

Air Lift 1000

by AIR LIFT®

DRAG BAGS

Kits 60741, 60841 Ford Mustang



Cover image
may not depict
actual kit.



INSTALLATION GUIDE

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.

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the Air Lift 1000/Drag Bag air spring kit.

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.

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.

HARDWARE LIST

Item	Part #	Description	Qty
A	46144	Air Spring	2
B	09110	Protectors.....	2
C	20937	Air Line Assembly	15"
D	10466	Tie Strap	6
E	21230	Valve Cap	2
F	21233	5/16" Hex Nut.....	4
G	21234	Rubber Washer.....	2
H	18411	Star Washer.....	2
I	18405	5/16" Flat Washer	2
J	21236	Tee.....	4
K	21455	Valve.....	4

TOOLS LIST

Description.....	Qty
Hoist or Floor Jacks.....	2
Safety Stands	2
Safety Glasses	1
Metric & Standard sockets/ratchet & wrenches....	1
Drill, Drill Bits	1
Pliers.....	1
Air Compressor or Compressed Air Source	1
Spray Bottle with dish soap/water solution.....	1

Installing the Air Lift 1000 / Drag Bag System

GETTING STARTED

1. Raise the rear of the vehicle. Put safety stands under the frame so the wheels can hang.

NOTE

Although it is not necessary to remove the rear wheels, it may gain easier access to the rear coil springs for removal.

2. Remove the bolts holding the rear brake line brackets to the frame on both sides (fig. 1). Pull the bracket from the frame so the lines are loose.



fig. 1

3. For all the models that have the body support bracing that runs underneath the differential, it will be necessary to remove these so that the axle can be dropped far enough to remove the coil springs. (fig. 2).

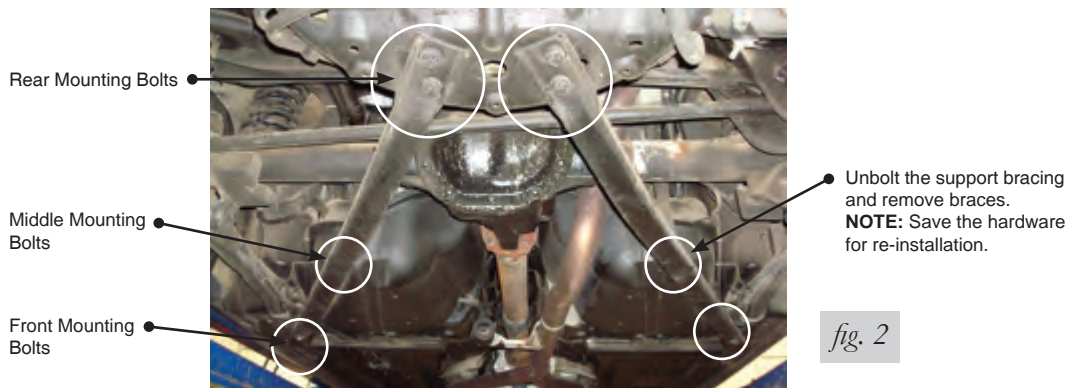


fig. 2

4. Disconnect the lower shock bolts and mark the coil spring/frame position so that they can be indexed correctly when reinstalling (fig. 3).

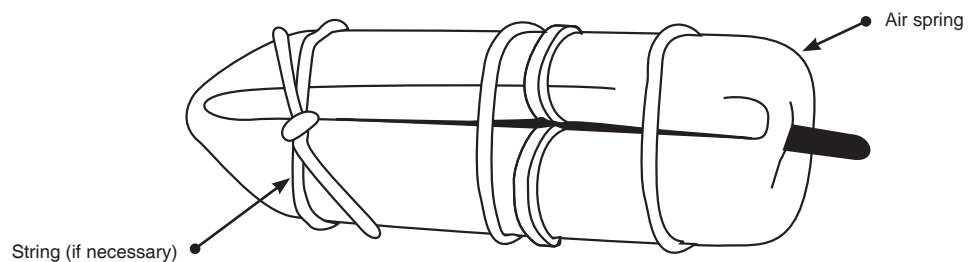
*fig. 3*

5. Drop the axle slowly and remove the coil springs.
6. Remove the upper spring seat isolator from the inside of the coil spring. Mark a line 1/4" from where the spring seats against the isolator and cut the post off (fig. 4).

