



# **T-Series Maintenance Manual**

Trailer-Truck  
Air Suspension  
Systems

**THIS MANUAL TO REMAIN WITH VEHICLE**

D703805  
REV AG  
08/03/2011

## Service Notes

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

# ReycoGranning® Suspensions

## T-Series Maintenance Manual Index

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## Air Ride Operation

Build and maintain air pressure in excess of 65 psi to inflate the air springs of the suspension.

To protect the air spring, maintain a minimum 3 psi operating pressure in the air spring. 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 air spring psi requirement (using the chart below) and activate the manual control valve to inflate the air springs to the proper psi level for the axle load based on the ReycoGranning® Suspension being used.

| AXLE*<br>LOAD | T-300A | T-200AM121<br>T-200AX121 | T200AX161 T200AM161<br>T200AX191 T200AM191 |
|---------------|--------|--------------------------|--|
|               | psi    | psi                      | psi  |
| 4000          | 13     | 21                       | 20   |
| 7000          | 29     | 55                       | 42   |
| 10000         | 45     | 81                       | 60   |
| 12000         | 52     | 100                      | 75   |
| 13000         | 60     | -                        | 83   |
| 16000         | 75     | -                        | 100  |
| 18000         | 85     | -                        | 115  |
| 19000         | 90     | -                        | 122  |
| 20000         | 95     | -                        | -  |
| 22500         | -      | -                        | -  |
| 25000         | -      | -                        | -  |

**\*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 SUSPENSION CAPACITY IS 25,000 lbs.

**CAUTION:** AIR SPRINGS SHOULD NEVER BE INFLATED ABOVE 100 PSI AIR PRESSURE.

## Pre-Service Inspections T-200AX, T200AM, and T-300A

1. Observe that torque bushing is centered in drawbar casting (See "A", Figure 3).
2. Assure that  $\frac{3}{4}$ " torque bushing nut is torqued to 320 ft. lbs. lubricated (See "B" Figure 3).
3. Assure that the  $\frac{5}{8}$ " end bearing nuts (6) with washers are torqued to 180 ft. lbs. After torque bushing bolt is secured (See "C", Figure 3).

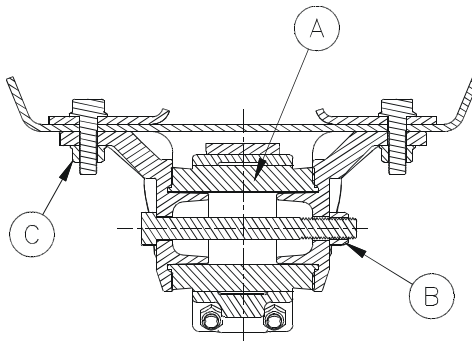
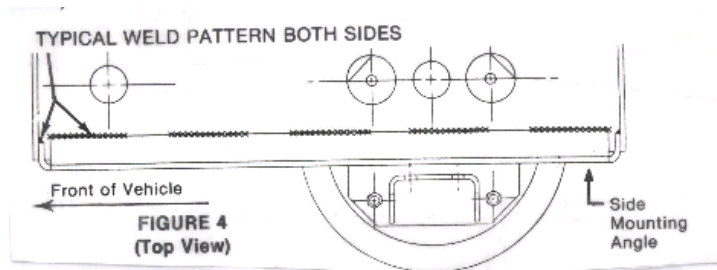


FIGURE 3  
(Front view)

4. On "AX" series suspensions, inspect side-mounting angles for proper and adequate welds on both sides (See Figure 4) (NOTE: See Page 8 for welding inspection).



5. Verify vehicle cross members are located fore and aft suspension, not to exceed 12" from suspension.
6. Air springs (See Page 5).

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

## Pre-Service Inspections (All T-Series Models)

### Air Springs

1. Pressurize Air Springs.
2. Verify there are no leaks in the air system lines or fittings.
3. Maintain 1" clearance around air springs inflated to 100 psi.
4. Maintain suspension ride height (bottom of frame to centerline of axle) in the operating range specified below.

| <b>RIDE HEIGHT CHART</b> |                                  |
|--------------------------|----------------------------------|
| <b>MODEL NO.</b>         | <b>RIDE HEIGHT DIM. (LOADED)</b> |
| <b>T-200AX</b>           | <b>15"</b>                       |
| <b>T-200AM</b>           | <b>17.56"</b>                    |
| <b>T-300A</b>            | <b>12"</b>                       |

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

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

# T-Series 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**  
Maintain a minimum operating pressure of 3 psi to prevent damage. Properly used air springs can deliver over 500,000 miles of service. 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 cracks appear, contact your ReycoGranning® Suspensions Service Center.

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

3.     **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.

4.     **SHOCK ABSORBERS**  
Inspect and replace shock absorbers showing any sign of leaking hydraulic fluid, or mechanical damage.
  
5.     **AIR REGULATOR VALVE**  
Controlling adequate air pressure in the air springs, the air regulator valve insures proper axle loading is maintained. For maximum system performance, keep the air system clean and drain the air tanks frequently.

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

# Periodic Inspections

## First 1,000 Mile Inspection

After the REYCOGRANNING® 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.

| <b>TORQUE CHART</b>     |             |                 |
|-------------------------|-------------|-----------------|
| (Cleaned & Oiled)       |             |                 |
| <b>SUSPENSION BOLTS</b> |             | <b>REMARKS</b>  |
| 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 Miles

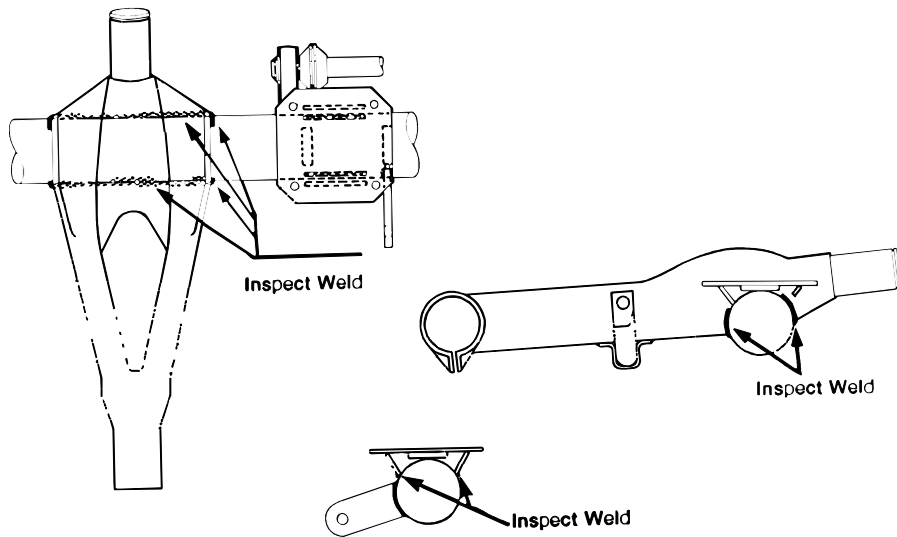
1. Recheck 3,000 miles inspection items.
2. Raise vehicle frame, allowing axle to hand down, and check air springs for any signs of chafing or wear.
3. Move axle up and down and inspect for looseness or worn parts at the front pivot connections.
4. Inspect axle connection welds. If cracked, scarf out and reweld. This must be done by a qualified person or any ReycoGranning® Suspensions Service Center.
5. 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.

