



G2RX-CC-13
G2RX-CC-13AL

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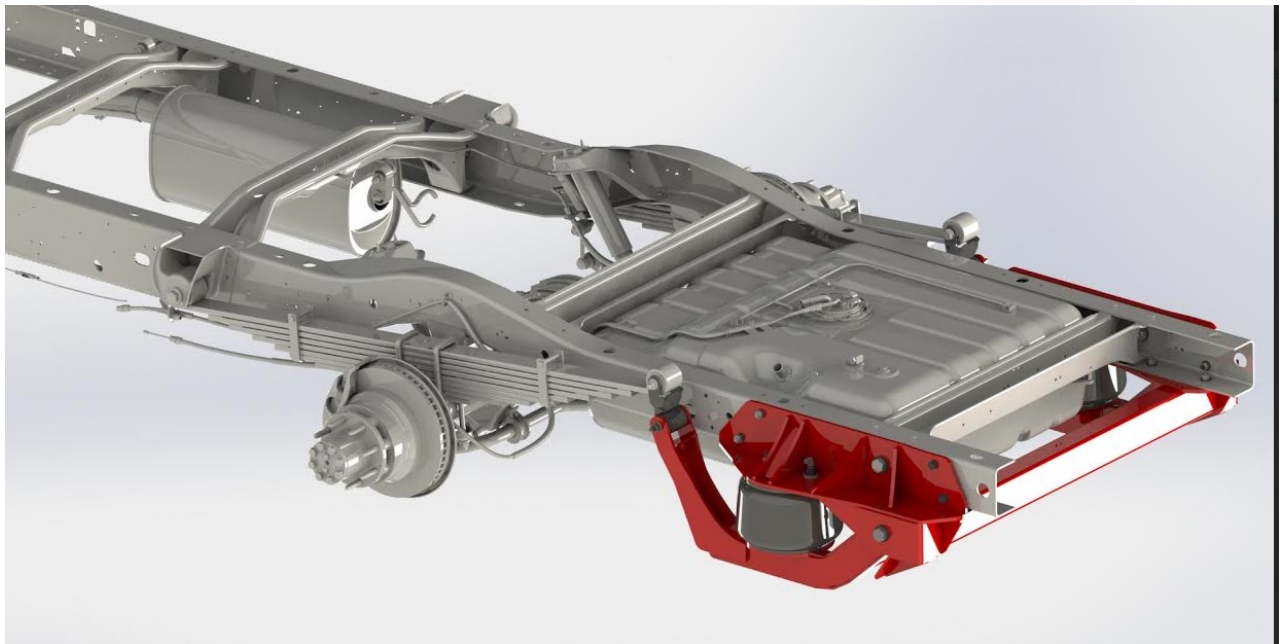
AIR SUSPENSION SYSTEMS

