

Row Unit Conversion Instructions

for:

planter models:JD17XX / 7200 / 7300

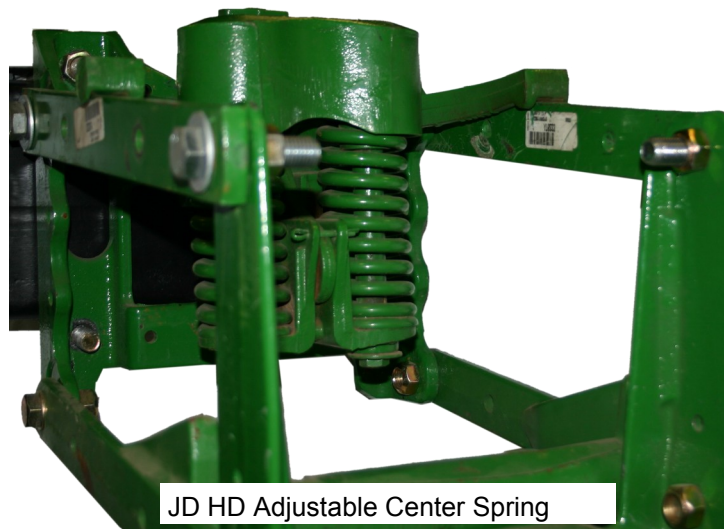
to convert from **Existing Springs:**.....JD HD Adj. Center Springs

to **Resulting Forces Controlled:**.....Down & Lift

with **Conversion Kits:**.....726315

726320

Existing Springs



JD HD Adjustable Center Spring

This conversion process applies to planters with **Regular** or **Long** parallel arms and **Chain** or **Pro Shaft** Driven meters. Some components shown here may not apply to your particular planter. Special notes will be made throughout the following instructions to encompass individual model needs. Images illustrating the completed conversion of these are located at the end of this instruction.



Caution: After completion of the Conversion and Plumbing processes verify clearance of all components.

Conversion Kit Components

726315	726320	Part Number	Part Name	Description
1	1	726001	Support	Down Force Spring Support
1	1	726100	Spring	Down Air Bag
1	1	726101	Spring	Lift Air Bag
1		726187	Support	Air Spring Support - Chain
	1	726188	Support	Air Spring Support - Pro Shaft
1	1	726225	Bracket	Lift Spring Mounting Bracket
1		726266	Bar	Lift Spring Bar
	1	726226	Bar	Lift Spring Bar
1		726312		**Hardware Pack
	1	726313		** Hardware Pack

Quantities are given per row

Hardware Pack Compo-

726312	726313	PART NUMBER	PART NAME	DESCRIPTION
1	1	36214	Hex Jam Nut	5/8-11 Nut ZN CL
6	2	38403	Washer	M6 Flat ZN CL
2	2	38568	Bolt	M6-1.0 x 35 ZN CL
2	2	*38671	Bolt	M10-1.5 x 130 ZN CL
1	1	*38772	Bolt	M16-2.0 x 130 ZN CL
2	2	90680	Hex Nut	M6-1.0 Top Lock Nut ZN CL
1	1	95209	Bolt	1/2-13 x 1.5 GRD 5 ZN Y
2	1	128789	Bolt	M12-1.75 x 55 Class 10.9 ZN Y
1	1	23332	Hex Nut	M8-1.25 Top Lock Nut ZN Y
1		726508	Bolt	M12-1.75 x 50 Class 10.9 ZNY
2	2	162348	Bolt	M10-1.5 x 55 ZN Y
1	2	32599	Bolt	M12-1.75 x 70 ZN Y
1	1	162403	Bolt	M8-1.25 x 25 ZN Y
1	1	162436	Bolt	M16-2.0 x 45 ZN Y
1	1	726066	Link	Positioning Link
2	2	726070	Bushing	1/4 - 1/2 x .5 Sleeve Bearing
2	2	726098	Bushing	1/2 - 1 x .92 Sleeve Bearing
1	1	726099	Bushing	1/2 - 7/8 x .92 Sleeve Bearing
1	1	726106	Male Fitting	1/8 NPT x 1/4 PTC Straight
1	1	726113	Male Tee	1/8 NPT x 1/4 PTC Tee
1	1	726115	Tee	1/4 PTC Tee
4	3	726205	Hex Nut	M12-1.75 Top Lock Nut ZN Y
1	1	726227	Hex Nut	3/4-16 Collar Nut
2	2	726258	Bushing	1/2 - 1 x .69 Sleeve Bearing
1	1	726261	Bolt	5/16 x 18 FH (Fastenal 94253)
1	1	726291	Hex Nut	M16-2.0 Top Lock Nut ZN Y
1	1	726374	Adapter	1/8 NPT Male x 1/8 NPT Female
2	1	726388	Washer	M12 Flat ZN
2		726453	Washer	1" Flat Spacer-Washer
2	2	MN2600000 YZ0000	Hex Nut	M10-1.5 Nut ZN Y

Quantities are given per row

* Note: 38671 & 38772 used ONLY with Long Parallel Arms

Recommended tools

(not provided):

Open end wrenches:

3/8", 7/16" 1/2", 3/4",
15/16", 1-1/8", 10MM,
13MM, 16MM, 19MM, &
24MM

- or suitable crescent wrench(s)

