

# LoadLifter 7500 XL™

## ULTIMATE



# XL

## ULTIMATE



## Installation Guide

### Kit 57575

**GM 2001-10 2500/3500  
HD SRW, DRW**



Representative vehicle image

MN-1043 • (022011) • ECR 9273

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

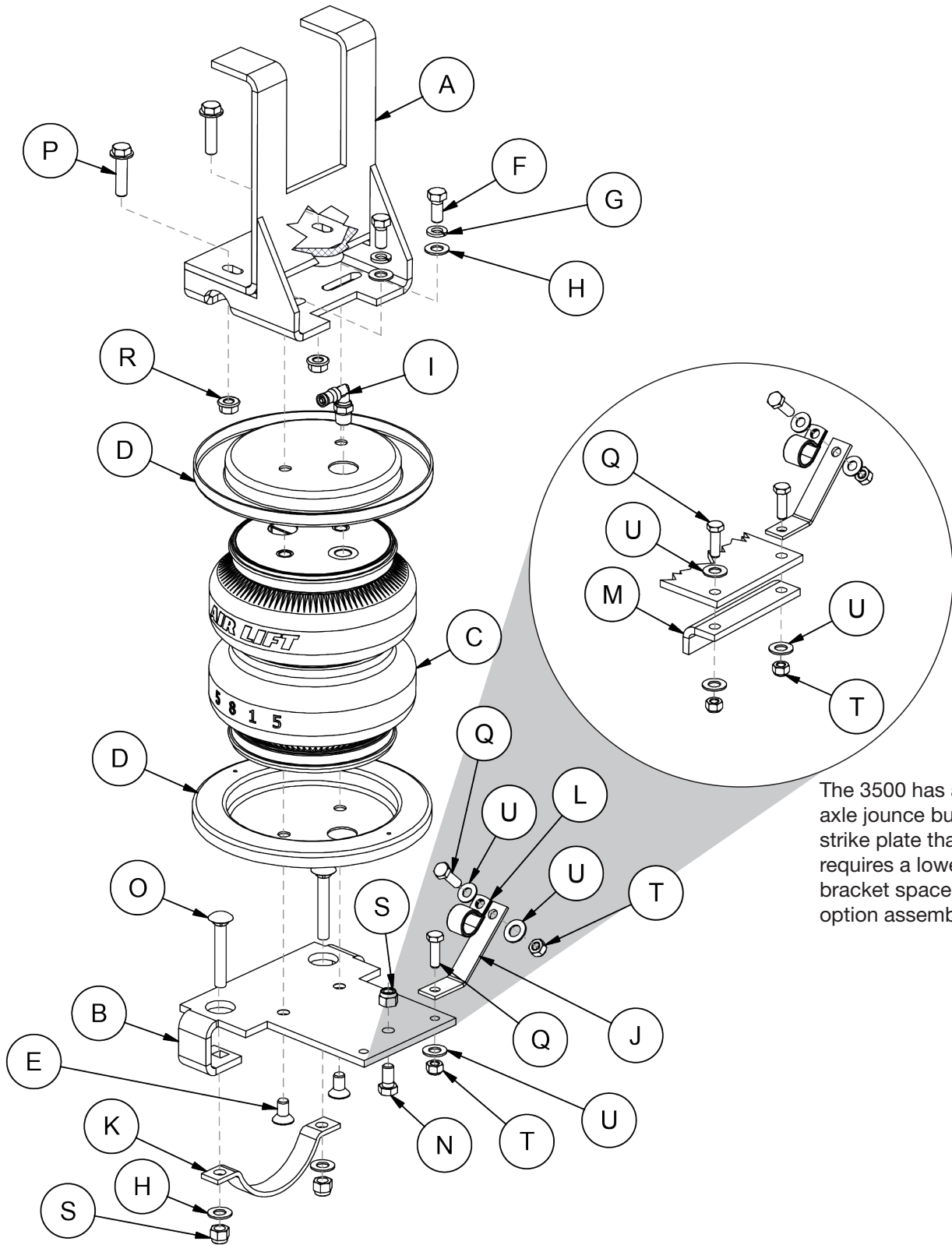
Failure to read these instructions can result in an incorrect installation.