2686 Highway 92 - Oskaloosa, IA 52577

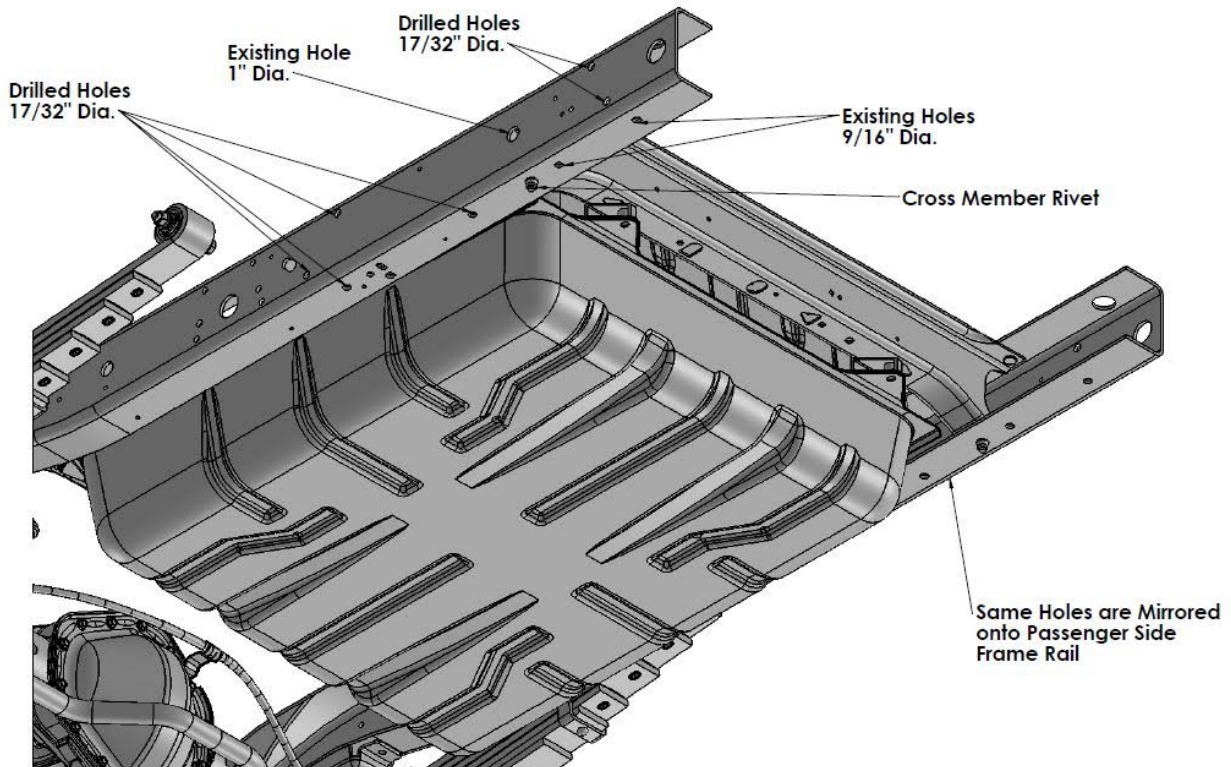
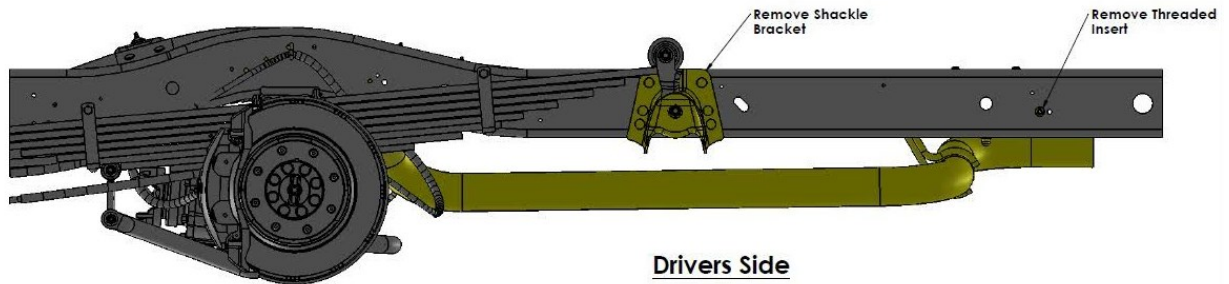
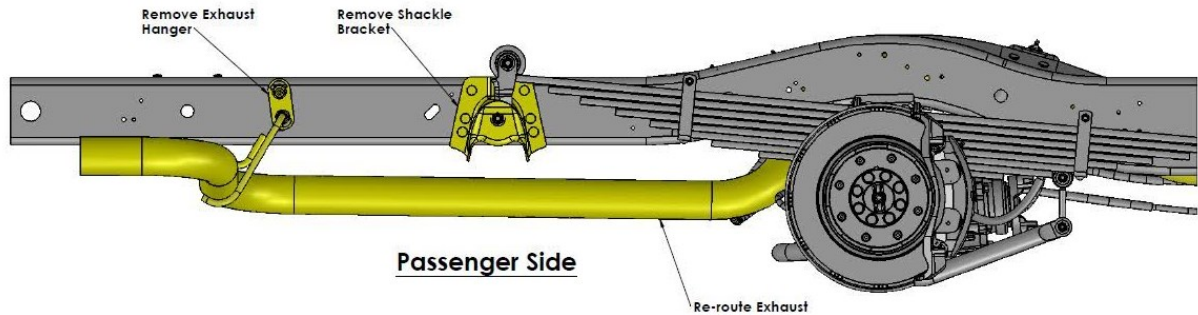
phone: 641.673.0468 - fax: 641.673.4168

