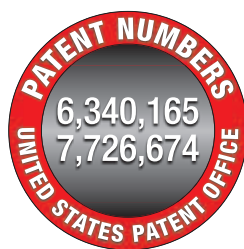


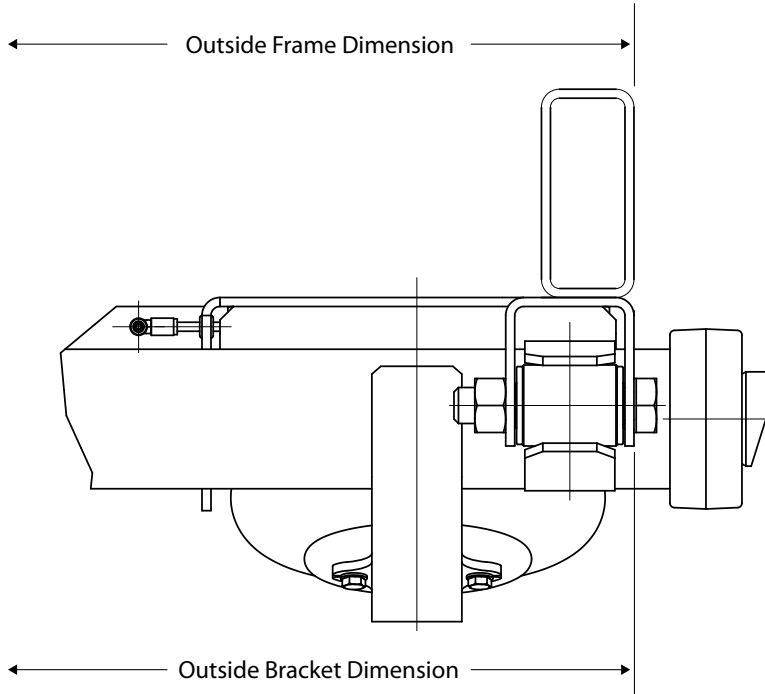
# Airflex® Air Ride Suspension System Installation Instructions

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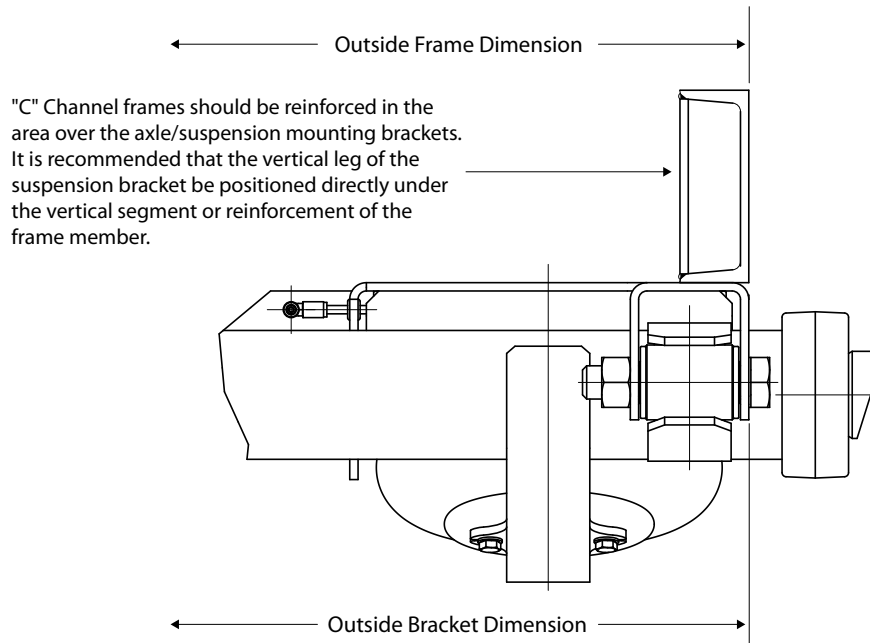