# LoadLifter 7500 XL™ ULTIMATE

## Table of Contents

<b>A. Installation Diagram</b> .....	<b>2</b>
<b>B. Hardware and Tools Lists</b> .....	<b>3</b>
<b>C. Introduction</b> .....	<b>4</b>
Important Safety Notice .....	4
Notation Explanation .....	4
<b>D. Installing the LoadLifter 7500 XL Ultimate System</b> .....	<b>5</b>
Installing the Upper Brackets .....	6
Vehicle Preparation for Air Spring Assembly Installation .....	7
2500HD Lower bracket assembly .....	7
3500HD Lower bracket assembly .....	9
Building the Air Spring Assemblies .....	9
Installing the Assemblies .....	11
Attaching the Assemblies to the Upper Bracket .....	11
Emergency Brake Cable Adjustments .....	12
<b>E. Installing the Air Lines</b> .....	<b>14</b>
Installing the Air Line Thermal Sleeve and Exhaust Heat Shield .....	15
<b>F. Finished Installation Photos</b> .....	<b>16</b>
2500HD .....	16
3500HD .....	17
<b>G. Before Operating</b> .....	<b>18</b>
Installation Checklist .....	18
<b>H. Maintenance and Use Guidelines</b> .....	<b>18</b>
Minimum and Maximum Pressure .....	18

# A. Installation Diagram



The 3500 has a tall axle jounce bumper strike plate that requires a lower bracket spacer option assembly.

*fig. A.1*



# B. Hardware and Tools Lists

## HARDWARE LIST

Item	Part #	Description .....	Qty
A	07976	Upper bracket.....	2
B	03843	Lower bracket.....	2
C	58120	Air spring .....	2
D	11897	Roll plate.....	4
E	17215	3/8"-24 x 3/4" Flat-head socket cap screw ...	4
F	17203	3/8"-24 x 7/8" Hex-cap screw.....	4
G	18427	3/8" Lock washer.....	4
H	18444	3/8" Flat washer .....	8
I	21837	90-degree Swivel elbow fitting .....	2
J	10421	Emergency brake cable bracket.....	1
K	10451	Axle strap.....	2
L	10465	P-clamp .....	1
M	11117	Lower bracket axle spacer .....	2
N	17101	3/8"-16 x 3/4" Hex-cap screw.....	2
O	17141	3/8"-16 x 2 1/2" Carriage bolt .....	4
P	17159	3/8"-16 x 1 1/2" Hex flange bolt.....	4
Q	17421	5/16"-18 x 1 1/8" Hex-cap screw.....	5
R	18422	3/8"-16 Serrated flange nut.....	4
S	18435	3/8"-16 Nylon lock nut.....	6
T	18438	5/16"-18 Nylon lock nut.....	5
U	18433	5/16" Flat washer .....	10
AA	20086	Air line.....	1
BB	10466	Zip tie.....	6
CC	21230	Valve cap .....	2
DD	18501	5/16" Flat washer .....	2
EE	21234	Rubber washer .....	2
FF	21233	5/16" Hex nut .....	4

## TOOLS LIST

Description.....	Qty
Metric and standard open-end box wrenches.....	set
Ratchet with metric and standard sockets.....	set
Drill and 5/16" drill bit.....	1
Torque wrench.....	1
Metric and standard hex-key wrenches.....	set
File or grinder .....	1
Hose cutter, razor blade or sharp knife .....	1
Hoist or floor jack .....	1
Safety stands.....	2
Safety glasses .....	1
Air compressor or compressed air source .....	1
Spray bottle with dish soap/water solution.....	1

## C. Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the LoadLifter 7500 XL Ultimate air spring kit. LoadLifter 7500 XL Ultimate utilizes sturdy, reinforced, commercial-grade double convolute bellows. The bellows are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 7500 XL Ultimate kits are recommended for most 3/4- and 1-ton pickups and SUVs with leaf springs and provide up to 7,500 pounds of load-leveling support with air adjustability from 5-100 PSI.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information here includes a hardware list, tool list, step-by-step installation information, maintenance guidelines and operating tips.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Company at **(800) 248-0892** or visit **[airliftcompany.com](http://airliftcompany.com)**.

### IMPORTANT SAFETY NOTICE

The installation of this kit does not alter the gross vehicle weight rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual and do not exceed the maximum load listed for your vehicle.

