

Torque TR9580

TORQUE Trailer Air Spring Bag

MODEL: TR9580

Instruction Manual

1. Product Overview

The TORQUE Trailer Air Spring Bag (Model TR9580) is a high-quality replacement air spring designed for heavy-duty trailer applications. This product is engineered to meet or exceed OEM requirements, providing reliable suspension performance and durability. It is a direct replacement for several common air spring models, ensuring broad compatibility.



Image: Two TORQUE TR9580 Trailer Air Spring Bags, showcasing their robust design and construction.

Each air spring features permanently engraved part numbers for easy identification, a thick rubber construction (4.5 - 5.00 mm) for enhanced durability, and stronger 4140 grade steel studs. The composite pistons are designed for

increased strength, contributing to a high leak test ratio after final assembly.

2. Important Safety Information and Fitment

WARNING: Improper installation or selection of an air spring can lead to serious accidents or product failure. Always prioritize safety and ensure the correct part is used for your specific application.

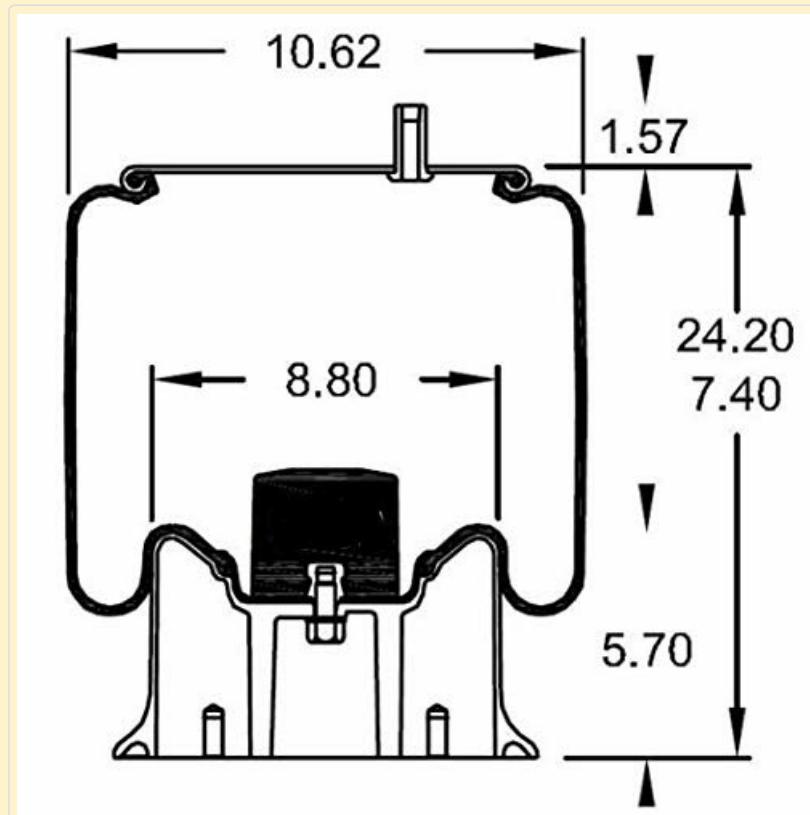


Image: A warning graphic emphasizing the importance of verifying the correct part number before purchase to prevent accidents.

Before purchasing or installing this product, it is crucial to verify its compatibility with your vehicle. The most common mistake is buying an air bag solely by make and model. Always consult your dealer and ask for the correct part number for your vehicle, ideally with your Vehicle Identification Number (VIN).

Alternatively, carefully compare the specifications and diagrams provided in this manual with your existing air bag to ensure all dimensions and mounting points match precisely. Using an incorrect air bag can lead to premature failure, potentially causing a serious accident.

3. Product Specifications and Dimensions

The following table and diagrams provide detailed specifications for the TORQUE TR9580 air spring bag. Please use these measurements to confirm compatibility with your application.

Key Specifications for TR9580 Air Spring Bag

Specification	Value
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Specification	Value
Extended Height	24.20 inches
Compressed Height	7.40 inches
Top Plate Width	10.38 inches
Piston Width	10.75 inches
Weight	25.20 lbs
Rubber Thickness	4.5 - 5.00 mm (exceeds OEM)
Stud Material	4140 Grade Steel (25% stronger)

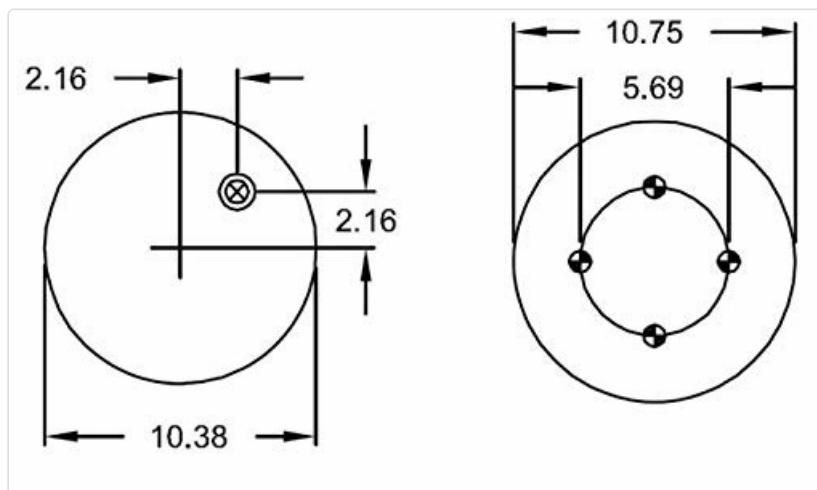


Image: Side view diagram illustrating the extended and compressed heights, and top plate width of the air spring.



