

**Air Lift**<sup>™</sup>  
**PERFORMANCE**

# Kit 78519

Ford Mustang SN95

**Front Application**



**CAUTION**

SEE PAGE 12  
BEFORE  
BEGINNING  
INSTALLATION

**AIR LIFT**  
**PERFORMANCE**<sup>™</sup>

## 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.*

PERFORMANCE SUSPENSION PARTS

# Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Ford Mustang SN95 Performance kit.

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

## 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.

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## NOTE

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

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## IMPORTANT SAFETY NOTICES

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 vehicle is designed to carry. Payload is GVWR minus the Base Curb Weight.

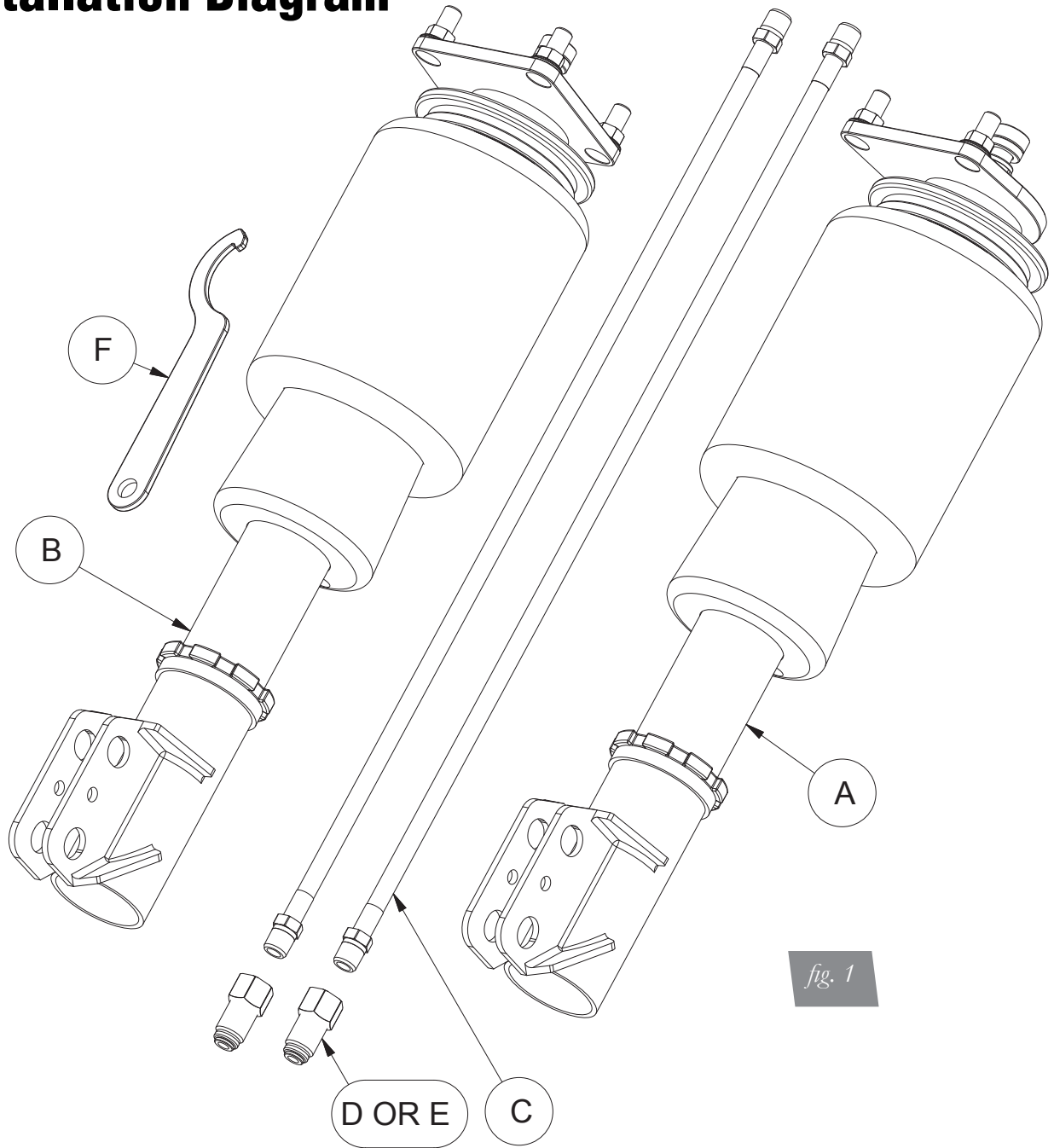
 **WARNING**

DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.