**Gross vehicle weight rating:** The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

**Payload:** The combined, maximum allowable weight of cargo and passengers that the truck is designed to carry. Payload is GVWR minus the base curb weight.

### NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.



**DANGER**

INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.



**WARNING**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.



**CAUTION**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

---

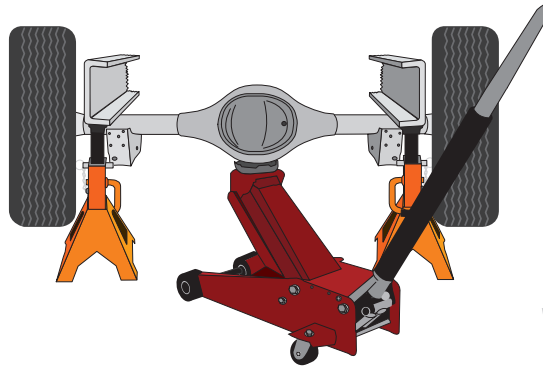
### NOTE

*Indicates a procedure, practice or hint which is important to highlight.*

---

## D. Installing the LoadLifter 7500 XL Ultimate System

1. Raise the frame and support the frame with safety stands. Lower the axle as far as it can go (Fig D.1).



*fig. D.1*

2. Remove both jounce bumpers from under the frame and discard (Fig. D.2).



*fig. D.2*

3. Insert two 3/8"-16 x 1 1/2" hex flange bolts (P) through both existing jounce bumper holes on both left and right frame rails (Fig. D.3).



*fig. D.3*

## INSTALLING THE UPPER BRACKETS

### NOTE

On some models it may be necessary to pull the Christmas tree mount on the harness out of the way of the upper bracket by pulling it from the upper frame flange on the driver side if equipped.



Pull the harness Christmas tree mount out of the upper frame flange on the driver side if equipped.

*fig. D.4*

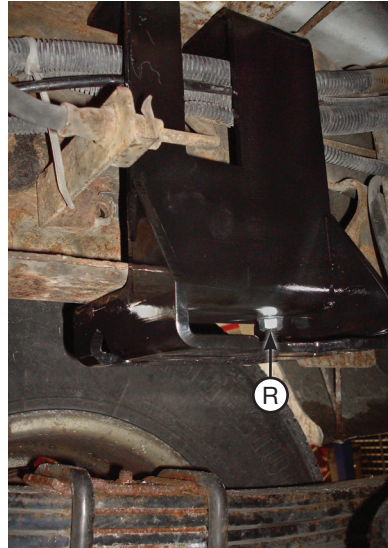
1. For the driver's (left) side, carefully position the lower bracket under the frame rail, aligning the slots in the bracket with the previously installed bolts, making sure that the hard brake line is in between the two long frame supports (Fig. D.5).



While indexing the upper bracket into position, make sure the hard brake line goes in between the two upper bracket frame supports.

*fig. D.5*

- Attach the upper brackets to the frame on both sides using the 3/8"-16 serrated flange nuts (R). Push the bracket against the frame and torque the nuts to 44 lb.-ft. (60Nm) (Fig. D.6).



The brake line must not be touching or rubbing the upper bracket.

*fig. D.6*

**TECH TIP**

Putting the 3/8" serrated flange nuts into a long 9/16" socket helps in starting and tightening the upper bracket hardware.

**CAUTION**

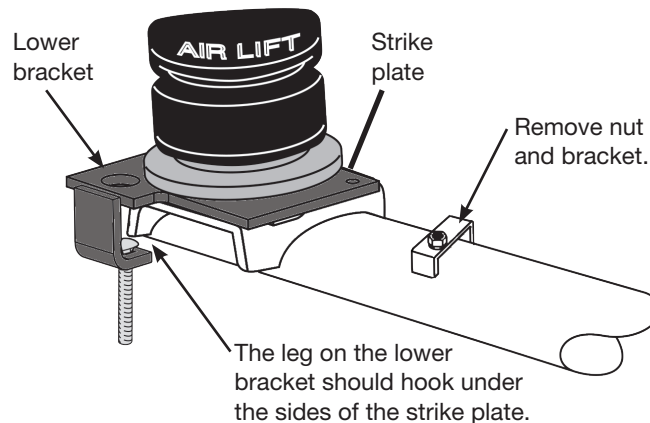
MAKE SURE THE HARD BRAKE LINE THAT GOES IN BETWEEN THE UPPER BRACKET SUPPORTS DOES NOT TOUCH OR RUB THE EDGE OF THE BRACKET. PUSH THE LINE OUT OF THE WAY TO OBTAIN CLEARANCE IF NECESSARY.