Mark a line 1/4" up from where the spring seats in the isolator and cut post off.

*fig. 4*

7. Remove the black cap and roll the cylinder up toward the stem end to exhaust as much air as possible. Install the black cap back onto the stem, unroll the cylinder and fold the cylinder into a hot dog bun shape (fig. 5).

*fig. 5*

8. Insert the cylinder through the bottom of the coil spring with the stem down and remove the black cap. Make sure the cylinder resumes it's original shape.
9. If the lower spring seat has a cover over the hole, remove the plastic cover so to gain clearance for the hose (fig. 6 & 7).



● Lower spring seat with plastic covering the hole

fig. 6



● Lower spring seat with cover removed

fig. 7

10. Set the isolator previously modified back onto the top of the spring and insert the spring, with cylinder installed, back onto the upper and lower spring mounts (fig. 8).

NOTE

Be sure to index the spring back into the same position it was removed in by using the mark previously made in step four.

11. Install the protector at the bottom of the spring in between the cylinder and lower spring mount (fig. 8).

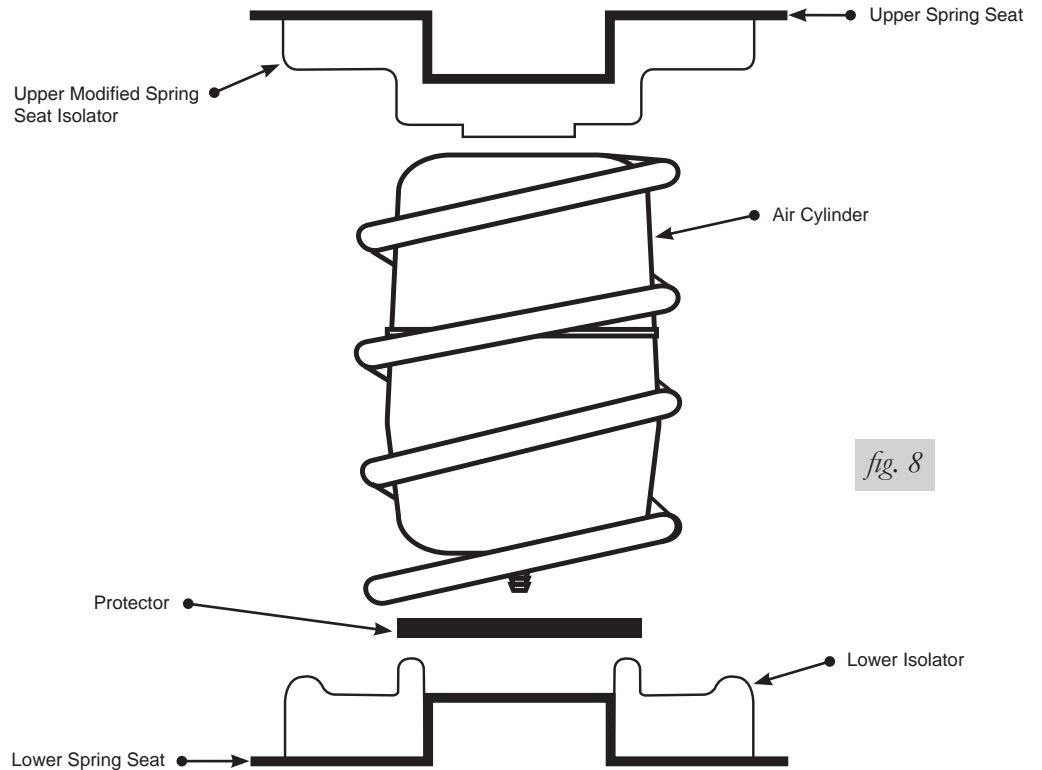


fig. 8

INSTALLING THE AIR LINE

A tee air line installation is recommended unless the weight in the vehicle varies from one side to the other and unequal pressures are needed to level the load or compensate for axle torque transfer in racing application. Dual air lines are used in this case.