# Frame Styles

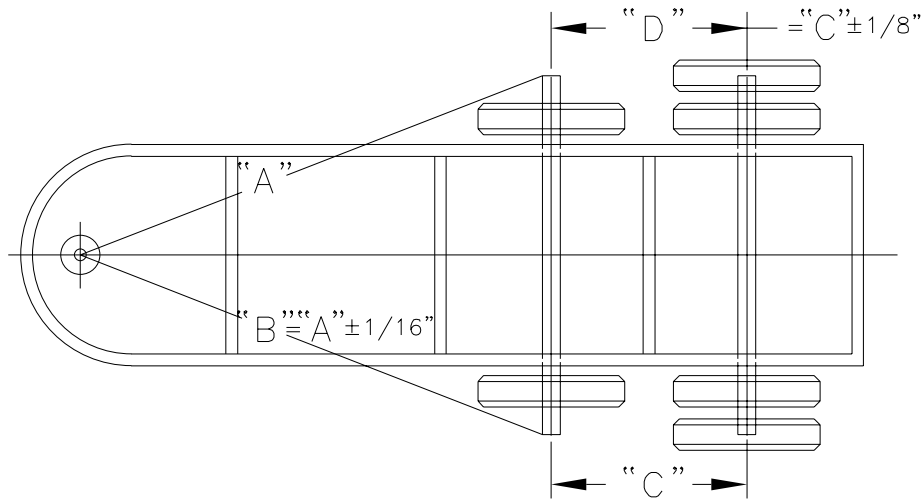
## Tube Frame



## Channel Frame



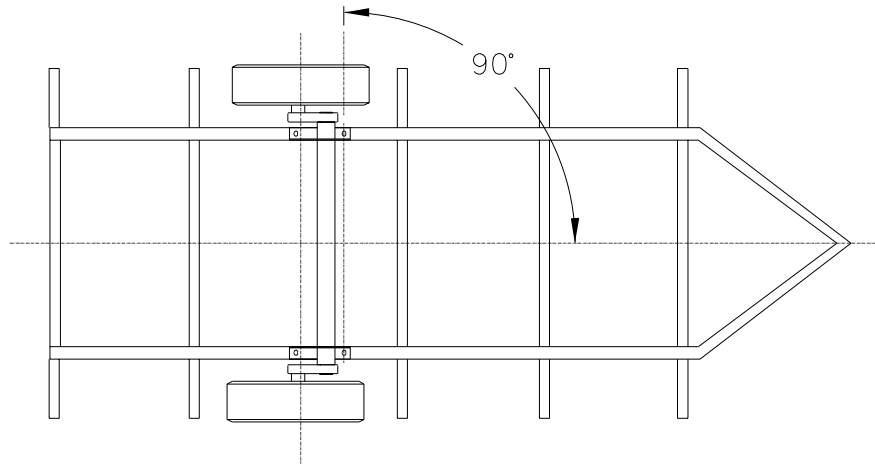
# Axle Alignment



## Tandem Axle Adjustment:

1. Adjust the second axle to assure distances "C" and "D" are within tolerance.
2. Measure the distance "C" and "D" between the front and rear tandem axles. These distances must be within  $1/8$ " of each other.
3. After alignment is completed, make sure all nuts and bolts are tightened to their respective torque values.
4. The limits of  $1/16$ " and  $1/8$ " appear very small in comparison to the overall dimensions of the vehicle but they are recognized as the maximum permissible limit of misalignment. Also, the relatively small size of those limits makes accurate measurements important.
5. Align axles to Torflex<sup>®</sup> specifications. Wheel spindles must be supported at the same height when aligning.