**VEHICLE PREPARATION FOR AIR SPRING ASSEMBLY INSTALLATION**

The 2500HD and 3500HD require different methods for installing the lower brackets.

**2500HD Lower bracket assembly**

On the 2500HD models, the driver's (left) side of the axle may have a small bracket with a nut that has nothing attached to it. This bracket must be trimmed off of the axle in order to install the air spring assembly (Fig. D.7).

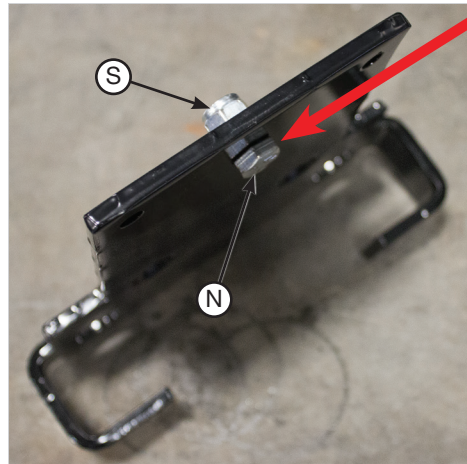


*fig. D.7*



Also, on some models, the shock brackets may be too tall for the lower bracket to sit flat on the jounce bumper strike plate. For these models, it will be necessary to file or grind down the tops of the shock brackets so the head of the bolt on the inside lower bracket touches the axle and there is clearance between the lower bracket and shock brackets.

1. To check for shock bracket/lower bracket clearance on the 2500HD models (only) install the 3/8"-16 x 3/4" (N) bolt into the center hole on the end of the lower bracket (Fig. D.8). Attach the nut with a 3/8" nylon lock nut (S) and tighten securely.



For 2500HD models only, install the 3/8" bolt so the head is on the flange side of the lower bracket.

*fig. D.8*

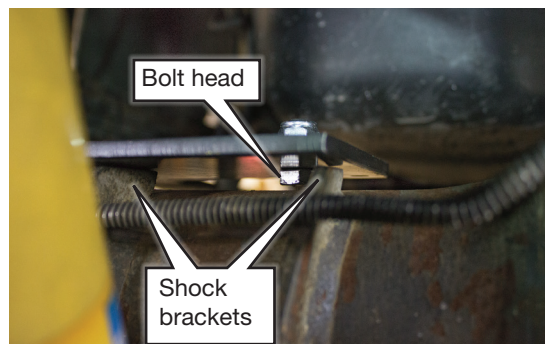
## NOTE

*Install the bolt with the head on the flange side of the lower bracket.*

2. Set the lower bracket on the driver's (left) side jounce bumper strike plate and check to see that the head of the bolt previously installed in the lower bracket hits on the axle.
3. If the shock brackets are keeping the bolt head on the lower bracket from touching the axle, it will be necessary to file or grind down the shock brackets on the top to obtain the clearance needed so that the bracket is flat on the axle (Figs. D.9 & D.10).



*fig. D.9*



When the lower bracket is set on the axle, if the head of the bolt does not touch the axle tube, it will be necessary to file or grind down the shock brackets to obtain clearance to allow the lower bracket to fit flat on the axle.

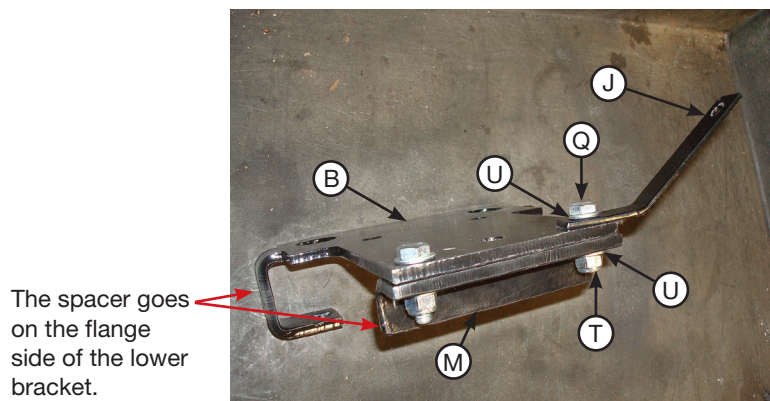
*fig. D.10*

### 3500HD Lower bracket assembly

Because the jounce bumper spacer block is high off the axle on this model, it will be necessary to install a spacer on the end of the lower bracket. This spacer will touch or be close to touching the axle once the assembly has been installed on the axle.