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

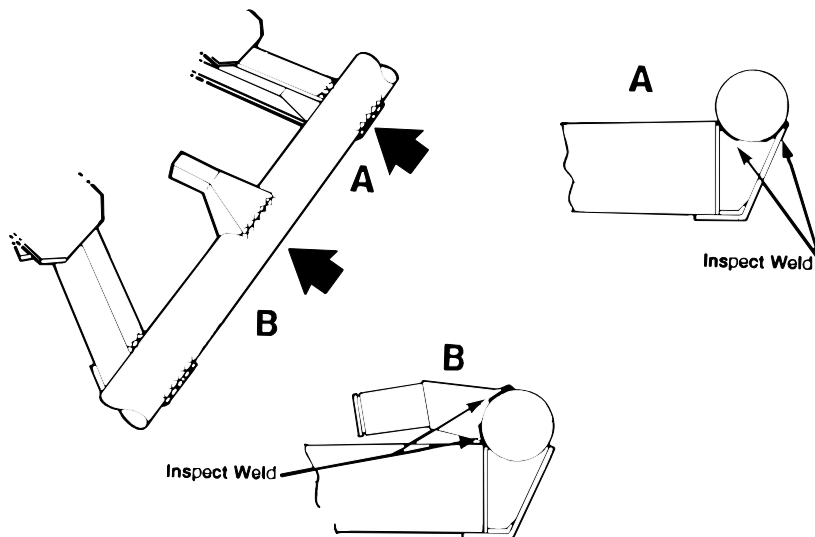


# WELDING INSPECTION T-300A SERIES

Inspect indicated areas for weld cracks. (If weld crack are found, repair is necessary by a qualified welder. ReycoGranning® should be contacted for correct welding procedures.)

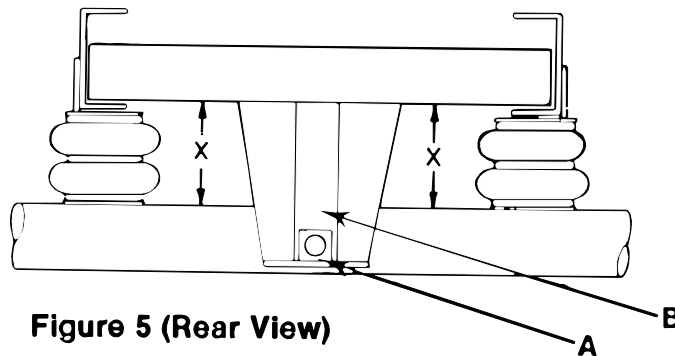


## T-200 AX and AM MODELS



# AIR LIFT INSPECTION T502L

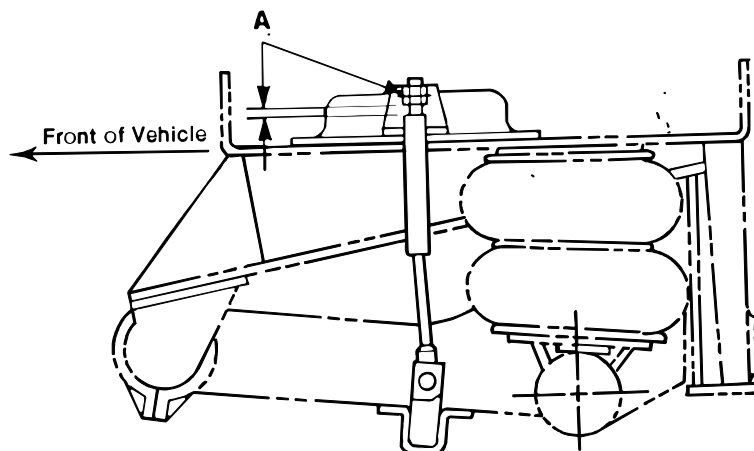
1. Position axle so that rear guide block is down against lower suspension stop (See Figure 5).



**Figure 5 (Rear View)**

On all Suspensions, Travel Block "A" must be at bottom of Guide Slot "B". Distance "X" must be equal on left & right side of axle when adjusting lift cables.

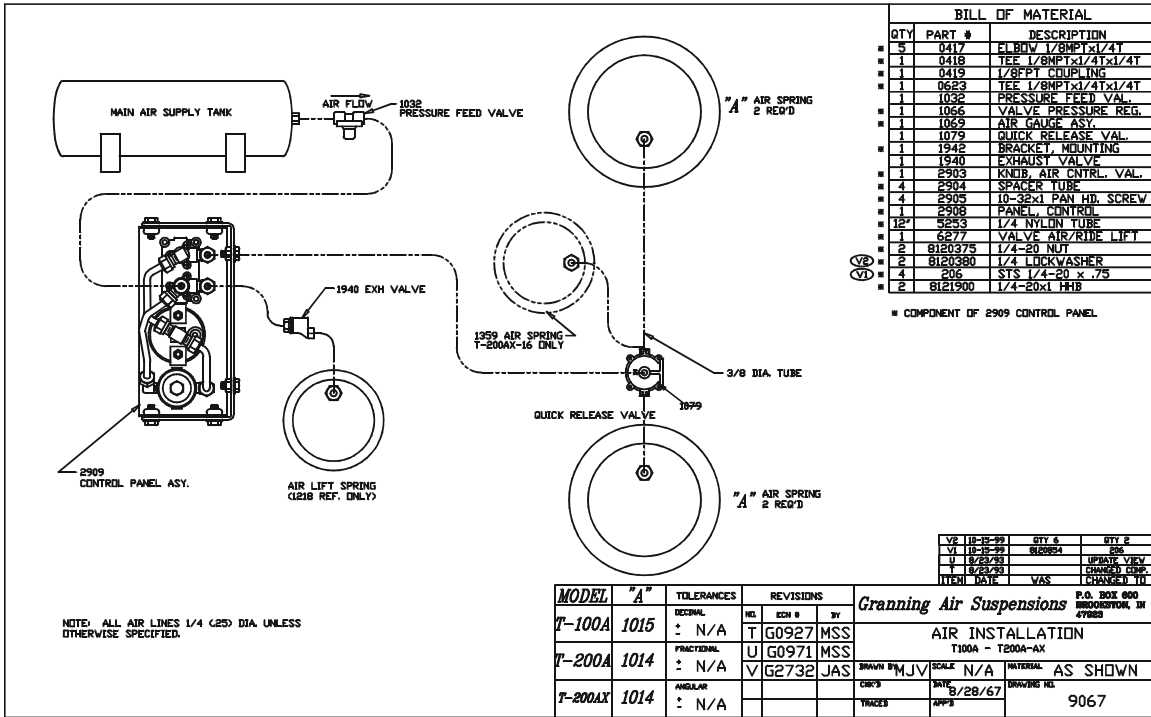
2. Check lift tube and adjusting nut clearance for  $\frac{1}{2}$ " minimum clearance. This is to assure that suspension bottoms out on lower stop and not the lift cables (See "A" below in Figure 6).