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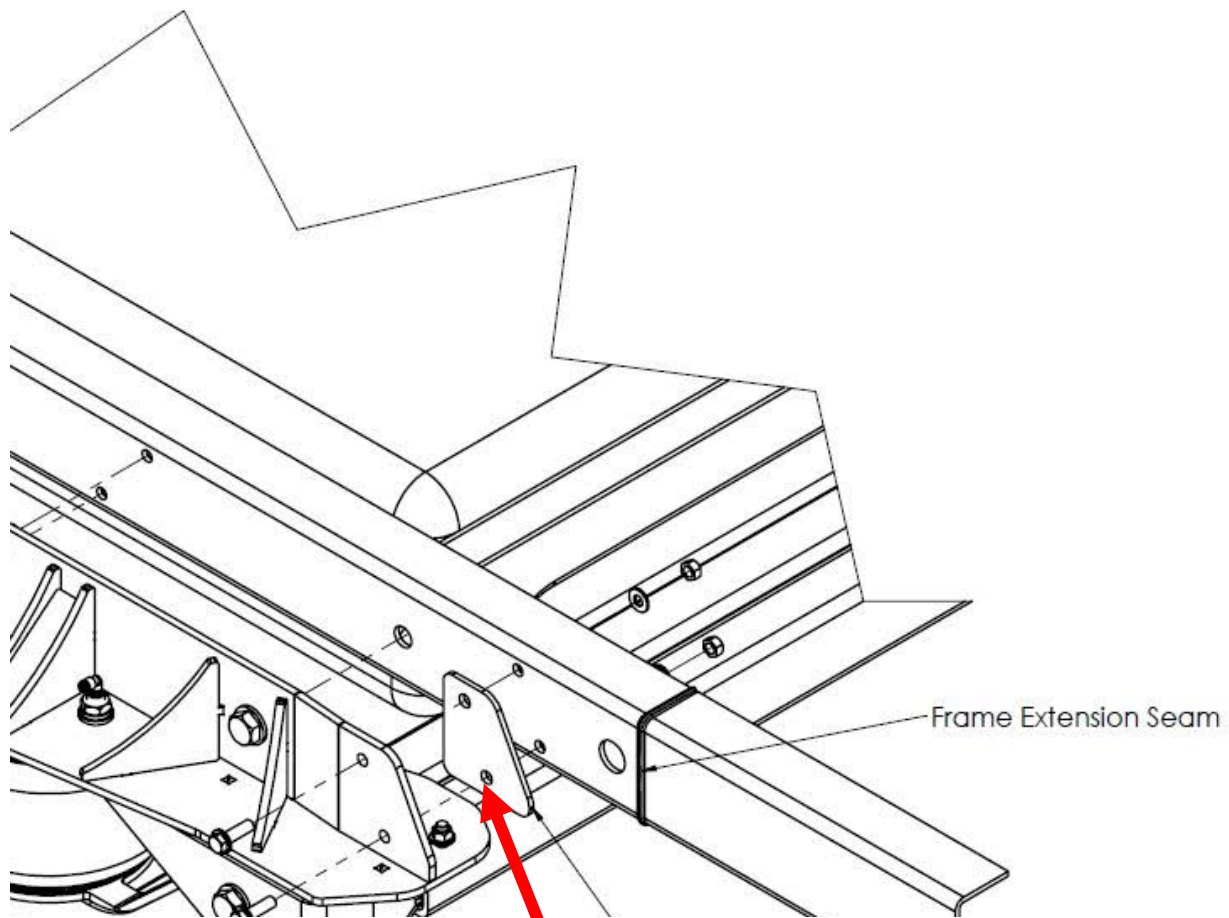
2013 GM 3500 Cutaway 2-Stage Rear Air Suspension



