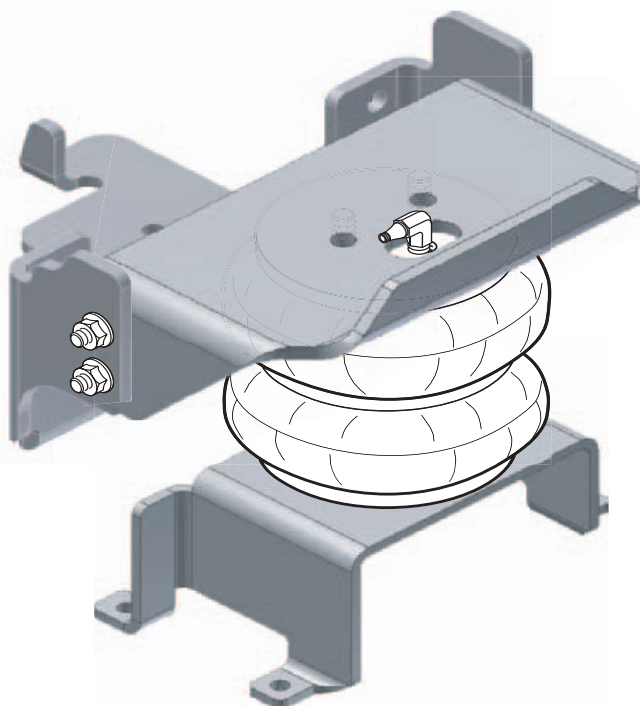




## 81224013 2009-2013 F150 4WD

Congratulations - your new TowPro [Helper Springs](#) are quality products capable of improving the handling and comfort of your vehicle. As with all products, proper installation is the key to obtaining all of the benefits your kit is capable of delivering. Please take a few minutes to read through the instructions to identify the components and learn where and how they are used. It is a good idea to start by comparing the parts in your kit with the parts list below.



### Components

AIR SPRING	6781	2
UPPER BRACKET	5699	2
LEFT FRAME BRACKET	5701	1
RIGHT FRAME BRACKET	5700	1
LEFT LOWER BRACKET	5702	1
RIGHT LOWER BRACKET	5703	1
1 1/4" SPACER	5336	2
FRAME HOLE BRACKET	5660	4
BAIL CLAMP	3410	4
AIRLINE		1