Sockets (Deep well recommended):

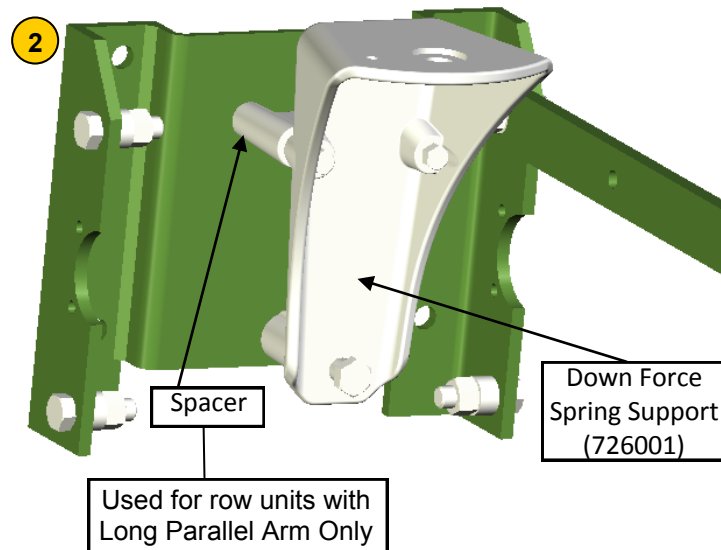
1/2" 3/4", 10MM, 13MM,
16MM, 19MM, & 24MM

1. Begin installation by removing tension from the JD HD Adj. springs. Once the tension is removed, remove the spring assembly by removing the two M10 bolts (top) and one M16 bolt (bottom). This should release the spring assembly from the mounting support plate; set aside.



Note: For planters with **Long** parallel arms, retain the spacer for use between the mounting support plate and Down Force assembly. Units with long parallel arms may require the bolts to be cut/torched off in order to remove the existing M10 bolts. When installing the new bolts, install them from the rear for ease of future serviceability.

2. Install the Down Force Spring Support (726001) against the mounting support plate as shown. Assemble, but do not tighten the M10 and M16 bolts.

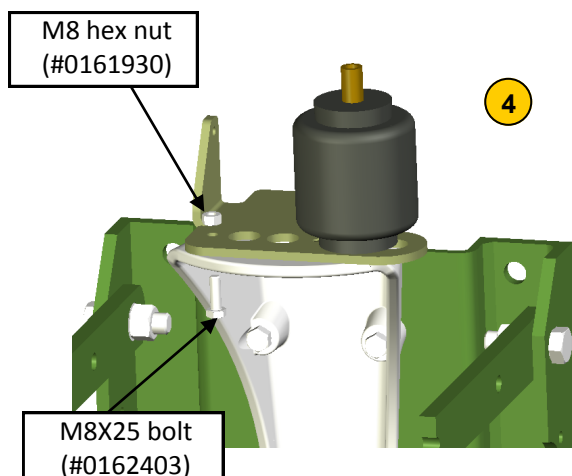
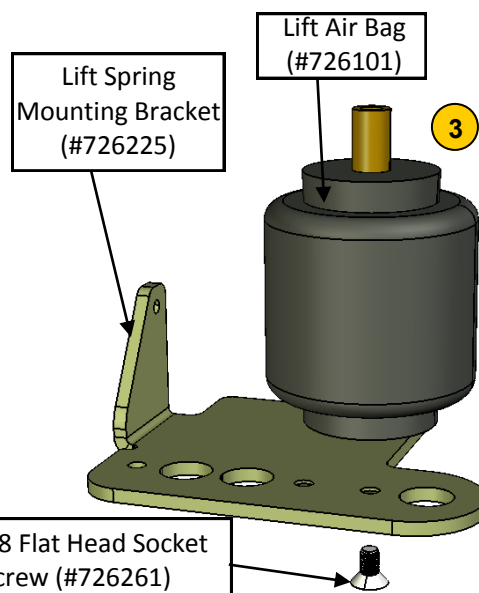


Note: For Vacuum planters with **Long** parallel arms, reinstall the vacuum blower manifold bracket in between the spacer and the Down Force Spring Support. For planters with **Regular** parallel arms, position bracket between Down Force Spring Support and mounting plate. For non-vacuum planters, re-install the M10 spacer washers.

3. Assemble separately: Position the Lift Air Bag (#726101) on the Lift Spring Mounting Bracket (#726225) as shown at right. Fix the Lift Air Bag in place from the underside of the Mounting Bracket using the 5/16 x 5/8 Flat Head Socket Cap Screw (#726261). This will require the use of a 3/16" Allen wrench. The 5/16" Cap Screw should be tightened to 4-5 lb-ft of torque.

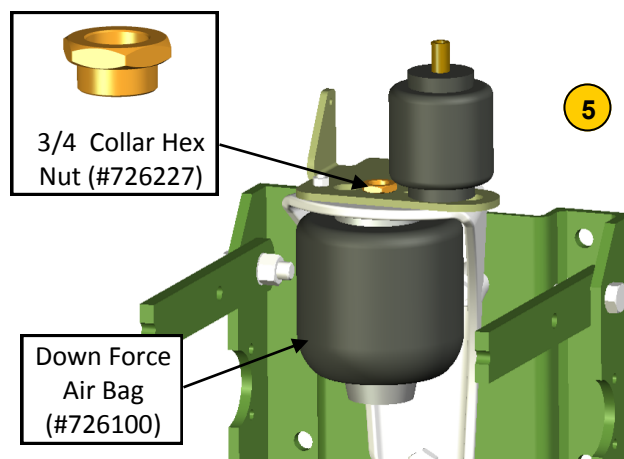


Note: This is a universal mounting bracket, not all conversions will require all openings.