It will be necessary to install an emergency brake cable bracket on the driver's (left) side making these assemblies specific to left and right assemblies.

1. Set the lower bracket axle spacer (M) onto the lower bracket (B) on the flange side (Fig. D.11).
2. For the driver's (left) side, attach the axle spacer and the emergency brake cable bracket (J) onto the lower bracket with the 5/16"-18 x 1 1/8" hex-cap screws (Q), 5/16" flat washers (U) and 5/16"-18 nylon lock nuts (T). The passenger's (right) side spacer attaches the same way, but does not require the brake cable bracket. Snug the hardware on the emergency brake cable only enough so that it still swivels, torque all the other mounting hardware to 18 lb.-ft. (24Nm).



#### Driver's (left) side lower bracket

Leave the emergency brake cable bracket hardware loose so it can swing.

fig. D.11

### BUILDING THE AIR SPRING ASSEMBLIES

1. Set roll plates (D) on both ends of the air spring (C). The radiused (rounded) edge of the roll plate will be toward the air spring, enabling the air spring to be seated in both roll plates (Fig D.12).
2. Install a 90-degree swivel air fitting (I) to the top of the air spring. Tighten finger-tight plus 1 1/2 turns. Be careful to only tighten on the metal hex nut. Do not overtighten (Fig. D.12).

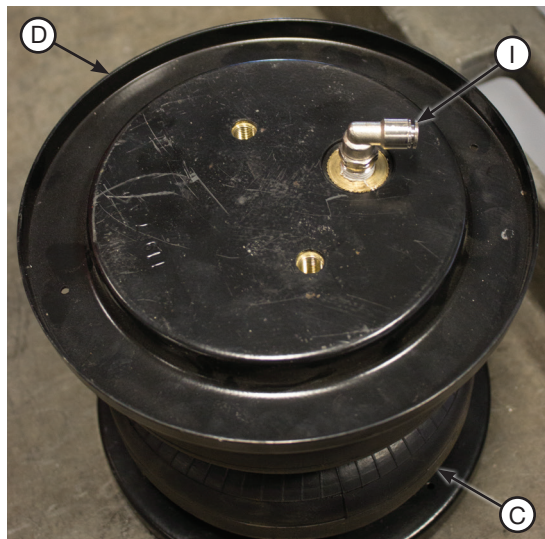
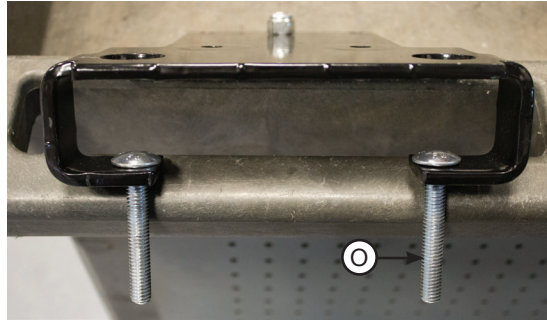


fig. D.12

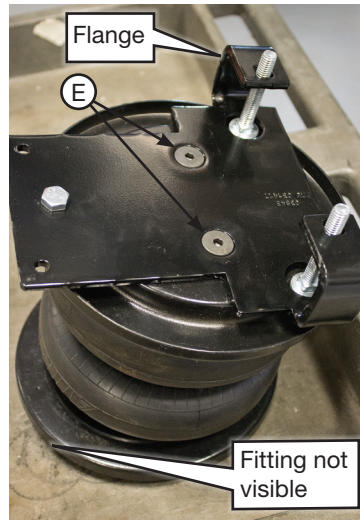
3. Insert two 3/8"-16 x 2 1/2" carriage bolts (O) through the large holes in the lower bracket (Fig. D.13) and into the square holes on the lower bracket flanges.