 **CAUTION**

DO NOT WELD TO, OR MODIFY PERFORMANCE STRUTS/SOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

# Installation Diagram



## HARDWARE LIST

Item	Part #	Description .....	Qty
A	35303	ASM, Strut, Mustang SN95 Left Front .....	1
B	35302	ASM, Strut, Mustang SN95 Right Front.....	1
C	20997	Leader Hose, 1/4" ID .....	2
D	21810	Union, 1/4"FNPT X 1/4" PTC, DOT .....	2
E	21987	Union, 1/4"FNPT X 3/8" PTC, DOT .....	2
F		Spanner Wrench.....	1

# Installing the Air Suspension

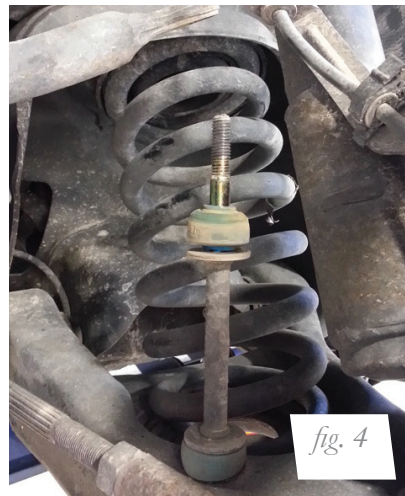
## PREPARING THE VEHICLE

1. Elevate and support the vehicle from approved lifting points.
2. Remove the front wheels (fig. 2).

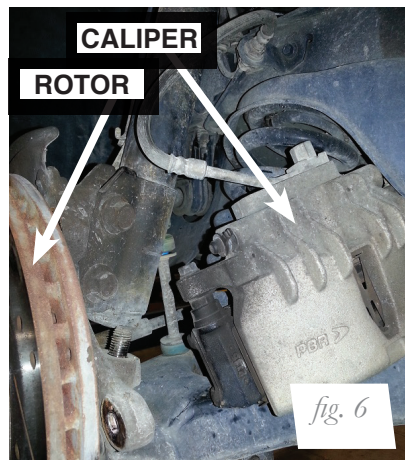
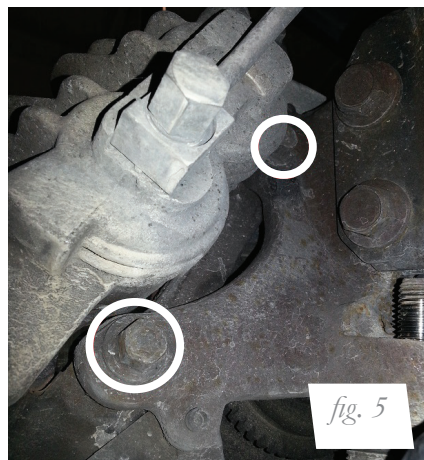


## REMOVING THE STOCK SUSPENSION

1. Unthread the stabilizer bar end link nuts from the bar (figs. 3 and 4).



2. Unbolt and remove the brake caliper and rotor. Secure them out of the way taking care to prevent strain on the brake line (figs. 5 and 6).





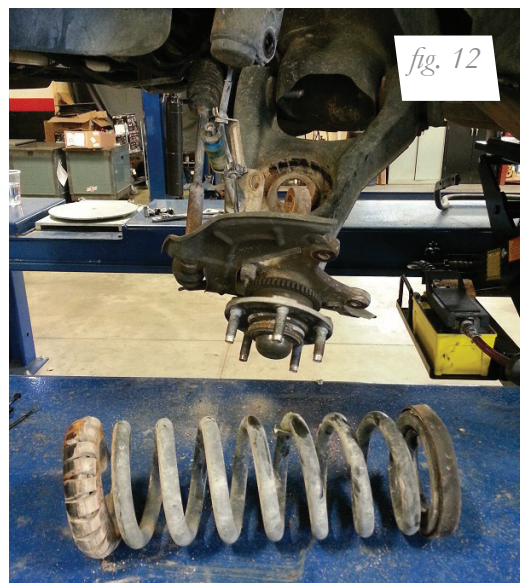
3. Remove the sensor wire and bracket from the lower strut mount (figs. 7-9).



