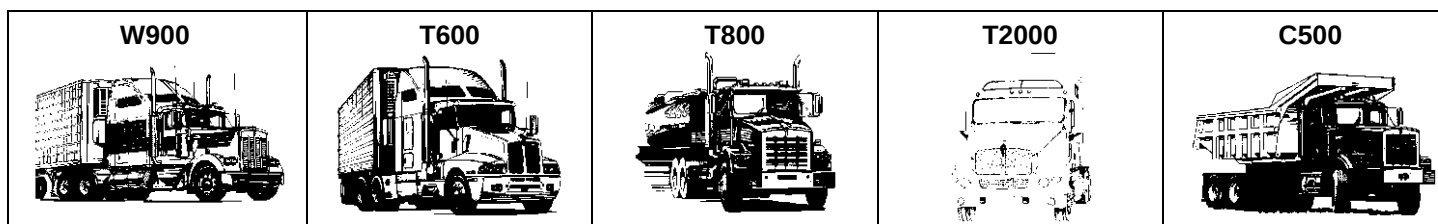


Service Manual

Department	Customer Service
Category	Service Manual
Section	Suspension
Title	Airglide 200 Airspring Suspension
Number	KM817030
Date	06/22/05
Model	W900, T600, T800, C500
Page	1 of 45



Airglide 200 Airspring Suspension

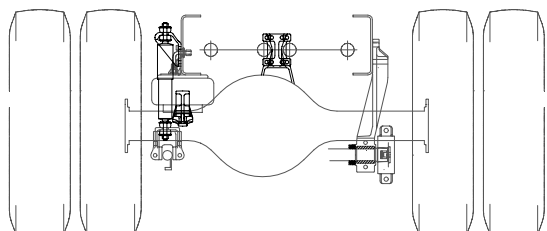
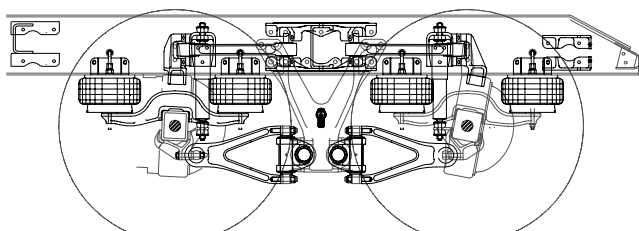
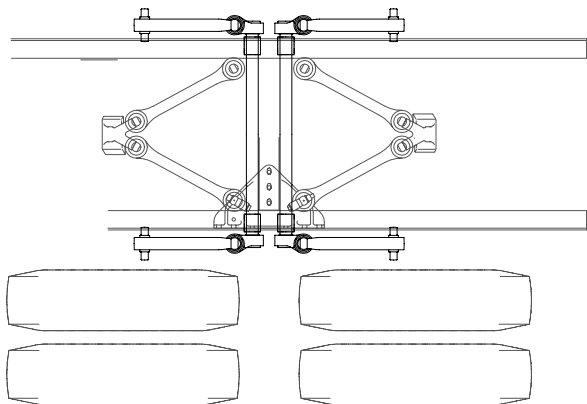


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Suspension: Airglide 200 Airspring Suspension

Identification Of Parts

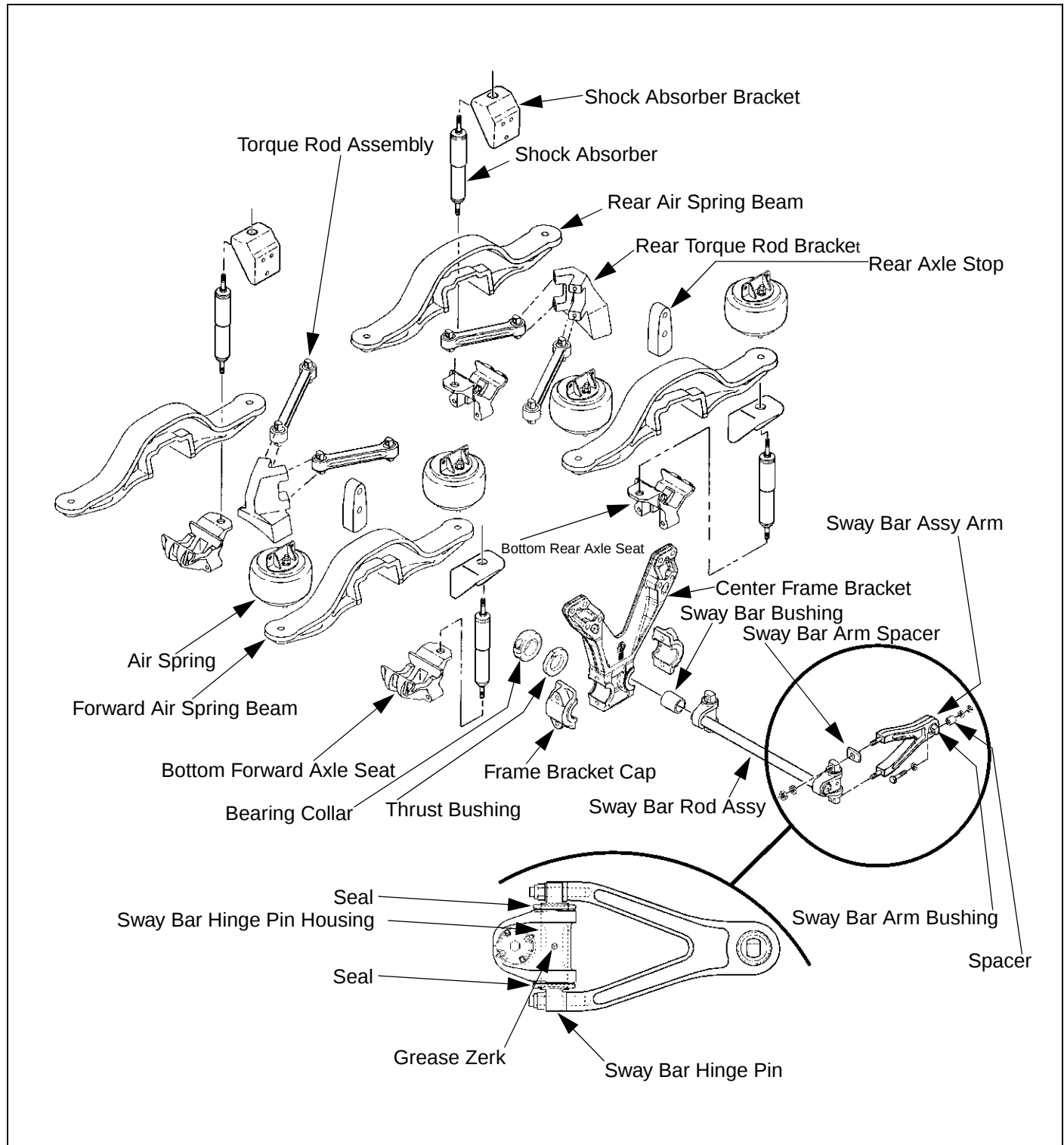


Figure 17-1 Identification Of Parts

Suspension: Airglide 200 Airspring Suspension

Description

Kenworth's Airglide 200 Suspension is a lightweight design using four air springs on each axle for load support. The chassis rides on air springs, used in line with mechanical connections that absorb road shock forces that would otherwise be transmitted into the chassis.

Each axle is securely located to the chassis by an upper V-link and an articulated sway bar. Two shock absorbers mounted on each axle dampen vertical road shocks.

The air suspension system consists mainly of

- air springs
- height control valve
- air dump valve
- pressure protection valve

Air pressure in the air springs is automatically regulated to keep the frame at normal ride height under all loads within the GAWR.

Ground load capacity for the Airglide 200 Suspension is 18 140 kg to 20 861 kg (40,000 to 46,000 lbs.) . Actual ground load capacity depends upon the axles installed.

Operation

The service tank supplies air pressure to the air springs which are mounted between the frame and spring beam at each axle end. When the truck encounters bumps, shocks are absorbed by the contraction and expansion of the air springs which provide a flexible support between the frame and axle.

During operation, as the load on the chassis is varied the frame is automatically leveled at normal ride height through the operation of the height control valve. A 2 valve system is optional. The height control valve is mounted on the rear suspension crossmember. When the chassis load is increased, the distance between the frame and axle decreases. This movement operates control linkage which actuates the height control valve(s). Air is released by the valve(s) until the frame rises to its normal ride height. When the chassis load is decreased, air is exhausted from the air springs by the height control valve(s) until the frame descends to its normal ride height. The valve incorporates a delay mechanism which prevents unnecessary actuation resulting from minor, irregular motions between the axles and frame.

The pressure protection valve prevents a complete loss of air pressure in the brake system in the event of an air leak in the air suspension system.

Suspension: Airglide 200 Airspring Suspension

Maintenance

The Kenworth Airglide 200 Suspension requires some regular maintenance. Torque per torque table ([“Torque Values \(Dynamic\)” on page 7](#)) should be maintained and checked periodically. Visual component inspections are to be completed at routine intervals. Parts not meeting proprietary standards may require replacement. Air line filter service is required to keep dirt and other contaminants out of the air suspension system. For lubrication, see Figure 17-2 below.

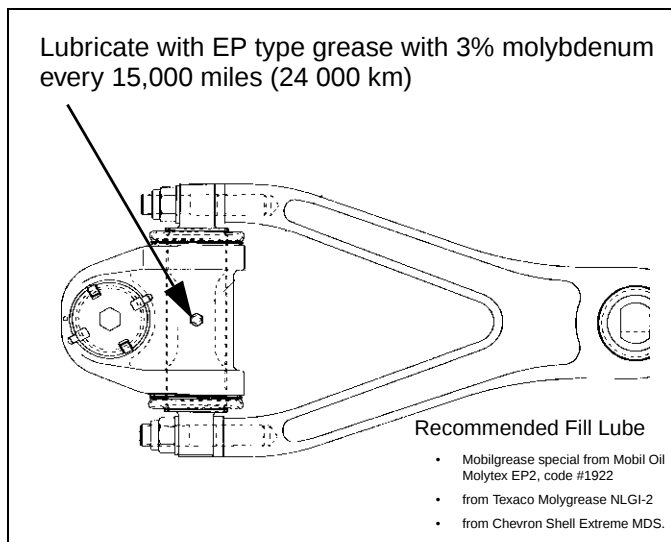


Figure 17-2

Inspection 50,000 miles (80 000 km)

Replace assemblies as required.

- Air Springs
Inspect for cracks, gouges, distortions, bulges and chafing.
- Shock Absorbers
Inspect for leaks, dents, worn cylinders and/or worn rubber bushings.
- Sway Bar Bushing
Inspect for worn rubber bushing.
- V-Linkage: Check the condition of the rubber bushings
- Axle Connection Welds: Check visually for cracks

Fastener Torque: Inspect general condition of joint. Replace as necessary and verify torque per torque table on [“Torque Values \(Dynamic\)” on page 7](#).

Suspension: Airglide 200 Airspring Suspension

Driving the Vehicle With Deflated Air Springs



WARNING! Do not drive your vehicle with a ruptured air spring. An air leak in your vehicle's air system will cause the spring brakes to apply which will cause your brakes to overheat. Once an air spring rupture is detected, pull your vehicle safety off the road and call for assistance. Failure to stop your vehicle could lead to equipment damage and/or an injury accident.



CAUTION: Operating a vehicle with deflated air springs may cause damage to driveline components. If a vehicle must be operated under this condition, do not exceed 5 mph (8km/h).

If an air spring ruptures and assistance is not readily available or you need to find a better place to park your vehicle, you may perform the following "temporary" procedure.

Temporary Air Spring Repair

1. Follow the required road-side emergency safety precautions and signage to alert drivers of your presence.
2. Remove the height control link connected to the axle and to the suspension air valve control arm. This will cause the air valve control arm to center in the closed position.

NOTE: Removing the height control link attached to the axle will allow the height control valve arm to center itself in the closed position. In the closed position, air pressure to the air springs is shut off. On single leveling valve systems, all air springs get their air supply from one valve. On dual leveling valve systems, one valve supplies air to the air springs on one side, the other valve supplies air to the other side. In both cases, a ruptured air spring will deplete all system air pressure. When that happens there's also no suspension dampening.

3. The air system should now be capable of charging to normal operating pressure.
4. If the pressure cannot be charged or does not maintain at least 100 psi, do not drive the vehicle.
5. Proceed to the next available safe turnout and call/wait for assistance. Do not drive your vehicle for an extended period.

Towing The Vehicle



CAUTION: When the vehicle is towed with the rear axles hanging free of the ground, it will be necessary to chain the axles to the frame. This will prevent damage to the shock absorbers and the air springs.

Jacking Up The Vehicle

Place blocks between the axle and frame before jacking up the vehicle at the axles. This precaution will prevent a sudden drop in the frame, should air accidentally exhaust from the air suspension system.

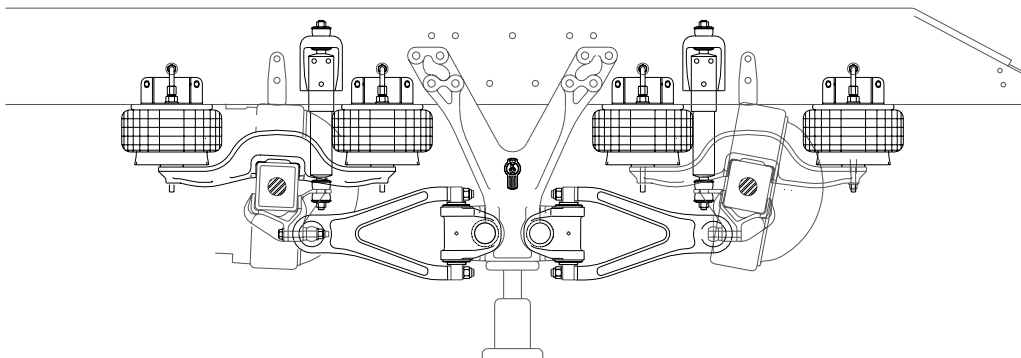


Figure 17-3 Jack Stand Location

Suspension: Airglide 200 Airspring Suspension

Torque Values (Dynamic)

After the first 3 218 km (2,000 miles) or first week of operation, and one year or 120,000 miles thereafter, check the torque values for the following fasteners:

IMPORTANT: The 7 joints listed in the following table require torque checks annually or every 120,000 miles. Torque all fasteners on the nut end.

Component (see number in illustration on next page)	Torque
1. Torque Rod Bolts At Axle Bracket	170 - 200 Lb-Ft (230 - 271 Nm)
2. Torque Rod Bolts At Frame (Gusset)	150 - 190 Lb-Ft (203 - 258 Nm)
3. Swaybar Arm To Axle Seat (Axle End)	150 - 190 Lb-Ft (203 - 258 Nm)
4. Swaybar Bushing Caps	150 - 190 Lb-Ft (203 - 258 Nm)
5. Split Collars On Swaybar	26 - 32 Lb-Ft (35 - 43 Nm)
6. Shock Absorber Bushings	Torque Nuts Until Rubber Bushing Diameter Equals Retainer Diameter
7. Swaybar Arm To Vertical Pins - For Iron Swaybar Arm (P/N K029-324) - For Aluminum Swaybar Arm (P/N K029-327) produced since 10/2000 (with through bolted connection versus studed connection to vertical pin).	260 - 340 Lb-Ft (353 - 461 Nm) 350 - 400 Lb-Ft (475 - 542 Nm)

IMPORTANT: When servicing this specific joint, the existing fasteners MUST be replaced with new nuts, service bolts and washers. The part numbers are:

- D8400-0178 - bolt - finished hex, metric
- D8400-0179 - nut-tc-metric
- D8400-0180 - washer-metric-hard

Ensure that all surfaces that contact the washer and bolt threads, the nut, bolt and washer are clean, dry and free from any oil, grease or corrosion inhibitors. This includes the bolt through hole. Install fastener with bolt head in the recessed area of the sway bar arm and paint all exposed surfaces of the nut, bolt and washer after installation is complete.

NOTE: When replacing an iron sway bar arm with an aluminum sway bar arm, order PACCAR Parts kit number 2BE652 which includes one aluminum sway bar arm and all of the necessary fasteners.