## Axle Alignment:

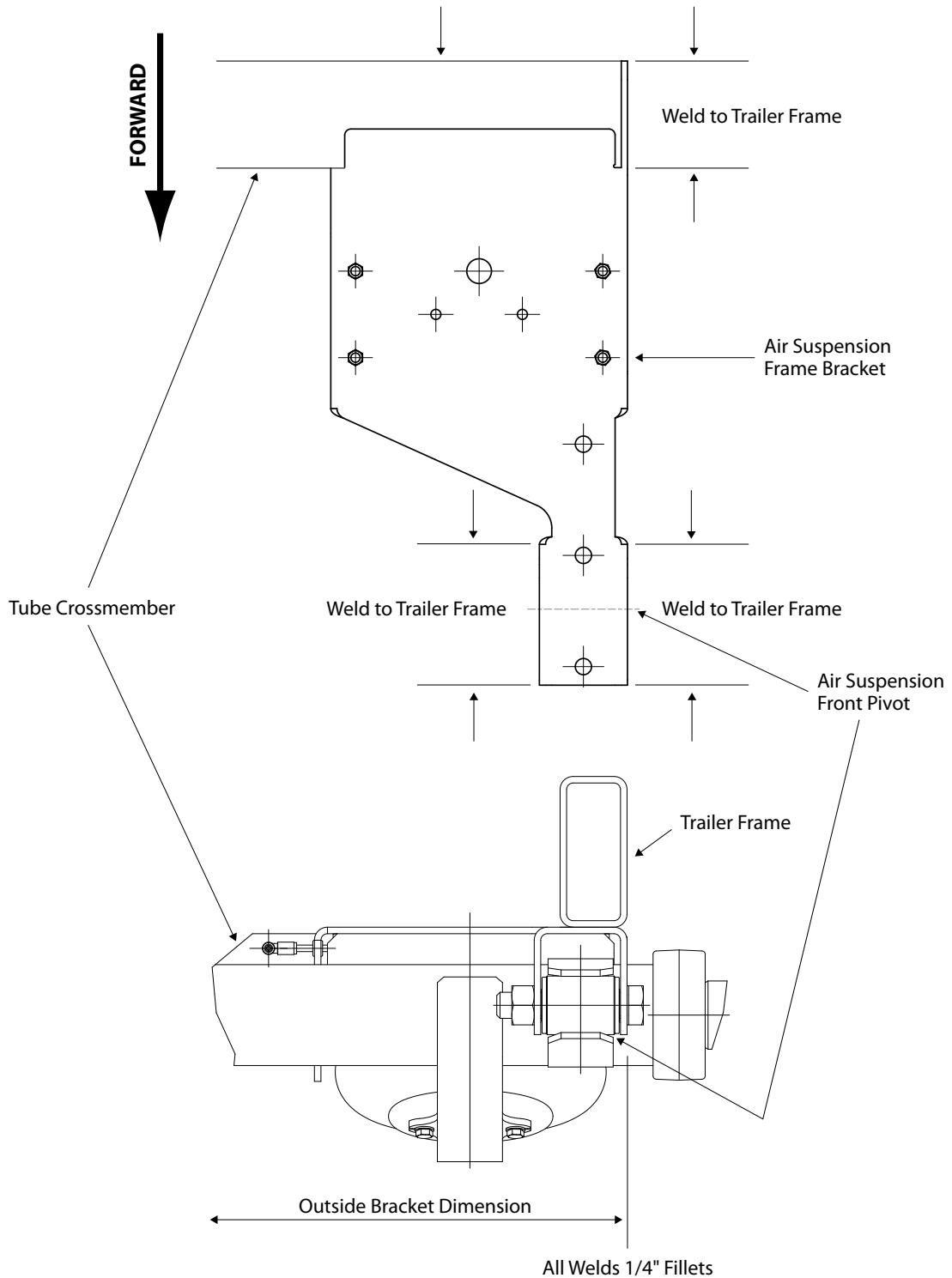


To ensure proper tracking, the axle must be placed on the frame perpendicular to the centerline of the vehicle. The accuracy must be within plus or minus one half degree. For multiple axle applications, each axle must be parallel with the others within one sixteenth of an inch when measured at the wheel centers.

**Note:** When laying out the position for the axle(s), measuring from the front cross member should only be done if the cross member has been checked for squareness to the frame centerline. Any error in the cross member will be transferred to the axle and can result in poor tracking and excessive tire wear.