TEE AIR LINE ROUTING

NOTE

Not recommended for drag bag installations. Refer to dual air line routing section.

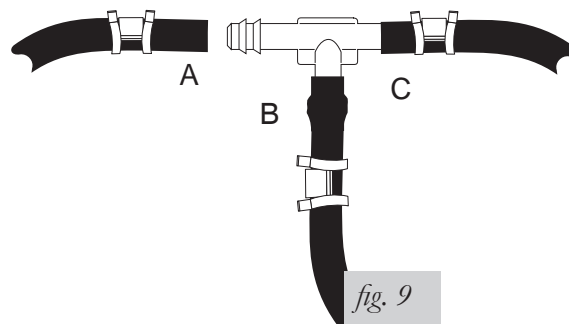
CAUTION

TO PREVENT THE AIR LINE FROM MELTING, MAINTAIN AT LEAST 8" FROM THE EXHAUST SYSTEM TO THE AIR LINE.

CAUTION

LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON THE FITTING DURING AXLE MOTIONS.

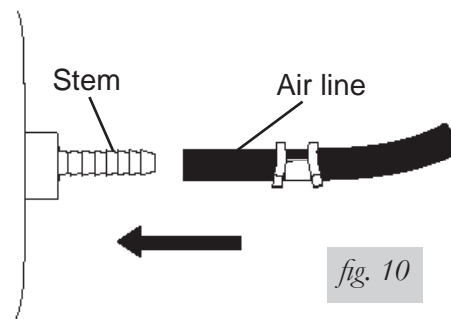
1. Locate the desired tee location on the frame rail or cross member. Determine and cut adequate length of air line to reach from tee to the left and right side air springs.
2. Slide an air line clamp onto the air line.
3. Push the air line over one side of the tee until all the barbs are covered. With a pair of pliers, slide the air line clamp forward until it fully covers the barbed section. Repeat entire procedure for other leg of the tee (fig. 9).
4. Route the air line along the cross member and either the lower control arm or the upper spring seat to the air spring.
5. Insert the air line through the spring seat and spacers.



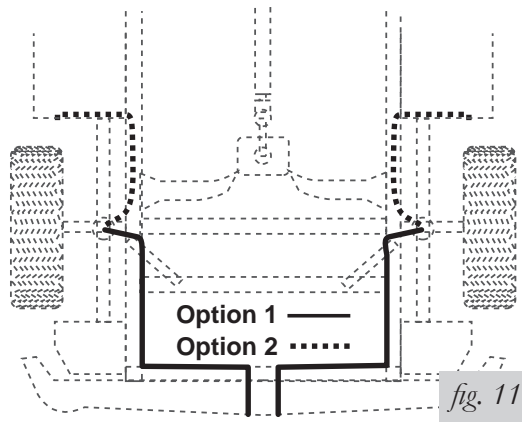
Use this procedure for all air line connections:

- a. Slide the air line clamp onto the air line.
- b. Push the air line over the barbed stem.
- c. Compress the ears on the air line clamp with pliers and slide it forward to fully cover the barbed section.