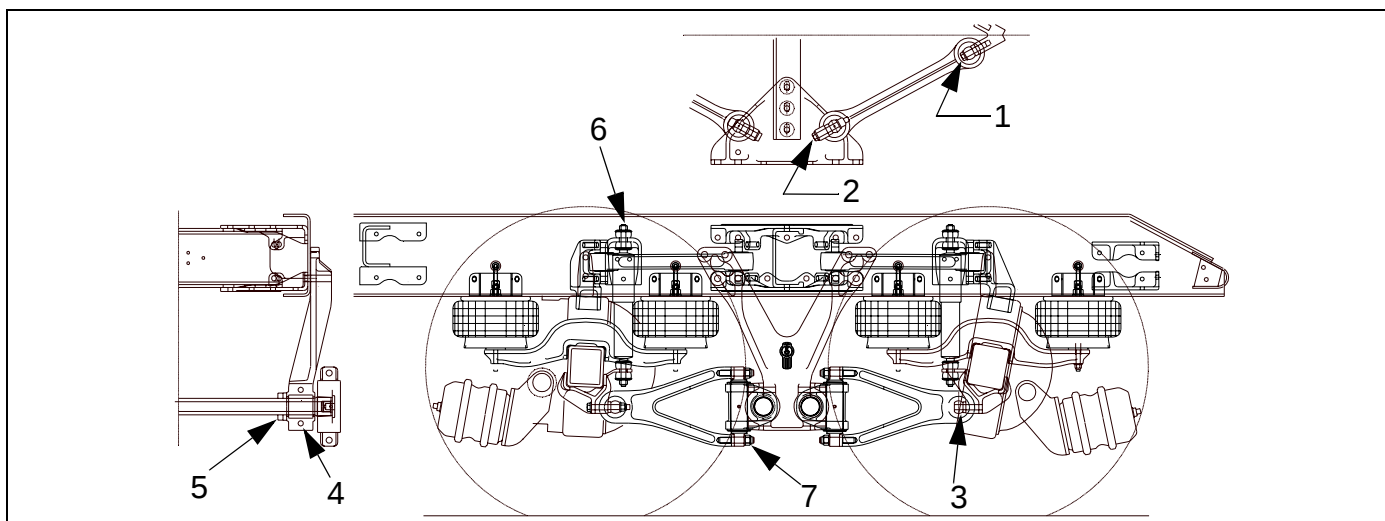


Figure 17-4

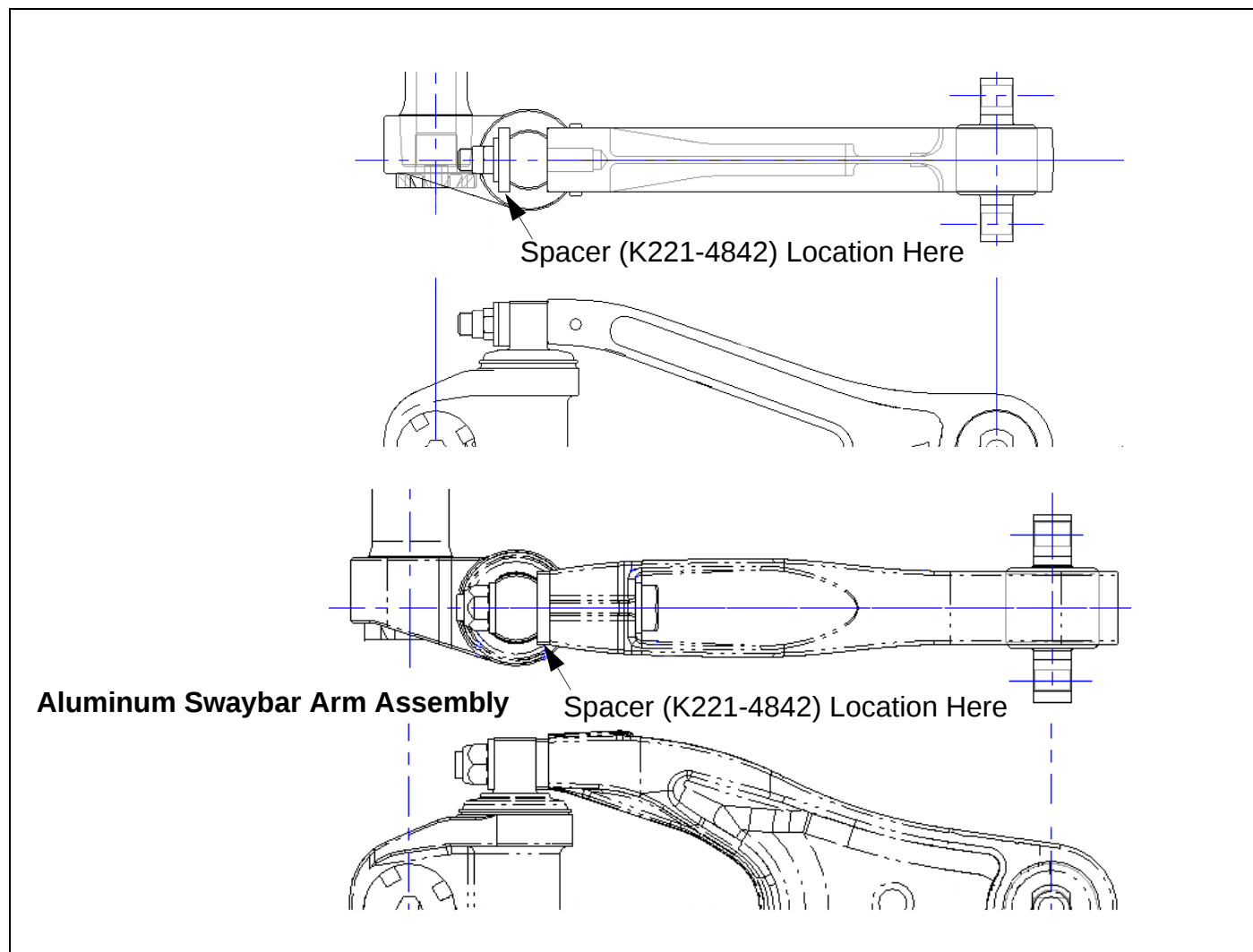


Figure 17-5

Air System Components



WARNING! Do not pull out the parking brake while vehicle is moving. Do not put vehicle in motion without a minimum of 100 psi (689 kPa) in the air system. Observe vehicle red warning lamps on gauges and discontinue vehicle operation until proper repairs or service is completed. Do not use the trailer hand brake or service brakes to park and hold an unattended vehicle - use parking brake.

Daily, drain air tanks by activating the moisture ejector valve.

NOTE: The air supply to the air suspension must be free of moisture and compressor oil. If excess moisture is encountered, check for proper operation of the moisture ejector valve. If excess oil is encountered overhaul the air compressor.

Height Control Valve Filters

Check periodically to verify that the two small filter elements located in the height control valve(s) are clean. The outlet adapter and inlet adapter are equipped with a screen. If the inlet adapter screen is clogged, replace the complete intake adapter assembly.

Pressure Protection Valve Test

When the air brake system air pressure is reduced to a predetermined amount the pressure protection valve will close. The pressure protection valve will allow no air to flow into the air suspension system until the brake system air pressure rises to a predetermined amount.

To check the pressure protection valve:

1. Identify the manufacturer of valve installed in the system.
2. Increase the air system pressure to 690 kPa (100 psi) or more.
3. Remove the supply hose at the outlet of the pressure protection valve.

NOTE: Air should exhaust until rear service pressure gauge reaches minimum required pressure. If air continues to exhaust, the valve is malfunctioning and should be replaced.

4. Connect and tighten supply hose after check is completed.

Air Leakage Test

NOTE: If the valve does not function during adjustment, check for restricted air lines.

- With Valve Mounted On Vehicle

Periodically check the valve for leaks. With the vehicle loaded and the air system at normal operating pressure, apply a coating of soap and water solution to all air line connections. Soap bubbles reveal air leakage. Replace valve if leak is revealed.

- With Valve Removed From Vehicle

1. Clean exterior of height control valve thoroughly.
2. Connect pressure line to intake port and apply air pressure 690-827 kPa (100-120 psi).
3. With overtravel lever in neutral position no air should escape. If bubbles appear at intake port, replace intake check valve adapter. If bubbles escape from exhaust port, replace exhaust valve assembly.
4. If bubbles appear around edge of cover plate, replace gasket.
5. Remove height control valve from water and actuate control lever to expel any water from unit.
6. Release air pressure and remove pressure line from air spring port.
7. Connect air spring to air intake port.
8. Apply air pressure and actuate control lever to expel any remaining water.

Before replacing a height control valve suspected of malfunctioning, follow these steps to check its operation.

1. Increase the air supply in excess of 616 $\pm$ 34 kPa (90 $\pm$ 5 psi).
2. Disconnect the link from the axle to the height control valve control lever.
3. Move the control lever up and hold for at least 10 seconds. Note the delay time. Air should flow to the springs.
4. Move the control lever to the neutral position. All air flow should be shut off.
5. Move the control lever down to the exhaust position. Check the delay time which should be identical to the intake delay time. See step 3.

If the valve performs normally during function checks 3, 4 and 5, it is operational. Malfunctioning height control valves should be replaced with new units because overhaul time usually exceeds the cost of a new valve.

Suspension: Airglide 200 Airspring Suspension

Height Control Valve Adjustment



WARNING! Keep appendages clear of all pinch points.

Checking The Adjustment

1. Park the vehicle on a level surface, preferably with a normal load, and increase the air system pressure to 758 kPa (110 psi) or more.
2. Securely block the wheels.
3. Measure the distance from the bottom of the frame rail to the top of the axle with the aid of calipers or dividers. See [Figure 17-6](#).

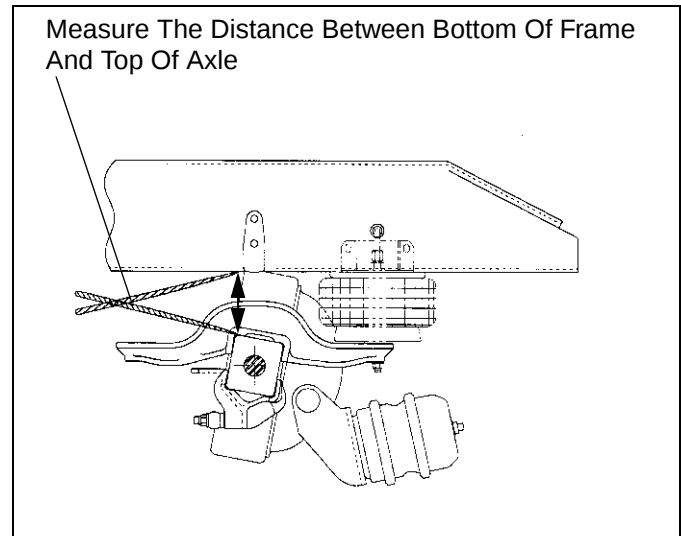


Figure 17-6

This measurement must be

- All Models With a 9 in. Ride Height Except T2000: 149 mm $\pm$ 3 mm (5 7/8 in. $\pm$ 1/8 in.) See [Figure 17-7](#)
- T2000 With a 9 in. Ride Height: 155 mm $\pm$ 3 mm (6 1/8 in. $\pm$ 1/8 in.). See [Figure 17-7](#)
- All Models With a 10 1/2 in. Ride Height: 193 mm $\pm$ 3 mm (7 5/8 in. $\pm$ 1/8 in.). See [Figure 17-8](#)

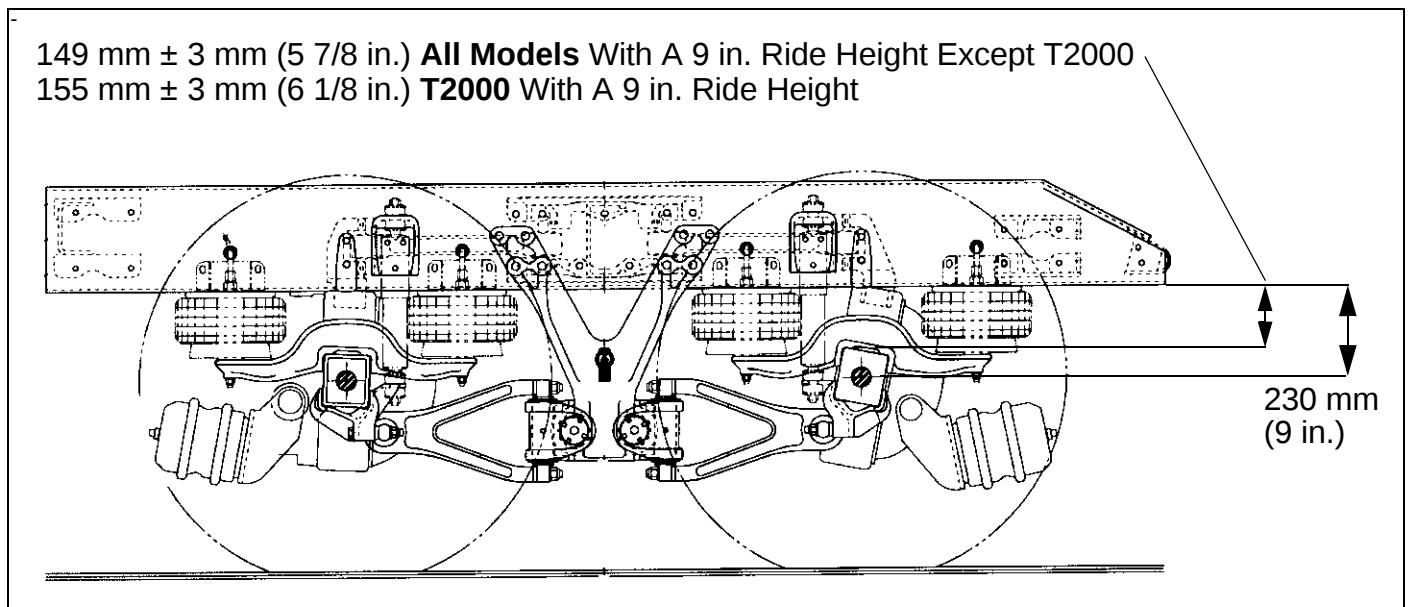


Figure 17-7 For 9 in. Ride Height

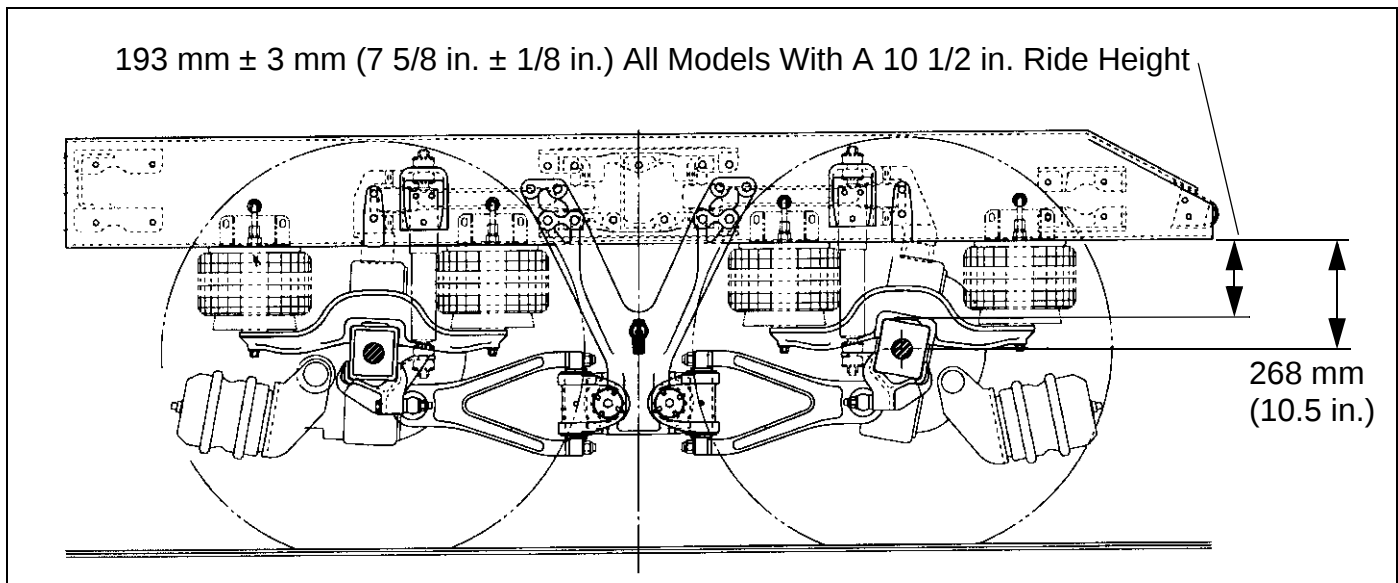


Figure 17-8 For 10 1/2 in. Ride Height

Adjusting The Height Control Valve

For Chassis With 2 Leveling Valves

i **NOTE:** If replacement of a height control valve is required, use the same brand valve as installed on the opposite side of the suspension. Do not mix brands of leveling valves because operating characteristics may vary slightly.