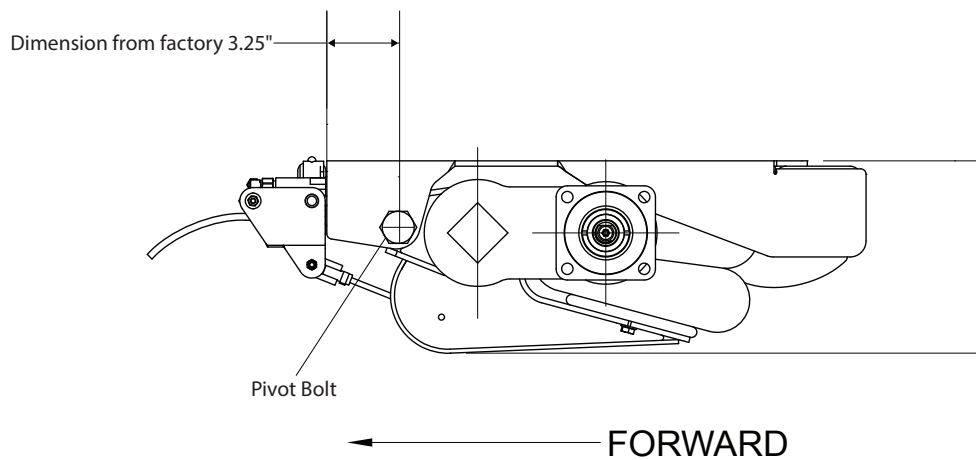
# Frame Weld

## Air Suspension Frame Bracket and Trailer Frame



# Axle Alignment Adjustment

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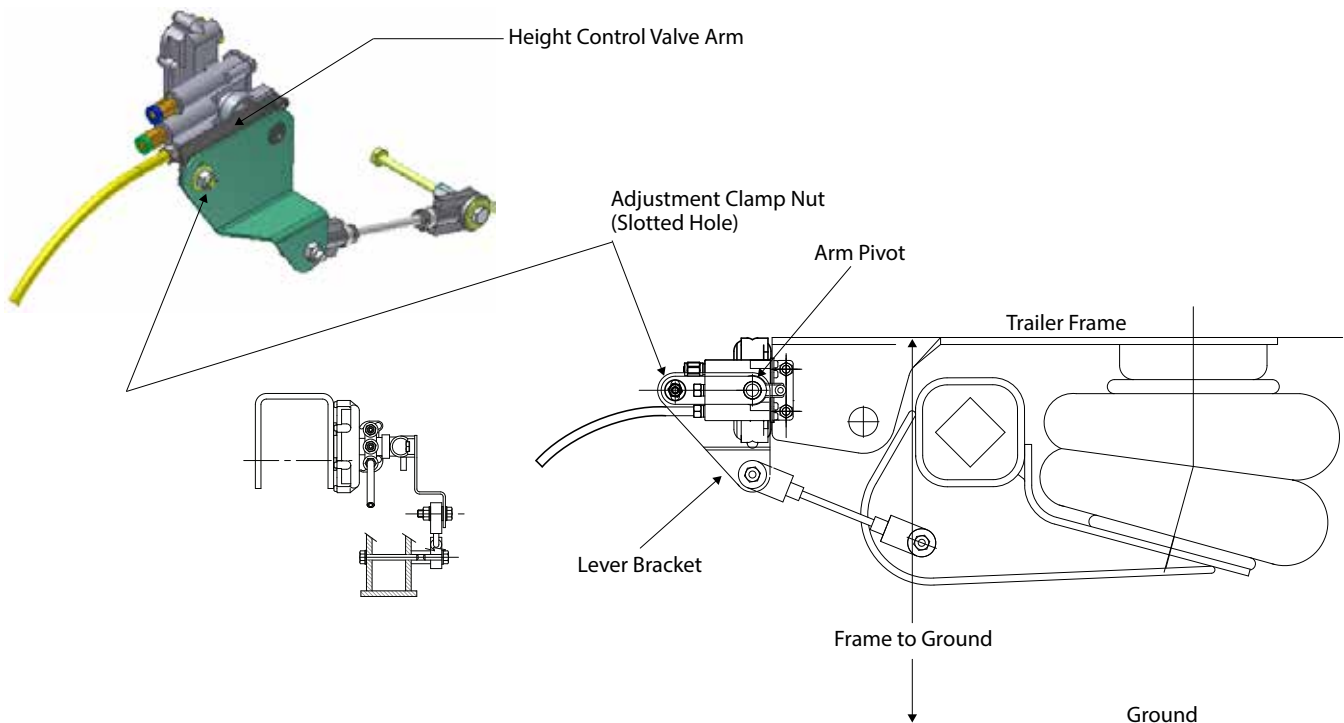


Suspension front pivot connection is torqued to 270 **Ft. Lbs.** when the suspension is shipped. The axle should be aligned on the trailer in this condition.

## CAUTION

Failure to torque the  $\frac{3}{4}$ " pivot bolt to 270 Ft. Lbs. will cause premature front bushing wear or damage to the suspension frame bracket and pivot bracket.

# Height Control Valve Adjustment



## Trailer Design Height Adjustment:

1. Check all around and under vehicle to be sure the area is clear of people and obstacles.
2. Set landing gear so that the trailer is level and place wheel chocks at tires.
3. "LOWER" the trailer by exhausting air from the air suspension.
4. Measure the frame to ground dimension and record.
5. "RAISE" the trailer by adding air to the system.
6. Measure the frame to ground dimension at the same location as step 5.
7. Subtract the "LOWER" dimension from the "RAISED" dimension. The difference should be 2" to 2.5".
8. If the result dimension is more or less than 2" to 2.5", adjust the height control valve setting.