4. Place the Lift Air Bag and Mounting Bracket on top of the Down Force Support Bracket as shown at left. Align and fix in place using the M8-1.25X25 bolt (#0162403) and M8 hex nut (#0161930) through the top surface of the Down Force Support.

5. Align and place the Down Force Air Bag (#726100) as shown at right on the under side of the Down Force Support Bracket. Fix in place using 3/4 Collar Hex Nut (#726227). 3/4" collar nut should be tightened to 15lb-ft of torque

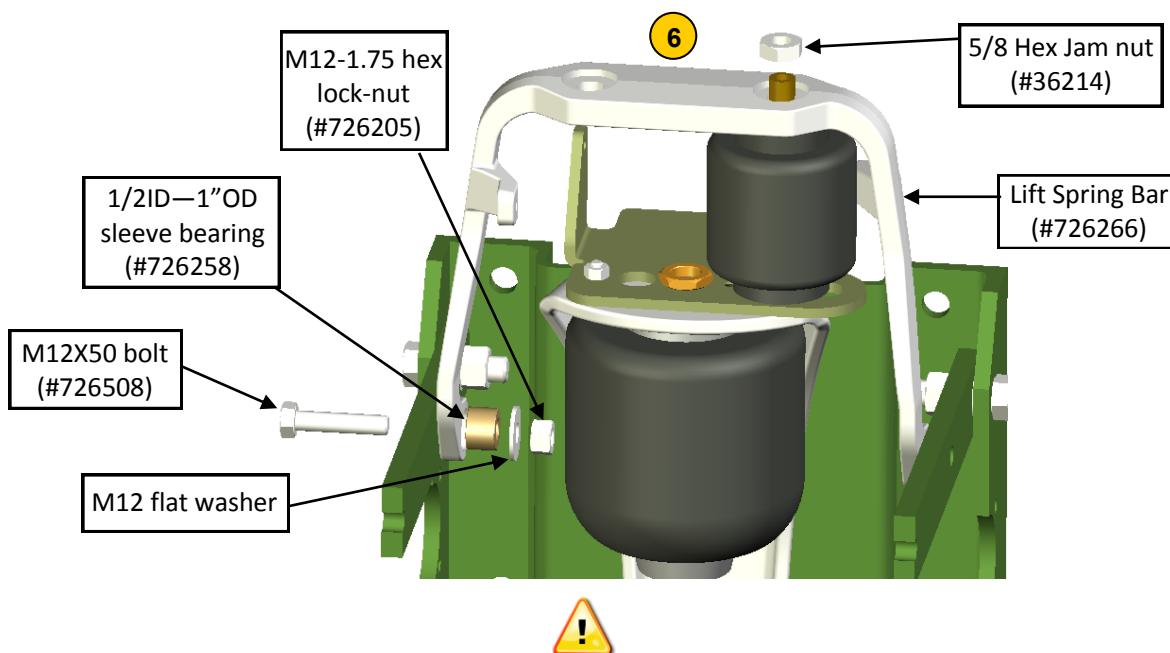


Once the Down Air Bag has been fixed in place with the Collar Nut, tighten the M10 & M16 bolts to secure the Down Force Spring Support.



For Pro Shaft Driven planters (Parts Kit 726320) skip to Step 9. Chain driven planters (Parts Kit 726315) should continue through Step 6.