4. Unclip the sensor wire from the two attaching points within the fender housing and move the wire aside (figs. 10 and 11).



5. Remove coil spring (fig. 12).



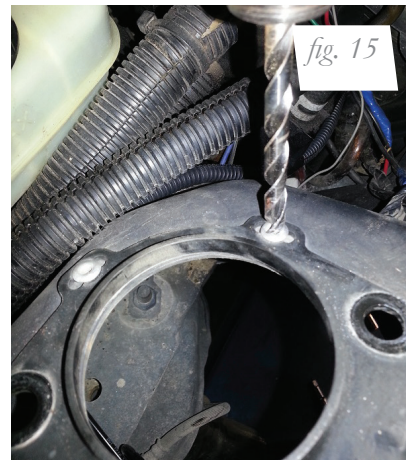
**CAUTION**

THE COIL SPRING IS UNDER LOAD, USE FACTORY SERVICE INSTRUCTIONS TO REMOVE THE COIL SPRING.

- Remove the three upper bracket nuts and remove the strut (fig. 13).

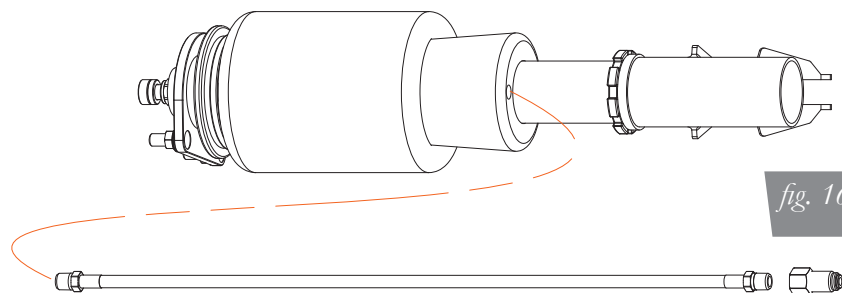


- Remove the rivets holding the upper mount support bracket. Make certain the entire rivet has been removed (figs. 14 and 15).



## AIR SUSPENSION INSTALLATION

- Install the leader line into the air spring. Apply thread sealant to the threads of the leader hose. Tighten the appropriate fitting to the air line (one and three-quarter turns beyond hand-tight). Tighten the leader line into the air spring (one and three-quarter turns beyond hand-tight) (fig. 16).

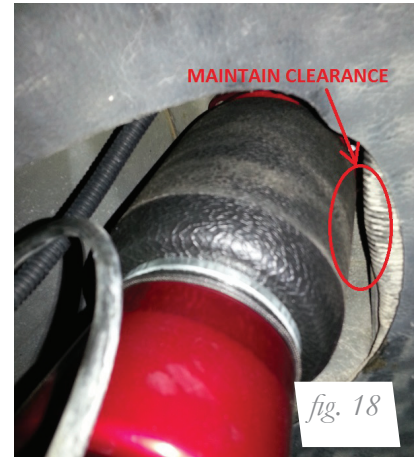




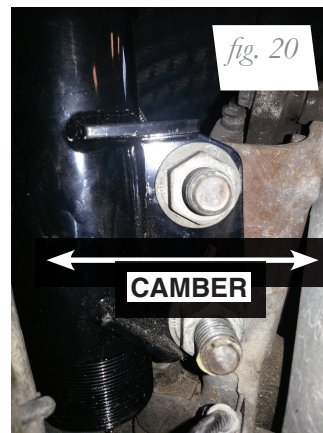
2. Attach the upper mount to the slotted strut tower (fig. 17), positioned completely inboard at limit of slots towards the engine. Re-install upper support bracket. Torque nuts to 34 Nm (25 ft-lbs). (Support bracket is not shown in figure 17 to show mount position in slots.)

