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› maXpeedingrods 2x Air Suspension Bellow Bags Instruction Manual

maXpeedingrods WU40

maXpeedingrods Air Suspension Bellow Bags Instruction Manual

Model: WU40

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your maXpeedingrods 2x Air Suspension Bellow Bags. Designed for universal application in trucks, these 2500 lbs capacity air bags enhance vehicle stability, improve ride comfort, and help maintain proper vehicle leveling under various load conditions. Please read this manual thoroughly before installation and use to ensure safe and optimal performance.

2. PRODUCT OVERVIEW

The maXpeedingrods Air Suspension Bellow Bags are engineered to provide a reliable and durable solution for vehicle suspension needs. Each bag is constructed from high-quality steel and rubber, ensuring longevity and consistent performance. They are designed as a direct replacement for original air suspension components, offering equivalent safety, fitment precision, and lifespan.



Figure 2.1: Two maXpeedingrods 2500 lbs air suspension bellow bags, showing their compact, robust design.

Key Features:

- **Universal Compatibility:** Suitable for a wide range of trucks including Ford F150/F250, GMC Sierra, Chevrolet Silverado, Dodge Ram 1500 2500 3500, and most other truck brands.
- **High Load Capacity:** Each bag is rated for 2500 lbs, providing robust support for heavy loads.
- **Durable Construction:** Made from high-quality steel and rubber for maximum durability and resistance to wear.
- **Integrated Dust Cover:** Protects the air spring from impurities, extending its lifespan.
- **Precision Engineering:** Designed for exact fitment and performance comparable to original equipment.



Figure 2.2: Illustration of the high-quality steel and rubber materials used in the air bag construction.



Air Fitting

Allows the spring to be fed from the compressor



Bead Plate

Assemble the air spring to the vehicle



Double Bellows

Hold the compressor gas, the heart of the air spring

Figure 2.3: Detailed view of the air fitting for compressor connection, the bead plate for vehicle assembly, and the double bellows which hold the compressor gas.

3. SPECIFICATIONS

Attribute	Value
Brand	maXpeedingrods
Model Number	WU40

Attribute	Value
Minimum Height	65 mm
Maximum Height	175 mm
Working Stroke	110 mm
Top Plate Diameter	113 mm
Air Bellow Diameter	145 mm
Single Port Size	1/2-14NPT
Small Screw Hole Diameter	0.31 inches / 8 mm (2x)
Larger Screw Hole Diameter	0.7 inches / 18 mm (1x)
Item Weight	3.74 Kilograms
Product Dimensions (L x W x H)	30.5 x 19 x 18.5 cm



Figure 3.1: Illustration of the 110mm working stroke of the air suspension bag.

4. INSTALLATION

Installation of air suspension components requires mechanical knowledge and specialized tools. It is highly recommended that installation be performed by a qualified professional to ensure proper fitment, safety, and optimal performance. Incorrect installation can lead to product damage, vehicle damage, or personal injury.

General Installation Guidelines (Professional Installation Recommended):

1. **Safety First:** Ensure the vehicle is securely lifted and supported on jack stands. Disconnect the battery.
2. **Remove Old Components:** Carefully remove existing suspension components as per vehicle manufacturer's guidelines.
3. **Prepare Mounting Surfaces:** Clean and inspect all mounting surfaces for corrosion or damage.
4. **Position Air Bags:** Place the maXpeedingrods air bags into their designated mounting locations. Ensure proper alignment with the mounting holes.
5. **Secure Air Bags:** Use appropriate hardware to secure the air bags. The bags feature 2x small screw holes (0.31" / 8mm diameter) and 1x larger screw hole (0.7" / 18mm diameter) for mounting.
6. **Connect Air Lines:** Connect the air lines to the 1/2-14NPT single port on each air bag. Ensure all connections are

tight and leak-free.

7. **Install Air Compressor (if applicable):** If installing a new air compressor system, follow the manufacturer's instructions for its installation and wiring.
8. **Test System:** Once installed, slowly lower the vehicle. Inflate the air bags to the recommended pressure (refer to vehicle or air system manufacturer's specifications). Check for leaks using a soapy water solution.
9. **Final Inspection:** Verify all components are securely fastened and there is no interference with other vehicle parts.



Figure 4.1: Example of a truck equipped with air suspension bags, illustrating how they help maintain vehicle level.

5. OPERATION

The maXpeedingrods Air Suspension Bellow Bags operate by adjusting air pressure within the bags to support the vehicle's load and maintain ride height. The specific operating pressure will depend on the vehicle's load, road conditions, and desired ride characteristics. Always refer to your air management system's instructions for precise pressure adjustments.

General Operation Principles:

- **Load Adjustment:** Increase air pressure when carrying heavy loads or towing to prevent sagging and maintain proper headlight aim.
- **Ride Comfort:** Adjust pressure to achieve desired ride comfort. Lower pressure generally provides a softer ride, while higher pressure provides more support.
- **Leveling:** The primary function is to keep the vehicle level, especially when unevenly loaded or towing.
- **Pressure Monitoring:** Regularly monitor air pressure using a reliable gauge. Avoid over-inflation or under-inflation.

Why use air springs?