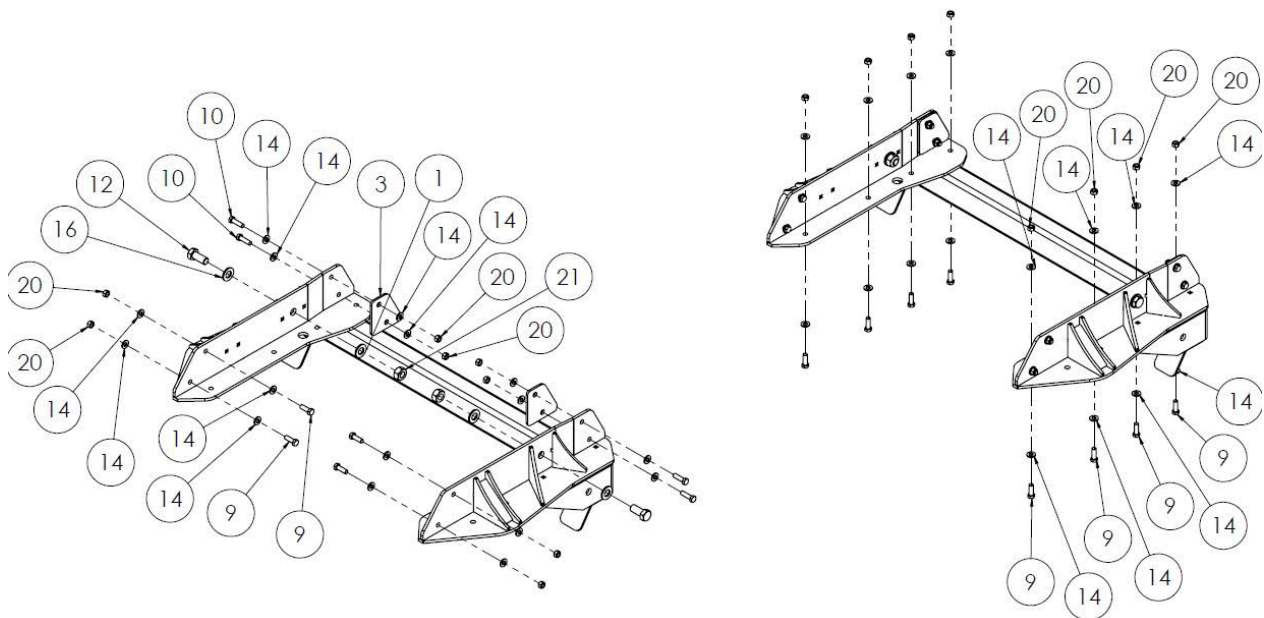
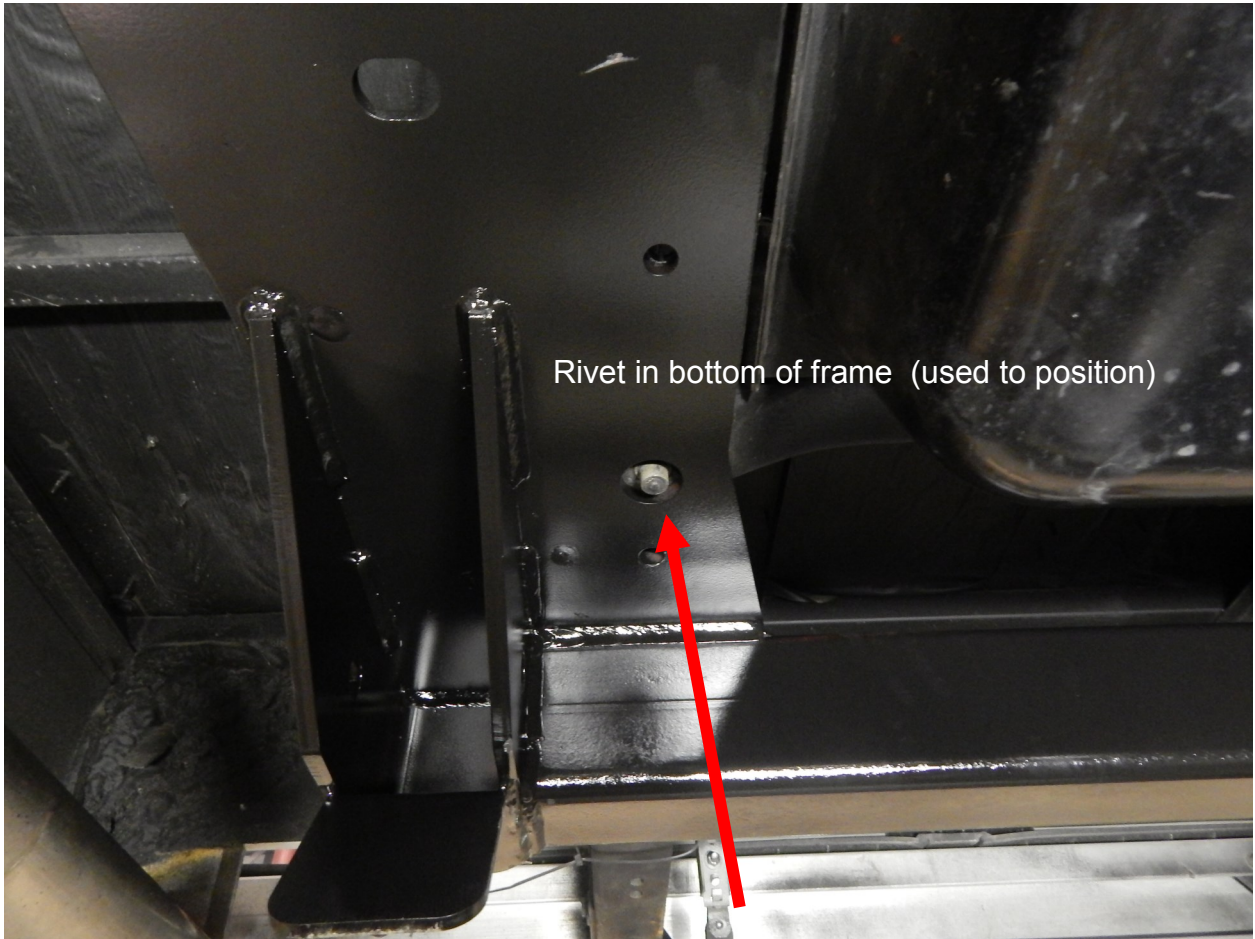
1. Place the truck on a level concrete surface. Place wheel chocks in front and behind of the front wheels.
2. Jack up the back of the frame high enough to just get the rear wheels off the ground.
3. Remove the rear leaf spring mounts from the side of the frame. You will need a torch or plasma cutter to do this. Next, remove the rear section of the tailpipe. The exhaust will have to be modified and routed around the air suspension after the air ride installation is complete.