1. With the truck on a level surface, bring the air system up to 758 kPa (110 psi) or more.
2. On each side, unbolt the connecting link from the leveling valve arm.
3. Move valve arms to exhaust air springs.
4. On one side, raise the valve arm until the top of the rear axle is the correct distance from the bottom of the frame rail.
5. Loosen the nut of the leveling valve.
6. Temporarily attach the link to the valve arm, using a bolt without a nut.
7. For Leveling Valves Without Dead Band Center Position Pin Locator

Tighten the nut at the nylon block.

i **NOTE:** Be sure that the nylon block is at the center of the dead band before tightening the nut. To do this, quickly move the nylon block up and down 15° each way several times.

For Leveling Valves With Dead Band Center Position Pin Locator

To locate nylon block at the center of the dead band before tightening the nut, install the locator pin through the locator pin guides on the valve body and on the nylon block. Remove pin. See Figure [Figure 17-9](#).

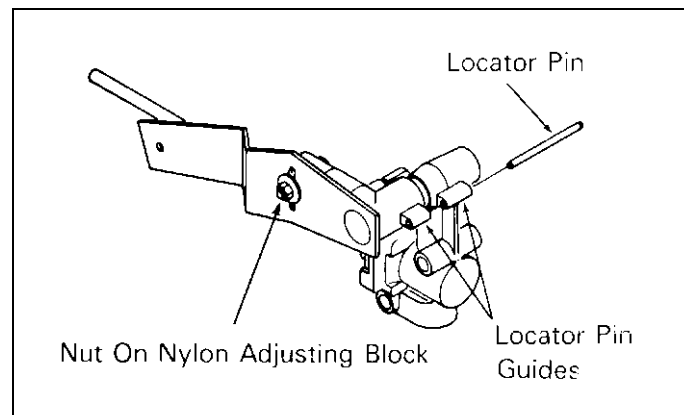


Figure 17-9

8. Repeat steps 4 through 7 for the other side of the chassis.

Suspension: Airglide 200 Airspring Suspension

- With both sides set independently, reconnect links to respective valves.

 **NOTE:** Axle-to-frame spacing on rear axle must be within 6 mm (1/4 in.) on each side of the chassis.

- Check axle to frame spacing. If each side of chassis is not within 6 mm (1/4 in.) left to right, return to step 4 and adjust again.

For Chassis With One Leveling Valve

- Loosen the nut on the height control valve adjusting block.

For Leveling Valves Without Dead Band Center Position Pin Locator

 **NOTE:** Be sure that the nylon block is at the center of the dead band before tightening the nut. To do this, quickly move the nylon block up and down 15° each way several times.

For Leveling Valves With Dead Band Center Position Pin Locator

To locate nylon block at the center of the dead band before tightening the nut, install the locator pin through the locator pin guides on the valve body and on the nylon block. Remove pin. See [Figure 17-9](#).

- Exhaust air from air springs.
- Raise the valve arm until the top of the rear axle is the correct distance from the bottom of the frame rail.

 **NOTE:** Only rearmost axle is set to correct ride height.

Tuning The Air Suspension

If an air suspension is difficult to adjust or exhibits hard ride, the distance between the rear rear axle and the bottom of the chassis frame should be checked for correct ride height and the dimension on each side of chassis is within 6 mm (1/4 in.) left to right. If not, check the following

- Rear axle alignment. Adjust as necessary.
- Rear axle slants. Adjust as necessary.

 **NOTE:** The truck must be on a level surface.

These adjustments can have a major effect on the air spring heights. If, after adjusting the rear axle alignment and rear axle slants, the air spring heights on an air spring beam are not within 6 mm (1/4 in.) of each other, contact your Regional Service representative. Additional field adjustments will not improve the adjustability of the suspension.

Disassembly / Assembly



CAUTION: Perform all of the following procedures with the vehicle unloaded. Park the vehicle on a level, solid surface with the wheels blocked. If the vehicle is to be raised to remove weight from the rear suspension, place jack stands under both frame rails.



WARNING! Secure vehicle from rolling prior to beginning axle repair and/or replacement. Always support the vehicle with appropriate safety stands, if it is necessary to work underneath the vehicle. A jack is not adequate for this purpose. Failure to prevent rolling or proper support could result in serious injury to mechanic.

Axle

The following procedure may be used to remove an air spring, air line, or an entire axle assembly. Refer to Figure 17-1, 17-3 and the appropriate air piping diagram.

Disassembly

- Disconnect the shock absorbers.
- Disconnect the height control valve linkage.
- Jack up the rear of the vehicle by placing jacks under each frame rail. Raise the vehicle until the load is removed from the air springs.
- Exhaust all air from the suspension system by pulling down on the height control valve arms.

At this point, air lines and air spring assemblies may be removed.

To remove the axle, continue with steps 5 through 8.

- Disconnect the driveline.
- Unbolt the bases of the air springs from the air spring beam assemblies.
- Disconnect the V-link and the swaybar from the axle.
- Disconnect the air lines and unbolt the springs from the frame.

Suspension: Airglide 200 Airspring Suspension

Assembly

Complete the following procedure to replace a complete axle assembly. Refer to [Figure 17-1](#) and the appropriate air piping diagram.

1. Jack up the rear of the vehicle.
2. Bolt the air springs to the frame.
3. Position the axle and the air spring beams under the air springs.
4. Connect the swaybar to the frame brackets and axle. Leave the bolts loose enough at this time so the torque rod stabilizer can rotate within the bushing.
5. Raise or lower the vehicle frame as required to seat the air springs into the beam assemblies. Tighten the M12 bolts to 88 ± 13 Nm (65 ± 10 ft-lbs).
6. Attach the torque rods and the swaybar arm to the axle.
7. Torque all fasteners to the specified torque. See Figure 17-4 on page 6.

Swaybar Hinge Pin

In May of 2000, Kenworth introduced a service update pin kit (P/N K345-5156) which incorporated one fully threaded pin with two new purging seals. The new pin and seals will fit in all AG200 suspensions and utilizes the non-worn threads in the swaybar hinge pin housing. The maximum "play" for the hinge pin to swaybar hinge pin housing is 0.125 inch (3 mm). All of the special tools necessary for the removal and installation procedures are included in tool kit (P/N 57MR4).

i *NOTE: Kenworth recommends inspection of the Swaybar Bushings during Swaybar Hinge Pin replacement. Replace Swaybar Bushings if necessary. Oversized Swaybar Bushings are available through PACCAR Parts.*

3. For the swaybar assembly that will have the pin(s) replaced, remove the bolts at the swaybar arm-to-axle seat connections on both swaybar arms.

i *NOTE: Pay special attention to how many spacers are at each location. To maintain axle alignment after reassembly, the same number of spacers must be reinstalled at each location.*

4. Rotate each swaybar arm down, out of the axle seat, and then rotate inboard to remove. See [Figure 17-10](#).

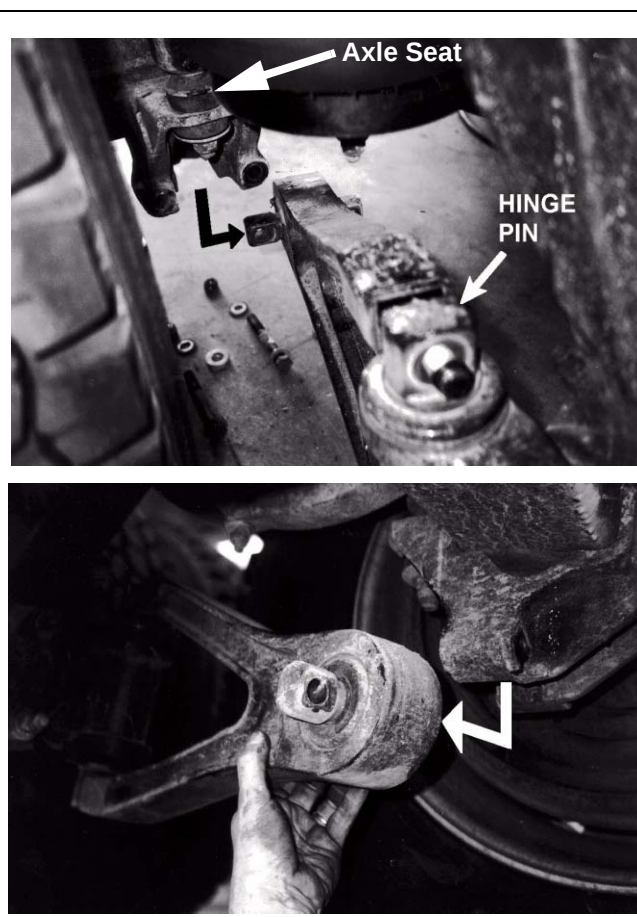


Figure 17-10

Removal Procedure For One Or Two Pins

Determine which pin(s) will be replaced and complete the following steps for the corresponding pin(s).

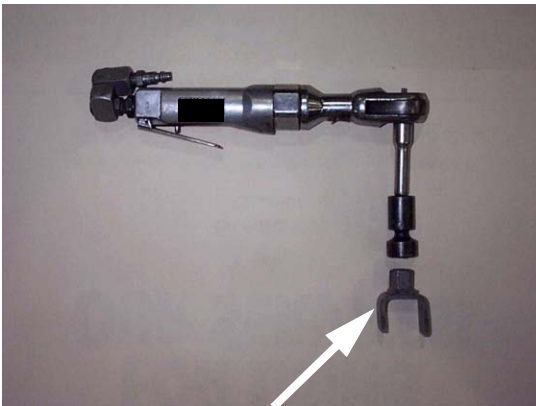
1. Using a 30 mm (1 3/16 in.) socket, remove and discard the M20 lock nuts on the swaybar arm-to-hinge pin connections.
2. Using a 24 mm (15/16 in.) socket, remove and discard the M16 lock nuts on the swaybar arm-to-axle seat connections.

Suspension: Airglide 200 Airspring Suspension

Pin Removal

1. Using the hinge pin driver (see [Figure 17-11](#)), and an air ratchet, "run" the pin out of the swaybar assembly from the top to the bottom. See [Figure 17-11](#). It is not necessary to remove the seals before "running" the pin out. Leaving the seals in place will help remove grease from the bore of the swaybar bushing.

i **NOTE:** DO NOT use an air gun! An air gun will damage the hinge pin driver. Place the extraction tool on the pin and with a hammer seat the tool onto the top of the pin by striking it with a downward blow. To prevent damage to the pin operate tool at the lowest setting.



Hinge Pin Driver (supplied with tool kit)

Figure 17-11

2. With the pin removed, clean excess grease and debris from bushing threaded surfaces with a shop rag or paper towel.
3. Soak the area with degreaser or cleaner and use a wire brush to further clean and remove grit and debris. See [Figure 17-12](#) below. Push and pull

the brush through the threaded bore several times, dunking the brush in cleaner periodically to completely clean the threads.

i **NOTE:** DO NOT use any solvents that contain rust prohibitive, such as penetrating oil or WD-40. These types of substances will cause the grease to not stick.



Wire Brush (supplied with tool kit)

Figure 17-12

4. Wipe all excess cleaner from the threads and use shop air to dry.
5. Apply a light coat of grease to the bore.

Suspension: Airglide 200 Airspring Suspension

Pin Installation

1. Install a new pin by threading in by hand from the bottom toward the top. Make sure the pin is centered in the bushing. The same amount of threads should be exposed on both the top and the bottom of the pin.

i NOTE: Apply a light coat of grease to the seal and seal rings on the pin prior to installation.

i NOTE: DO Not install new seals (P/N: K207-1225) on old style pins (P/N: K179-531) or old seals (P/N K207-1165) and retaining rings (P/N K198-1242/3) on new pins (P/N K179-549). See [Figure 17-13](#) below.

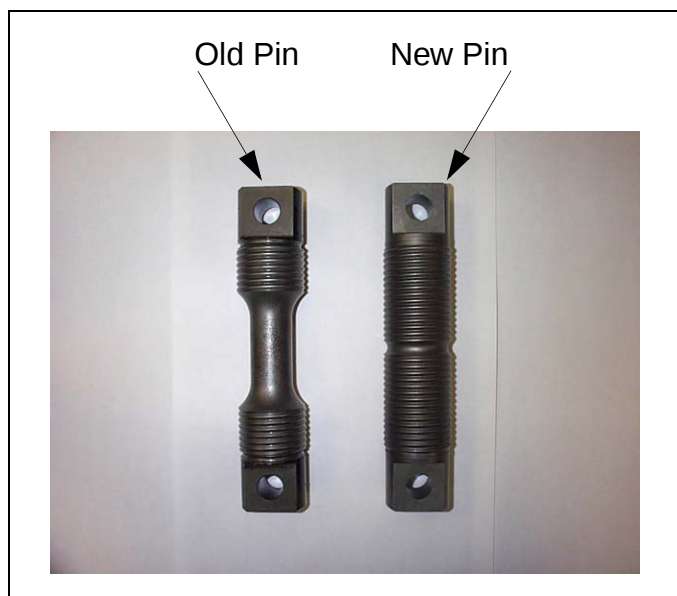


Figure 17-13

i NOTE: Push seals onto pin as far as possible by hand. Make sure the seal is even all the way around the pin before using the seal installer. This will help prevent damage to the seal during installation.

2. Use the seal installer (see [Figure 17-14](#)) to install the new seals, small (inside) diameter first, then large (outside) diameter.

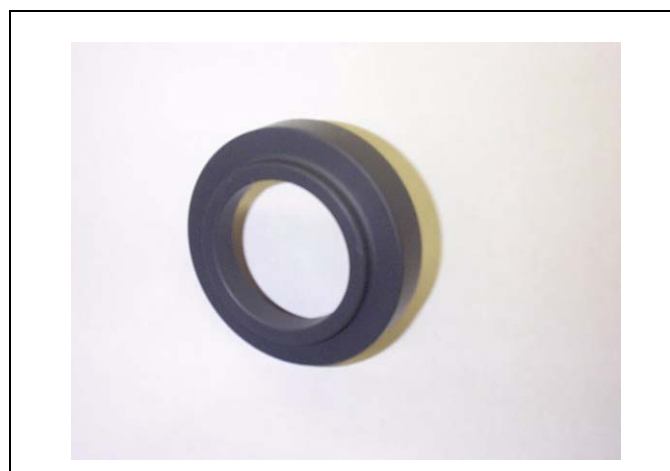


Figure 17-14

i NOTE: The seal installer included in the kit is plastic. Do not strike it with a hammer during seal installation as damage to the seal or installer may result. Instead, devise a method of installing the upper and lower hinge pin seals that will not require a "direct blow" to the seal installer. A recommended alternative for installing upper and lower seals is illustrated below.



Figure 17-15

Suspension: Airslide 200 Airspring Suspension

[Figure 17-15](#), [Figure 17-16](#) and [Figure 17-17](#) illustrate a recommended alternative for seal installation.

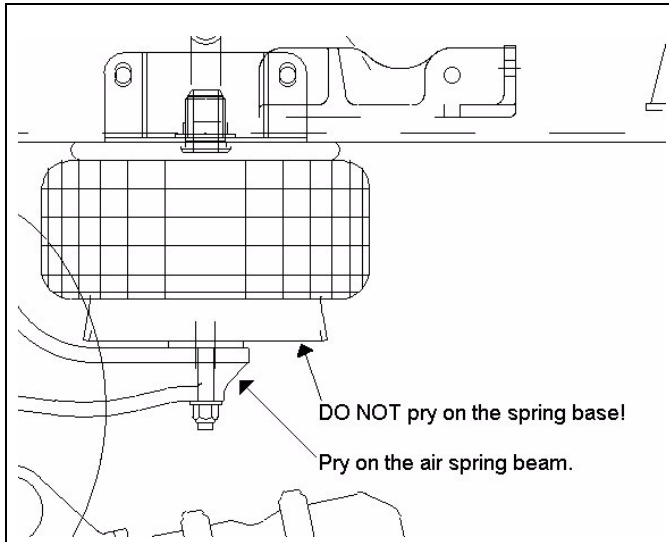


Figure 17-16



Figure 17-17

3. Make sure the outside diameter of the seal is completely seated. Pay special attention to the portion nearest the center-frame-bracket. See [Figure 17-18](#) for the dimensions of a properly installed seal.