**Figure 6 (Side View)**

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

# AIR CONTROLS T-200AX and T-200AM CAB AIR CONTROL



| BILL OF MATERIAL |         |                        |
|------------------|---------|------------------------|
| QTY              | PART #  | DESCRIPTION            |
| 5                | 0417    | F1 BOWL 1/8MPTX1/4T    |
| 1                | 0418    | TEE 1/8MPTX1/4T X 1/4T |
| 1                | 0419    | 1/8PT COUPLING         |
| 1                | 0623    | TEE 1/8MPTX1/4T X 1/4T |
| 1                | 1032    | PRESSURE FEED VAL.     |
| 1                | 1066    | VALVE PRESSURE REG.    |
| 1                | 1069    | AIR GAUGE ASY.         |
| 1                | 1079    | QUICK RELEASE VAL.     |
| 1                | 1942    | BRACKET, MOUNTING      |
| 1                | 1940    | EXHAUST VALVE          |
| 1                | 2903    | KNOB, AIR CNTRL. VAL.  |
| 4                | 2904    | SPACER TUBE            |
| 4                | 2905    | 10-32X1 PAN HD. SCREW  |
| 1                | 2908    | PANEL, CONTROL         |
| 12               | 5293    | 1/4 NYLON TUBE         |
| 1                | 6277    | VALVE AIR/RIDE LIFT    |
| 2                | 8120375 | 1/4-20 NUT             |
| 2                | 8120380 | 1/4 LOCKWASHER         |
| 4                | 206     | STS 1/4-20 X .75       |
| 2                | 8121900 | 1/4-20X1 HHB           |

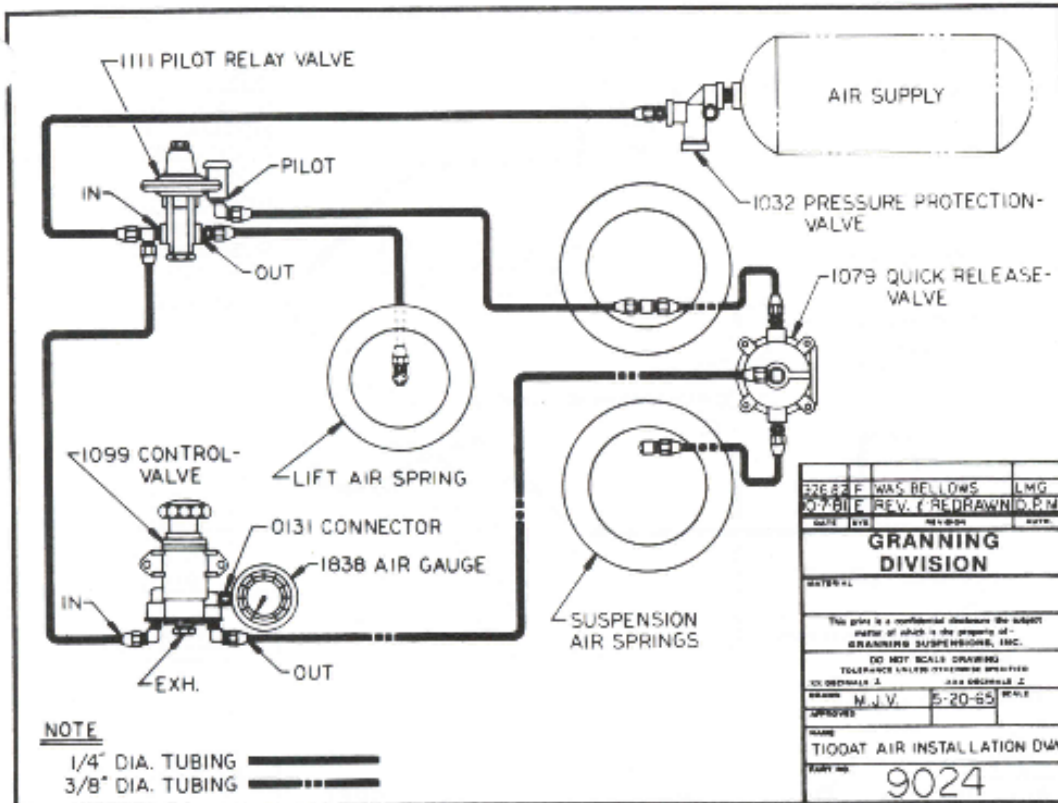
\* COMPONENT OF 2909 CONTROL PANEL

| REV | DATE     | QTY 1   | QTY 2       |
|-----|----------|---------|-------------|
| V2  | 10-22-99 |         |             |
| V1  | 10-28-99 | 8120254 | 806         |
| U   | 8/23/01  |         | UPDATE VIEW |
| T   | 8/23/03  |         | CHANGED DRG |
|     |          |         | CHANGE 0 TO |

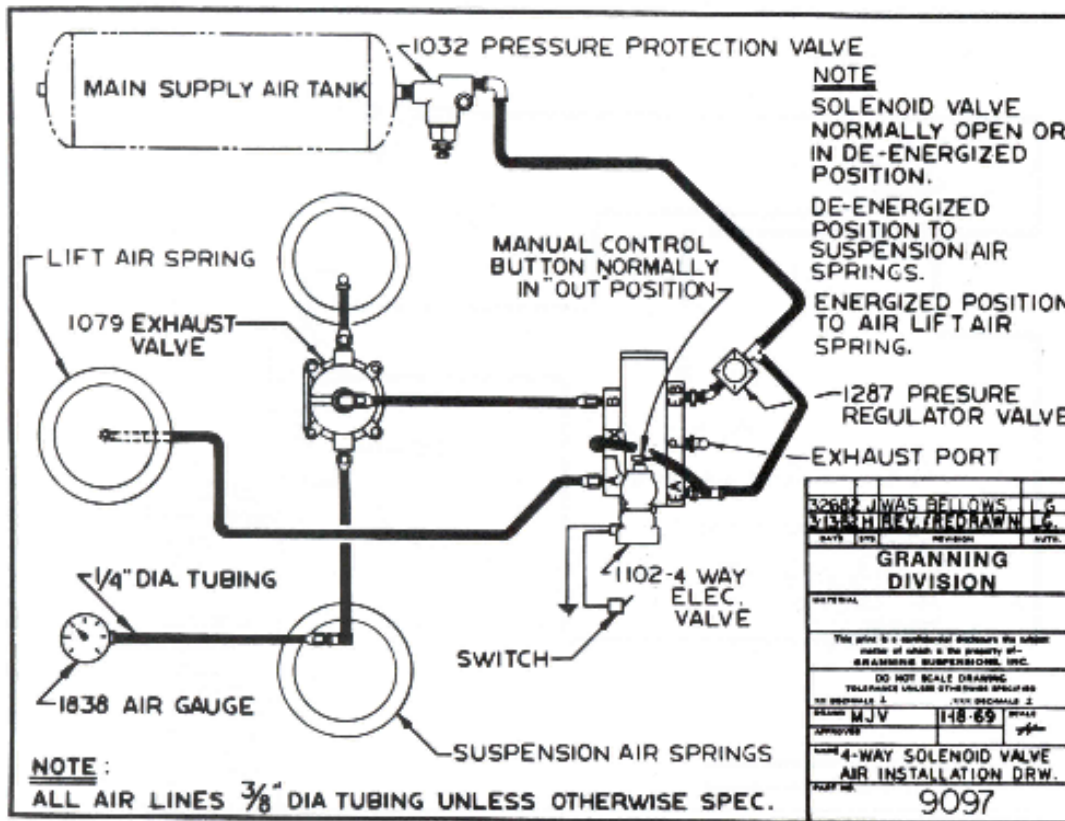
NOTE: ALL AIR LINES 1/4 (25) DIA. UNLESS OTHERWISE SPECIFIED.