*fig. D.13*

4. Set the lower bracket onto the roll plate/air spring assembly, making sure the flanges on the lower bracket are on the opposite side of the fitting on the air spring. Attach the lower bracket to the air spring with two 3/8"-24 x 3/4" flat-head socket cap screws (E) and torque to no more than 20 lb.-ft. (27Nm) (Figs. D.14 & D.15).

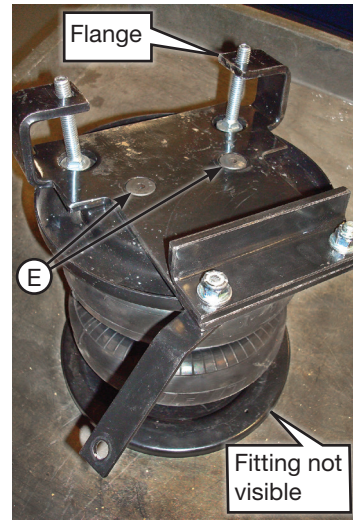
**2500 HD assembly upside down**

The flange on the lower bracket needs to be on the opposite side of the fitting at the top of the air spring.


*fig. D.14*

**3500 HD assembly upside down**

The flange on the lower bracket needs to be on the opposite side of the fitting at the top of the air spring.


*fig. D.15*

5. Figure D.16 shows a completed assembly.


*fig. D.16*

## INSTALLING THE ASSEMBLIES

### NOTE

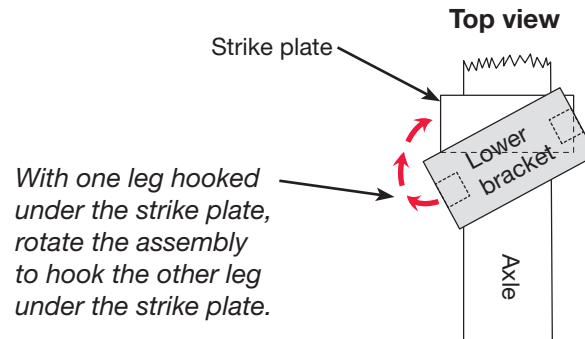
*For 2500HD models, the assemblies are not specific to one side.*

1. Set the assemblies onto the axle on both sides.

### NOTE

*It will be necessary to index the lower legs under the jounce bumper strike plate.*

2. With the lower bracket parallel to the axle plate, hook one leg under the side of the strike plate and turn the assembly until the other leg is under the strike plate on the other side (Fig. D.17). Set the assemblies on both sides and center the assembly somewhat under the upper bracket already installed on the frame.



*fig. D.17*

### 3500HD models

Install the assembly with the emergency brake cable bracket on the driver's (left) side of the vehicle.

1. Set the assemblies on both sides and center the assembly somewhat under the upper bracket already installed on the frame.

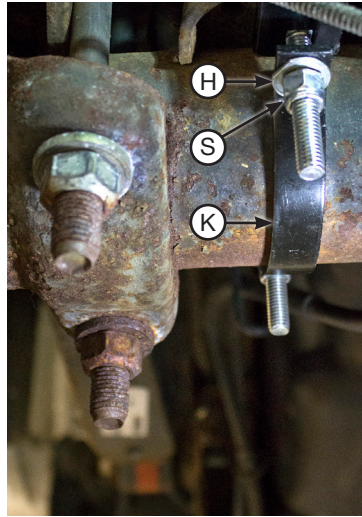
## ATTACHING THE ASSEMBLIES TO THE UPPER BRACKET

1. Point the fitting inboard on both sides so as not to damage them while raising the axle.
2. Align the holes in the roll plates close to where the upper mounting holes are in the upper air spring end cap.
3. Raise the axle up to within 1/8" of the upper bracket. Attach the air spring to the upper bracket with the 3/8"-24 x 7/8" hex-cap screws (F), 3/8" lock washers (G) and 3/8" flat washers (H) (Fig D.18). Lower the vehicle once both air springs are attached to the upper brackets and remove the safety stands. Leave loose at this time.



*fig. D.18*

4. If necessary, move the lower bracket in and out on the axle to locate the air spring perpendicular to the upper bracket. Install the axle strap (K) over the axle and onto the carriage bolts in the lower bracket. Cap with 3/8" flat washers (H) and 3/8"-16 nylon lock nuts (S) and torque evenly to 10 lb.-ft. (14Nm) (Fig. D.19).