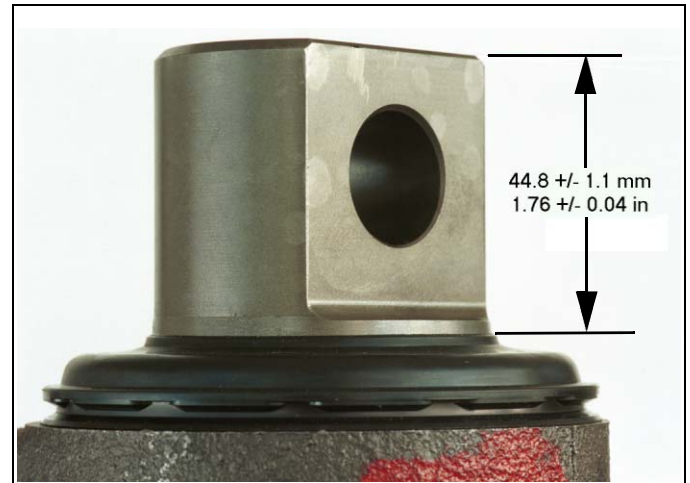


Figure 17-18

4. After the seals are installed, inspect for cracks or any other damage that may have been caused during installation.
5. After the seals are installed, purge the assembly with grease. Apply enough grease until it purges all the way around on both top and bottom seals.



NOTE: EP grease, lithium 12-hydroxystearate or lithium complex base, NLGI 2, with 3% molybdenum additive: Molygrease EP (Chevron), or equal.

6. Reinstall the bolts into the swaybar arm-to-axle seat connection. Ensure that the correct amount of spacers are installed between the swaybar arm and the axle seat.
7. Reinstall swaybar arm assemblies in reverse order of removal.
8. Install (4) **new** M16 lock nuts (P/N K169-163-16CA) on any swaybar assembly that was disassembled. Torque to 150 - 190 Ft - Lb (203 - 258 Nm).
9. Install (2) **new** M20 (P/N K169-163-20CA) nuts on any connection that was disassembled. Torque the nuts to 260 - 340 Ft - Lb (353 - 461 Nm).
10. Prime and paint fasteners.

Suspension: Airglide 200 Airspring Suspension

Swaybar "Clam-Shell" Bushing Retrofit



WARNING! *Secure vehicle from rolling prior to beginning axle repair and/or replacement. Failure to prevent rolling or proper support could result in serious injury to mechanic.*



CAUTION: *Perform all of the following procedures with the vehicle unloaded. Park the vehicle on a solid, level surface, set the parking brakes, remove the keys from ignition and block the wheels.*



NOTE: *DO NOT remove wheels and tires.*



NOTE: *DO NOT jack up truck.*

Suspension: Airglide 200 Airspring Suspension

AG200 Swaybar Bushing Service Kits

Bushing kits include “clam-shell” swaybar bushings and frame bracket/cap fasteners. Based on the suspension weight rating the AG200 has two diameters of swaybars. Ensure you have the proper bushing kit prior to installation.

AG200 Suspension Weight Rating	Axle Spacing	Original Swaybar Bushing Part Number	Order PACCAR Parts Bushing Service Kit Number	Quantity
40,000 lbs <i>54mm (2-1/8 in.) diameter swaybars</i>	52 in. / 54 in.	K066-450	C13-1006 <i>Kit contains:</i> (4) C13-1004 <i>Bushings</i> (4) K041-712-290P <i>Bolts - M16 x 290 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	1
40,000 lbs High Stability (HS) <i>58mm (2-5/16 in.) diameter swaybars</i>	52 in. / 54 in.	K066-460	C13-1007 <i>Kit contains:</i> (4) C13-1005 <i>Bushings</i> (4) K041-712-290P <i>Bolts - M16 x 290 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	1
46,000 lbs <i>58mm (2-5/16 in.) diameter swaybars</i>	52 in. / 54 in.	K066-460	C13-1007 <i>Kit contains:</i> (4) C13-1005 <i>Bushings</i> (4) K041-712-290P <i>Bolts - M16 x 290 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	1
46,000 lbs <i>58mm (2-5/16 in.) diameter swaybars</i>	60 in.	K066-460	C13-1008 <i>Kit contains:</i> (2) C13-1005 <i>Bushings</i> (4) K041-712-240P <i>Bolts - M16 x 240 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	2
Tridem - Forward Axle <i>58mm (2-5/16 in.) diameter swaybars</i>	54 in.	K066-460	C13-1008 <i>Kit contains:</i> (2) C13-1005 <i>Bushings</i> (4) K041-712-240P <i>Bolts - M16 x 240 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	1
Tridem - Center and Rear Axle <i>58mm (2-5/16 in.) diameter swaybars</i>	54 in.	K066-460	C13-1007 <i>Kit contains:</i> (4) C13-1005 <i>Bushings</i> (4) K041-712-290P <i>Bolts - M16 x 290 mm hex</i> (4) K169-163-16CA <i>Nut - M16 hex nylon locking</i> (8) K363-443 <i>Washer - M16 hardened</i>	1

Suspension: Airslide 200 Airspring Suspension

Bushing Removal

1. Remove and discard the fasteners from the frame bracket and cap joint. See [Figure 17-19](#).

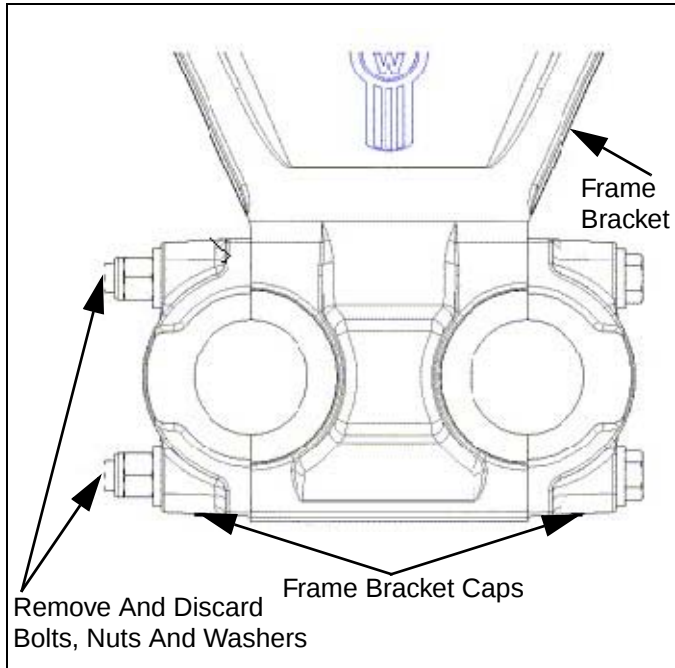


Figure 17-19

2. Remove the frame bracket caps.
3. Separate the swaybars from the frame bracket.
4. Remove and discard swaybar bushings, thrust bushings and bearing collars.

TIP: A bottle jack between the tires can help separate the assembly. See [Figure 17-20](#).



Figure 17-20

5. Scrape residual rubber or debris from the inside surface of the frame brackets and caps. See [Figure 17-21](#).



Figure 17-21

NOTE: Ensure surfaces are free from grease, oil and dirt in order to provide a good bond with the rubber swaybar bushing.

Suspension: Airglide 200 Airspring Suspension

Bushing Installation

1. With a spray bottle or by immersion, ensure the swaybar bushings are well coated with **plain water** prior to installation (water provides lubrication to the bushing for proper installation).

i **NOTE:** Do not use any lubricants, oils, soap, Armor All, glass cleaner, etc. during bushing installation as they have been found to significantly degrade bushing durability.

2. Orient the bushings on the swaybars with the split facing down. See [Figure 17-22](#).



Figure 17-22

3. If a bottle jack was used to separate the axles remove the bottle jack at this time.
4. Install frame bracket caps, bolts, washers and nuts.
5. Just prior to tightening the bolts liberally spray the bushing with water to provide lubrication.
6. Tighten the joint evenly by alternating back and forth between the top and bottom bolts a minimum of 5 times (ensuring the joint is evenly clamped and the bushing is properly compressed). See [Figure 17-23](#).
7. Repeat tightening procedure at all bushing locations. See [Figure 17-23](#).



CAUTION: The joint must be tightened evenly to prevent undue stress on the caps and to ensure the bushing is properly seated.

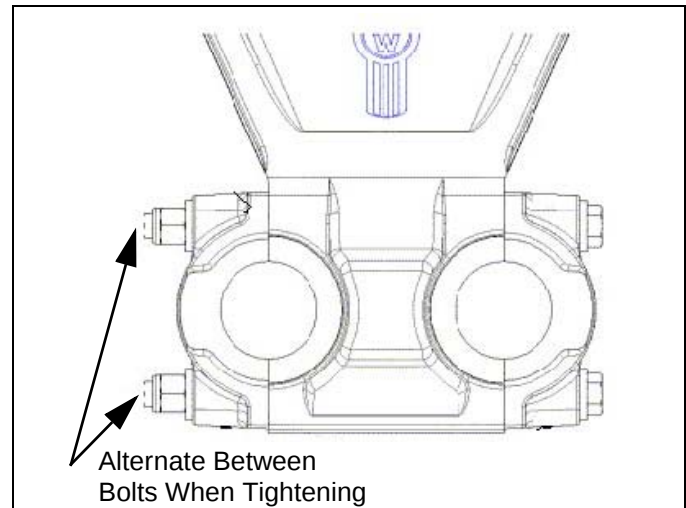


Figure 17-23

8. Final torque sequence, first joint:
 - a. Torque the bolts to 140 ft-lbs.
 - b. Torque the bolts to 180 ft-lbs.
9. Proceed to the next joint and repeat steps a. and b.
10. After all joints have been torqued allow rubber to relax and take a set for a **minimum of 5 minutes**.
11. Re-torque all bolts to 180 ft-lbs.

Suspension: Airglide 200 Airspring Suspension

12. Inspect all joints for gaps between frame bracket and caps. See [Figure 17-24](#).



CAUTION: *Ensure that there are no gaps between the frame brackets and caps. If a gap is present, proper bolt clamp load has not been attained. To achieve proper bolt clamp, loosen the joint but do not remove the nuts. Apply water to the bushing for lubrication and tighten the joint evenly. Repeat the final torque sequence.*

If any bushings or fasteners are damaged, replace the damaged components.

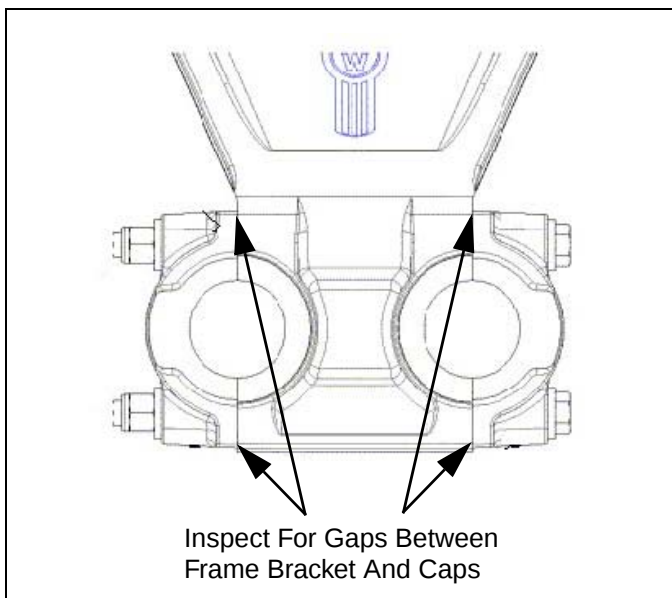


Figure 17-24

Suspension: Airglide 200 Airspring Suspension

AG400 One Piece Swaybar Retrofit



WARNING! This procedure requires servicing the vehicle with the transmission in neutral, keys removed from ignition, and the parking brakes released. The vehicle must be parked on a completely flat/level surface with both front wheels chocked on both sides. Failure to adequately chock the wheels or remove the keys may lead to the vehicle rolling into someone/something or someone starting the engine, causing an accident and possible serious personal injury and/or equipment damage.



WARNING! To prevent vehicle from rolling and causing personal injury and/or property damage, use chocks at the front tires.



NOTE: Suitable wheel chocks are at a minimum an 18-inch (46cm) long 4x4.



NOTE: DO NOT remove wheels and tires.

DO NOT jack up truck.

- Before performing a one piece swaybar retrofit on an AG200 suspension, you must first determine what the axle spacing is on the unit being repaired. The axle spacing will determine the correct one piece swaybar part number to use. If you do not know the axle spacing, use ECAT to quickly find the information. Here's how:
 - From the main menu on ECAT, select "Search", then "Visual Search".
 - Enter "Chassis Serial #", then select "Search".
 - Type Spacing in the "Enter Search Phrase" box, then select "Remark".
 - Under "Search REMARK for 'Spacing' ", click on the box to the left of the BOM# (i.e. 2010-A02-A01 DUAL REAR AXLE SPACING)
 - The axle spacing information should be displayed (i.e. "52 INCH AXLE SPACING")
- Ensure that you have the correct swaybars. See [Figure 17-25](#). Also refer to ["Parts Required For One-Piece Swaybar Retrofit" on page 24 and 26](#).



CAUTION: DO NOT replace just one swaybar rod-and-arms assembly with a one piece swaybar. Replace both. The one piece swaybar has a higher role stiffness. Replacing only one would over-stress the single one piece swaybar. Use one piece swaybars only in pairs.

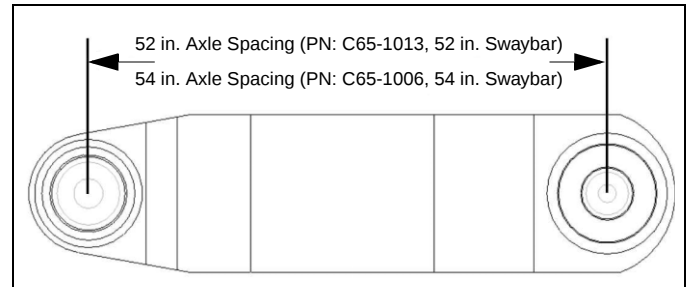


Figure 17-25

- Ensure you have the proper bushing kit prior to installation. Bushing kits include "clam-shell" swaybar bushings and frame bracket/cap fasteners. Based on the suspension weight rating the AG200 has two diameters of swaybars. Refer to ["Parts Required For One-Piece Swaybar Retrofit" on page 24 and 25](#).

Suspension: Airglide 200 Airspring Suspension

NOTE: DO NOT use old style bushings on one piece swaybars. The "clam-shell" bushing resists lateral movement of the bar better than the old style bushing. Use only the "clam-shell" bushings as included in the kits listed below.