| MODEL   | "A"  | TOLERANCES          | REVISIONS                   | Granning Air Suspensions                 |              |                   |
|---------|------|---------------------|-----------------------------|--|--------------|-------------------|
| T-100A  | 1015 | DECIMAL<br>: N/A    | NO. EDN # BY<br>T G0927 MSS | P.O. BOX 900<br>BROOKINGTON, IN<br>47828 |              |                   |
| T-200A  | 1014 | FUNCTIONAL<br>: N/A | U G0971 MSS                 | AIR INSTALLATION<br>T100A - T200A-AX     |              |                   |
| T-200AX | 1014 | ANGULAR<br>: N/A    | V G2732 JAS                 | DRAWN BY MJV                             | SCALE N/A    | MATERIAL AS SHOWN |
|         |      |                     |                             | CHK'D                                    | DATE 8/28/67 |                   |
|         |      |                     |                             | TRACES                                   | APP'D        | 9067              |

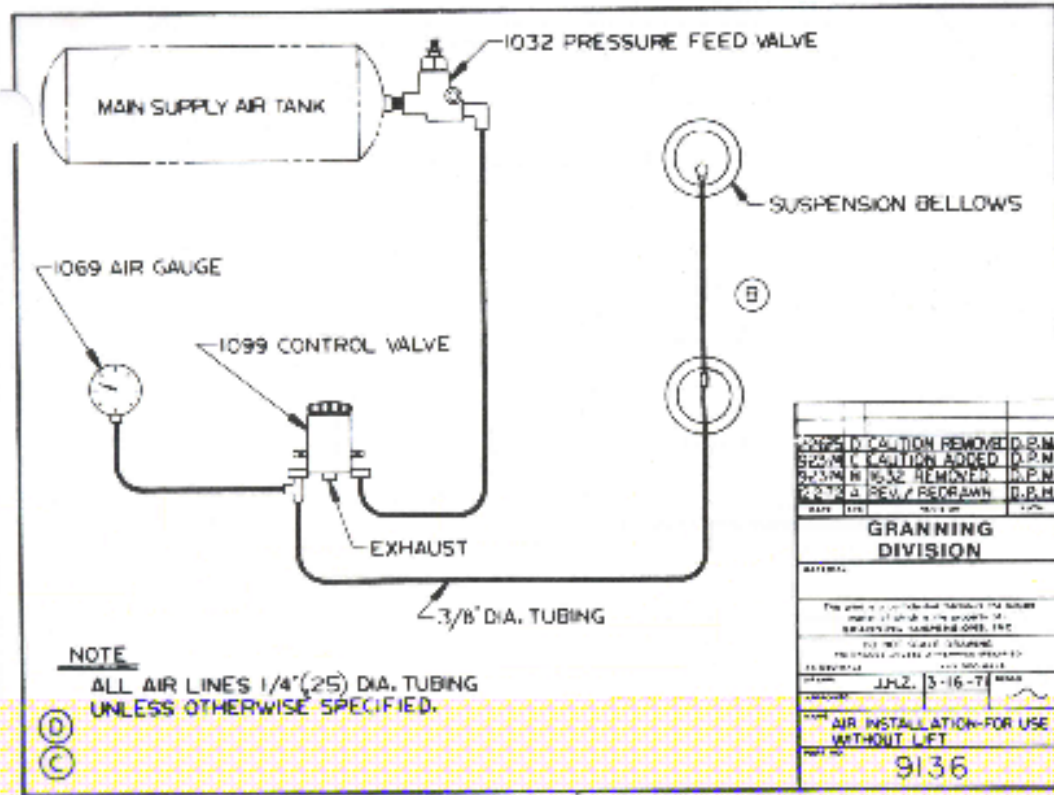
# AIR CONTROLS MANUAL AIR CONTROL



# AIR CONTROLS T-300A 4-WAY ELECTRICAL AIR CONTROL



# AIR CONTROLS FOR ALL T-SERIES SUSPENSION MODELS WITHOUT LIFT



# TROUBLESHOOTING

## Air Spring Problems

Note: If loss of air exists in air suspensions system, there is an internal rubber bumper built into the air spring, which makes it possible to operate vehicle to a service center. Turn handle valve to (-MINUS) position (0 psi) and proceed carefully to the nearest service center.

**CAUTION:** DO NOT OVERLOAD AXLES.

| <b>Problem</b>                                  | <b>Possible Remedy</b>  |
|---|---|
| Insufficient air pressure to suspension.        | Build vehicle air pressure in excess of 65 psi. Defective pressure protection valve replace. 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.   |
| Air brake chamber rubbing frame or drive shaft. | Relocate chamber or clamp ring for more clearance.  |

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

# TROUBLESHOOTING

| <b>Repaired Shock Absorber Failures</b> |  |
|---|--|
| <b>Problem</b>                          | <b>Possible Remedy</b>   |
| Over extending shock absorbers.         | Inspect for bent or broken rear guide bottom plate. Replace as required. |
|   | Wrong length or improper shock absorber(s). Replace with proper part(s). |

| <b>Axle Alignment</b>    |  |
|--------------------------|--|
| <b>Problem</b>           | <b>Possible Remedy</b>   |
| Improperly aligned axle. | Inspect for worn bushings, loose clamping bolts, and worn guide block. Replace as necessary. |

| <b>Insufficient Lifted Tire Clearance</b> |  |
|---|--|
| <b>Problem</b>                            | <b>Possible Remedy</b>   |
| Excessive drive axle spring deflection.   | Add spring leaves as required.   |
| Misadjusted lift mechanism.               | Adjust to specification. Refer to installation instructions or air lift inspection (See Page 9). |

| <b>Axle Alignment</b>            |  |
|----------------------------------|--|
| <b>Problem</b>                   | <b>Possible Remedy</b>   |
| Axle bottoms out on lift cables. | Lift cable nuts improperly adjusted (See Page 9).  |
|                                  | Debris under lift dome. Keep area cleaned. Note: When build-up of debris, such as ice or snow, is a problem, a protective cover may be required. |

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



# REPLACEMENT INSTRUCTIONS

## 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.
3. Remove fasteners and old air spring assembly.
4. Install new air spring assembly and properly torque fasteners. Fasteners should be installed in a diagonal fashion top and bottom. Then reconnect air supply line.

**CAUTION:** 100 PSI IS MAXIMUM ALLOWABLE OPERATING AIR PRESSURE.

## SHOCK ABSORBERS

1. Position tractor frame at approximate suspension ride height to relieve all tension on shock absorbers.
2. Remove upper and lower shock mounting bolts.
3. Install new shocks and reinstall mounting bolts.
4. Torque fasteners to 200 ft. lbs.

## FRONT TORQUE BUSHING

1. Exhaust air from suspension.
2. Support front drawbar with jack stand.
3. Remove the  $\frac{3}{4}$ " bolt.
4. The end bearings are tapered into the torque bushing inner sleeve. Once the (6)  $\frac{5}{8}$ " bolts are removed from the end bearing caps, a slight rap with a hammer will free the tapered end of the inner bushing sleeve.
5. Loosen (2)  $\frac{1}{2}$ " clamp bolts from underside of drawbar and insert wedge. Push the old bushing out and install new bushing.
6. Reverse this procedure assuring the  $\frac{3}{4}$ " bolt is torqued securely, then torque the (6)  $\frac{5}{8}$ " end bearing bolts (See Torque Chart Page 7).

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

# REPLACEMENT INSTRUCTIONS

## REAR GUIDE BLOCK

1. Jack axle up to approximately normal ride height with air exhausted. Remove rear snap ring and spacer from rear guide spindle. Remove guide block by sliding rearward and install new block in reverse procedure.