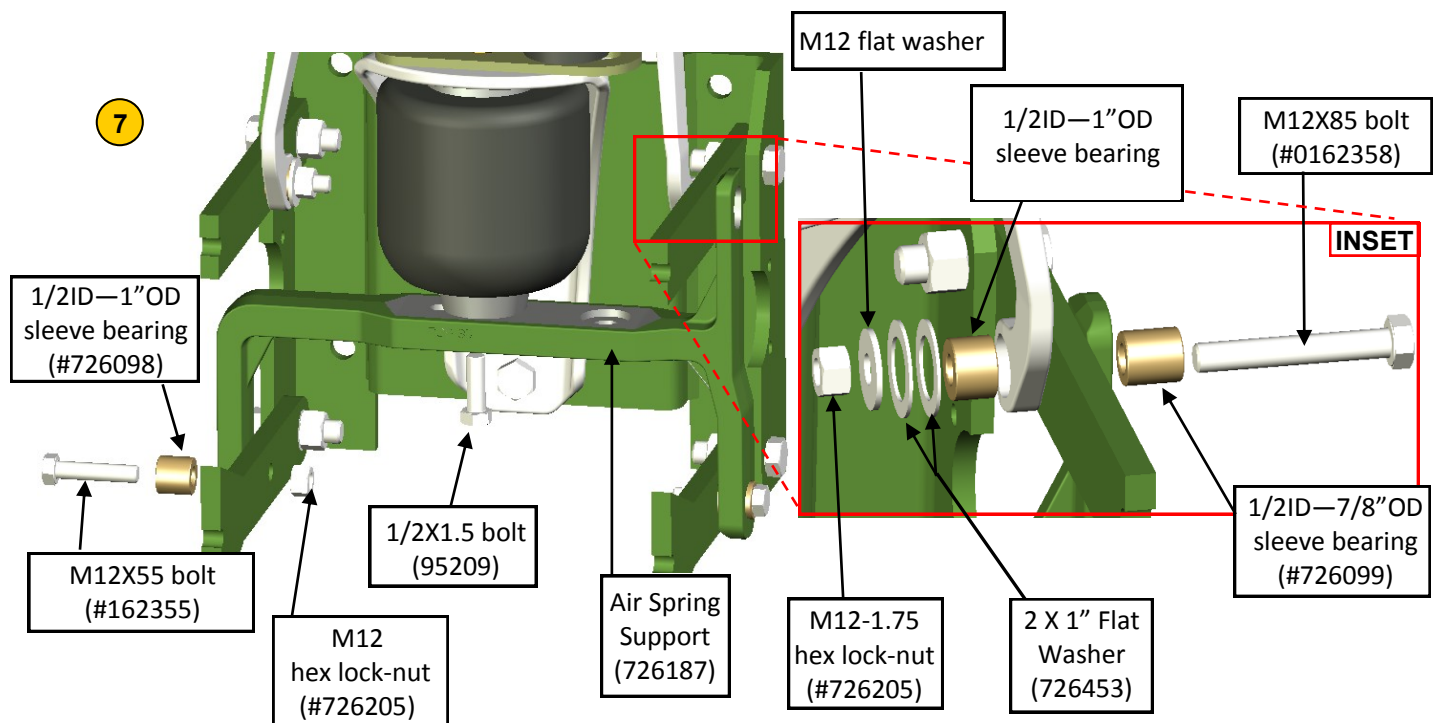
6. Align and place the Lift Spring Bar (#726266) over the Lift Air Spring and with the arms down and on the **inside** of the parallel arms as shown. Fix the Spring Bar in place using the 5/8 Hex Jam nut (#36214) to the top of the Lift Air Bag. The 5/8" nut should be tightened to 10-12lb-ft of torque. Fix the Lift Spring Bar to the top left parallel arm using the M12X50 bolt (#726508), 1/2ID—1"OD sleeve bearing (#726258), M12 hex lock-nut (#726205), and one M12 flat washer.



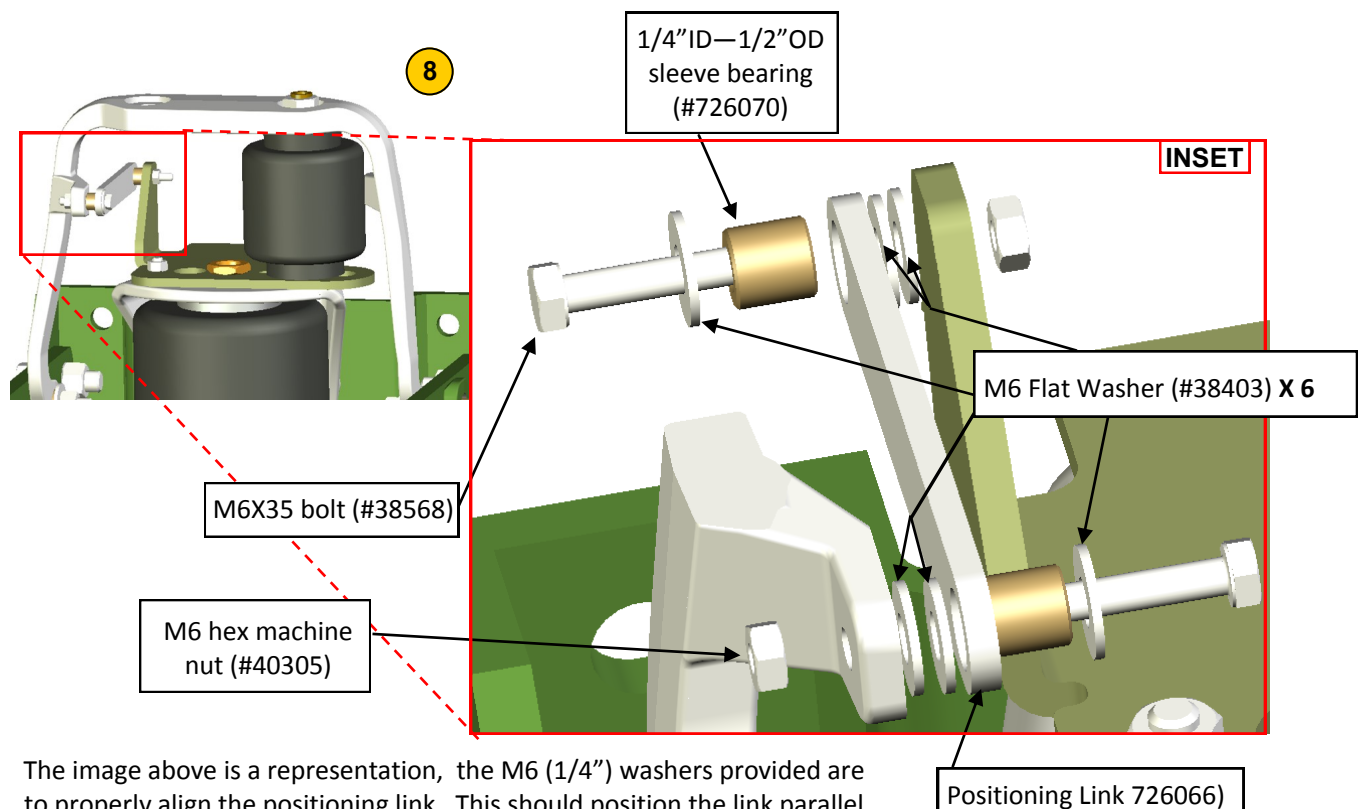
DO NOT fasten the right arm of the Lift Spring Bar to the parallel arms at this time.

