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› ZTUOAUMA Transmission Shift Control Solenoid AT310584 User Manual for John Deere Loaders and Tractors

ZTUOAUMA AT310584

ZTUOAUMA Transmission Shift Control Solenoid AT310584 User Manual

Model: AT310584

INTRODUCTION

This manual provides essential information for the ZTUOAUMA Transmission Shift Control Solenoid, model AT310584. It covers product overview, compatibility, installation guidelines, operational principles, maintenance, troubleshooting, and specifications. Please read this manual thoroughly before installation and use to ensure proper function and safety.

SAFETY INFORMATION

Always observe safety precautions when working with vehicle components. Improper installation or handling can lead to injury or damage to equipment. It is recommended that installation be performed by a qualified technician.

- Ensure the vehicle is turned off and the battery is disconnected before beginning any work.
- Wear appropriate personal protective equipment (PPE), such as gloves and eye protection.
- Refer to the vehicle's service manual for specific procedures and torque specifications.
- Dispose of old parts and fluids responsibly according to local regulations.

PRODUCT OVERVIEW

The ZTUOAUMA Transmission Shift Control Solenoid AT310584 is a critical component designed to regulate fluid flow within the transmission, enabling smooth and precise gear shifts. This solenoid is manufactured to meet specific quality standards, ensuring reliable performance.

Part Numbers

- AT310584
- RE211156
- RE211157
- RE211158

Compatibility

This solenoid is compatible with various John Deere equipment models and engines. Please verify your specific model and part number before installation.

Compatible John Deere Backhoe Loaders:

- 435
- 410J, 410K, 410L
- 325J, 325K
- 315SJ, 315SK, 315SL
- 310J, 310K, 310L, 310SJ, 310SK, 310SL
- 210K, 210L, 210LE, 210LJ

Also Compatible with:

- John Deere 6000 Series Tractors
- John Deere 7000 Series Tractors

Compatible John Deere Engines:

- 4045HT072, 4045HT082, 4045HT096, 4045HT073
- 4045TT092, 4045DT050, 4045HT054, 4045HL287
- 4045DT060, 4045HT085, 4045HT086, 4045TBZ01
- 4045HT063, 4045HT083, 4045HL288, 4045TT095
- 4045HT087, 4045TT094



Image 1: Front view of the ZTUOAUMA Transmission Shift Control Solenoid AT310584, showing the main body and connector.



Image 2: Detailed view of the electrical connector on the ZTUOAUMA Transmission Shift Control Solenoid AT310584.

SETUP AND INSTALLATION

Installation of a transmission shift control solenoid requires mechanical expertise and specialized tools. It is strongly recommended that this procedure be performed by a certified mechanic or a qualified service technician.

General Installation Steps (Consult Vehicle Service Manual for Specifics):

1. **Preparation:** Park the vehicle on a level surface, engage the parking brake, and turn off the engine. Disconnect the battery to prevent electrical hazards. Allow the transmission to cool if it has been recently operated.
2. **Access:** Locate the transmission and identify the area where the shift control solenoid is situated. This may require removing other components or draining transmission fluid.
3. **Fluid Drainage (if necessary):** If the solenoid is submerged in transmission fluid, drain the fluid into a suitable container.
4. **Disconnect Wiring:** Carefully disconnect the electrical connector from the old solenoid.
5. **Remove Old Solenoid:** Unbolt or unclip the old solenoid from its housing. Note its orientation for correct installation of the new part.
6. **Install New Solenoid:** Insert the ZTUOAUMA AT310584 solenoid into position, ensuring it seats correctly. Secure it

with the appropriate fasteners, tightening to the manufacturer's specified torque.

7. **Connect Wiring:** Reconnect the electrical connector to the new solenoid, ensuring a secure connection.
8. **Refill Fluid (if necessary):** Refill the transmission with the correct type and amount of transmission fluid as specified by the vehicle manufacturer.
9. **Testing:** Reconnect the battery. Start the engine and check for leaks. Test the transmission's shifting function in a safe environment.

Always refer to the specific service manual for your John Deere model for detailed, step-by-step instructions and safety warnings.



Image 3: A John Deere loader in operation, representing the type of heavy machinery this solenoid is designed for.

OPERATING PRINCIPLES

The transmission shift control solenoid operates by receiving electrical signals from the vehicle's Transmission Control Module (TCM). Upon receiving a signal, the solenoid opens or closes internal valves, directing hydraulic fluid to specific clutch packs or bands within the transmission. This precise control of fluid pressure and flow allows for the engagement and disengagement of gears, facilitating smooth and efficient shifting.

A properly functioning solenoid ensures that the transmission shifts gears at the correct time and with the appropriate pressure, optimizing vehicle performance and fuel efficiency.

MAINTENANCE

Transmission solenoids are generally designed for long-term reliability and do not require routine maintenance themselves. However, their longevity and performance are directly linked to the overall health of the transmission system.

- **Transmission Fluid:** Regularly check and maintain the transmission fluid level and quality according to the vehicle manufacturer's recommendations. Contaminated or low fluid levels can severely impact solenoid function and transmission health.
- **Fluid Filter:** Replace the transmission fluid filter at recommended intervals to prevent debris from circulating and potentially clogging solenoids or other transmission components.
- **Professional Inspections:** Have the transmission system professionally inspected during routine vehicle servicing to identify and address any potential issues early.

TROUBLESHOOTING

If you experience transmission issues after installing or while using the solenoid, consider the following common troubleshooting steps. Always consult a qualified technician for diagnosis and repair.

Common Symptoms of a Faulty Solenoid:

- **Delayed or Hard Shifting:** The transmission may hesitate to shift gears or shift abruptly.
- **No Shifting:** The transmission may remain in a single gear or fail to engage any gear.
- **Slipping Gears:** The transmission may slip out of gear unexpectedly.
- **Check Engine Light:** The vehicle's check engine light or transmission warning light may illuminate, often accompanied by diagnostic trouble codes (DTCs) related to transmission solenoids.
- **Erratic Shifting:** Inconsistent or unpredictable gear changes.

Troubleshooting Steps:

1. **Check Fluid Level and Condition:** Ensure transmission fluid is at the correct level and is clean. Low or contaminated fluid can mimic solenoid issues.
2. **Inspect Wiring and Connectors:** Verify that all electrical connections to the solenoid are secure and free from corrosion or damage.
3. **Scan for Diagnostic Trouble Codes (DTCs):** Use an OBD-II scanner to retrieve any stored codes. Specific codes can pinpoint solenoid malfunctions.
4. **Professional Diagnosis:** If symptoms persist, seek professional diagnosis. A technician can perform electrical tests on the solenoid and further inspect the transmission.

SPECIFICATIONS

Feature	Detail
Brand	ZTUOAUMA
Model Number	AT310584
Part Numbers	AT310584, RE211156, RE211157, RE211158
Inlet Connection Type	Flange
Outlet Connection Type	Flange
Number of Ports	3
Certifications	CE, ISO 9001, RoHS
Item Weight	11.6 ounces
Package Dimensions	5.59 x 3.07 x 2.36 inches
UPC	191813958258

WARRANTY AND SUPPORT

For information regarding warranty coverage or technical support for your ZTUOAUMA AT310584 Transmission Shift Control Solenoid, please contact the manufacturer directly or refer to the product's purchase documentation.

Manufacturer: zt truck parts

For further assistance, you may visit the ZTUOAUMA store on Amazon:[ZTUOAUMA Store](#)