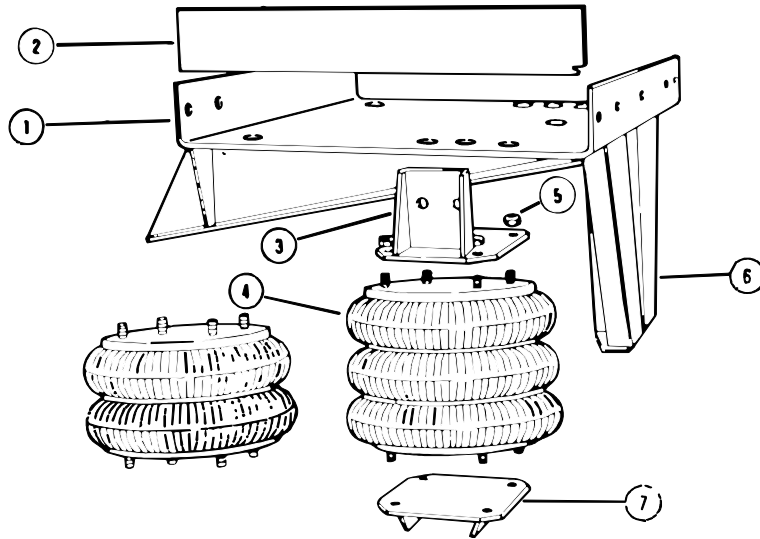
## AXLE LIFT AIR BELLOWS

1. Exhaust air from suspension.
2. Remove bellow mounting bolts and air fitting.
3. Remove 2 lower pins holding lift cables (NOTE: Do not remove upper adjusting nuts. If nuts are removed, see air lift inspection data, Page 9).
4. Raise lift bellow steel dome and remove air spring.
5. Replace with new bellow and reverse procedure, assuring that cotter keys are replaced in lower pin assemblies.

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

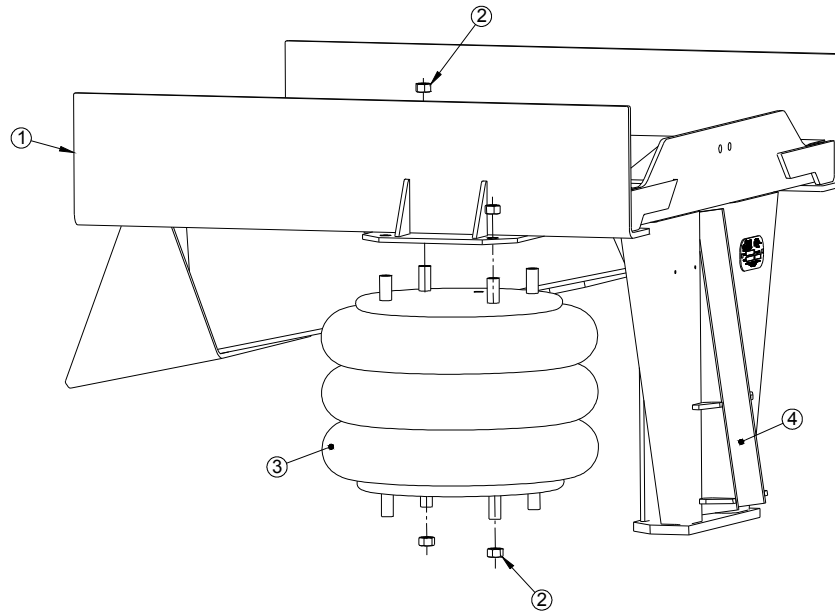
**\*USE REYCOGRANNING® SUSPENSIONS ORIGINAL APPROVED PARTS ONLY.**

# SUSPENSION COMPONENTS FRAME ASSEMBLY T-200AX SERIES



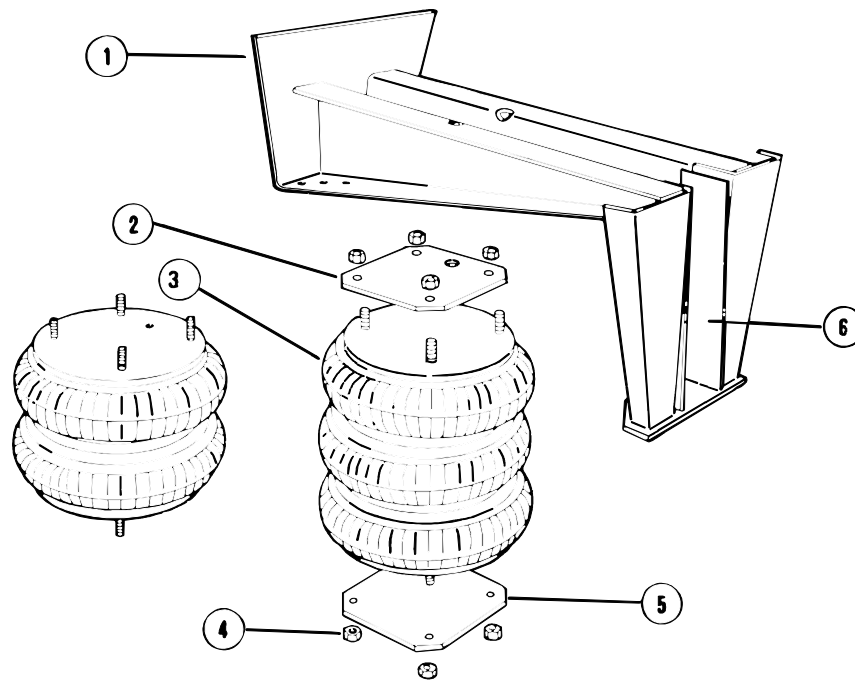
| ITEM | T-200A  | T-200AX | QTY | DESCRIPTION               |
|------|---------|---------|-----|---------------------------|
| 1    | 2699    | 2202    | 1   | Assy-Base Frame           |
| 2    | 1068    | 1068    | 2   | Angle-Side                |
| 3    | 1279    | 1279    | 2   | Assy-Air Spring Pad Upper |
| 4    | 1014    | 1014    | 2   | Assy-Air Spring           |
| 5    | 8120378 | 8120378 | 9   | Nut-Hex ½-13 GR 5         |
| 6    | 1449    | 1449    | 2   | Plate-Wear                |
| 7    | 1012    |         | 2   | Assy-Air Spring Pad Lower |