7. •Next, install the Air Spring Support (726187) as shown . You may need to manually compress the Down Air Bag to place the Spring Support. Fix the Spring Support to the Air Bag using the 1/2"X1.5" bolt (95209) through the support to the base of the spring. 1/2" bolt should be tightened to 15lb-ft of torque.
 - Secure the Spring Support to the lower two parallel arms using M12X55 bolt (#162355), 1/2"ID—1"OD sleeve bearing (#726098), and an M12 hex lock-nut (#726205)
 - Secure the Spring Support and Lift Spring Bar together to the top right parallel arm from, right to left, using the M12X85 bolt (#0162358), 1/2ID—7/8"OD sleeve bearing (#726099), *parallel arm,* 1/2ID—1"OD sleeve bearing (#726258), two 1" flat washers (726453)- used as spacer over the sleeve bearing - M12 flat washer, and M12 hex lock-nut (#726205)

See illustration on following page.



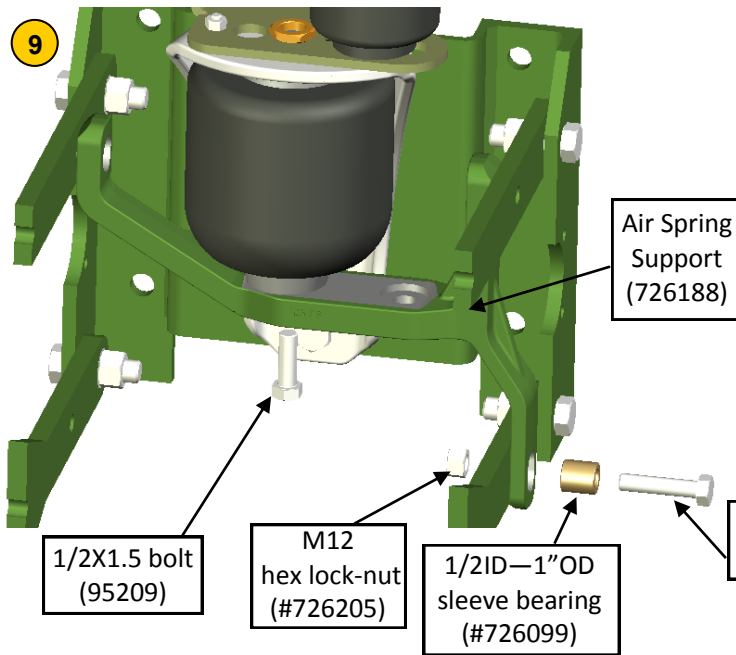
8. Next place the Positioning Link (#726066) between the Lift Spring Mounting Bracket and the Lift Spring Bar as shown (above left). Fix the Positioning Link in place using two M6 X 35 bolts (#38568), two 1/4"ID—1/2"OD sleeve bearings(#726070), two M6 hex machine nut (#40305), and six M6 Flat Washers (#38403). Install the washers as shown in the inset to properly space the Positioning Link.



The image above is a representation, the M6 (1/4") washers provided are to properly align the positioning link. This should position the link parallel with the row unit (does not rest at an angle) and allow the link to move freely throughout the range of motion of the row unit.



Pro Shaft Driven planters (Parts Kit 726320) should begin again with Step 9 here. Chain driven planters (Parts Kit 726315) should skip ahead to Step 12.