4. Locate the upper bag mount (part # 18851). This framework fastens to the frame with sixteen 1/2" bolts (8 on the bottom and 8 on the side) and two 7/8x2" bolts. To locate where the upper framework goes, find the rivets in the bottom of the frame that connect to the cross member located behind the fuel tank (**see picture on page 4**). Next insert the 7/8" bolts to hold the frame work up. Since the hole in the frame is larger than 7/8" a pair of clamps will be required to hold the upper bag mount tight against the bottom of the frame. Use the diagram on page 2 to see where the holes need to be drilled. You will be able to use the upper bag mount as a drill fixture. If the frame doesn't have an exterior plate on the side of the frame, install the 1/4" fill plate (part# 18878). See diagram below. NOTE: Insert four forward 1/2" bolt from the inside of the frame outward so the threaded portion of the bolt is not facing the fuel tank. NOTE: Examine the inside of the frame so you don't drill into any wiring, brake lines or fuel tanks.



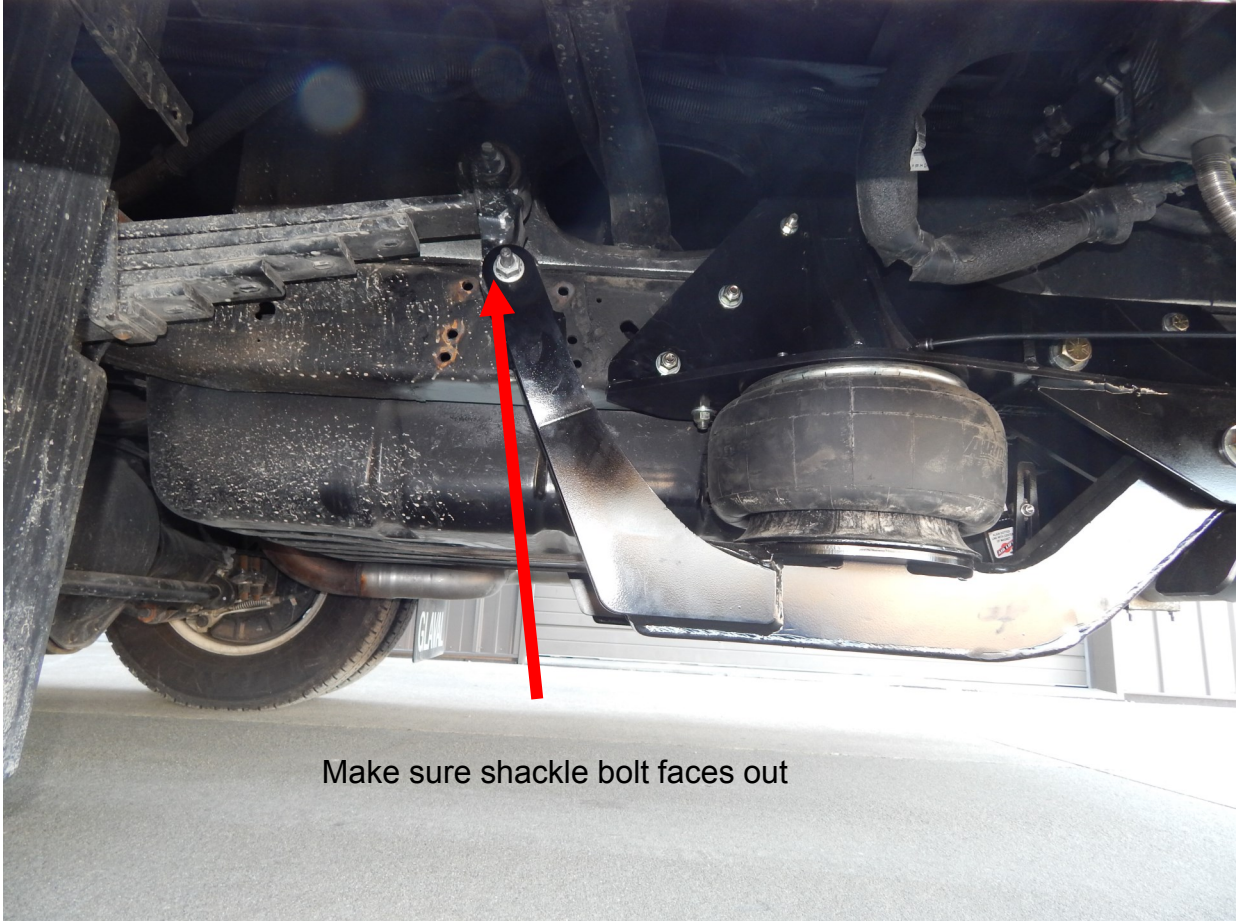
1/4" spacer its used if no frame extension has been welded on



5. Once the top framework is installed locate the 9039 air bags (part#80012-9039). Insert the 1/4" air line fitting in the air bag port. Torque to 15 ft/lbs. Now insert the bags up into the top frame and use the 1/2" and 3/4" nuts and lock washer and flat washer. Torque these to 30 ft/lbs.