# SUSPENSION COMPONENTS FRAME ASSEMBLY T-200AM SERIES



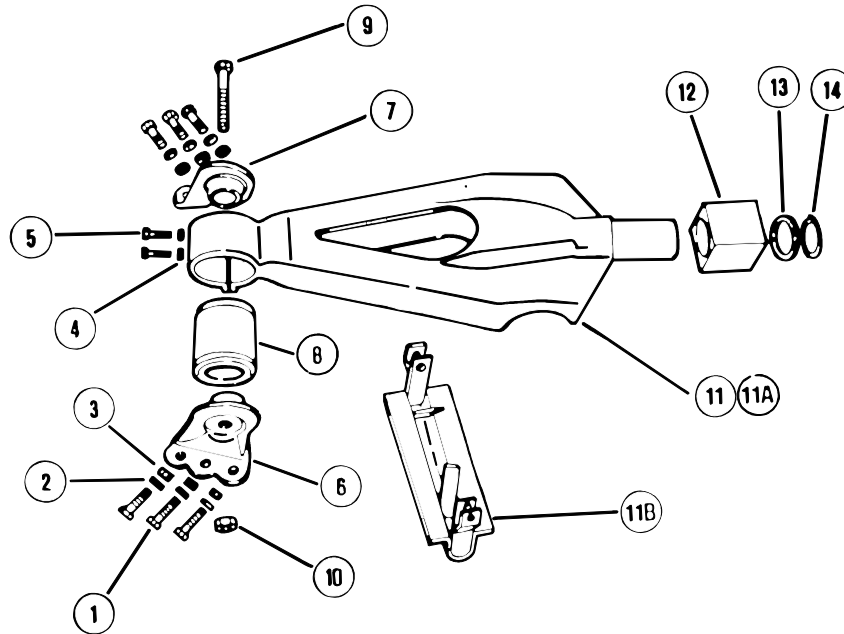
| ITEM | T-200AM   | QTY | DESCRIPTION         |
|------|-----------|-----|---------------------|
| 1    | 704997-01 | 1   | Assy-Base Frame     |
| 2    | 8120378   | 8   | Nut 1/2-13 GR 5 ZP  |
| 3    | 1014      | 2   | Air Spring Assembly |
| 4    | 1449      | 2   | Wear Plate          |

# SUSPENSION COMPONENTS FRAME ASSEMBLY T-300A SERIES



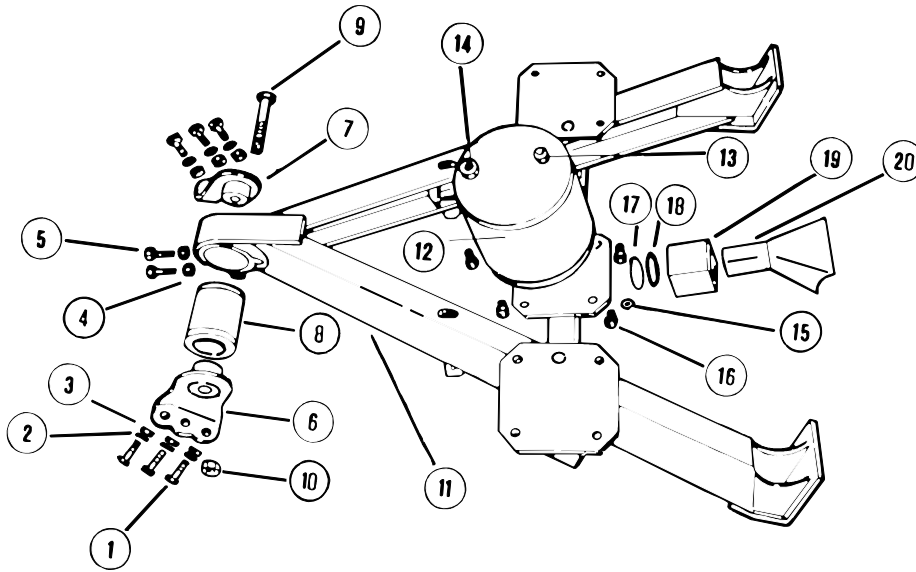
| ITEM | T-300A-1 | T-300A-2 | QTY | DESCRIPTION                   |
|------|----------|----------|-----|-------------------------------|
| 1    | 1471     | 1471     | 1   | Assy-Base Frame               |
| 2    | 1144     | 1615     | 2   | Assy-Air Spring Pad Upper     |
| 3    | 1015     | 1626     | 2   | Assy-Air Spring               |
| 4    | 8120378  |          | 9   | Nut-Hex 1/2-13 GR 5           |
| 4    |          | 180121   | 8   | Bolt-Hex Hd 3/8-16 x 7/8 GR 5 |
| 4    |          | 103321   | 8   | Washer-3/8 Spring Lock        |
| 5    | 1012     | 1612     | 2   | Assy-Air Spring Pad Lower     |
| 6    | 1254     | 1254     | 2   | Plate-Wear                    |

# SUSPENSION COMPONENTS DRAWBAR (ALL EXCEPT T-200AX and T-200AM)



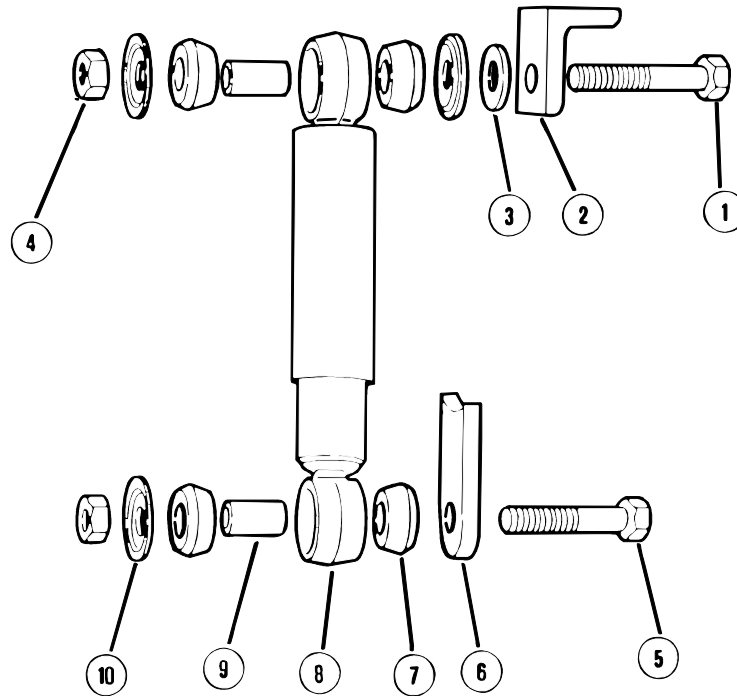
| ITEM | T-300A  | T-200A  | QTY | DESCRIPTION                     |
|------|---------|---------|-----|---------------------------------|
| 1    | 223811  | 223811  | 6   | Bolt-Hex Hd 5/8-18 x 2 GR 8     |
| 2    | 9422850 | 9422850 | 6   | Washer-5/8 Flat Harden          |
| 3    | 9422306 | 9422306 | 6   | Nut-Hex 5/8-18 Lock GR 8        |
| 4    | 9422302 | 9422302 | 2   | Nut-Hex 1/2-20 Lock GR 8        |
| 5    | 427569  | 427569  | 2   | Bolt-Hex Hd 1/2-20 x 1-3/4 GR 8 |
| 6    | 1029    | 1029    | 1   | Anchor Pulling Point LH         |
| 7    | 1005    | 1005    | 1   | Anchor-Pulling Point RH         |
| 8    | 1003    | 1003    | 1   | Bushing-Pulling Point           |
| 9    | 9418372 | 9418372 | 1   | Bolt Hex Hd 3/4-16 x 7 GR 8     |
| 10   | 9422308 | 9422308 | 1   | Nut-Hex 3/4-16 Lock GR 8        |
| 11   | 1430    | 1430    | 1   | Assy-Drawbar                    |
| 11A  |         | 1432    | 1   | Assy-Drawbar (pre 1978)         |
| 11B  | 1879    | 1879    | 1   | Bracket-Lift                    |
| 12   | 1219    | 1219    | 1   | Block-Travel                    |
| 13   | 1010    | 1010    | 1   | Spacer-Travel Block             |
| 14   | 1426    | 1426    | 1   | Ring-Snap                       |

