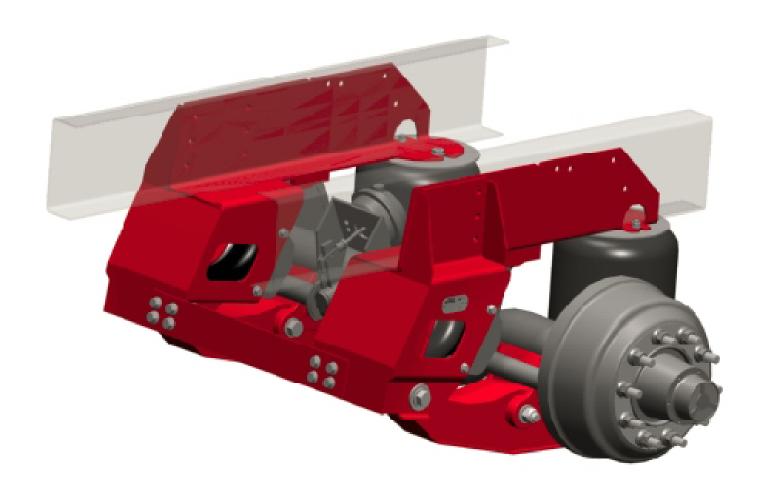




**Auxilary Lift Axles** 

# **L225 & LT225 Series**

## **Maintenance Instructions**



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#### **COMPANY PROFILE**

Reyco Granning Suspensions was formed by the merger and acquisition of two well-known names in the heavy-duty vehicle suspension industry: Reyco and Granning.

Reyco grew out of the Reynolds Mfg. Co. and was first known as a major supplier of brake drums for heavy-duty vehicles, and later developed a full line of air and steel spring suspensions for trucks, busses, trailers, and motorhomes.

Granning Air Suspensions was founded in 1949 in Detroit, Michigan as a manufacturer of auxiliary lift axle suspensions. Granning later became an innovator of independent front air suspensions for the motorhome industry.

Reyco Granning LLC was formed in early 2011 through a partnering of senior managers and MAT Capital, a private investment group headquartered in Long Grove, Illinois.

Reyco Granning manufacturing facilities are certified to the ISO9001:2008 standards, a globally recognized assurance that quality standards have been established and are maintained by regular rigorous audits.

# ReycoGranning® Suspensions

# L225 and LT225 Installation & Maintenance Manual

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## **Service Notes**

Following the service and maintenance information in this publication will contribute to improve performance and greater service from Reyco Granning® Suspensions.

The information contained in this manual was current at the time of printing and is subject to change without notice or liability. Tuthill reserves the right to modify suspension product or maintenance procedures and to change specifications at any time without notice and without recurring obligation.

You must follow your company safety procedures when you service or repair suspension product. Be sure you read and understand all the procedures and instructions before you begin work on suspension product.

## **Pre-Service Inspections**

## Air Springs

- 1. Pressurize ride and lift air springs using suspension air control.
- 2. Verify there are no leaks in the air system lines or fittings.
- 3. Maintain 1" ride clearance around air springs inflated to 100 psi.
- 4. Maintain suspension ride height (bottom of frame to centerline of axle) at or near 10 ½" (loaded).

**CAUTION:** INSPECTION SHOULD BE PERFORMED BY A QUALIFIED MECHANIC OR REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

**CAUTION:** IF ANY ITEMS DO NOT MEET PRE-SERVICE INSPECTION, CONTACT THE INSTALLER OR A QUALIFIED REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

## **Component Inspections**

Key components should be inspected regularly for maximum service life. The severity of vehicle operation can vary individual component service life. The inspection cycles recommended here are only minimum suggestions.

#### 1. AIR SPRINGS

Inspect rubber bladder of air spring for cuts, abrasions, etc. If inspection indicated the air spring is rubbing adjacent vehicle or suspension components, correct the problem and replace the bellow for safe trouble free operation.