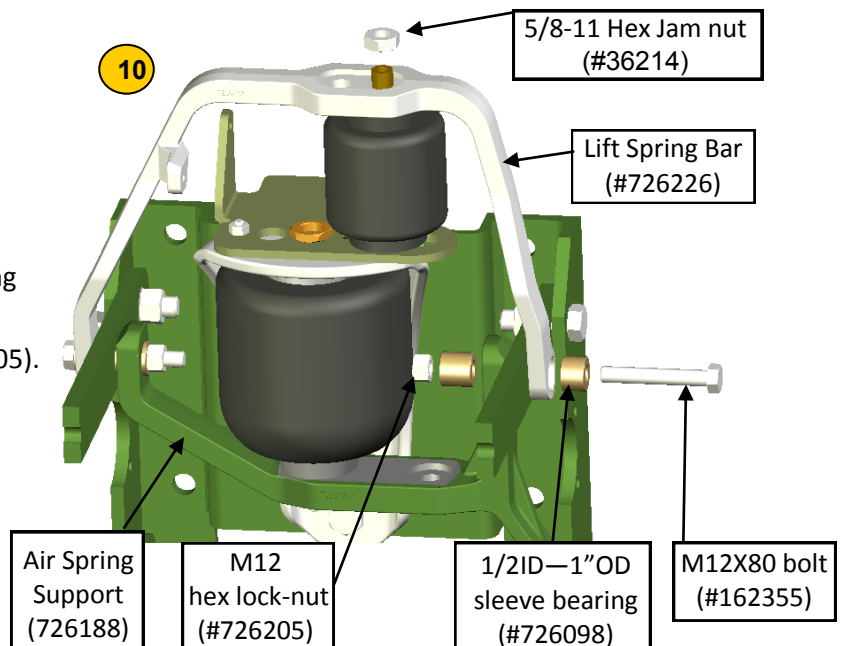
9. Install the Air Spring Support (726188) between the parallel arms as shown at left. Begin by installing the 1/2"X1.5 bolt (95209) through the Spring Support to the base of the Down Air Bag. 1/2" bolt should be tightened to 15lb-ft of torque. Fix the Spring Support to the lower right hand parallel arm using M12X55 bolt (162355), 1/2"ID—7/8"OD sleeve bearing (726099), M12 hex lock-nut (726205).



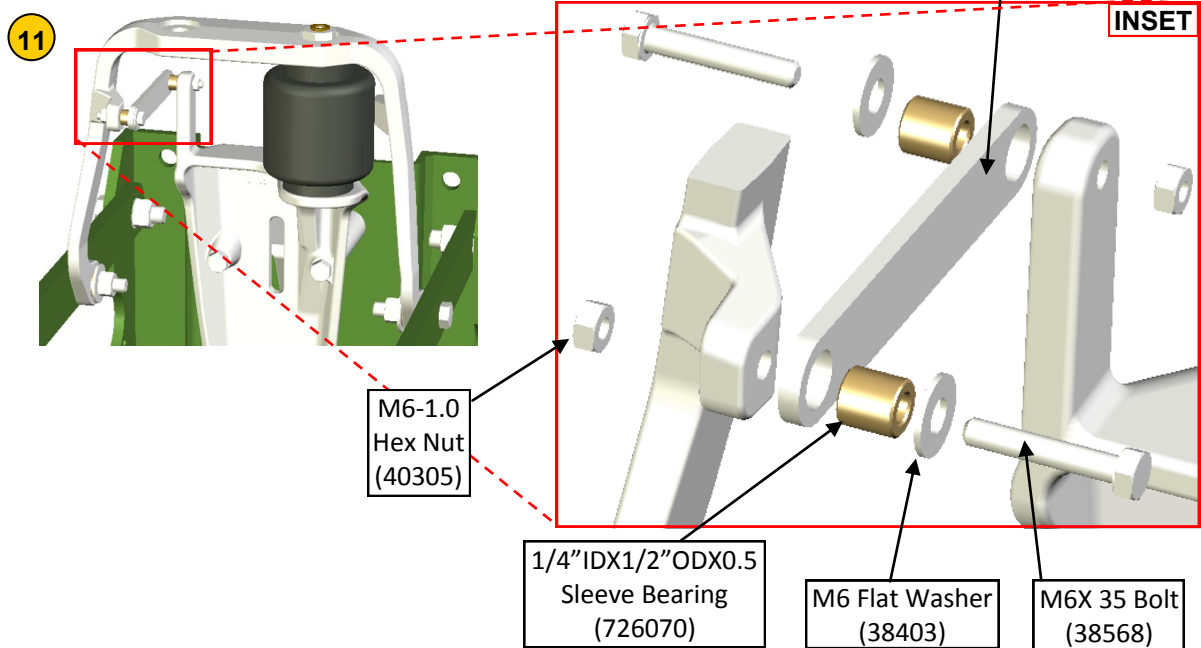
Do not secure the support to the upper parallel arms at this time.

10. Next, align the Lift Spring Bar (#726226) over the Lift Air Bag and outside the top parallel arms as shown at left. First fasten the Spring Bar to the Air Bag using the 5/8" hex jam nut (#36214), this will help anchor the Spring Bar during the next step. The 5/8" nut should be tightened to 10-12lb-ft of torque.

Secure the Lift Spring Bar to the Air Bag Support **through** the top parallel arms using M12X80 bolt (162355), 1/2ID-1"OD sleeve bearing (726098), M12 hex lock-nut (726205).