*fig. D.19*

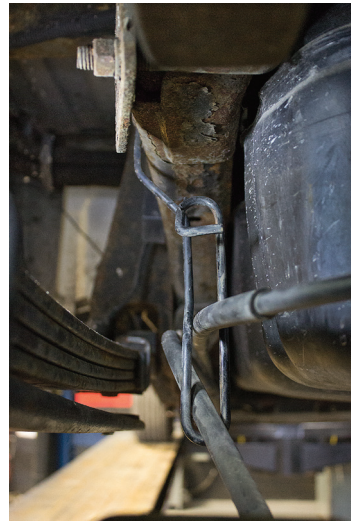
5. Adjust the upper spring forward or back in the slots of the upper bracket to align and torque the upper mounting hardware to no more than 20 lb.-ft. (27Nm).

## EMERGENCY BRAKE CABLE ADJUSTMENTS

1. Remove the wire emergency brake cable bracket off the side of the driver's (left) side frame rail and twist the top cable out of the small loop that is in the top of the bracket (Figs. D.20 & D.21). Reattach the wire bracket back onto the side of the frame.



*fig. D.20*



*fig. D.21*

Remove the emergency brake cable from the smaller upper loop so that it stays in the lower loop.

### For 2500HD models

It will be necessary to attach the emergency brake cable bracket onto the driver's (left) side lower bracket.

2. Attach the emergency brake cable bracket (J) to the front inside corner of the driver's (left) side lower bracket with a 5/16"-18 x 1 1/8" hex-cap screw (Q), 5/16" flat washers (U) and 5/16"-18 nylon lock nut (T) (Figs. A.1 & D.22). Snug but leave loose enough so the cable bracket can be rotated on the bracket.



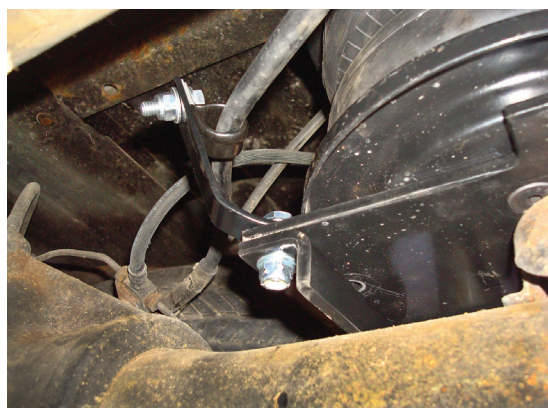
*fig. D.22*

3. For both 2500/3500HD models, attach the P-clamp (L) over the emergency brake cable and attach it to the emergency brake cable bracket that is attached to the lower bracket with one 5/16"-18 x 1 1/8" hex-cap screw (Q), 5/16" flat washers (U) and 5/16" nylon lock nut (T). Align the bracket and P-clamp so that it is perpendicular to the air spring and tighten all hardware to 18 lb.-ft. (24Nm) (Figs. A.1 & D.23).



*fig. D.23*

4. If the cable is close to the tank, bend the bracket slightly toward the air spring to obtain more clearance (Fig. D.24).

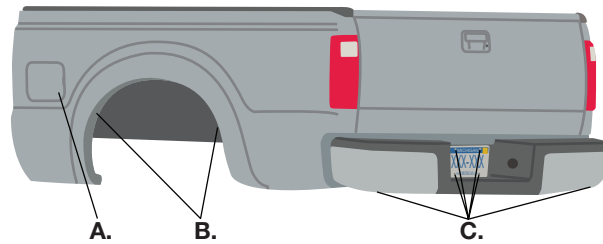


*fig. D.24*

## E. Installing the Air Lines

Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. E.1).

1. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. E.2). Do not use scissors or wire cutters.