#### 2. AXLE CONNECTIONS

Inspect welds at axle attachment points. If any welds do not have proper fillets or fractures appear, contact your Reyco Granning® Suspensions Service Center.

**CAUTION:** DO NOT OPERATE THE VEHICLE WITH FRACTURED WELDS ON THE SUSPENSION.

#### 3. AXLE SADDLE BUSHINGS

Inspect rubber bushings, nuts and bolts at 100,000 miles or as required to avoid premature wear of the rubber bushed saddle connections.

#### 4. FRONT PIVOT CONNECTION

Inspect front rubber bushings, end bearings, nuts and bolts at 100,000 miles or as required to avoid premature wear of the front rubber bushed pivot connection.

**CAUTION:** LOOSENESS IN THIS AREA CAN CAUSE A CHANGE IN HANDLING AND INCREASED TIRE WEAR.

#### 5. SHOCK ABSORBERS

Inspect and replace shock absorbers showing any sign of leaking hydraulic fluid, or mechanical damage.

#### AIR CONTROL VALVE

Controlling adequate air pressure in the air springs, the air control valve insures proper axle loading is maintained. For maximum system performance, keep the air system clean and drain the moisture from the air tanks frequently.

**CAUTION:** INSPECTION SHOULD BE PERFORMED BY A QUALIFIED MECHANIC OR REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

## Periodic Inspections

#### First 1,000 Mile Inspection

After the REYCO GRANNING® SUSPENSION has been in service for approximately 1,000 miles, check all bolts and nuts for proper torque. See torque chart below.

**NOTE:** Torque values should be checked with an approved calibrated torque wrench.

<u>ricilon.</u>					
	TORQUE CHART				
	(Cleaned & Oiled)				
<b>SUSPENSION BOLTS</b>		<u>REMARKS</u>			
3/4"	320ft. Lbs.				
3/4"*	200ft. Lbs.	Shock Bolts			
3/4"*	35ft. Lbs.	Air Spring Nuts			
5/8"	180ft. Lbs.				
1/2"	90ft. Lbs.				
1/2"*	35ft. Lbs.	Air Spring Nuts			

\* Use Grade 5 Fasteners.

**NOTE:** All other fasteners in the suspension are Grade 8.

### First 3,000 Mile Inspection

- 1. Following the first 3,000 miles of operation, the nuts and bolts should be inspected for proper torquing as indicated in the chart above.
- 2. With vehicle on level surface, activate hand control valve and check air system for leaks with air pressure in excess of 65 psi.
- 3. Maintain 1" clearance around air spring at 100 psi.

#### 50,000 Mile Inspection

- 1. Recheck 3,000 miles inspection items.
- 2. Raise vehicle frame until tires are completely off the ground, and check air springs for any signs of chafing or wear.
- 3. Move axle up and down and inspect for looseness or worn parts at the front pivot connections.
- 4. Inspect axle connection welds. If cracked, scarf out and reweld. This must be done by a qualified person or any Reyco Granning® Suspensions Service Center.
- Check shock absorbers for any signs of leaking hydraulic fluid, broken end connections and worn rubber bushings. Repair or replace if any of the above exists.

## Air Ride Operation

The air brake protection valve in the system automatically maintains 65 psi in the brake system if there is a pressure loss in the suspension.

Determine ride air spring pressure requirement (using the chart below) and activate the manual control valve to inflate the ride air springs to the proper pressure level for the axle load. The lift air spring require full system air pressure.