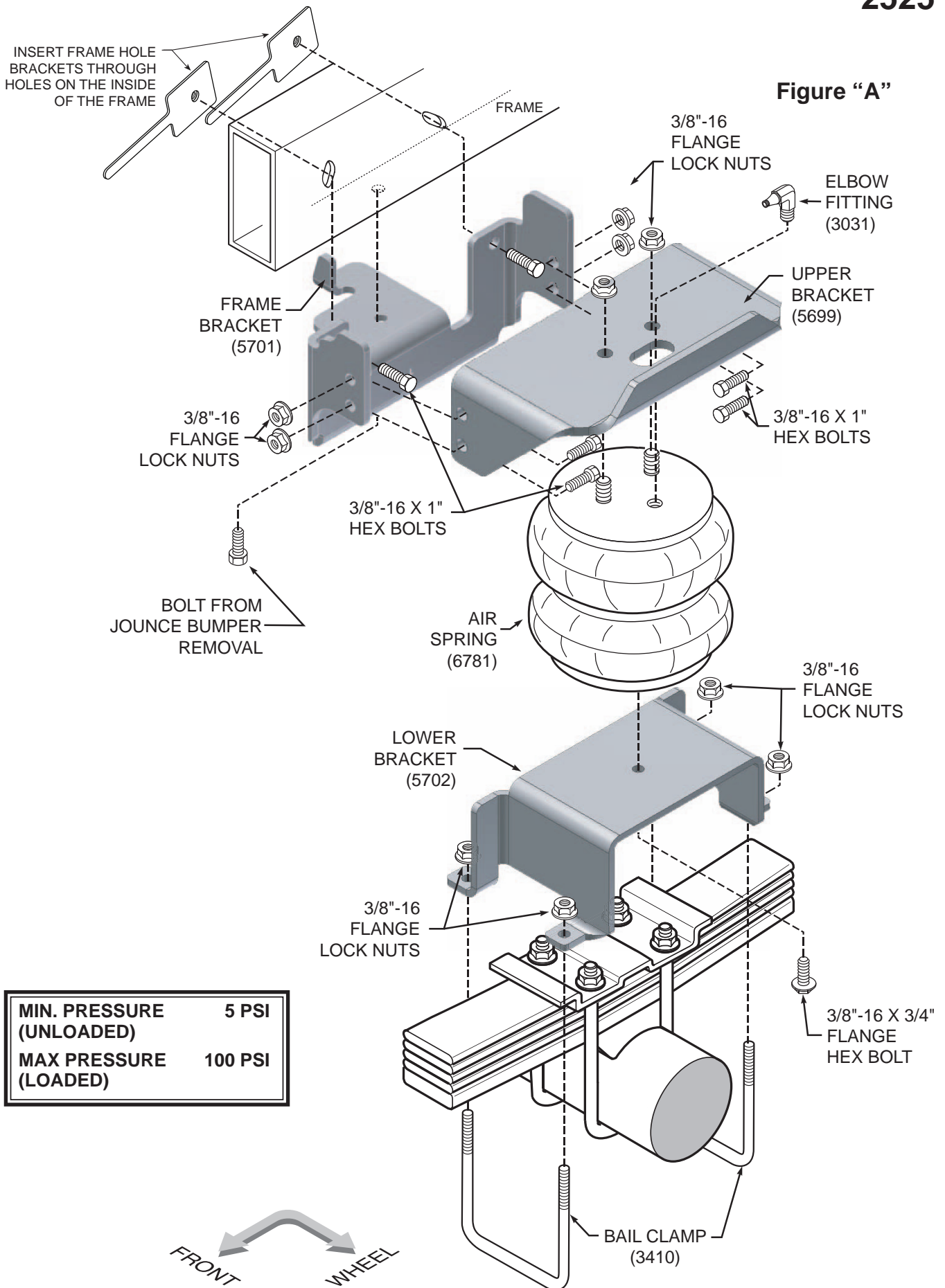
### Hardware

THERMAL SLEEVE	2
TIE-WRAPS	6
5/16" FLAT WASHER	4
3/8"-16 X 3/4" FLANGE HEAD BOLT	2
3/8"-16 X 2" FLANGE HEAD BOLT	2
3/8"-16 X 1" HEX HEAD BOLT	12
3/8"-16 FLANGE LOCK NUT	20

### WARNING!

Do not inflate this assembly when it is unrestricted. The assembly must be restricted by the suspension or other adequate structure. Do not inflate beyond 100 P.S.I. Improper use or over inflation may cause property damage or severe personal injury.

Figure "A"



### STEP 1 – PREPARE THE VEHICLE

With the vehicle on a solid, level surface, chock the front wheels. Raise the vehicle by the rear axle and set on jack stands rated for your vehicles weight. Remove the rear wheels. Remove the jounce bumpers from the under side of the frame rail. The jounce bumper will not be re-used with the kit, but the bolt will be re-used.

### STEP 2— ATTACH THE UPPER BRACKET

Select one air helper spring and one upper bracket from your kit. Insert the studs of the air spring into the mounting holes of the upper bracket. Make sure the air inlet is visible through the large access hole. Fasten the upper bracket to the air spring using the 3/8"-16 flange nuts, **see Figure "A"**. Install the elbow fitting into the air spring through the large access hole in the upper bracket. Tighten the air fitting securely to engage the orange thread sealant. Position the fitting to point to the anticipated location of the air inflation valves.

### STEP 3A— ATTACH THE LOWER BRACKET (4WD)

Select the left lower bracket and fasten it to the air spring with a 3/8"-16 x 3/4" flange bolt (finger tight). **Figure "B"**.

### STEP 3B— ATTACH THE LOWER BRACKET (2WD)

Select the left lower bracket and spacer and attach them to the air spring with a 3/8"-16 x 2" flange hex bolt (finger tight). Open end of the spacer should mount towards lower bracket. **See Figure "C"**.

### STEP 4— ATTACH THE FRAME BRACKET TO THE FRAME

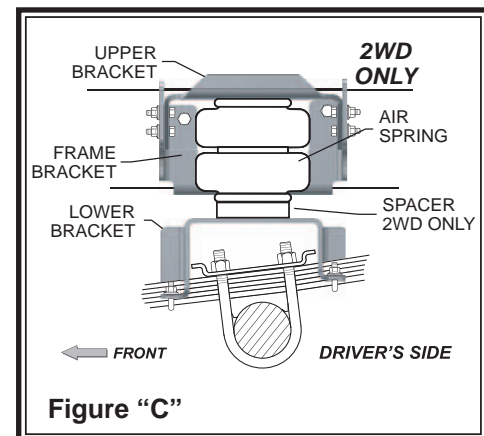
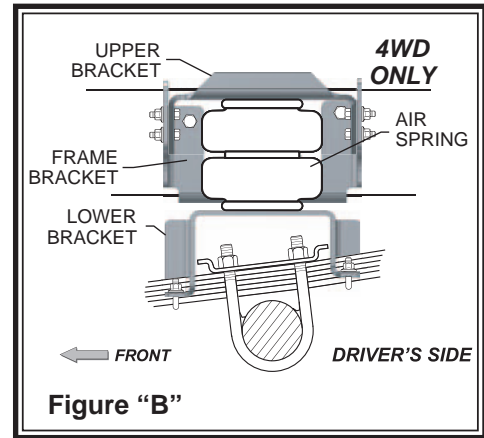
Attach the left frame bracket to the bottom of the frame reusing the jounce bumper bolt in the hole from the jounce bumper removal. Next, insert the 3/8"-16 x 1" hex head bolts through the left frame bracket and into the holes on the outside of the frame. Secure with framehole brackets inserted through the hole on the inside of the frame. **See Figure "A"**. **DO NOT OVER TIGHTEN! 20 FT/LBS Max.**

### STEP 5— INSTALLING THE ASSEMBLY TO THE VEHICLE

Place the assembly on the leaf stack over the spring retainer and align the holes in the upper bracket with the holes in the left frame bracket. Install four, 3/8" x 1" hex head bolts and fasten using 3/8"-16 flange nuts. Secure the left lower bracket to the leaf stack using bail clamps and 3/8"-16 flange nuts. Once aligned, tighten the bolt holding the bottom of the air spring to the lower bracket. **See Figures "A", "B" & "C"**.

### STEP 6— INSTALLATION TO THE PASSENGER'S SIDE ASSEMBLY

Reverse any orientations when assembling and installing the right, or passenger, side of the vehicle.



### IMPORTANT:

In order for the air spring to function properly, there must be a minimum of 1/2" clearance around the air spring