 **CAUTION**

DO NOT POSITION THE UPPER MOUNT OUTBOARD (AWAY FROM THE ENGINE). DRIVING VEHICLE WITH UPPER MOUNT POSITIONED OUTBOARD MAY CAUSE THE AIR SPRING TO CONTACT THE CHASSIS, WHICH COULD DAMAGE THE AIR SPRING (FIG. 18).



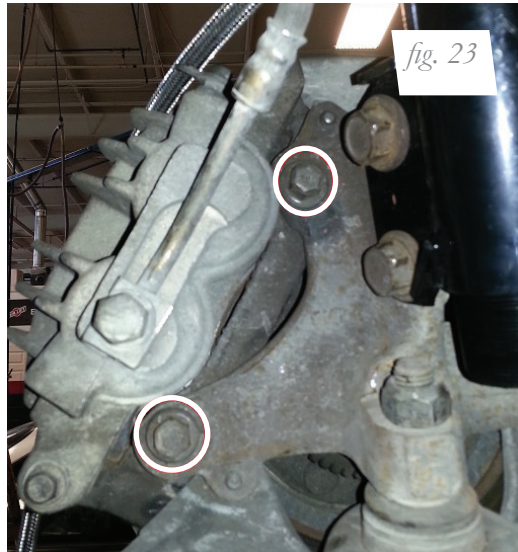
3. Align the lower mount holes with the knuckle and reinstall the bolts through the knuckle (fig. 19). Camber is adjusted with the slots in the lower mount (fig. 20). Torque to 190 Nm (141 ft-lbs.).



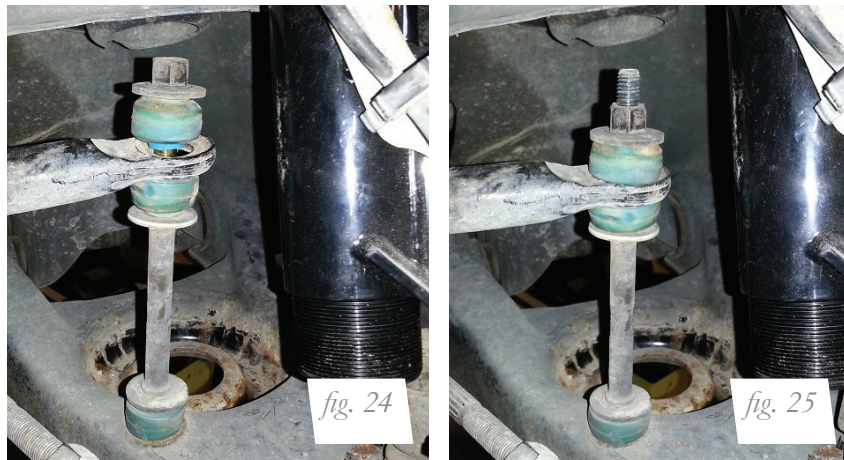
4. Reattach the sensor wire bracket and clip the wire to the fender housing (figs. 21 and 22). Torque the sensor bracket nut to 23 Nm (17 ft-lbs.).



5. Reinstall the brake rotor and brake caliper (fig. 23). Torque the brake caliper bolts to 88 Nm (65 ft-lbs.).



6. Reattach the stabilizer end link (figs. 24 and 25). Torque the nut to 16 Nm (11 ft-lbs.).

**NOTE**

*See CAUTION on page 12 before proceeding.*

7. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose that is clear of all suspension components. Routing should also allow for the suspension to extend and compress without kinking or pulling the line tight or rubbing on other components. Following the brake line routing is often a good place to start. Check clearances to all other components.
8. With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the axle. Record this measurement as Max Compression.



9. Cycle the suspension to Max Extension and record the measurement from the same reference points.
10. Add ME and MC then divide by 2. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (fig. 26).

**Formula for Calculating Ride Height**

**$(ME+MC) \div 2 = \text{MID STROKE}$**

*fig. 26*

11. With the suspension at this position, loosen, then re-torque the lower control arm bolts to manufacturer's specifications (Table 1).