Parts Required For One-Piece Swaybar Retrofit				
Suspension Weight Rating	Axle Spacing	Part Number	Description	Quantity
40,000 - 46,000 lbs (Includes High Stability Option)	52 in.	C65-1013	One Piece Swaybar	2
		C13-1007	Bushing Kit	1
			Kit Contains:	
		(4) C13-1005	Bushings	
		(4) K041-712-290P	Bolts - M16 x 290 mm hex	
		(4) K169-163-16CA	Nut - M16 hex nylon locking	
		(8) K363-443	Washer - M16 hardened	
		<i>NOTE: New fasteners are required for attaching the swaybars to the axle seat ends. Order the following additional parts:</i>		
		D8400-4716	Bolt, M16 x 120 mm hex	8
		D8400-4910	Nut, M16 hex nylon locking	8
		D8400-5712	Washer, M16 hardened	16
40,000 - 46,000 lbs (Includes High Stability Option)	54 in.	C65-1006	One Piece Swaybar	2
		C13-1007	Bushing Kit	1
			Kit Contains:	
		(4) C13-1005	Bushings	
		(4) K041-712-290P	Bolts - M16 x 290 mm hex	
		(4) K169-163-16CA	Nut - M16 hex nylon locking	
		(8) K363-443	Washer - M16 hardened	
		<i>NOTE: New fasteners are required for attaching the swaybars to the axle seat ends. Order the following additional parts:</i>		
		D8400-4716	Bolt, M16 x 120 mm hex	8
		D8400-4910	Nut, M16 hex nylon locking	8
		D8400-5712	Washer, M16 hardened	16
46,000 lbs	60 in.	C65-1013	One Piece Swaybar	2
		C13-1008	Bushing Kit	2
			Kit Contains:	
		(2) C13-1005	Bushings	
		(4) K041-712-240P	Bolts - M16 x 240 mm hex	
		(4) K169-163-16CA	Nut - M16 hex nylon locking	
		(8) K363-443	Washer - M16 hardened	
		<i>NOTE: New fasteners are required for attaching the swaybars to the axle seat ends. Order the following additional parts:</i>		
		D8400-4716	Bolt, M16 x 120 mm hex	8
		D8400-4910	Nut, M16 hex nylon locking	8
		D8400-5712	Washer, M16 hardened	16

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Suspension: Airglide 200 Airspring Suspension

Tridem - Forward Axle	54 in.	C65-1006	One Piece Swaybar	1
		C13-1008	Bushing Kit	1
		Kit Contains:		
		(2) C13-1005	Bushings	
		(4) K041-712-240P	Bolts - M16 x 240 mm hex	
		(4) K169-163-16CA	Nut - M16 hex nylon locking	
		(8) K363-443	Washer - M16 hardened	
		<i>NOTE: New fasteners are required for attaching the swaybars to the axle seat ends. Order the following additional parts:</i>		
		D8400-4716	Bolt, M16 x 120 mm hex	12*
		D8400-4910	Nut, M16 hex nylon locking	12*
		D8400-5712	Washer, M16 hardened	24*
		* Quantity: Required for attaching the Forward, Center and Rear Axle Swaybars.		
Tridem - Center & Rear Axle	54 in.	C65-1006	One Piece Swaybar	2
		C13-1007	Bushing Kit	1
		Kit Contains:		
		(4) C13-1005	Bushings	
		(4) K041-712-290P	Bolts - M16 x 940 mm hex	
		(4) K169-163-16CA	Nut - M16 hex nylon locking	
		(8) K363-443	Washer - M16 hardened	

Suspension: Airslide 200 Airspring Suspension

4. Remove and discard the fasteners from the frame-bracket and cap joint. See [Figure 17-26](#).

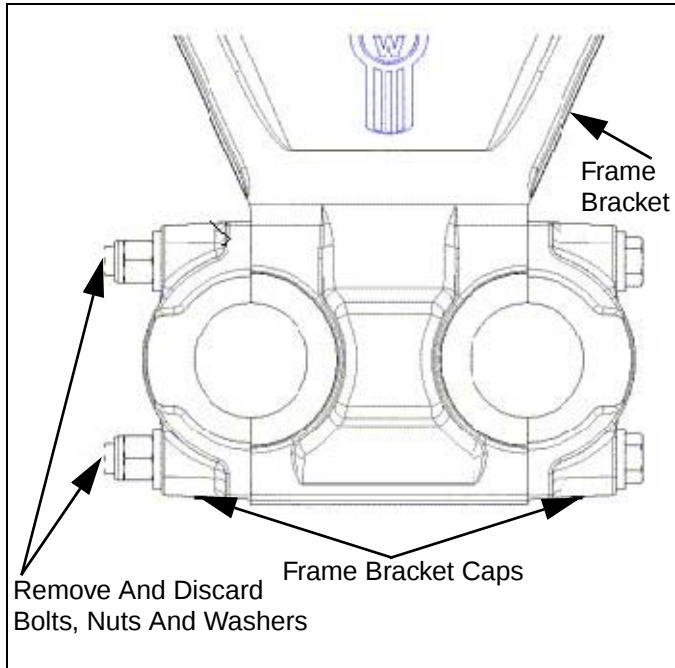


Figure 17-26

5. Remove the (8) swaybar arm bolts from the axle seats.



NOTE: Discard all spacers and alignment washers because the truck will be aligned at the end of the procedure. Reuse of spacers will result in incorrect pinion angles.

6. Chassis with AG200 54 in. axle spacing: If present, cut off and discard the spacer clevis See [Figure 17-27](#). Grind the welds flush with the axle seat mounting surface.

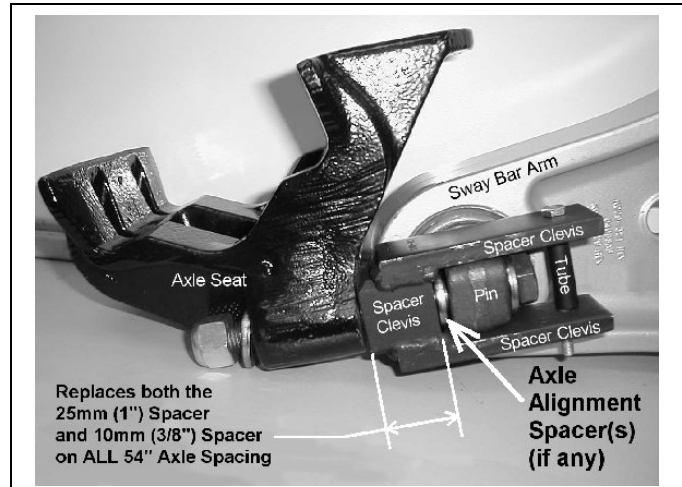


Figure 17-27

Suspension: Airglide 200 Airspring Suspension

7. Carefully remove the swaybar and LH & RH swaybar arms as an assembly. Discard the thrust bushings and bearing collars.



NOTE: The rubber "clam-shell" swaybar bushings are designed to be used without the thrust bushings and split collars that were used on the AG200.

TIP: A bottle jack between the tires can help separate the assembly from the truck. See [Figure 17-28](#).



Figure 17-28

8. Remove shock nut and replace with a 5/8 in. low profile lock nut (P/N D8400-0155). See [Figure 17-29](#).
9. Cut off shock studs flush with nut. See [Figure 17-29](#). This is to provide adequate clearance with the new swaybar.



WARNING! If a torch is used to cut off the stud, ensure it is torched prior to swaybar installation. The swaybar is heat-treated and must not be heated up.



NOTE: Failure to cut off the shock studs flush with the nuts will result in an interference with the swaybar arm.

Before



After



Figure 17-29

Suspension: Airglide 200 Airspring Suspension

10. Scrape residual rubber or debris from the inside surface of the frame bracket and cap. See [Figure 17-30](#) below.



NOTE: Ensure surfaces are free from grease, oil and dirt in order to provide a good bond with the rubber swaybar bushing.



Figure 17-30

11. With a spray bottle or by immersion, ensure the swaybar bushings are well coated with plain water prior to installation (water provides lubrication to the bushing for proper installation).



NOTE: Do not use any lubricants, oils, soap, Armor All, glass cleaner, etc. during bushing installation as they have been found to significantly degrade bushing durability. Install the swaybar bushing. Orient the bushing with the split facing down. See [Figure 17-31](#).



Figure 17-31

Suspension: Airglide 200 Airspring Suspension

12. Install front and rear one piece swaybars using the bolts (unfastened) in the frame brackets and axle seats to hold the bars in place. See [Figure 17-32](#).
13. Snug the axle seat bolts. This will ensure the proper side-to-side alignment.



Figure 17-32

14. If a bottle jack was used to separate the axles remove the bottle jack at this time.
15. Install frame bracket caps, bolts, washers and nuts.

TIP: Using the old nuts, install the caps and torque down the bolts without the washers the first time. This is to help seat the bushings, otherwise there may not be enough threads for the nut to catch on. Then remove the bolt, add the washers, and install using the new nuts.

16. Just prior to tightening the bolts liberally spray the bushing with water to provide lubrication.

17. Tighten the joint evenly by alternating back and forth between the top and bottom bolts a minimum of 5 times (ensuring the joint is evenly clamped and the bushing is properly compressed). See [Figure 17-33](#).
18. Repeat tightening procedure at all bushing locations. See Figure [Figure 17-33](#).



CAUTION: The joint must be tightened evenly to prevent undue stress on the caps and to ensure the bushing is properly seated.

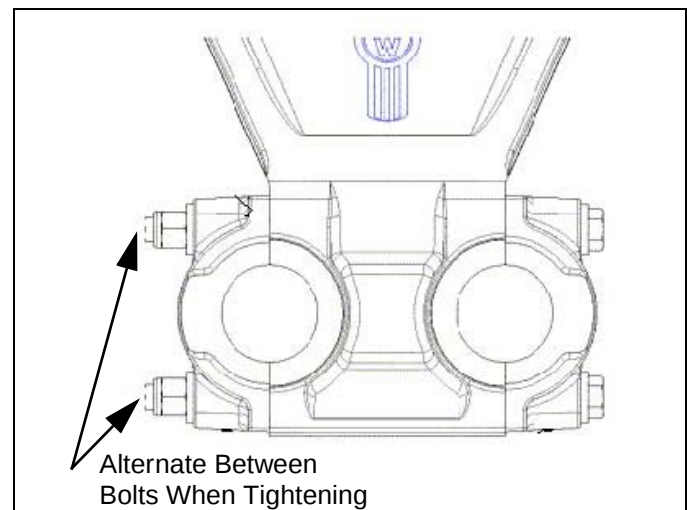


Figure 17-33

19. Final torque sequence, first joint:

NOTE: Click torque wrench is recommended.

- a. Torque the bolts to 140 ft-lbs.
- b. Torque the bolts to 180 ft-lbs.

20. Proceed to the next joint and repeat steps a. and b.
21. After all joints have been torqued allow rubber to relax and take a set for a **minimum of 5 minutes**.
22. Re-torque all bolts to 180 ft-lbs.

Suspension: Airglide 200 Airspring Suspension

23. Inspect all joints for gaps between frame bracket and caps. See [Figure 17-34](#).



CAUTION: Ensure that there are no gaps between the frame brackets and caps. If a gap is present, proper bolt clamp load has not been attained. To achieve proper bolt clamp, loosen the joint but do not remove the nuts. Apply water to the bushing for lubrication and tighten the joint evenly. Repeat the final torque sequence.

If any bushings or fasteners are damaged, replace the damaged components.

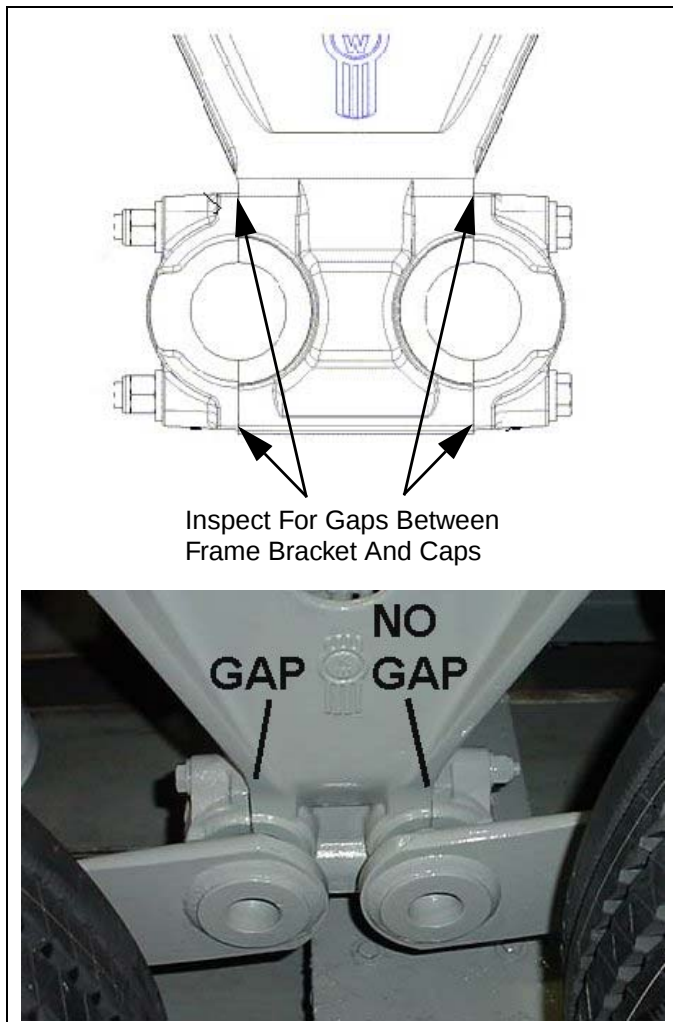


Figure 17-34

24. Tighten the bolts at the axle seats to 150-190 ft-lbs (203 - 258 Nm).



NOTE: New fasteners are required for attaching the swaybars to the axle seat ends. Refer to ["Parts Required For One-Piece Swaybar Retrofit"](#) on page 24 and 25.

25. Ensure that the clearance between the swaybar end to the frame bracket is no less than 8mm (5/16 in.). See [Figure 17-35](#).



NOTE: It is not necessary to align the forward swaybar with the rear swaybar.

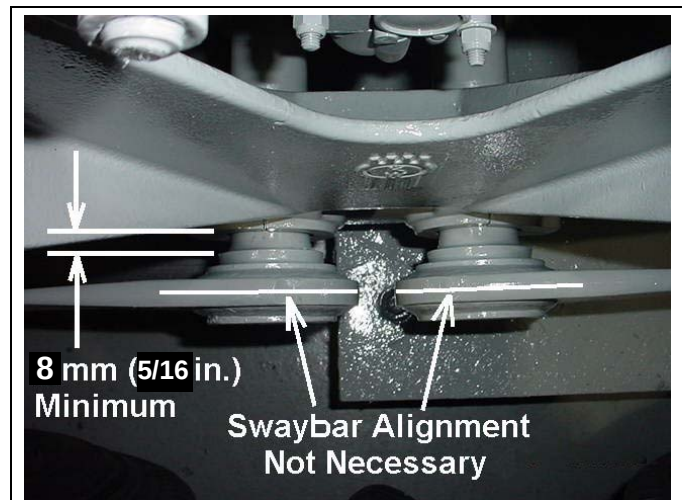


Figure 17-35

26. Align the truck.

Suspension: Airglide 200 Airspring Suspension

Resolving Rough Ride

If a customer complains of a rough ride with the AG200 suspension, perform the following procedure step-by-step to correct this complaint.

1. Walk Around Inspection

Walk around the chassis. Look for and repair obvious reasons for rough ride (for example: loose, damaged, or misadjusted parts).

2. Test Drive With The Customer

Test drive the chassis with the customer under the conditions that the complaint occurs (for example: loaded trailer, bobtail, going uphill, cruising, etc.) and have the customer demonstrate the complaint. If the customer is unable to demonstrate the complaint, do not perform repairs, modifications or adjustments. If the customer is able to demonstrate the complaint, determine whether the source of the complaint is the suspension or something else on the chassis (for example: driveline runout, tires out of round, tires out of balance etc.).

3. Closer Inspection

More closely inspect the vehicle for loose, damaged or misadjusted parts. Places to inspect include

- front and rear suspension components
- cab mounts
- cab or sleeper suspension height settings. Refer to
 - TIB 14-20 (Aerocab)
 - TIB 14-21 (day cab)
 - Form: KM811202 in the Master Shop Manual (T2000 Air Cab Suspension)
- driver seat
- steering column

4. Shock Absorber Mounting

Check the general condition of the shocks. Replace shocks that are damaged or leaking. Check the condition of the shock mountings, fasteners and bushings. Replace damaged or severely worn parts.

 **NOTE:** Properly torqued fasteners cause bushings to squeeze out slightly beyond the diameter of the retaining washers.

 **NOTE:** To gain proper wrench engagement on the shock fasteners, modify a 15/16 in. wrench by grinding it down to 5 mm (.2 in.) thick.