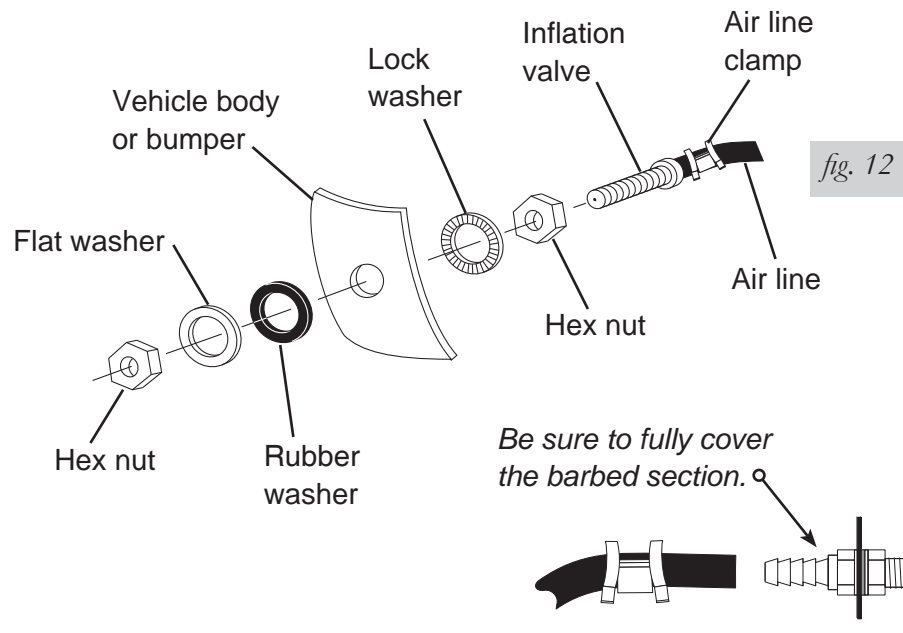
6. Push the air line onto the stem, covering all the barbs (fig. 10). With the pliers, slide the air line clamp upward until it fully covers the barbed section.



7. Push the remaining air line over the last fitting on the tee and route it along the frame to the desired inflation valve location. Attach the air line with plastic straps or wire.
8. Select a location for the inflation valve in the gas cap well, the trunk, rear bumper, fender flange or behind license plate, insuring that the valve will be protected and accessible with an air hose (fig. 11).



9. Drill a 5/16" hole for the inflation valve and mount as shown (fig. 12). The rubber washer serves as an outside weather seal.
10. Slide the air line clamp over the air line. Push the air line onto the fitting covering all barbs. Using pliers, slide the air line clamp forward until it fully covers the barbed section (fig. 13).



11. Raise the axle or lower the vehicle body until the air springs lightly touch the upper spring seat and lower spacers.

CAUTION

DO NOT INFLATE AIR SPRINGS BEFORE READING THE MAINTENANCE AND OPERATION SECTION.

13. Continue to "Completing the Installation."

DUAL AIR LINE ROUTING

NOTE

Recommended for Drag Bag installations. Also reference AD-300 for chassis setup information.

CAUTION

TO PREVENT AIR LINE FROM MELTING, KEEP IT AT LEAST 8" FROM EXHAUST SYSTEM.

1. Select a location for the inflation valves in the rocker panel flange, or rear bumper, assuring that each valve will be protected and accessible with an air hose.
2. Determine and cut adequate length of air line to reach from valve location to left side air spring.

CAUTION

LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON FITTING DURING AXLE MOTIONS.

3. Insert the air line through the spring seat and spacer.
4. Slide air clamp onto the cut air line.
5. Push the air line onto the stem, covering all the barbed section (see fig. 10). With pliers slide the air line clamp forward until it fully covers barbed section.
6. Repeat process for right side.
7. Drill 5/16" hole for inflating valves and mount as illustrated. Rubber washer is for outside weather seal (see fig. 12).
8. Route air line along control arm and frame to inflation valve location and cut off excess.
9. Slide a clamp onto the air line and push the air line over the fitting, covering all the barbs. With pliers slide the air line clamp forward until it fully covers the barbed section (see fig. 13).
10. Raise axle or lower body until air springs lightly touch upper spring seat and lower spacers.

CAUTION

DO NOT INFLATE AIR SPRINGS BEFORE READING THE PRODUCT USE, MAINTENANCE AND SERVICING SECTION.

COMPLETING THE INSTALLATION

1. Once the hose has been installed, raise the suspension back up to ride height. Install the lower shock/bolts, wheels (if removed), braces (if equipped) that run underneath the differential and brake line brackets removed in first step. See torque table for torque specifications of bolts (fig. 14).