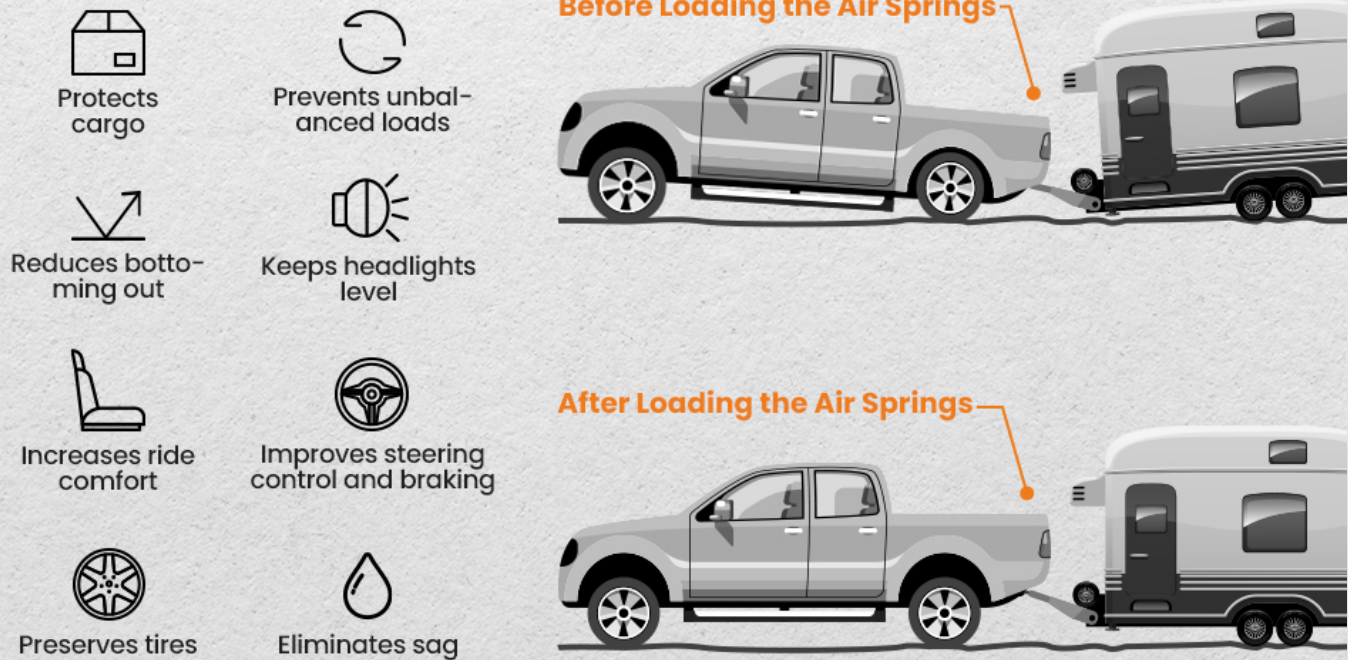


Figure 5.1: Benefits of using air springs, including improved load handling and ride quality.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and performance of your maXpeedingrods Air Suspension Bellow Bags. Follow these guidelines to ensure continued reliable operation:

- **Regular Inspection:** Periodically inspect the air bags, air lines, and fittings for any signs of wear, cracks, abrasions, or leaks.
- **Check Air Pressure:** Check air pressure regularly, especially before and after carrying heavy loads. Maintain recommended pressure levels.
- **Cleanliness:** Keep the air bags and surrounding areas clean from dirt, debris, and corrosive materials. The integrated dust cover helps, but external cleaning is still beneficial.
- **Leak Detection:** If a pressure drop is observed, use a soapy water solution to spray all connections and the surface of the air bag to identify leaks. Bubbles will indicate a leak.
- **Avoid Over-extension/Over-compression:** Ensure the suspension system's travel limits are respected to prevent damage to the air bags.
- **Professional Check-ups:** Consider having your air suspension system professionally inspected annually.



Figure 6.1: The tightly sealed design of the air bag's top plate, crucial for maintaining air pressure.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your air suspension bags. For complex problems, consult a qualified technician.

Problem	Possible Cause	Solution
Air bag not inflating	- No air supply from compressor - Blocked air line - Major leak in air bag or fitting	- Check compressor operation and power supply. - Inspect air lines for kinks or blockages. - Perform leak test; replace damaged components.
Air bag deflates slowly	- Small leak in air line or fitting - Pin-hole leak in air bag	- Perform leak test with soapy water; tighten fittings or replace air line. - If air bag is leaking, it must be replaced.
Uneven vehicle height	- Unequal air pressure in bags - Faulty height sensor (if applicable) - Uneven load distribution	- Adjust air pressure in individual bags. - Inspect and test height sensors. - Distribute load evenly.

8. SAFETY INFORMATION

- Always wear appropriate personal protective equipment (PPE) during installation and maintenance.
- Never work under a vehicle supported only by a jack. Always use sturdy jack stands.
- Ensure the air system is completely depressurized before disconnecting any air lines or fittings.
- Do not exceed the maximum recommended air pressure for the air bags or your air management system.
- Keep children and pets away from the work area.
- Dispose of old components responsibly according to local regulations.

9. WARRANTY AND SUPPORT

maXpeedingrods products are manufactured to high-quality standards. For specific warranty information, please refer to the warranty card included with your product or visit the official maXpeedingrods website. For technical support,

replacement parts, or further assistance, please contact maXpeedingrods customer service through their official channels. You can find more information and contact details on the maXpeedingrods official website:www.maxpeedingrods.com

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