5. Axle Angles

- A. Refer to ECAT in the "Rear Axle" section.
- B. Look under "Rear Complete And Related".
- C. Find "Eaton 404/405/454 Series" or "Rockwell RT40/41/44-145 Series".
This bill of material will list the axle angles specified for the manufacture of the chassis at the plant (+/- 1°).
- D. With the chassis on level ground, use a digital electronic angle gauge to verify the axle angles. To make changes, add or remove torque rod spacers **at the frame gussets**, not at the V-Link brackets on top of the axle. Retorque to 203 - 258 Nm (150 - 190 ft-lbs).

Suspension: Airglide 200 Airspring Suspension

6. Ride Height

Ensure that the ride height (the distance from the center line of the axle to the bottom of the frame rail) is set correctly. An easy way to check this is to measure from the top of the axle housing at the highest point to the bottom of the frame rail (for example: 155 mm). See Figure 1 below. Measure the rear rear axle only, using a tape measure. Measure the right side of the rear rear axle for single leveling valve, and both sides for dual leveling valves. For dual leveling

valves it will be necessary to use a straight edge attached to the bottom of the frame rail on driver's side. To identify which ride height the chassis should have, measure from the bottom of the center frame bracket to the bottom of the frame rail (for example: 439 mm). See [Figure 17-36](#) below.

i *NOTE: If the ride height is not correct, lower chassis below the recommended height, then raise chassis to recommended height. See Figure 9 below.*

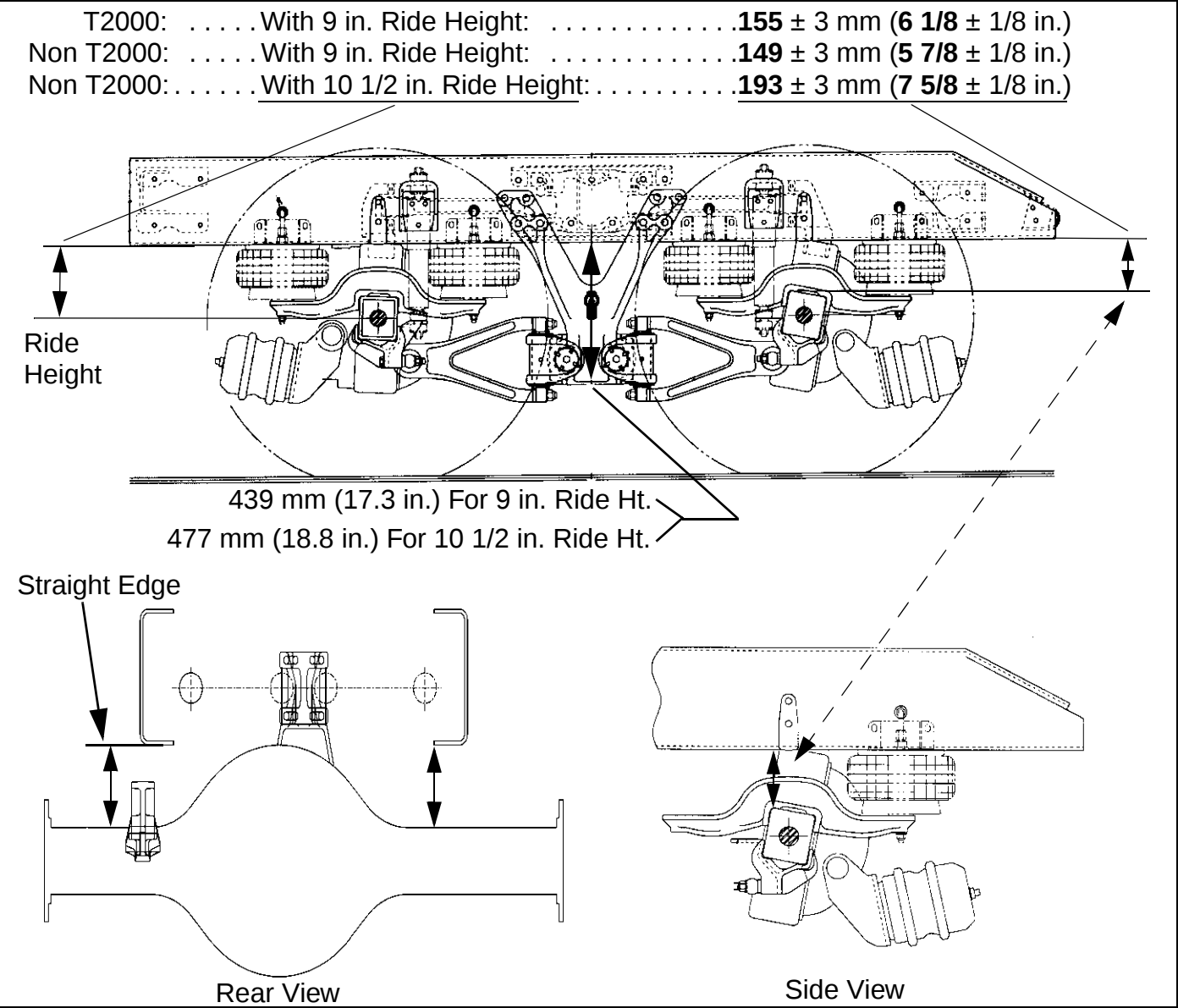


Figure 17-36 Ride Height Measurement

Suspension: Airglide 200 Airspring Suspension

7. Sway Bar Split Collar And Thrust Bushing

Ensure that the sway bar split collar is sandwiching the thrust bushing against the center frame bracket. Lateral bushing movement is not allowable, yet bushing should rotate under exerted hand pressure.

Ensure split collars are torqued to 35 - 43Nm (26 - 32 ft.-lbs.). See Figure 10 below. If lateral movement is present, loosen the split collar fasteners and push the collars against the thrust bushings. Retighten the split collar fasteners to 22 - 30 Nm (16 - 22 ft.-lbs.).

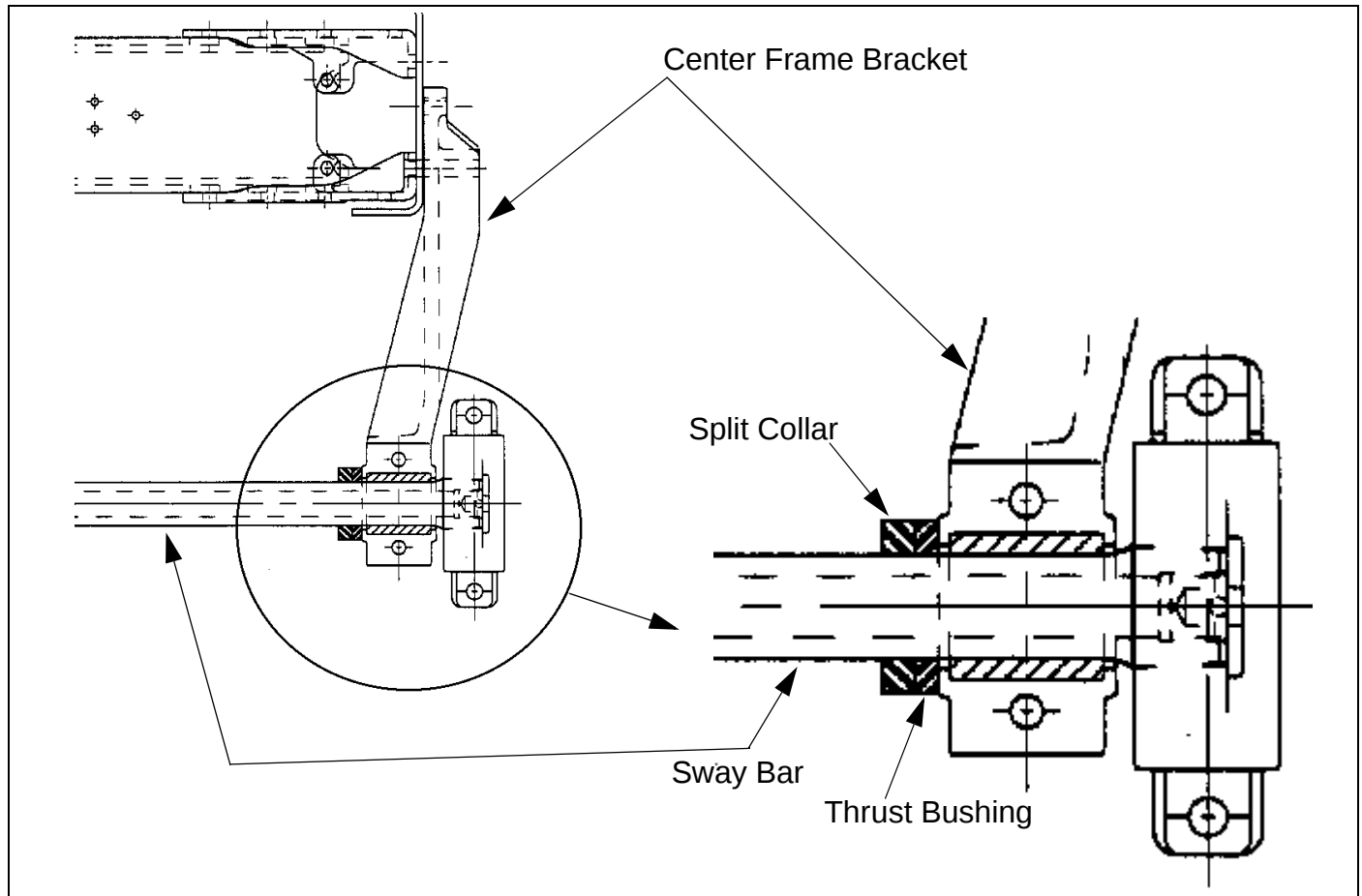


Figure 17-37 Sway Bar Split Collar And Thrust Bushing

Suspension: Airglide 200 Airspring Suspension

8. Sway Bar Threaded Pin Bushing to Center Frame Bracket Clearance

Ensure that the clearance between the sway bar threaded pin bushing and the center frame bracket meets all three requirements as shown in Table 17-1

below. If the clearance does not meet one of these requirements, loosen the split collar and tap the sway bar end with a rubber mallet in the appropriate direction.

1. Minimum Clearance	3 mm (1/8 in.) minimum	See 8A and Figure 11.
2. Front-To-Rear Difference	Within 5 mm (3/16 in.)	See 8B and Figure 12.
3. Side-To-Side	Within 2 mm (3/32 in.)	See 8C and Figure 13.

Table 17-1 Clearance Requirements

8A. Sway Bar Threaded Pin Bushing to Center Frame Bracket Clearance

Ensure that the clearance between the sway bar threaded pin bushing to the center frame bracket bushing to the center frame bracket is no less than 3 mm (1/8 in.). See [Figure 17-38](#) below.

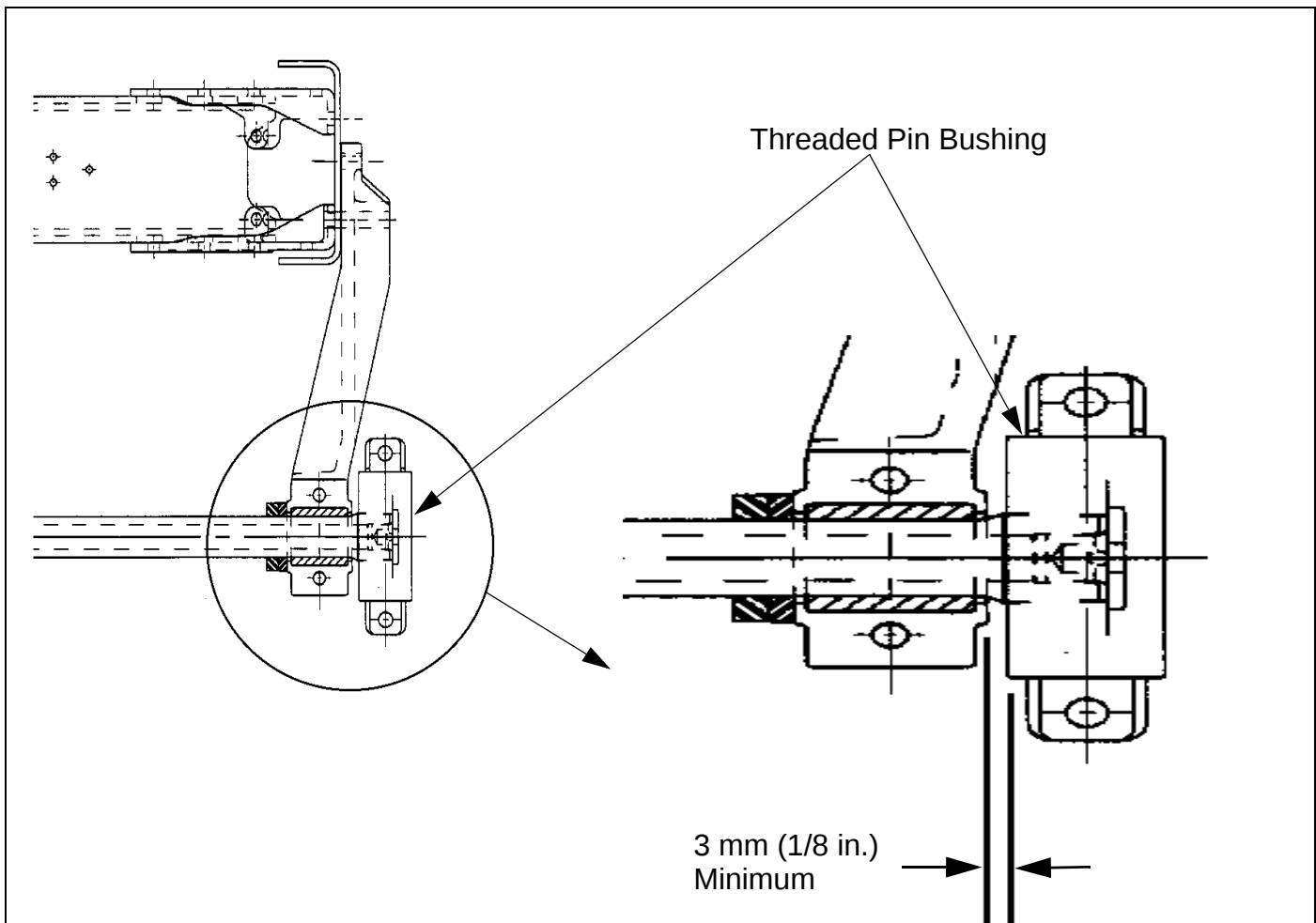


Figure 17-38 Sway Bar Threaded Pin Bushing To Center Frame Bracket Clearance

Suspension: Airglide 200 Airspring Suspension

8B. Sway Bar Threaded Pin Bushing to Center Frame Bracket Clearance (continued)

Ensure that this clearance for the forward axle does not vary by more than 5 mm (3/16 in.) from the rear axle. See [Figure 17-39](#) below.

Examples:

Case 1 and Case 2 below are acceptable.