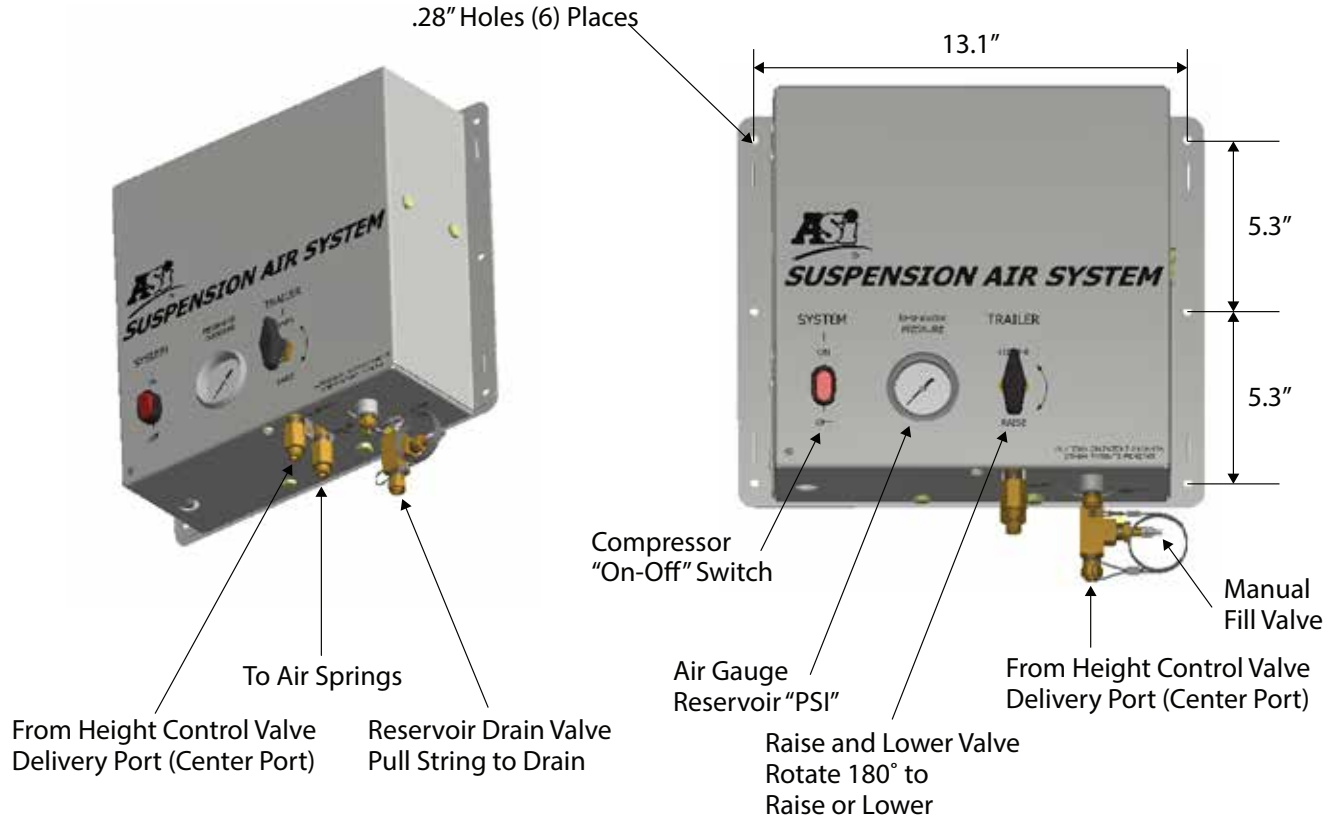
## **CAUTION**

**Keep clear of trailer, tires, and fenders when adjusting the height control valve. DO NOT GET UNDER THE TRAILER. Failure to do so could cause crushing injury or death.**

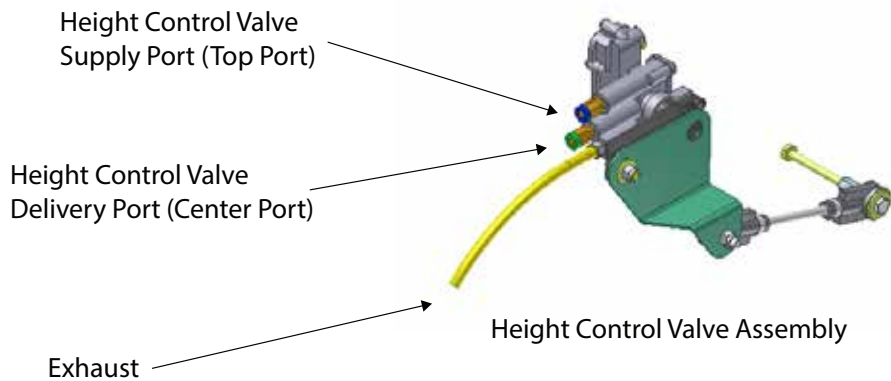
9. With air in the system, loosen the adjustment clamp nut.
10. If the trailer is too low, rotate the height control valve arm counter clockwise to LOWER to the height required.
11. If the trailer is too high, rotate the height control valve arm clockwise to LOWER to the height required.
12. There is a three to five second delay before air flows when adjusting.
13. When the trailer has moved the desired height, tighten the adjustment clamp nut to 24-48 **In. Lbs.**
14. Using the RAISE/LOWER feature on the Air System Panel, check the design height setting by lowering the trailer again and then raising it back to design height, recheck the dimension. Re-adjust if required.