# SUSPENSION COMPONENTS DRAWBAR T-200AX and T200AM (12,000-16,000 CAPACITY MODELS)



| ITEM | T-200 (AX and AM)-12 | T-200 (AX and AM)-16 | QTY | DESCRIPTION                     |
|------|----------------------|----------------------|-----|---------------------------------|
| 1    | 223811               | 223811               | 6   | Bolt-Hex Hd 5/8-18 x 2 GR 8     |
| 2    | 9422850              | 9422850              | 6   | Washer-5/8 Flat Harden          |
| 3    | 9422306              | 9422306              | 6   | Nut-Hex 5/8-18 Lock GR 8        |
| 4    | 9422302              | 9422302              | 2   | Nut-Hex 1/2-20 Lock GR 8        |
| 5    | 427569               | 427569               | 2   | Bolt-Hex Hd 1/2-20 x 1-3/4 GR 8 |
| 6    | 1029                 | 1029                 | 1   | Anchor Pulling Point LH         |
| 7    | 1005                 | 1005                 | 1   | Anchor-Pulling Point RH         |
| 8    | 1003                 | 1003                 | 1   | Bushing-Pulling Point           |
| 9    | 9418372              | 9418372              | 1   | Bolt Hex Hd 3/4-16 x 7 GR 8     |
| 10   | 9422308              | 9422308              | 1   | Nut-Hex 3/4-16 Lock GR 8        |
| 11   | 1388                 | 1388                 | 1   | Assy-Drawbar                    |
| 12   |                      | 1359                 | 1   | Assy-Air Spring                 |
| 13   |                      | 8120378              | 1   | Nut-Hex 1/2-13 GR 5             |
| 14   |                      | 219758               | 1   | Nut-Hex 3/4-16 Jam GR 5         |
| 15   |                      | 1032323              | 2   | Washer-1/2 Spring Lock          |
| 16   |                      | 8180175              | 2   | Bolt-Hex Hd 1/2-13 x 1-1/4 GR 5 |
| 17   | 1426                 | 1426                 | 1   | Ring-Snap                       |
| 18   | 1010                 | 1010                 | 1   | Spacer-Travel Block             |
| 19   | 1219                 | 1219                 | 1   | Block-Travel                    |
| 20   | 1118                 | 1118                 | 1   | Spindle-Rear                    |

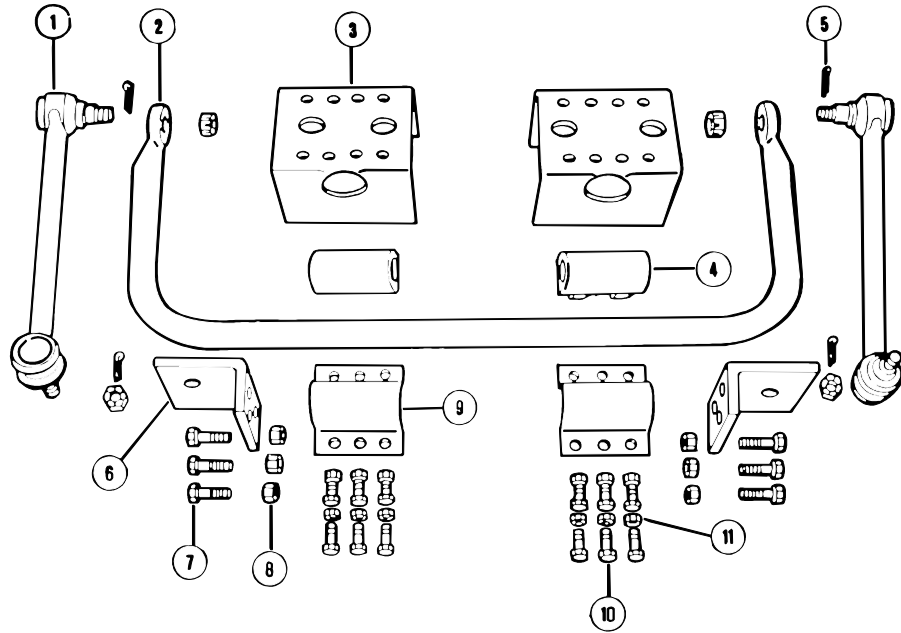
# SUSPENSION COMPONENTS SHOCK ABSORBERS (T-200A and T300A SERIES)



| ITEM | T-200A  | T-300A  | QTY | DESCRIPTION                     |
|------|---------|---------|-----|---------------------------------|
| 1    | 271803  | 271803  | 2   | Bolt-Hex Hd 3/4-16 x 4-1/2 GR 5 |
| 2    |         | 1520    | 2   | Bracket-Frame Shock             |
| 3    |         | 1094    | 2   | Spacer-Shock                    |
| 3    | 1094    |         | 4   | Spacer-Shock                    |
| 4    | 9422288 |         | 2   | Nut-Hex 3/4-16 Lock GR 5        |
| 4    |         | 9422288 | 4   | Nut-Hex 3/4-16 Lock GR 5        |
| 5    | 271799  | 271799  | 2   | Bolt-Hex Hd 3/4-16 x 3-1/2 GR 5 |
| 6    | 2556    | 2556    | 2   | Bracket-Axle Shock              |
| 7    | 1089    | 1089    | 8   | Bushing-Rubber                  |
| 8    | 1086    | 1086    | 2   | Absorber-Shock                  |
| 9    | 1087    | 1087    | 4   | Sleeve-Bushing                  |
| 10   | 1088    | 1088    | 6   | Washer-Retainer                 |