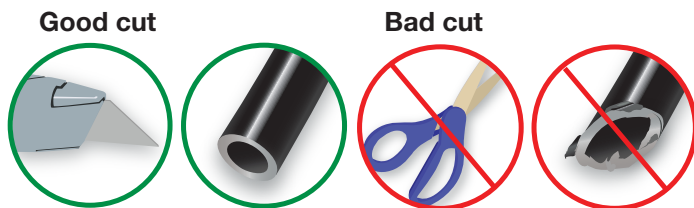
A. Inside fuel tank filler door  
B. Inside rear wheel wells  
C. License plate or rear bumper area

*fig. E.1*

**CAUTION**

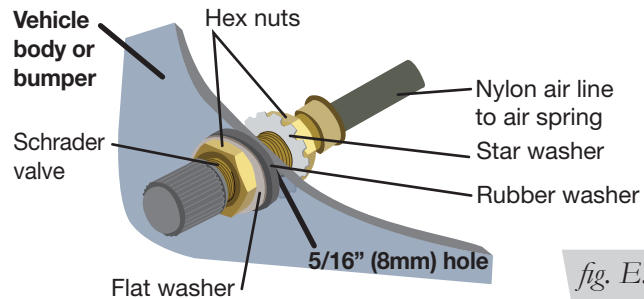
KEEP AT LEAST 6" (152MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

2. Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. Leave at least 2" (51mm) of slack in the air line to allow for any movement that might pull on the air line. The minimum bend radius for the air line is 1" (25mm).



*fig. E.2*

3. Install the Schrader valve in the chosen location (Fig. E.3).



*fig. E.3*

## INSTALLING THE AIR LINE THERMAL SLEEVE AND EXHAUST HEAT SHIELD

1. Route the hose so that it is forward of the assembly on the passenger's (right) side. Slide a air line thermal sleeve onto the hose and once inserted into the fitting, push the air line thermal sleeve so that it covers all the nylon air line up to the fitting (Fig. E.4).



*fig. E.4*

2. Bend tabs to provide a dead air space between exhaust pipe and heat shield. (Fig. E.5) Attach the heat shield to the exhaust pipe using the clamps. Bend the heat shield for maximum clearance to the air spring.

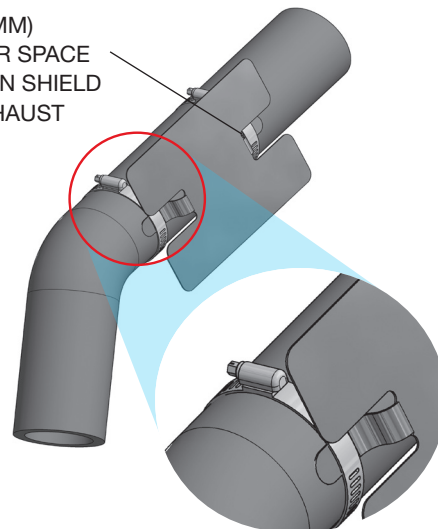
---

### NOTE

*Some vehicles have large resonators in this area; it will be necessary to double up on the clamps to fit these models (Figs. E.4 & E.5).*

---

1/2" (13MM)  
DEAD AIR SPACE  
BETWEEN SHIELD  
AND EXHAUST



*fig. E.5*



# F. Finished Installation Photos

## 2500HD

- The following images show the finished installation of both sides (Figs. F.1, F.2, F.3 & F.4).



The Driver's (left) side as viewed from the rear.



The Driver's (left) side as viewed from the center.



The Passenger's (right) side as viewed from the front.



The Passenger's (right) side as viewed from the rear.

### 3500HD

1. The following images show the finished installation of both sides (Figs. F.5, F.6 & F.7).



The Driver's (left) side as viewed from the front.



The Driver's (left) side as viewed from the center.



The Passenger's (right) side as viewed from the front.

## G. Before Operating

### INSTALLATION CHECKLIST

- Clearance test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against each sleeve. Be sure to check the tire, brakes, frame, shock absorbers and brake cables.
- Leak test before road test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- Heat test** — Be sure there is sufficient clearance from heat sources, at least 6" (152mm) for air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at **(800) 248-0892**.
- Fastener test** — Recheck all bolts for proper torque.
- Road test** — The vehicle should be road tested after the preceding tests. Inflate the air springs to recommended driving pressures. Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all of the paperwork that came with the kit.

## H. Maintenance and Use Guidelines

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI (7BAR).
3. If the system develops an air leak, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.

Minimum Recommended Pressure	Maximum Air Pressure
<b>5 PSI (.34BAR)</b>	<b>100 PSI (7BAR)</b>

### CAUTION

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR) OR PAYLOAD RATING, AS INDICATED BY THE VEHICLE MANUFACTURER.

### CAUTION

ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 100 PSI (7BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.