	Front Axle Clearance	Rear Axle Clearance
Case 1:	3 mm	3 - 8 mm
Case 2:	4 - 14 mm	9 mm

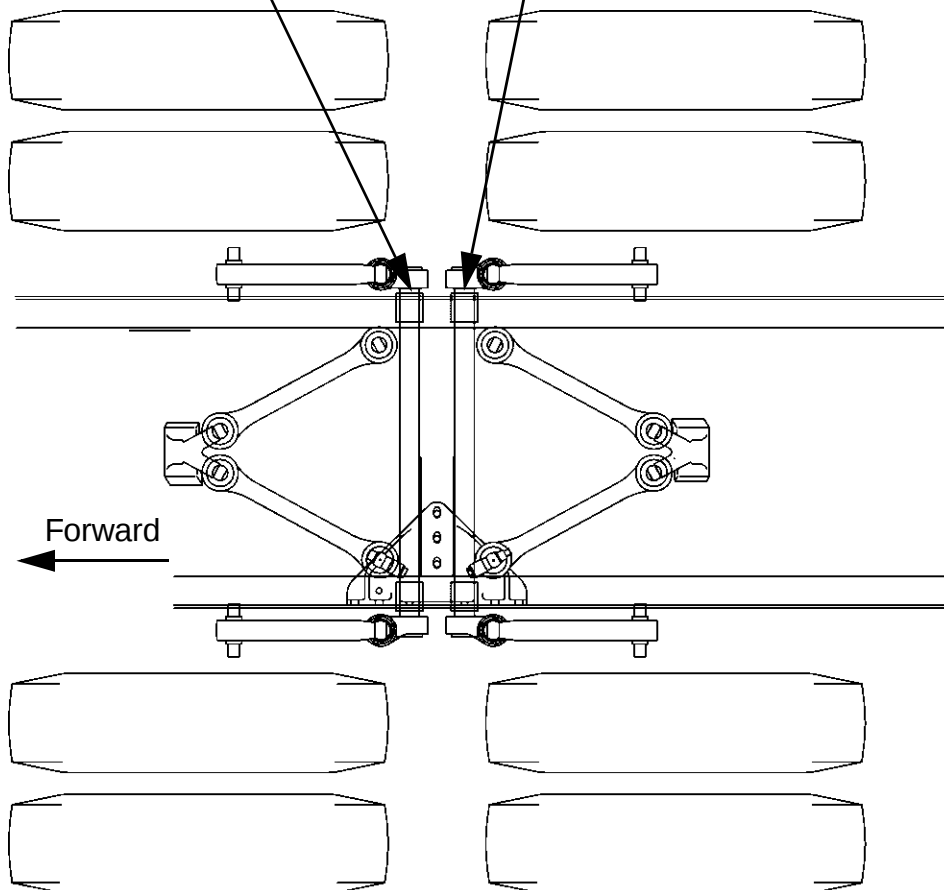
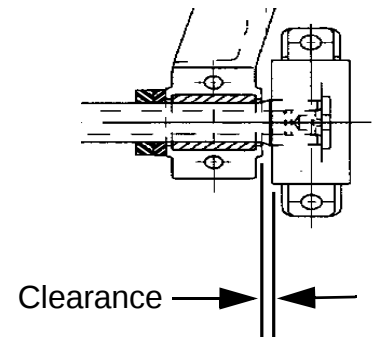


Figure 17-39 Forward Axle / Rear Axle Clearance

Suspension: Airslide 200 Airspring Suspension

8C. Sway Bar Threaded Pin Bushing to Center Frame
Bracket Clearance (continued)

Ensure that this distance does not vary more than 2 mm (3/32 in.) between the driver's side and the passenger's side. See [Figure 17-40](#) below.

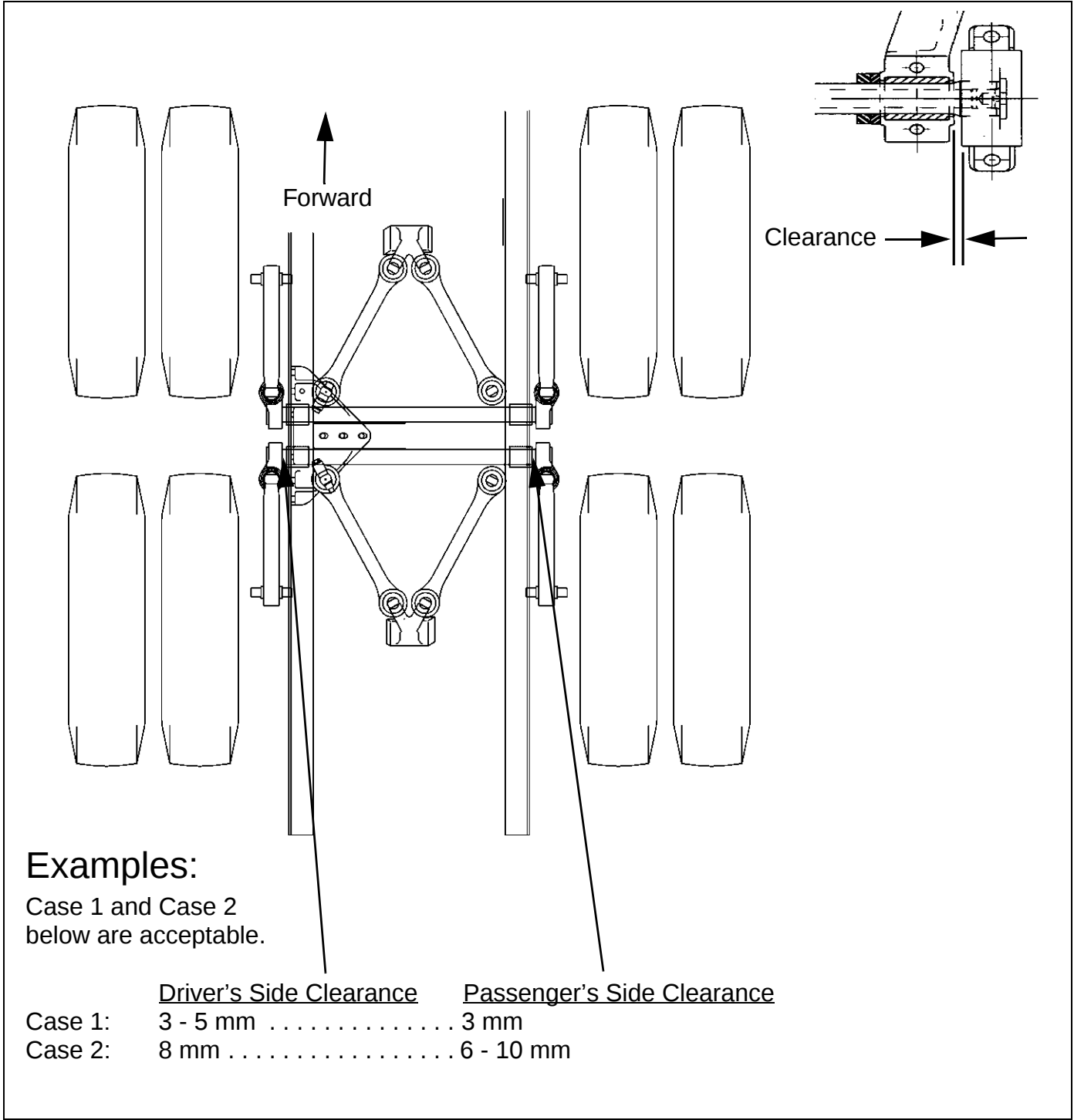


Figure 17-40 Driver's Side / Passenger's Side Clearance

Suspension: Airglide 200 Airspring Suspension

9. Air Spring Beam Weldment To Axle Housing

Verify that the air spring beam has been correctly located when welded to the axle housing. An easy way to check this is to compare the air bag height on each air spring beam. See [Figure 17-41](#) below. There should be no more than 8 mm (5/16 in.) difference in bag height located on the same air spring beam. If the difference in the dimension between the forward bag and the rear bag exceeds 8 mm (5/16 in.), it may

be necessary to relocate the air spring beam on the axle. Contact your District Service Manager before making any repairs to this area.

10. Test Drive

Road test the truck again to ensure that the problem is corrected. If a problem persists, contact your District Service Manager for assistance because the problem is probably not with the suspension.

There should be no more than 8 mm (5/16 in.) difference in bag height between the forward bag and the rear bag for any one air spring beam.

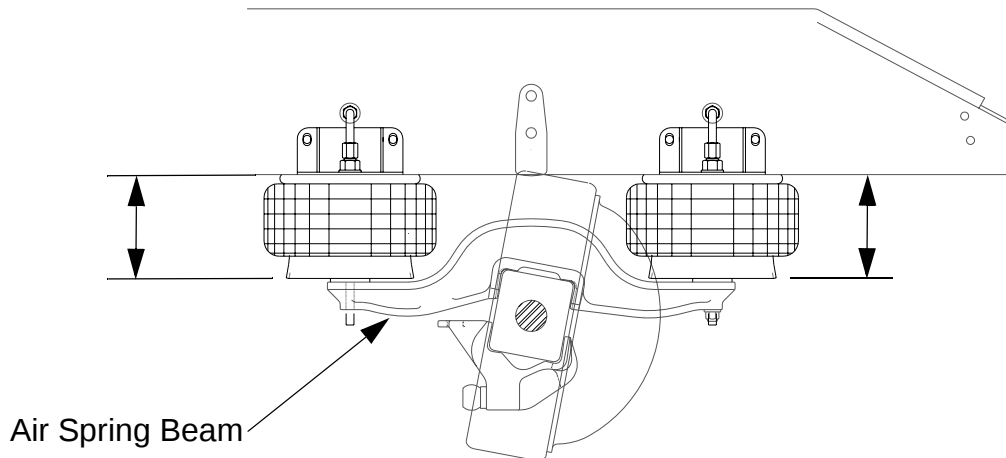


Figure 17-41 Compare Air Bag Height

See next page for Item / Part Number / Description

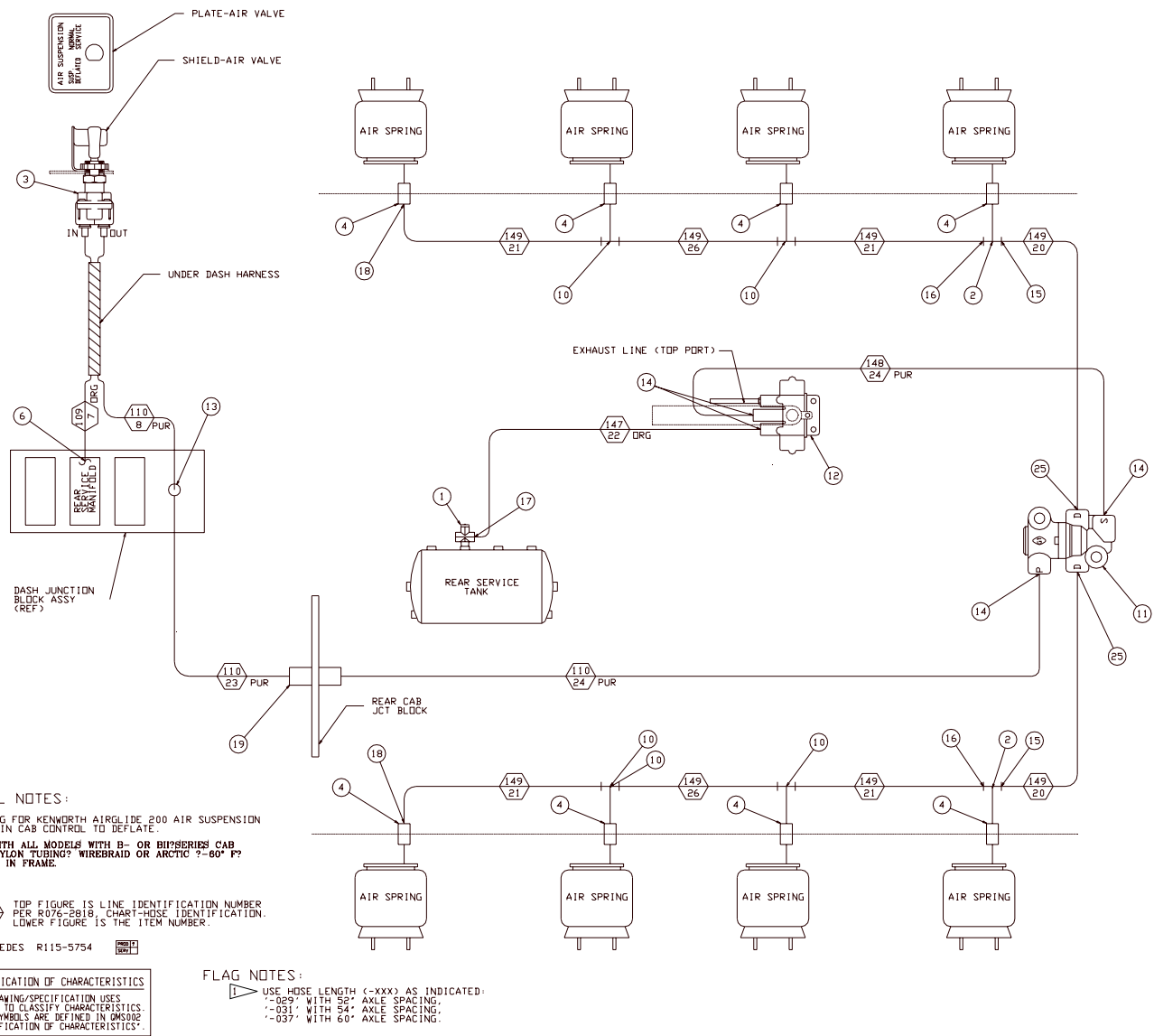


Figure 17-42 Conventional / Single Height Control Valve

Suspension: Airglide 200 Airspring Suspension

26	K342-766-08-XXX	HOSE ASSY - 45*FLARE, LOW TEMP	1
25	K129-183-0206	FTG - SAE STR MALE	
24	K342-766-04-000	HOSE ASSY - 45*FLARE, LOW TEMP	
23	K342-766-04-000	HOSE ASSY - 45*FLARE, LOW TEMP	
22	K342-766-04-000	HOSE ASSY - 45*FLARE, LOW TEMP	
21	K342-766-08-024	HOSE ASSY - 45*FLARE, LOW TEMP	
20	K342-766-06-000	HOSE ASSY - 45*FLARE, LOW TEMP	
19	K129-294-0404	FTG - SAE BULKHEAD UNION	
18	K129-186-0608	FTG - SAE 90* MALE	
17	K129-186-0404	FTG - SAE 90* MALE	
16	K129-183-0608	FTG - SAE STR MALE	
15	K129-183-0606	FTG - SAE STR MALE	
14	K129-183-0204	FTG - SAE STR MALE	
13	K129-315-0404	FTG - J844/SAE BULKHEAD UNION	
12	K295-417-2	VALVE - HEIGHT CONTROL	
11	4111	VALVE - DUMP <GT DEVELOPMENT>	
10	K129-185-0608	FTG - TEE, PIPE BRANCH	
USE WITH ARCTIC (-60°F) FRAME PIPING			
26	K342-257-XXX	HOSE - ASSY AIR #8, TYPE D	1
25	K129-183-0206	FTG - SAE STR MALE	
24	K342-255-000	HOSE - ASSY AIR #4, TYPE D	
23	K280-367-04PUR000	TUBING - J844 NYLON	
22	K342-255-000	HOSE - ASSY AIR #4, TYPE D	
21	K342-257-024	HOSE - ASSY AIR #8, TYPE D	
20	K342-256-000	HOSE - ASSY AIR #6, TYPE D	
19	K129-315-0404	FTG - J844/SAE BULKHEAD UNION	
18	K129-186-0608	FTG - SAE 90* MALE	
17	K129-186-0404	FTG - SAE 90* MALE	
16	K129-183-0608	FTG - SAE STR MALE	
15	K129-183-0606	FTG - SAE STR MALE	
14	K129-183-0204	FTG - SAE STR MALE	
13	3186 56 00DOT	FTG - J844 BULKHEAD UNION <LEGRIS>	
12	K295-417-2	VALVE - HEIGHT CONTROL	
11	4111	VALVE - DUMP <GT DEVELOPMENT>	
10	K129-185-0608	FTG - TEE, PIPE BRANCH	
USE WITH WIREBRAID FRAME PIPING			
26	K280-340-08-000	TUBING - J844 NYLON, TYPE 3B	
25	K129-230-0206	FTG - J844 STR MALE	
24	K280-367-04PUR000	TUBING - J844 NYLON	
23	K280-367-04PUR000	TUBING - J844 NYLON	
22	K280-367-04DRG000	TUBING - J844 NYLON	
21	K280-340-08-000	TUBING - J844 NYLON, TYPE 3B	
20	K280-340-06-000	TUBING - J844 NYLON, TYPE 3B	
19	K129-293-0404	FTG - J844 BULKHEAD UNION	
18	K129-231-0608	FTG - J844 90* MALE	
17	K129-231-0404	FTG - J844 90* MALE	
16	K129-230-0608	FTG - J844 STR MALE	
15	K129-230-0606	FTG - J844 STR MALE	
14	K129-230-0204	FTG - J844 STR MALE	
13	3186 56 00DOT	FTG - J844 BULKHEAD UNION <LEGRIS>	
12	K295-417-1	VALVE - HEIGHT CONTROL	
11	4111	VALVE - DUMP <GT DEVELOPMENT>	
10	K129-233-0608	FTG - J844 BRANCH TEE	
USE WITH NYLON FRAME PIPING ONLY			
8	K280-367-04PUR000	TUBING - J844 NYLON <REF>	
7	K280-367-04DRG000	TUBING - J844 NYLON <REF>	
6	K129-230-0404	FTG - J844 STR MALE	
5			
4	K129-469	FTG - 90* FEMALE ELBOW	
3	K295-362-1	VALVE - CONTROL	
2	D2103-2035	FTG - PIPE BRANCH TEE <DYNACRAFT>	
1	223-585	VALVE - PRESSURE PROTECT <GT DEVELOPMENT>	
COMMON PARTS USED			

