit and not user-serviceable.

6. Troubleshooting

If you experience issues with your traction lock parking brake, consider the following troubleshooting steps:

Symptom	Possible Cause	Solution
Parking brake does not engage/disengage	No power to solenoid; Faulty wiring/connection; Solenoid failure; Mechanical issue with brake system	Check battery voltage and fuses. Inspect wiring for breaks or corrosion. Test solenoid for continuity (if equipped to do so safely). Consult a technician for brake system inspection.
Solenoid makes clicking sound but brake doesn't engage/disengage	Insufficient power; Mechanical obstruction; Solenoid plunger stuck	Check battery and charging system. Inspect for debris obstructing brake mechanism. Solenoid may need replacement if plunger is stuck internally.
Intermittent brake function	Loose electrical connection; Corroded terminals; Intermittent power supply	Inspect and secure all electrical connections. Clean corroded terminals. Check for stable power supply from the equipment's electrical system.

If these steps do not resolve the issue, it is recommended to seek assistance from a qualified Bobcat service technician.

7. Specifications

- **Product Dimensions:** 9.5 x 2 x 3.2 inches
- **Item Weight:** 2 pounds
- **Manufacturer:** Gladiator
- **Part Number:** 6681512 (Replaces OEM)

- **Compatibility:** Bobcat Skid Steer models 450, 453, 463, 553, 653, 751, 753, S220, S250, S300, S450, S510
- **Compliance:** Meets or exceeds OEM specifications

8. Warranty and Support

This Gladiator solenoid comes with a **One Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.
For warranty claims or technical support, please contact your Gladiator product retailer or the manufacturer directly. Keep your proof of purchase for warranty validation.

© 2023 Gladiator. All rights reserved. This manual is for informational purposes only.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question