Torque Specifications		
Location	Nm	ft-lbs.
Camber plate to chassis nuts	34	25
Strut lower mount bolt/nuts	190	141
Sensor wire bracket nut	23	17
Stabilizer end link nuts	16	11
Wheel lugs	115	85
Air fitting (use thread sealant)	1-and-3/4 turns beyond hand-tight	

*Table 1*

## DAMPING ADJUSTMENT

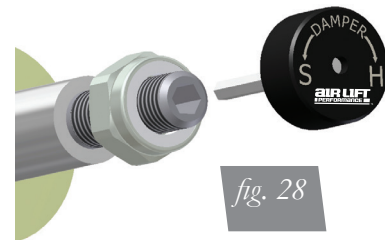
The dampers in this kit have 30 settings, or “clicks”, of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (figs. 27 and 28) or a 3mm allen wrench.

Turn the adjuster clockwise and the damping settings are hardened. Turn the adjuster counterclockwise and the damping is softened.

Each strut is preset to “-15 clicks”. This means that the damper is adjusted 15 clicks away from full stiff. Counting down from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2002 Mustang GT and may need to be adjusted to different vehicles and driving characteristics.



*fig. 27*



*fig. 28*

## ALIGNING THE VEHICLE

1. Using the control system, set the vehicle height to the new custom ride height.
2. If the custom ride height is lower than stock, we recommend loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications.

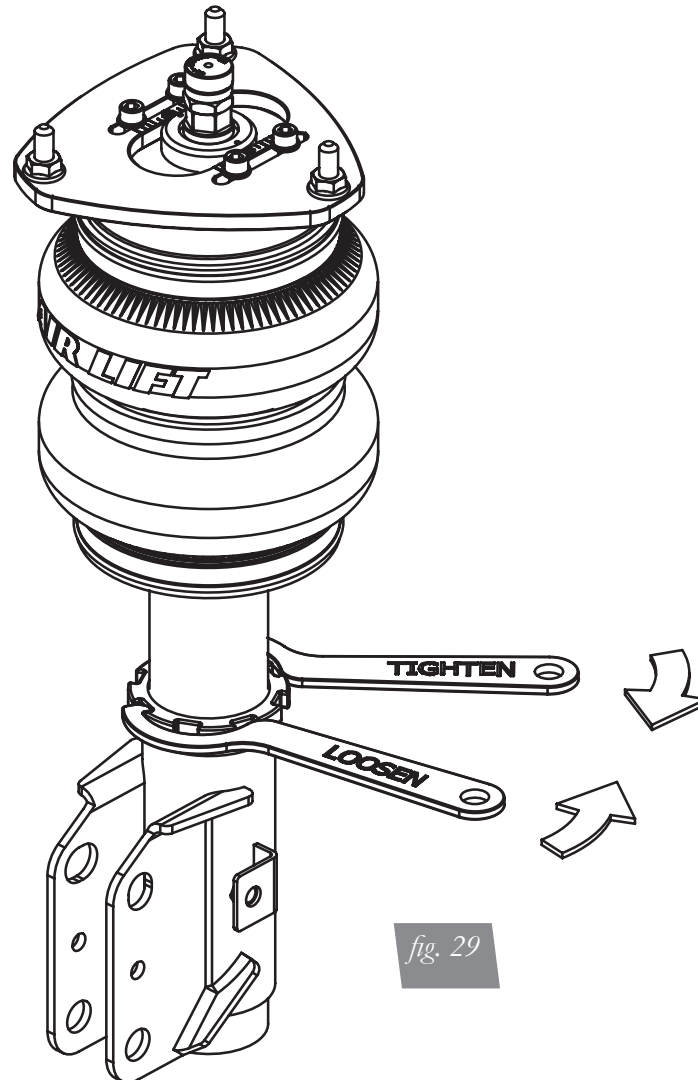
### NOTE

*It may be necessary to cycle the suspension to loosen the bushing up from its mount. This will help re-orient the bushing at its new position and increase life of the bushings based on the custom ride height.*

## ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your struts have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height, or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the lower locking collar (fig. 29).



4. Deflate the air spring to 0 PSI on the corner you are adjusting.
5. Disconnect lower mount from suspension.
6. Spin the lower mount to the desired location.