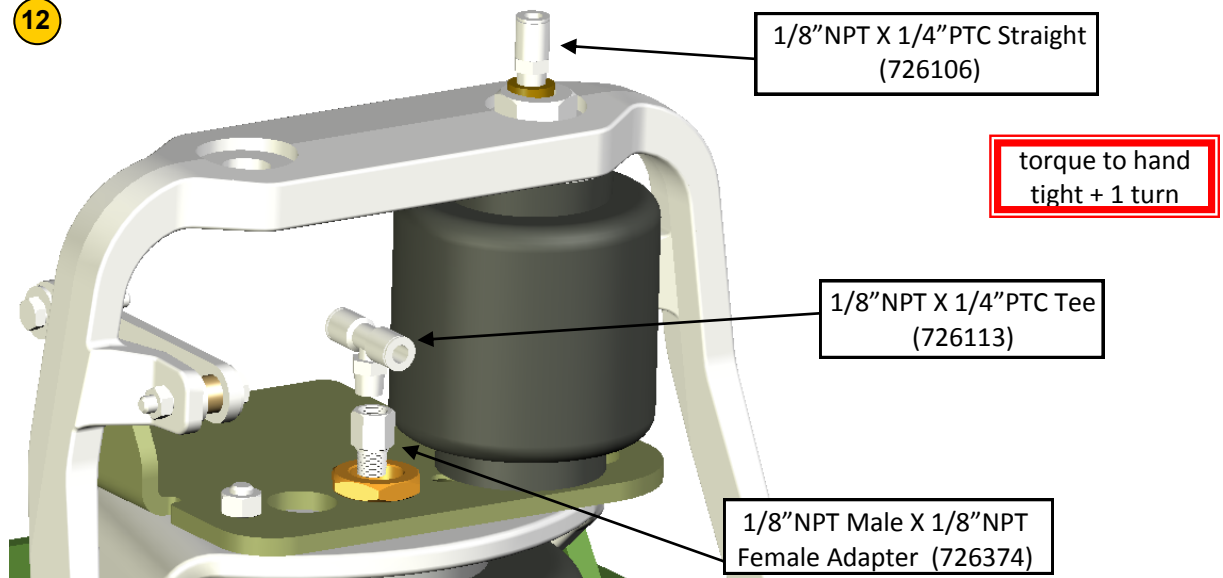


11. Next place the Positioning Link (#726066) between the Lift Spring Support Bracket and the Lift Spring Bar as shown. Fix the Positioning Link in place using two M6 X 35 bolts (#38568), two 1/4"ID—1/2"OD sleeve bearings(#726070), M6 hex machine nut (#40305), and two M6 Flat Washers (#38403)



The following steps apply to both Pro Shaft Driven planters (Parts Kit 726320), and Chain driven planters (Parts Kit 726315).

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12. Install the air fittings into the air Bags. Begin with the 1/8" NPT Male X 1/8" NPT Female Adapter (726374) into the Collar Nut for the Down Air Bag. The 1/8" NPT X 1/4" PTC Tee (726113) will be threaded into this adapter, see above. Finish the installation with the 1/8" NPT X 1/4" PTC Straight fitting (726106) into the Lift Air Bag. All three fittings should be torque to hand tight + 1 turn. Check tightness of all bolts and nuts, and freedom of motion/clearance of all components. Please see the following page for clearance details.

Checking for Clearance Around Lift Air Bags

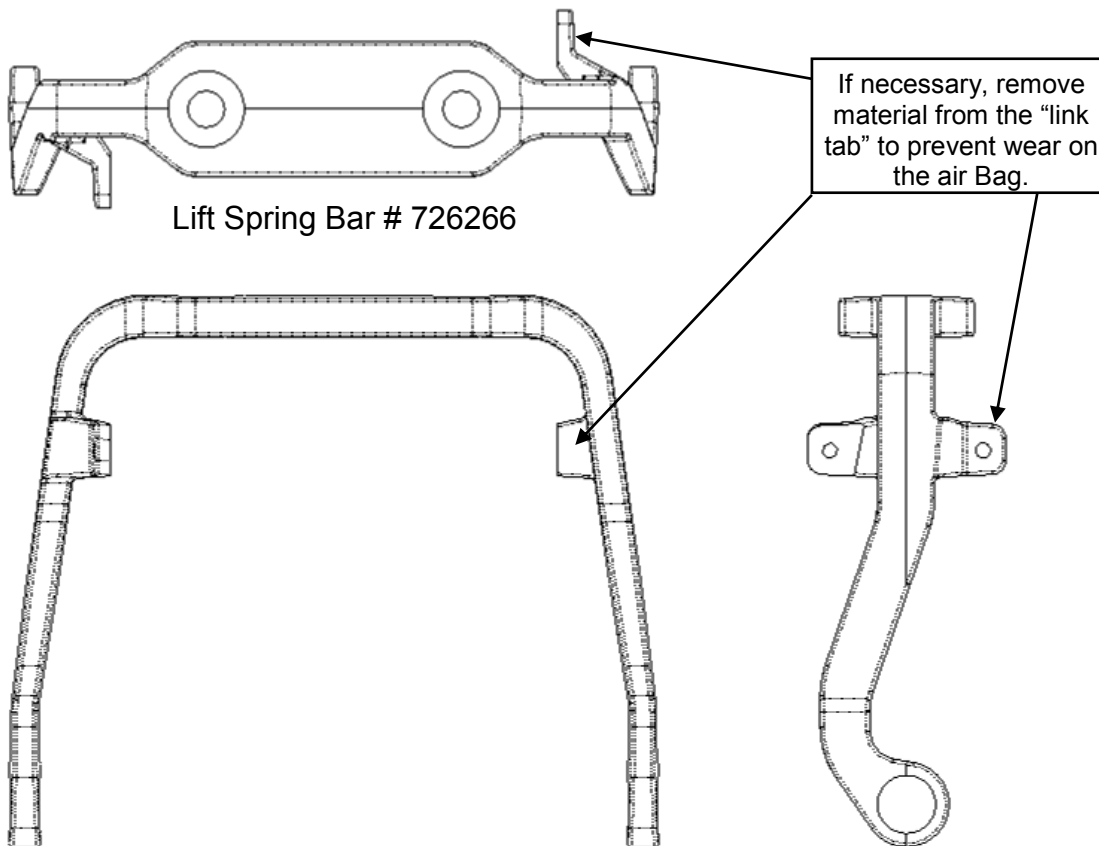
This kit is designed to have plenty of clearance around the lift airbag. However, it may be possible, with incorrect installation or exceptionally worn row unit equipment, for the Lift Spring Bar to come in contact with the Lift Air Bag (726101).