Image: Top and bottom view diagrams showing the top plate and piston widths, along with bolt patterns.

4. Cross-Reference and Replacement Models

The TORQUE TR9580 air spring bag is designed as a direct replacement for the following OEM and aftermarket

part numbers:

- Firestone: W01-358-9580
- Goodyear: 1R13-118, 1R13-144, 1R13-081
- Triangle: AS-8434
- Contitech: 1010-21P434
- Hendrickson: S-20127, S-20414, C-20127, C-20414
- Automann: 566.ER9580
- Other common references: AS9580, HDV9580, HD9580
- Sampa: SP559580-K

5. Installation Guidelines (Setup)

Installation of air spring bags should ideally be performed by a qualified mechanic or technician with experience in heavy-duty vehicle suspension systems. Incorrect installation can lead to system malfunction, damage to the air spring, or safety hazards.

General Steps (Consult Service Manual for Specifics):

1. **Safety First:** Park the vehicle on a level surface, engage parking brakes, and use appropriate jack stands to support the vehicle frame. Ensure the air suspension system is fully depressurized.
2. **Remove Old Air Spring:** Disconnect air lines and mounting hardware. Carefully remove the old air spring, noting its orientation and any shims or spacers.
3. **Inspect Mounting Surfaces:** Clean and inspect the upper and lower mounting surfaces for damage, corrosion, or debris. Repair or replace as necessary.
4. **Install New Air Spring:** Position the new TORQUE TR9580 air spring, ensuring proper alignment with mounting holes. Secure with new or appropriate hardware, tightening to manufacturer's torque specifications.
5. **Connect Air Lines:** Reconnect air lines, ensuring a secure, leak-free connection.
6. **Inflate and Test:** Slowly reinflate the air suspension system to the recommended pressure. Check for air leaks using a soapy water solution. Lower the vehicle and perform a functional test, checking for proper ride height and stability.

Refer to your vehicle's specific service manual for detailed, step-by-step installation instructions and torque specifications.

6. Operation

The TORQUE Trailer Air Spring Bag operates as a pneumatic suspension component, supporting the vehicle's load and providing a smooth ride by absorbing road shocks. Proper operation relies on maintaining the correct air pressure within the system.

- **Maintain Proper Air Pressure:** Always operate the air suspension system within the manufacturer's recommended pressure range. Over-inflation can lead to a harsh ride and premature wear, while under-inflation can cause bottoming out and damage to the air spring or vehicle components.
- **Load Distribution:** Ensure that the vehicle's load is distributed evenly to prevent excessive stress on

individual air springs.

- **Regular Monitoring:** Periodically check the air pressure in your air springs, especially before long trips or when carrying heavy loads.

7. Maintenance

Regular maintenance is essential to ensure the longevity and optimal performance of your TORQUE air spring bags.

- **Routine Inspection:** Visually inspect the air springs regularly for signs of wear, cracks, abrasions, or air leaks. Check the condition of air lines and fittings.
- **Cleaning:** Keep the air springs clean and free from dirt, debris, and corrosive substances. Use mild soap and water for cleaning.
- **Check Mounting Hardware:** Periodically check that all mounting bolts and nuts are securely tightened to the manufacturer's specifications.
- **Avoid Over-Extension/Compression:** Ensure that the suspension system's travel limits are properly set to prevent the air springs from over-extending or bottoming out, which can cause damage.

8. Troubleshooting

If you experience issues with your air spring system, consider the following common troubleshooting steps:

- **Air Leakage:** If an air spring loses pressure, check all air line connections, fittings, and the air spring itself for leaks using a soapy water solution. Bubbles indicate a leak.
- **Improper Ride Height:** Verify that the air pressure is within the recommended range. Check the leveling valve (if applicable) for proper operation and adjustment.
- **Uneven Ride:** This could indicate an issue with one air spring, an air line, or a leveling valve. Check each component individually.
- **Excessive Vibration/Noise:** Inspect the air spring and surrounding components for loose mounting hardware, contact with other parts, or internal damage to the air spring.

For complex issues, it is recommended to seek assistance from a professional mechanic.

9. Warranty Information

TORQUE offers an industry-leading **3-year unlimited mile warranty** on its rolling lobe/reversible sleeve air springs, including the TR9580 model. This warranty reflects our commitment to superior quality and customer satisfaction.

To activate your warranty and ensure coverage, please register your product through the official Torque Parts website after purchase. Keep your proof of purchase for warranty claims.

For detailed warranty terms and conditions, please visit the Torque Parts website or contact customer support.

10. Customer Support

For any questions, technical assistance, or warranty claims regarding your TORQUE Trailer Air Spring Bag, please contact Torque Parts customer support. Our team is available to provide guidance and resolve any issues you may encounter.

You can typically find contact information on the official Torque Parts website. Please have your product model number (TR9580) and purchase details ready when contacting support to facilitate a quicker resolution.