L225 and LT225

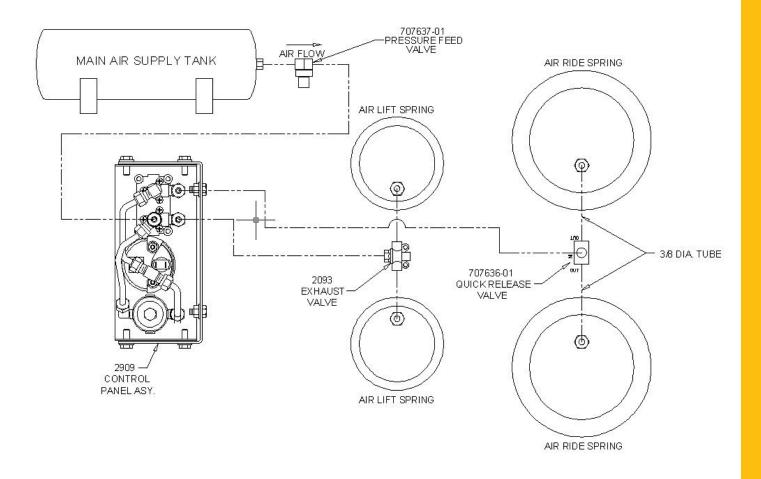
AXLE LOAD*	Air Spring Pressure (psi)
4000	22
7000	38
10000	53
12000	63
14000	73
16000	82
18000	92
20000	102
22500	114
25000	125

\*NOTE: The above chart is to be used as a GUIDE ONLY.

The air pressure vs. load shown above is approximate and may vary. To obtain an accurate Load To Air Pressure reading, the vehicle should be calibrated over a level and accurate scale.

**CAUTION:** DO NOT OVERLOAD AXLE; MAXIMUM AXLE CAPACITY IS 22,500 lbs.

## **AIR CONTROL**



# 9209 CONTROL KIT CAB AIR CONTROL

OPTIONAL CONTROL KITS AVAILABLE

**CAUTION**: INSPECTION SHOULD BE PERFORMED BY A QUALIFIED REYCO GRANNING® SERVICE CENTER.

## **TROUBLESHOOTING**

## Air Spring Problems

Note: If lift air springs experience loss of air such that tires will not lift off the ground, then set the ride air spring pressure to 0 psi and proceed slowly to the nearest service center.

**CAUTION:** DO NOT OVERLOAD AXLE.

<u>Problem</u>	Possible Remedy	
Insufficient air pressure to suspension.	Build vehicle air pressure in excess of	
	65 psi.	
	Replace defective pressure protection	
	valve.	
	Check air compressor.	
Air leak or damaged line.	Locate and repair.	
Air spring punctured, cut or leaking.	Replace with proper air spring then	
	check for proper clearance around air	
	spring. 1" minimum at 100 psi	
	maximum pressure.	
Tires or rim rubbing air spring.	Use rim back spacers to provide more	
	clearance.	

**CAUTION:** INSPECTION SHOULD BE PERFORMED BY A QUALIFIED MECHANIC OR REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

## REPLACEMENT INSTRUCTIONS

#### RIDE AIR SPRING ASSEMBLY

- 1. Remove load; vehicle with mechanical suspension will maintain proper clearance for removal of air spring. If air suspension is not combined with a mechanical suspension or load is not removed, then adequate jacks or stand must be used to support vehicle frame.
- 2. Disconnect air supply line from top of air spring.
- Remove fasteners and old air spring assembly.
- 4. Install new air spring assembly and properly torque fasteners. Then reconnect air supply line.

**CAUTION:** INSPECTION SHOULD BE PERFORMED BY A QUALIFIED MECHANIC OR REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

#### LIFT AIR SPRING ASSEMBLY

- 1. Exhaust air from suspension.
- 2. Remove bellow mounting bolts and air fitting.
- 3. Remove air spring bridge and air spring.
- 4. Replace with new bellow and reverse procedure. Connecting the air spring to the lift pad of the trailing beam first.

**CAUTION:** INSPECTION SHOULD BE PERFORMED BY A QUALIFIED MECHANIC OR REYCO GRANNING® SUSPENSIONS SERVICE CENTER.

<sup>\*</sup>USE REYCO GRANNING® SUSPENSIONS ORIGINAL APPROVED PARTS ONLY.

## MAINTENANCE RECORD

Vehicle No
Vehicle Serial No
Suspension Model No
Suspension Serial No.
Date first put in service:

		Torqued Nuts and Inspect		Parts	
Date	Mileage	Pivot	Axle Conn.	Replaced	Misc.

# NOTES

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