# Air Supply and Control Enclosure

## K71-692-02

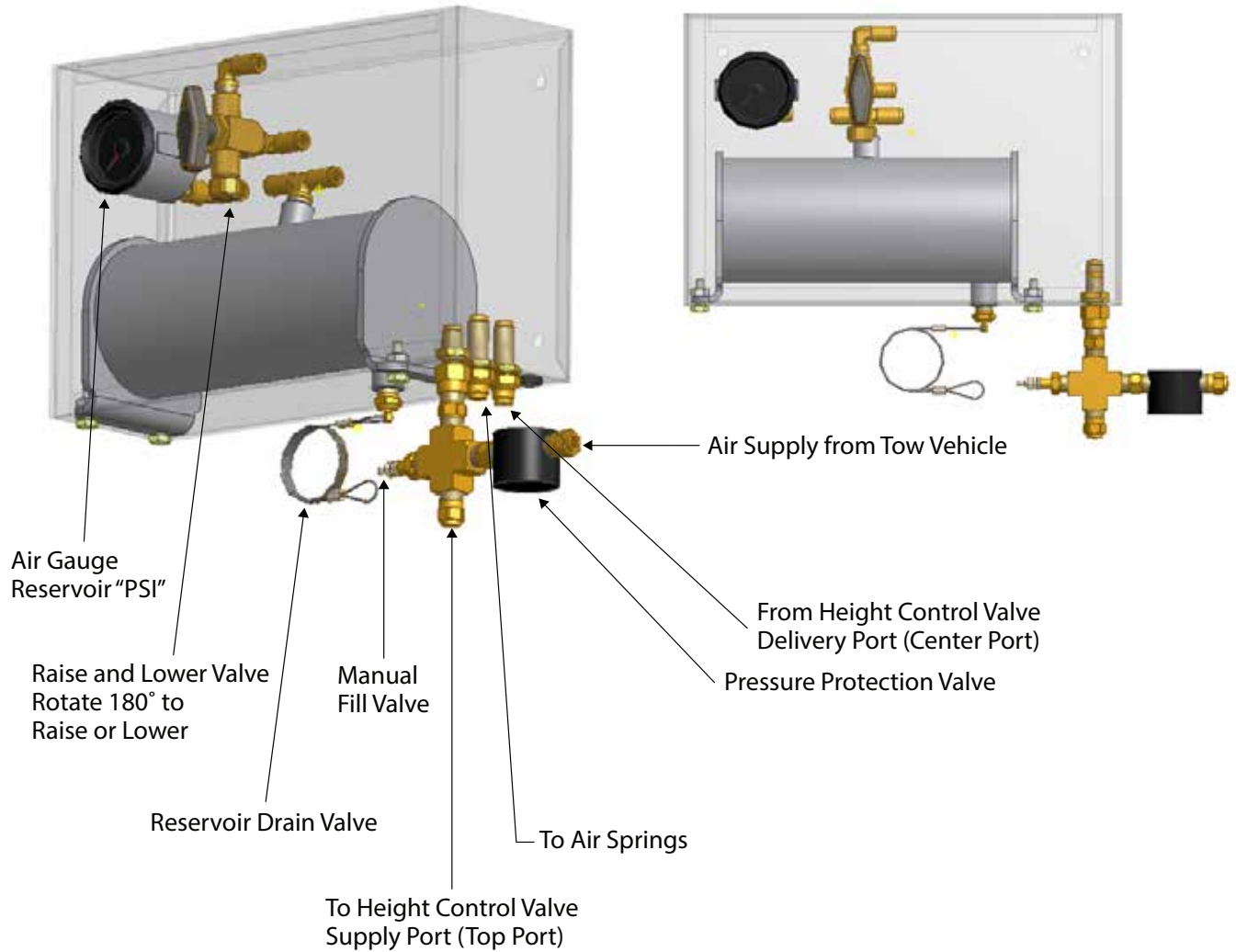


## K71-692-01



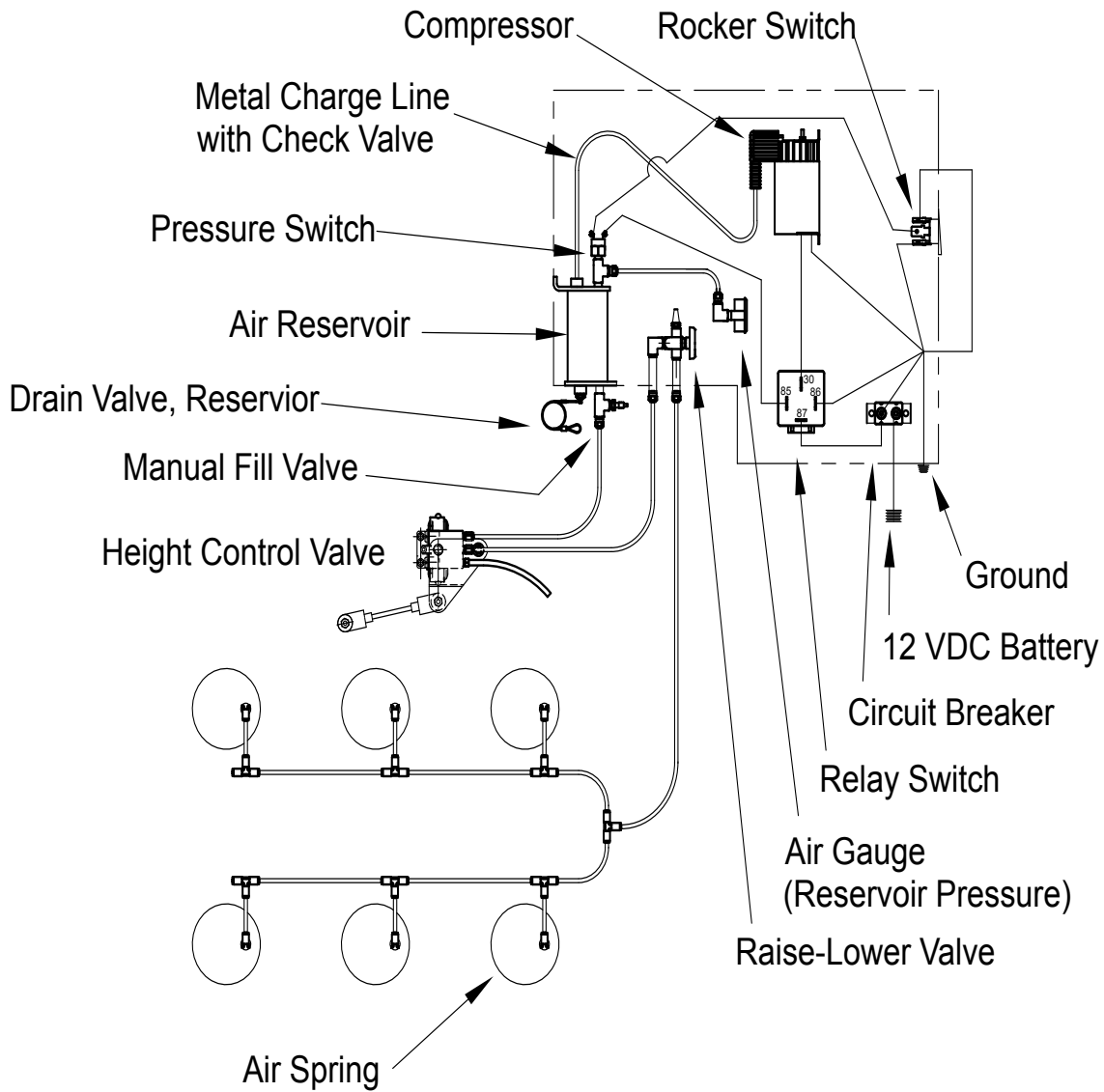
# Air Supply from Tow Vehicle

K71-692-03

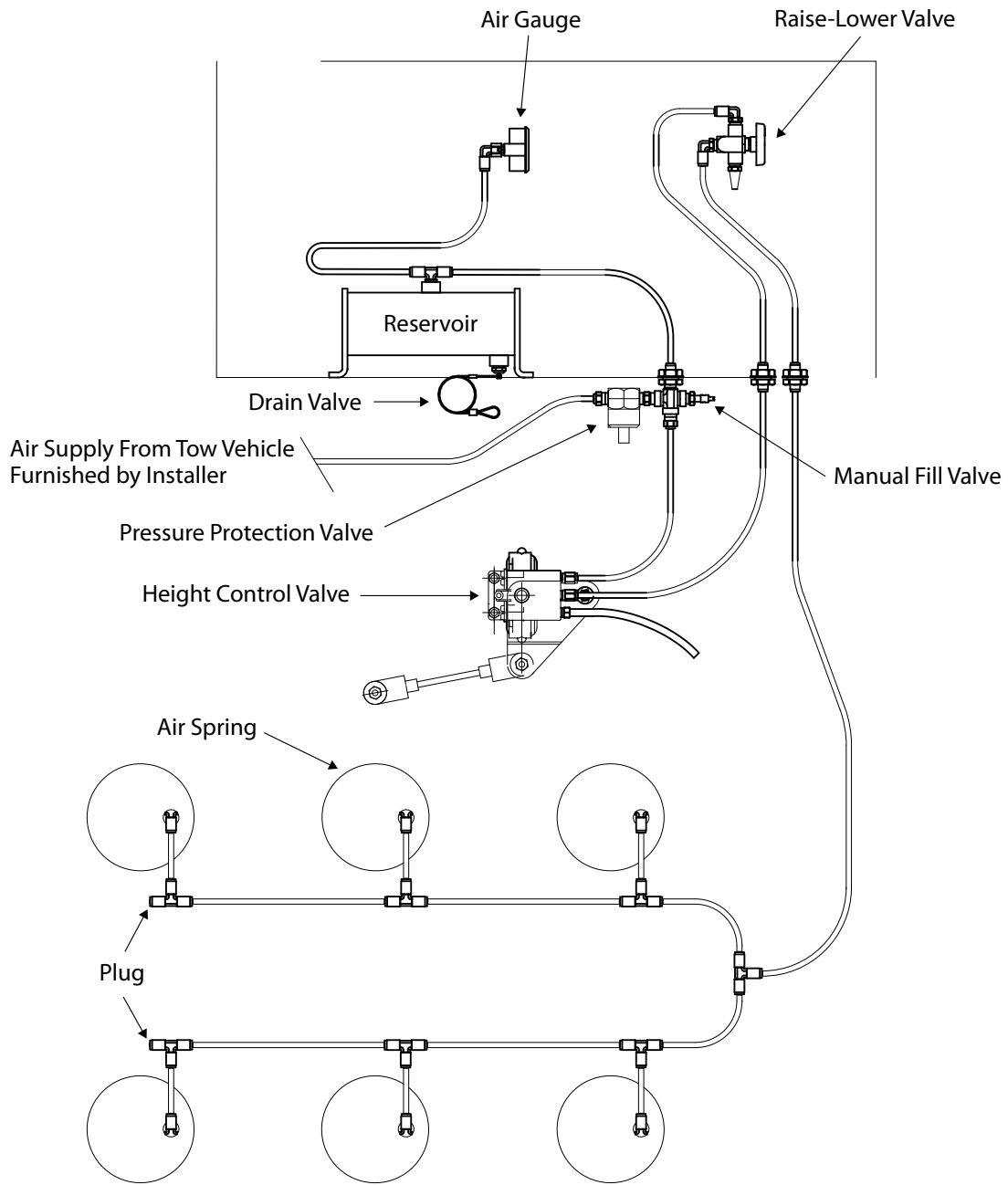




# Air System Diagram with 12 VDC Compressor

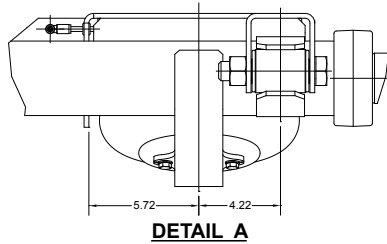
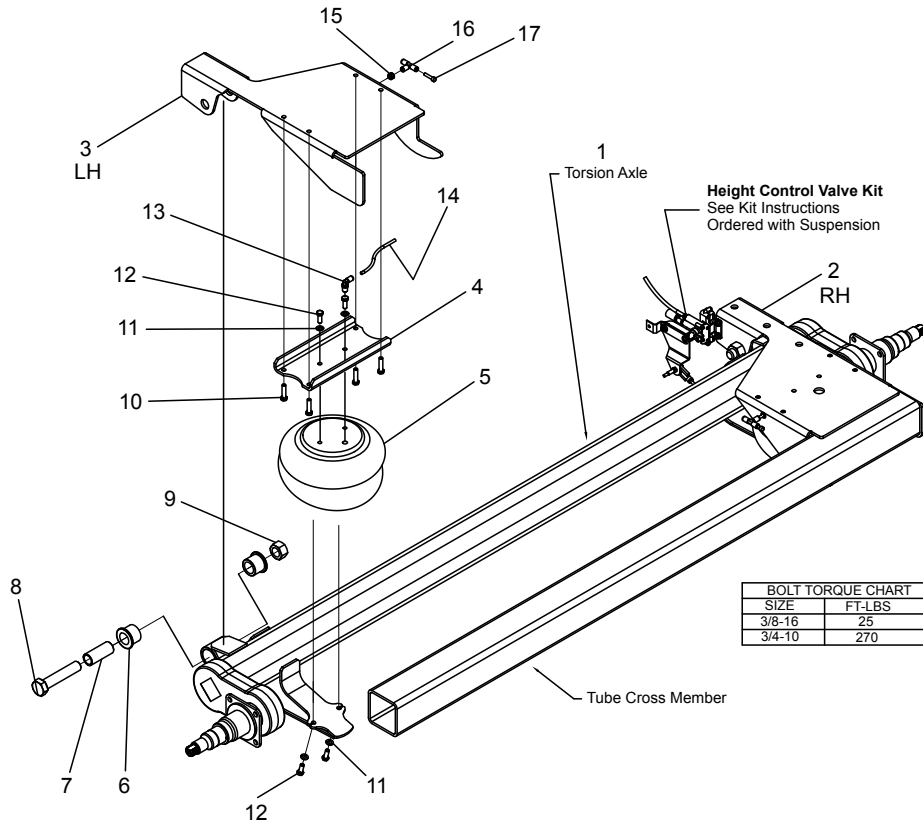