To confirm clearance around the Lift Air Bag:

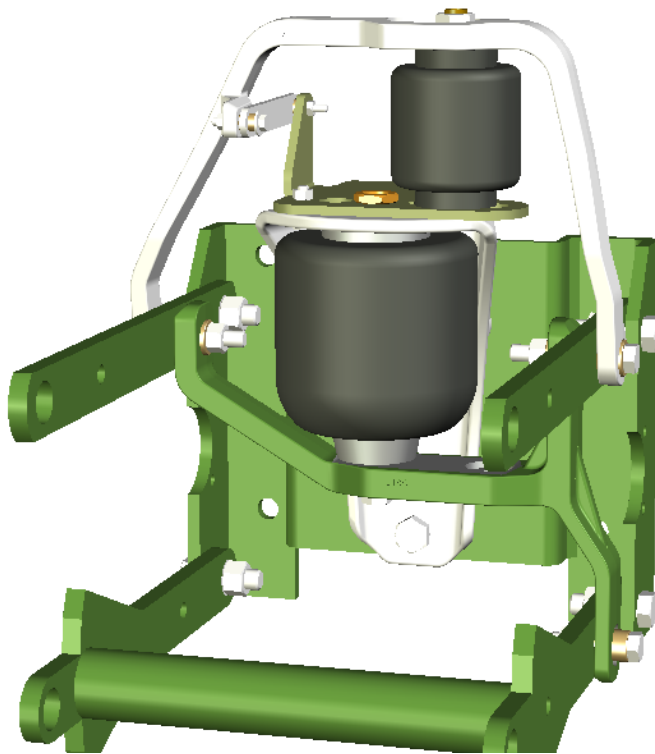
- ◆ Make sure all the AirForce equipment is properly installed, including row unit conversion kits, air lines, 20/20 monitor systems, and the Compressor Module .
- ◆ Power up the tractor and 20/20 system.
- ◆ Lower the planter to planting depth.
- ◆ Using the 20/20 AirForce Manual Control functionality, inflate the Lift system to 100 psi. (specific instruction for manual controls can be found on page 9).
- ◆ Raise the planter so that the row units are completely suspended. This will compress the Lift Air Bag to its largest diameter.
- ◆ Inspect the lift air Bags on each row unit for any signs of contact with the Lift Spring Bar.

What to do if the airbag is not clear all the way around:

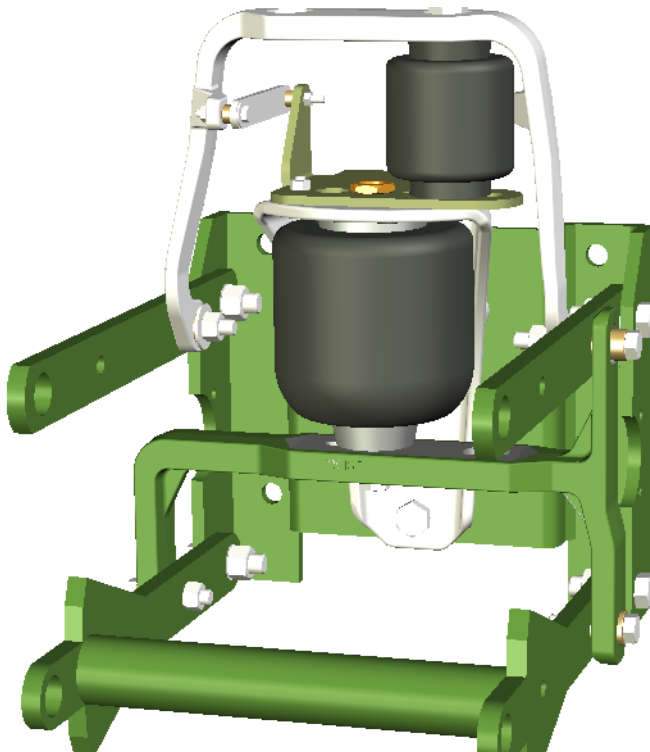
- ◆ If the air Bag does not have complete clearance, first double check that the AirForce row unit parts were installed correctly. Particularly, watch for loose hardware and misplaced 1" spacer/shim washers (726453).
- ◆ If all AirForce row unit parts have been installed correctly, it may be necessary to remove some material from the Lift Spring Bar. Prior disassembling anything, be sure to relieve pressure from the system, and disable the 20/20 AirForce control.
- ◆ Material will probably need to be removed from the "link tab" which is closest to the airbag.



Completed Row Unit Conversions



Row Unit Conversion
for kits: 726320
Regular or Long Parallel Arms
Pro Shaft Driven



Row Unit Conversion
for kits: 726315
Regular or Long Parallel Arms
Chain Driven