Figure 17-43 Conventional / Single Height Control Valve

Suspension: Airslide 200 Airspring Suspension

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Number	KM817030

See next page for Item / Part Number / Description

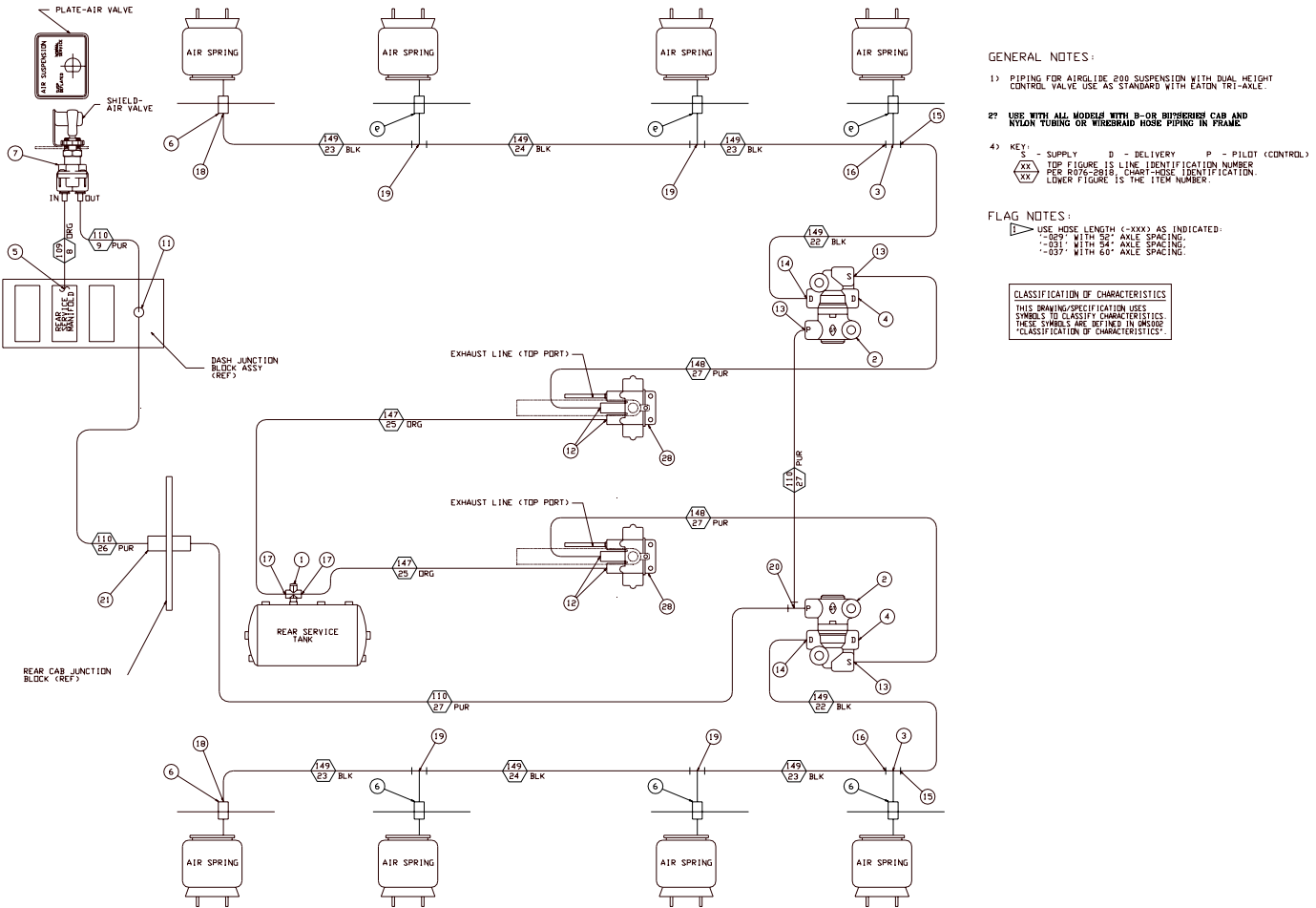


Figure 17-44 Conventional / Dual Height Control Valve

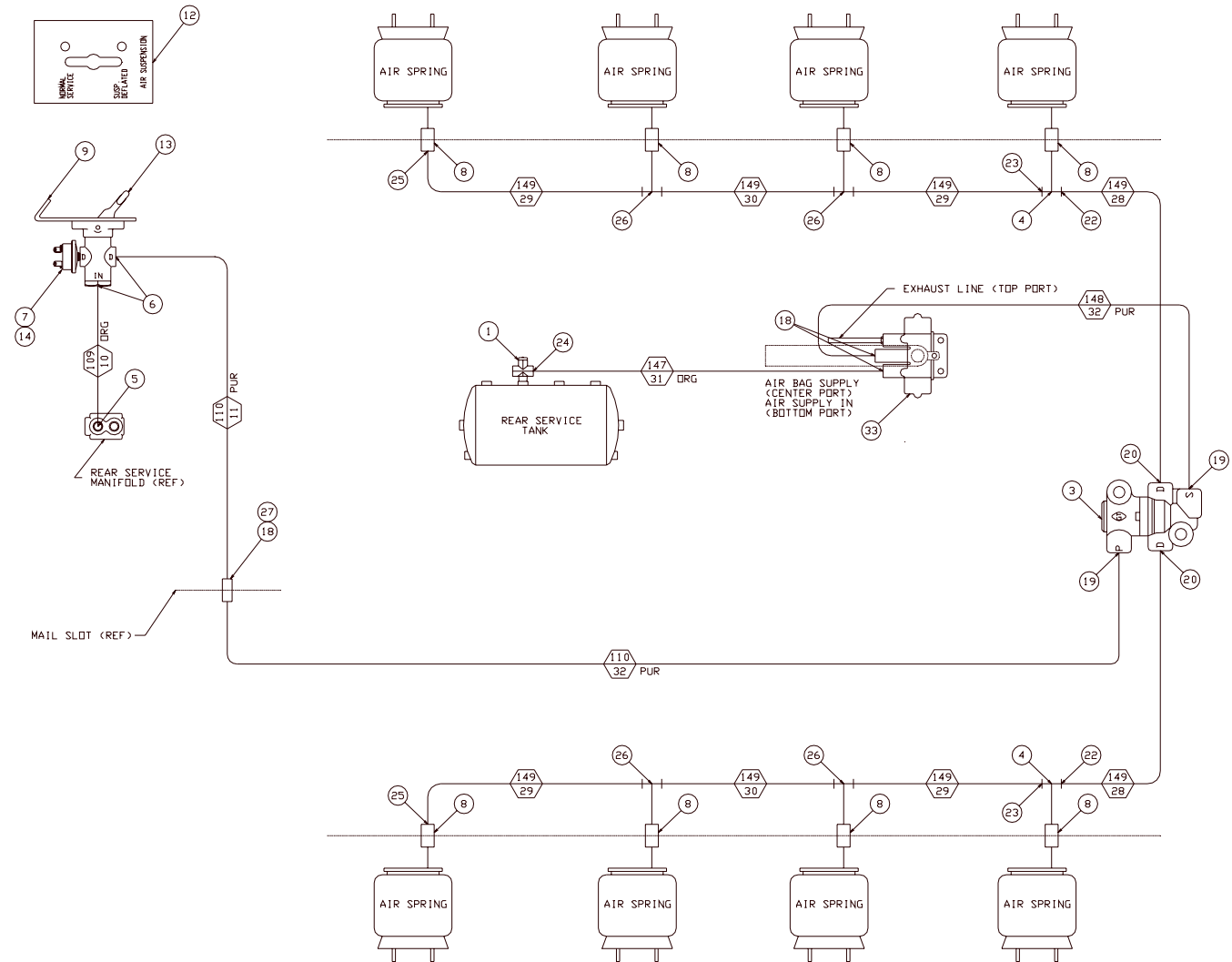
Suspension: Airglide 200 Airspring Suspension

Item	Part Number	Description
28	K295-417-2	VALVE - HEIGHT CONTROL
27	K342-255-000	HOSE - ASSY AIR #4, TYPE D
26	K280-367-04PUR000	TUBING - J844 NYLON
25	K342-255-000	HOSE - ASSY AIR #4, TYPE D
24	K342-257-XXX	HOSE - ASSY AIR #8, TYPE D
23	K342-257-024	HOSE - ASSY AIR #8, TYPE D
22	K342-256-000	HOSE - ASSY AIR #6, TYPE D
21	K129-315-0404	FTG - J844/SAE BULKHEAD UNION
20	K129-187-0204	FTG - TEE, PIPE RUN
19	K129-185-0608	FTG - TEE, PIPE BRANCH
18	K129-186-0608	FTG - SAE 90° MALE
17	K129-186-0404	FTG - SAE 90° MALE
16	K129-183-0608	FTG - SAE STR MALE
15	K129-183-0606	FTG - SAE STR MALE
14	K129-183-0206	FTG - SAE STR MALE
13	K129-183-0204	FTG - SAE STR MALE
12	K129-183-0204	FTG - SAE STR MALE
11	3186 56 00DOT	FTG - J844 BULKHEAD UNION (LEGRIS)
USE WITH WIREBRAID FRAME PIPING		
28	K295-417-1	VALVE - HEIGHT CONTROL
27	K280-367-04PUR000	TUBING - J844 NYLON
26	K280-367-04PUR000	TUBING - J844 NYLON
25	K280-367-04ORG000	TUBING - J844 NYLON
24	K280-340-08-000	TUBING - J844 NYLON
23	K280-340-08-000	TUBING - J844 NYLON
22	K280-340-06-000	TUBING - J844 NYLON
21	K129-293-0404	FTG - J844 BULKHEAD UNION
20	K129-234-0204	FTG - J844 RUN TEE
19	K129-233-0608	FTG - J844 BRANCH TEE
18	K129-231-0608	FTG - J844 90° MALE
17	K129-231-0404	FTG - J844 90° MALE
16	K129-230-0608	FTG - J844 STR MALE
15	K129-230-0606	FTG - J844 STR MALE
14	K129-230-0206	FTG - J844 STR MALE
13	K129-230-0204	FTG - J844 STR MALE
12		
11	3186 56 00DOT	FTG - J844 BULKHEAD UNION (LEGRIS)
USE WITH NYLON FRAME PIPING ONLY		
9	K280-367-04PUR000	TUBING - J844 NYLON (REF)
8	K280-367-04ORG000	TUBING - J844 NYLON (REF)
7	K295-362-1	VALVE - CONTROL
6	K129-469	FTG - 90° FEMALE ELBOW
5	K129-230-0404	FTG - J844 STR MALE
4	K129-194-02	FTG - PIPE PLUG SQUARE
3	D2103-2035	FTG - PIPE BRANCH TEE (DYNACRAFT)
2	4111	VALVE - DUMP (GT DEVELOPMENT)
1	223-585	VALVE - PRESSURE PROTECT (GT DEVELOPMENT)
ITEM	COMMON PARTS USED	

Figure 17-45 Conventional / Dual Height Control Valve

Suspension: Airglide 200 Airspring Suspension

See next page for Item / Part Number / Description



NOTES:

- 1) MODELS: A SERIES CABS OR K100E/K136E.
- 2) AIR SUSPENSION PIPING FOR USE WITH:
 - KENWORTH AIRGLIDE 200 AIR SUSPENSION.
 - SINGLE LEVELING VALVE.
 - CAB CONTROL TO DEFLATE AIR BAGS.
 - NYLON TUBING, WIREBRAID HOSE OR ARCTIC PIPING CHASSIS.

3) KEY:

XX
 XX
 TOP FIGURE IS LINE IDENTIFICATION NUMBER
 PER R076-2818, CHART-HOSE IDENTIFICATION.
 LOWER FIGURE IS THE ITEM NUMBER.

- 1) USE HOSE LENGTH (-XXX) AS INDICATED:
 -029' WITH 52" AXLE SPACING,
 -031' WITH 54" AXLE SPACING,
 -037' WITH 60" AXLE SPACING.

CLASSIFICATION OF CHARACTERISTICS
 THIS DRAWING/SPECIFICATION USES SYMBOLS TO
 CLASSIFY CHARACTERISTICS. THESE SYMBOLS
 ARE DEFINED IN PACCAR STANDARD DMS006
 "CLASSIFICATION OF CHARACTERISTICS".

Figure 17-46 COE

Suspension: Airglide 200 Airspring Suspension

28	K342-766-06-000	HOSE ASSY - LOW TEMP
27	K129-237-0204	FTG - J844 FEMALE CONNECTOR
26	K129-185-0608	FTG - TEE, PIPE BRANCH
25	K129-186-0608	FTG - 90 DEG. MALE ELBOW
24	K129-186-0404	FTG - 90 DEG. MALE ELBOW
23	K129-183-0608	FTG - SAE STRAIGHT MALE
22	K129-183-0606	FTG - SAE STRAIGHT MALE
21		
20	K129-183-0206	FTG - SAE STRAIGHT MALE
19	K129-183-0204	FTG - SAE STRAIGHT MALE
18	K129-183-0204	FTG - SAE STRAIGHT MALE
USE WITH ARCTIC PIPING CHASSIS ONLY		
33	K295-417-2	VALVE - HEIGHT CONTROL
32	K342-255-000	HOSE - AIR #4, TYPE D
31	K342-255-000	HOSE - AIR #4, TYPE D
30	K342-257-XXX	HOSE - AIR #8, TYPE D 
29	K342-257-024	HOSE - AIR #8, TYPE D
28	K342-256-000	HOSE - AIR #6, TYPE D
27	K129-237-0204	FTG - J844 FEMALE CONNECTOR
26	K129-185-0608	FTG - TEE, PIPE BRANCH
25	K129-186-0608	FTG - 90 DEG. MALE ELBOW
24	K129-186-0404	FTG - 90 DEG. MALE ELBOW
23	K129-183-0608	FTG - SAE STRAIGHT MALE
22	K129-183-0606	FTG - SAE STRAIGHT MALE
21		
20	K129-183-0206	FTG - SAE STRAIGHT MALE
19	K129-183-0204	FTG - SAE STRAIGHT MALE
18	K129-183-0204	FTG - SAE STRAIGHT MALE
USE WITH WIREBRAID HOSE CHASSIS ONLY		
33	K295-417-1	VALVE - HEIGHT CONTROL
32	K280-367-04PUR000	TUBING - J844
31	K280-367-04DRG000	TUBING - J844
30	K280-340-08-000	TUBING - J844
29	K280-340-08-000	TUBING - J844
28	K280-340-06-000	TUBING - J844
27	K129-236-0404	FTG - J844 UNION
26	K129-233-0608	FTG - J844 BRANCH TEE
25	K129-231-0608	FTG - J844 90 DEG. MALE
24	K129-231-0404	FTG - J844 90 DEG. MALE
23	K129-230-0608	FTG - J844 STRAIGHT MALE
22	K129-230-0606	FTG - J844 STRAIGHT MALE
21		
20	K129-230-0206	FTG - J844 STRAIGHT MALE
19	K129-230-0204	FTG - J844 STRAIGHT MALE
18		
USE WITH NYLON TUBING CHASSIS ONLY		
14	K301-44	SWITCH - PRESSURE
13	K295-42	VALVE - AIR CONTROL
12	K281-1397-33	PLATE - AIR VALVE
11	K280-367-04PUR000	TUBING - J844
10	K280-367-04DRG000	TUBING - J844
9	K213-2821	SHIELD - AIR VALVE
8	K129-469	FTG - 90 DEG. FEMALE ELBOW
7	K129-388-02	FTG - 90 DEG. STREET ELBOW
6	K129-231-0204	FTG - J844 90 DEG. MALE
5	K129-230-0404	FTG - J844 STRAIGHT MALE
4	D2103-2035	FTG - PIPE BRANCH TEE (DYNACRAFT)
3	4111	VALVE - DUMP (GT DEVELOPMENT)
2		
1	223-585	VALVE - PRESSURE PROTECTION (GT DEVELOPMENT)
COMMON PARTS USED		

Figure 17-47 COE