# Air System Diagram with Tractor Supplied Air

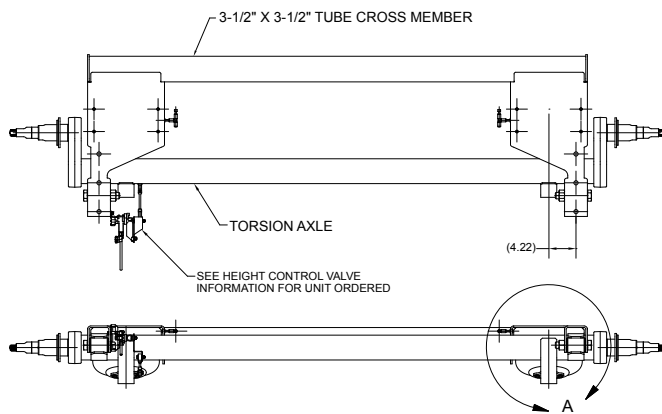


# General Assembly

## Rubber/Air Suspension Crossmember Mounted Under the Trailer Frame



BILL OF MATERIAL		
ITEM	QTY	DESCRIPTION
1	1	TORSION AXLE W/SUSPENSION BRACKETS
2	1	FRAME BRACKET, RH
3	1	FRAME BRACKET, LH
4	2	CHANNEL, AIR SPRING SUPPORT
5	2	AIR SPRING
6	2	BUSHING, FRONT PIVOT
7	2	BUSHING LINER
8	2	3/4-10 UNC x 4.5" LG HHCS
9	2	3/4-10 UNC STOVER LOCK NUT
10	8	3/8-16 UNC x 1.5" LG HHCS
11	8	3/8 REGULAR SPLIT LOCK WASHER
12	8	3/8-16 UNC x 1" LG HHCS
13	2	1/4NPTM x 1/4T 90 DEG ELBOW, SWIVEL
14	2	1/4 x 6.25" LG NYLON TUBE
15	2	GROMMET
16	2	1/4T UNION TEE
17	2	1/4T PLUG



**NOTE:**  
ALL DIMENSIONS ARE SHOWN AT THE DESIGN HEIGHT POSITION