Torque Specifications	
Lower Shock Mounting Hardware	115 Nm (85 ft./lbs.)
Front & Rear Support Brace Mounting Hardware	63 Nm (46 ft./lbs.)
Center Rear Support Brace Mounting Hardware	35 Nm (26 ft./lbs.)
Wheels	133 Nm (98 ft./lbs.)

fig. 14

2. Inflate the air springs to 35 PSI. Test for air leaks by applying a liquid solution of 1/5 dish soap to 4/5 water in a spray bottle, to all valve cores, fittings and connections.
3. Lower vehicle to the ground. Read Maintenance Guidelines (page 11) for proper care of your air springs.

4. Set your pressure to desired height within the minimum and maximum pressure recommended in the Product Use, Maintenance and Servicing section (page 11).

NOTE

For Drag Bag applications refer to AD-300 for additional chassis set-up information.

5. Recheck air pressure after 24 hours. A 2-4 PSI loss after initial installation is normal. If pressure has dropped more than 5 lbs retest for leaks.



A Completed Installation

fig. 15

Product Use, Maintenance and Servicing

Suggested Driving Pressure	Maximum Air Pressure
5 PSI	35 PSI
FAILURE TO MAINTAIN CORRECT MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD), BOTTOMING OUT, OVER-EXTENSION OR RUBBING AGAINST ANOTHER COMPONENT WILL VOID THE WARRANTY.	

MAINTENANCE GUIDELINES

NOTE

By following these steps, vehicle owners will obtain the longest life and best results from their air spring.

1. Check the air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 35 PSI.
3. If you develop an air leak in the system, use a soapy water solution to check all air line connections and the inflation valve core, before deflating and removing the spring.
4. When increasing load, always adjust the air pressure to maintain normal ride height. Increase or decrease pressure from the system as necessary to attain normal ride height for optimal ride and handling. Remember that loads carried behind the axle (including tongue loads) require more leveling force (pressure) than those carried directly over the axle.

CAUTION

FOR YOUR SAFETY AND TO PREVENT DAMAGE TO YOUR VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR), AS INDICATED BY THE VEHICLE MANUFACTURER. ALTHOUGH YOUR AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 35 PSI, THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON YOUR LOAD AND GVWR.

5. Always add air to the springs in small quantities, checking the pressure frequently. Cylinders require less air volume than a tire and inflate quickly.
6. Should it become necessary to raise the vehicle by the frame, make sure the system is at a minimum pressure (5 PSI) to reduce tension on the suspension/brake components. Use of on-board leveling systems do not require deflation or disconnection.

OPERATING TIPS

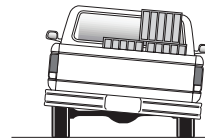
1. Inflate your air springs to 35 PSI before adding the payload. This will allow the air cylinder to properly mesh with the coil spring. After the vehicle is loaded, adjust your air pressure down to level the vehicle and for ride comfort.
2. When carrying a payload it will be helpful to increase the tire inflation pressure in proportion to any overload condition. We recommend a 2 PSI increase above normal for each 100 lbs additional load on the axle.

Guidelines for Adding Air

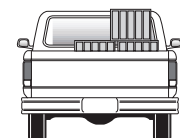
1. Start with the vehicle level or slightly above.
2. When in doubt, always add air.
3. For motorhomes, start with 50-100 PSI in the rear because it can be safely assumed that it is heavily loaded.
4. If the front of the vehicle dives while braking, increase the pressure in the front air bags, if equipped.
5. If it is ever suspected that the air bags have bottomed out, increase the pressure (fig. 19).
6. Adjust the pressure up and down to find the best ride.
7. If the vehicle rocks and rolls, adjust the air pressure to reduce movement.
8. It may be necessary to maintain different pressures on each side of the vehicle. Loads such as water, fuel, and appliances will cause the vehicle to be heavier on one side (fig. 20). As much as a 50 PSI difference is not uncommon.



Bottoming out

fig. 19

Unlevel



Level

fig. 20