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### NOTE

*Not all models will have further drop height available.*

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7. Re-install lower mount to suspension and torque fasteners.
8. Tighten the lower locking collar to the lower mount using significant force.

**CAUTION**

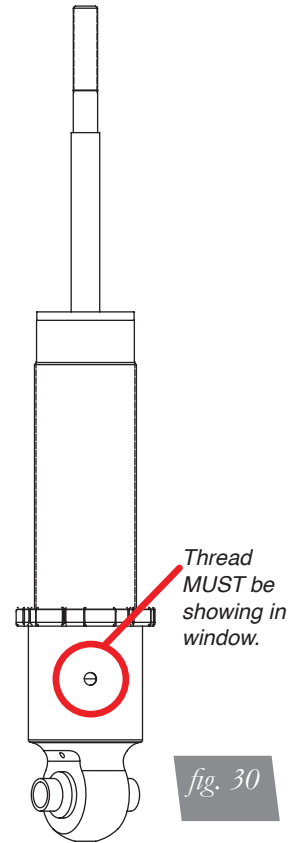
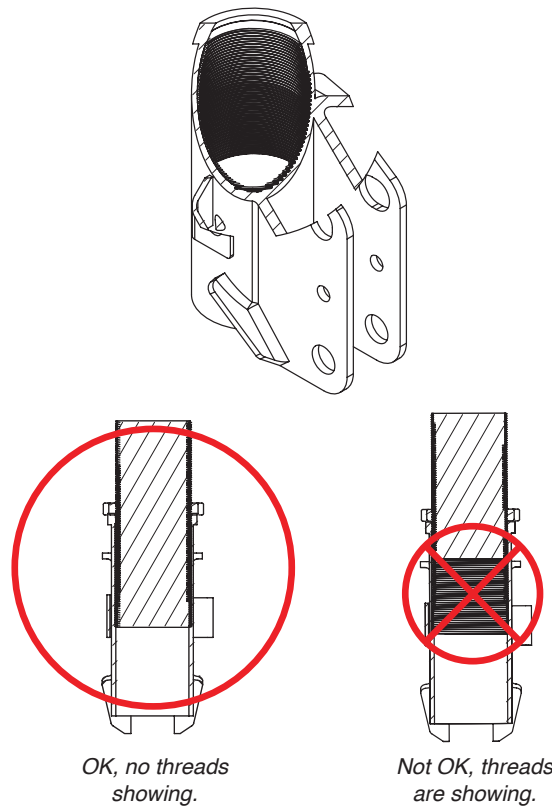
WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 30). WHEN ADJUSTING DOWNWARDS, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

**CAUTION**

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON STRUT! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

**FOR STRUTS:**

**FOR SHOCKS:**





**CAUTION**

**AFTER INITIAL INSTALLATION OF YOUR STRUTS/SHOCKS:**

- DO NOT CYCLE THE SUSPENSION WITH THE AIR-LINE CONNECTED TO THE LEADER HOSE WITHOUT FIRST ADDING AIR SPRING PRESSURE. DOING SO MAY CAUSE THE AIR SPRING TO IMPROPERLY INFLATE (FIG. 31). IT IS SAFE TO CYCLE THE SUSPENSION TO CHECK FOR CLEARANCES ETC. WITH THE LEADER HOSE OPEN TO ATMOSPHERE (DISCONNECTED FROM AIR-LINE).
- BEFORE SETTING VEHICLE ON THE GROUND FOR THE FIRST TIME, IT IS VERY IMPORTANT TO INFLATE THE AIR SPRINGS TO AT LEAST 50 PSI. THIS WILL PREVENT ANY POSSIBILITY OF THE AIR SPRING KICKING OUT AND CAUSING A LEAK (FIG. 32).



*fig. 31*

Caused by cycling with air-line attached without pressure. Remove air-line from spring to release vacuum and re-attach. Inflate to 50+ PSI before lowering car to ground.



*fig. 32*

Shows what spring looks like after lowering car to ground with <50psi and raising it with air pressure.

**Do NOT drive!**



*fig. 33*

Shows what spring looks like when installed correctly.