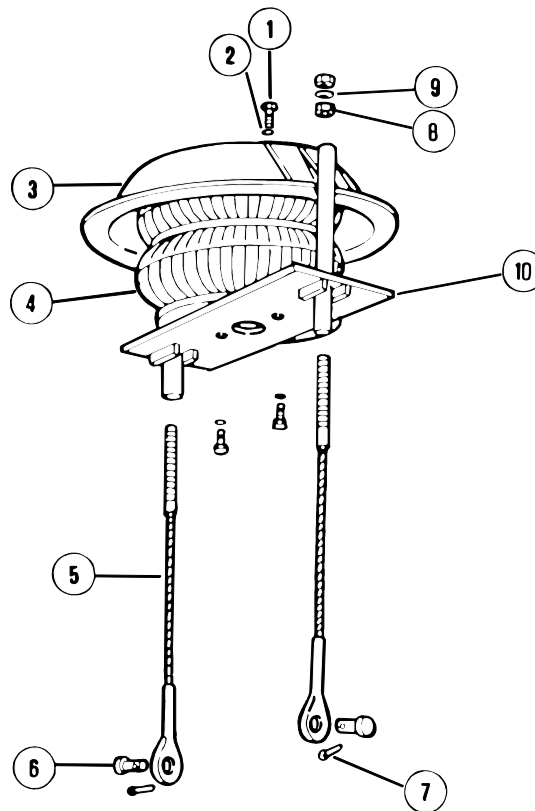


# SUSPENSION COMPONENTS STABILIZER BAR T-103S



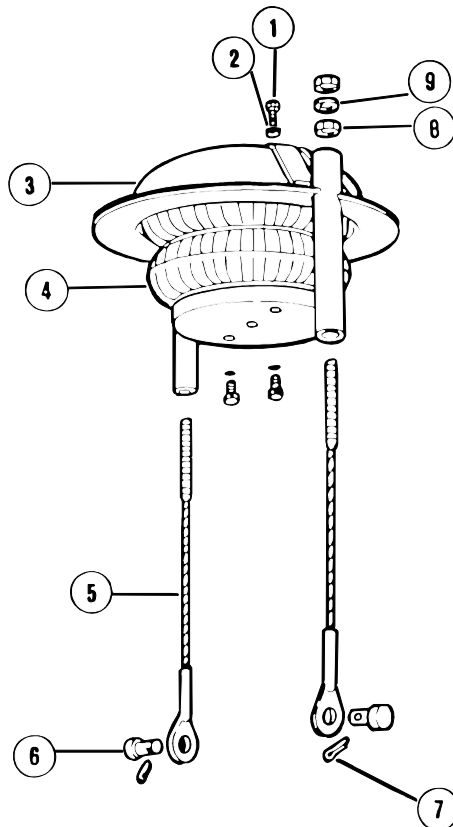
| ITEM | T-103S-2<br>(T-300A) | QTY | DESCRIPTION                      |
|------|----------------------|-----|----------------------------------|
| 1    | 1594                 | 2   | Vertical Link Assy 15" Long      |
| 2    | 1949                 | 1   | Stabilizer Bar                   |
| 3    | 1288                 | 1   | Stabilizer Bar (pre 1976)        |
| 3    | 1954                 | 2   | Assy-Mounting Bracket            |
| 4    | 1290                 | 2   | Assy-Mounting Bracket (pre 1976) |
| 4    | 1952                 | 2   | Bushing                          |
| 5    | 1361                 | 2   | Bushing (pre 1976)               |
| 6    | 103389               | 4   | Cotter Pin 1/8 x 2.00            |
| 7    | 1593                 | 2   | Assy-Angle Bracket               |
| 8    | 1951                 | 2   | Clamp-Stabilizer                 |
| 9    | 1273                 | 2   | Clamp-Stabilizer (pre 1976)      |
| 10   | 455012               | 12  | Bolt-Hex Hd 1/2-20 x 1-1/4 GR 5  |
| 11   | 941758               | 12  | Nut-Hex 1-1/2 2-20 Lock GR 5     |

# SUSPENSION COMPONENTS AIR LIFT ASSEMBLY T-502L-1 (T-300A SERIES)



| ITEM | T-502L-1 | QTY | DESCRIPTION                   |
|------|----------|-----|-------------------------------|
| 1    | 180121   | 4   | Bolt-Hex Hd 3/8-16 x 7/8 GR 5 |
| 2    | 103321   | 4   | Washer-3/8 Spring Lock        |
| 3    | 1390     | 1   | Assy-Lift Dome                |
| 4    | 1218     | 1   | Assy-Air Spring               |
| 5    | 1883     | 2   | Assy-Lift Cable               |
| 6    | 1235     | 2   | Pin-Lift Cable                |
| 7    | 103408   | 2   | Pin-3/16 x 1-1/4 Cotter       |
| 8    | 451539   | 4   | Nut-Hex 3/4-10 Jam GR 5       |
| 9    | 1595     | 2   | Washer-"D"                    |
| 10   | 1387     | 1   | Assy-Plate                    |

# SUSPENSION COMPONENTS AIR LIFT ASSEMBLY T-502L-5 (T-200AX and T-200AM SERIES)



| ITEM | T-502L-5 | QTY | DESCRIPTION                   |
|------|----------|-----|-------------------------------|
| 1    | 180121   | 4   | Bolt-Hex Hd 3/8-16 x 7/8 GR 5 |
| 2    | 103321   | 4   | Washer-3/8 Spring Lock        |
| 3    | 1390     | 1   | Assy-Lift Dome                |
| 4    | 1218     | 1   | Assy-Air Spring               |
| 5    | 1883     | 2   | Assy-Lift Cable               |
| 6    | 1235     | 2   | Pin-Lift Cable                |
| 7    | 103408   | 2   | Pin-3/16 x 1-1/4 Cotter       |
| 8    | 451539   | 4   | Nut-Hex 3/4-10 Jam GR 5       |
| 9    | 1595     | 2   | Washer-"D"                    |

# MAINTENANCE RECORD

Vehicle No. \_\_\_\_\_

Vehicle Serial No. \_\_\_\_\_

Suspension Model No. \_\_\_\_\_

Suspension Serial No. \_\_\_\_\_

Date first put in service: \_\_\_\_\_

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



## Warranty

ReycoGranning® Suspensions warrants its suspensions (other than R-Series suspensions) to be free from defects in material and workmanship under normal use and service in the U.S. and Canada as follows:

**Main Structural Components** -- 36 months or 300,000 miles, whichever occurs first. Labor allowance is provided for 12 months or 100,000 miles, whichever occurs first. Labor will be allowed on ReycoGranning® Suspensions estimated time to make repairs at a maximum rate of \$50.00 per hour. Main structural components are defined as: hangers, beams, torque arms, axle saddles, clip plates, bellows pads - excludes bushings and fasteners.

**Other Air Suspension Components** -- 12 months or 100,000 miles, whichever occurs first - valves, fasteners, bushings, and other components not stated specifically (when provided by ReycoGranning® Suspensions), and other fabricated metal components. ReycoGranning® Suspensions provides no warranties on components such as axles, air springs, controls, brakes, shock absorbers, and hub and drum assemblies, except to the extent of any warranty provided to ReycoGranning® Suspensions by the manufacturer of such components.

As used herein, the term “normal use and service” means that the suspension will be installed, operated, inspected and maintained in accordance with the applicable ReycoGranning® Suspensions owner’s manual, and any applicable trailer owner’s manual or instructions. Labor allowance, if applicable, will be determined in accordance with ReycoGranning® Suspensions warranty labor rate and time allowances established from time to time.

### **ADJUSTMENTS**

The starting date for the above warranty period is the date of purchase of the suspension by the first end user. Proof of such date is the responsibility of the first end user. If the purchase date is not established to ReycoGranning® Suspensions satisfaction, the date of manufacture determined from the suspension system’s serial number shall be used as the effective starting date. When adjustment is sought under this warranty, a claim should be made by contacting the distributor or manufacturer who installed the suspension, who will coordinate the fix, documentation, parts shipment, etc. directly with ReycoGranning® Suspensions.

**\*NOTE\* ReycoGranning® Suspensions must be notified in writing using warranty claim form promptly upon claimed defect.**

### **INSTALLER AND END USER RESPONSIBILITIES**

The Distributor/Installer is responsible for installing the product according to ReycoGranning® Suspensions approved procedures, the installer is also responsible (either directly or through its agent/dealer) for providing a copy of ReycoGranning® Suspensions warranty and owner’s manual to the end user, and for advising the end user of proper use, service and maintenance required for the product. The end user is responsible for operating, inspecting and maintaining the suspension according to the instructions in the ReycoGranning® Suspensions owner’s manual and any applicable trailer owner’s manual, and for properly instructing all operators and maintenance personnel.

**\*NOTE\* Warranty may be denied for improper installation.**

### **LIMITATIONS AND EXCLUSIONS**

No warranty applies in the event of: use of components, parts and/or accessories not obtained from or approved by ReycoGranning® Suspensions or which do not meet ReycoGranning® Suspensions quality and performance specifications; improper installation, maintenance or repair; misuse or abuse including but not limited to overloading; or unauthorized alterations or modifications.

THE ABOVE WARRANTIES ARE SUBJECT TO THE “WARRANTY LIMITATIONS” AND “REMEDIES” SECTIONS OR REYCOGRANNING® SUSPENSIONS INVOICE TERMS AND CONDITIONS.

This policy supersedes any previous warranty statements.

2/2002