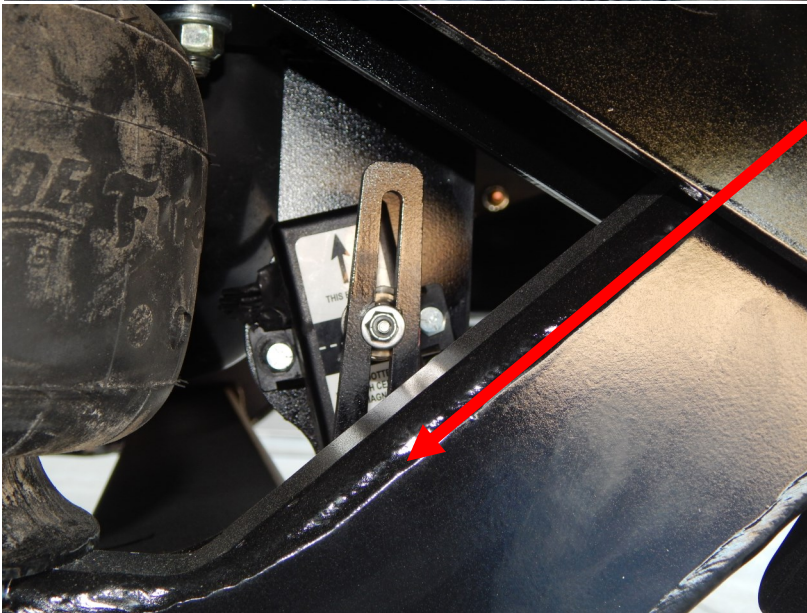
6. Now locate the swing arm assembly (part# 18864). Slide it into the upper framework (this is a 2 man job) and attach the two assemblies together with the 7/8x5 1/2" bolts. Insert the 7/8" bolts out side in. A flat washer goes on each side of the bolt.



Make sure shackle bolt faces out

7. The swing arm fastens to the leaf spring shackle with the factory shackle bolt. Run the bolt so its inside out (threads on outside). You will have to drop the swing arm down below the frame to do this. Failure to do so will cause the bolt to rub on the truck frame and cause considerable damage. Torque these bolts to 135 ft/lbs. Next fasten the bottom of the air bag to the swing arm with the 3/4" nut and lock washer. Torque to 30 ft/lbs.

8. Next locate the control system. It is a magnet style system that adds air and dumps air to the air bags when weight is added and subtracted to the chassis. Open the box and locate the install instructions. The first part to install is the ecu sensor. Fasten it to the 1.4" plate on the drivers side with the two 1/4x 1 1/4" bolts. Make sure the arrow on the ecu is pointed up. The ecu will be tilted. Use picture below as a reference. Next locate the magnet. It fastens to the mounting bracket on the swing arm with the #10 x 1 1/4" bolt. Use a flat washer and lock nut on it. To locate the exact spot, set the swing arm level with the ground (air bag approx. 7" tall) , and the magnet right in line with the dotted line on the ecu. Once the sensor and magnet assembly are installed, locate a spot on the drivers side frame to install the compressor. Use the electrical diagram for wiring the system up. Make sure when running air lines to keep them away from sharp objects and away from the exhaust.



Note: There is 2 brands of magnet control systems offered. The Air Lift brand is pictured and described here. The air lift system operated with the magnet right on the dotted line on the ecu.

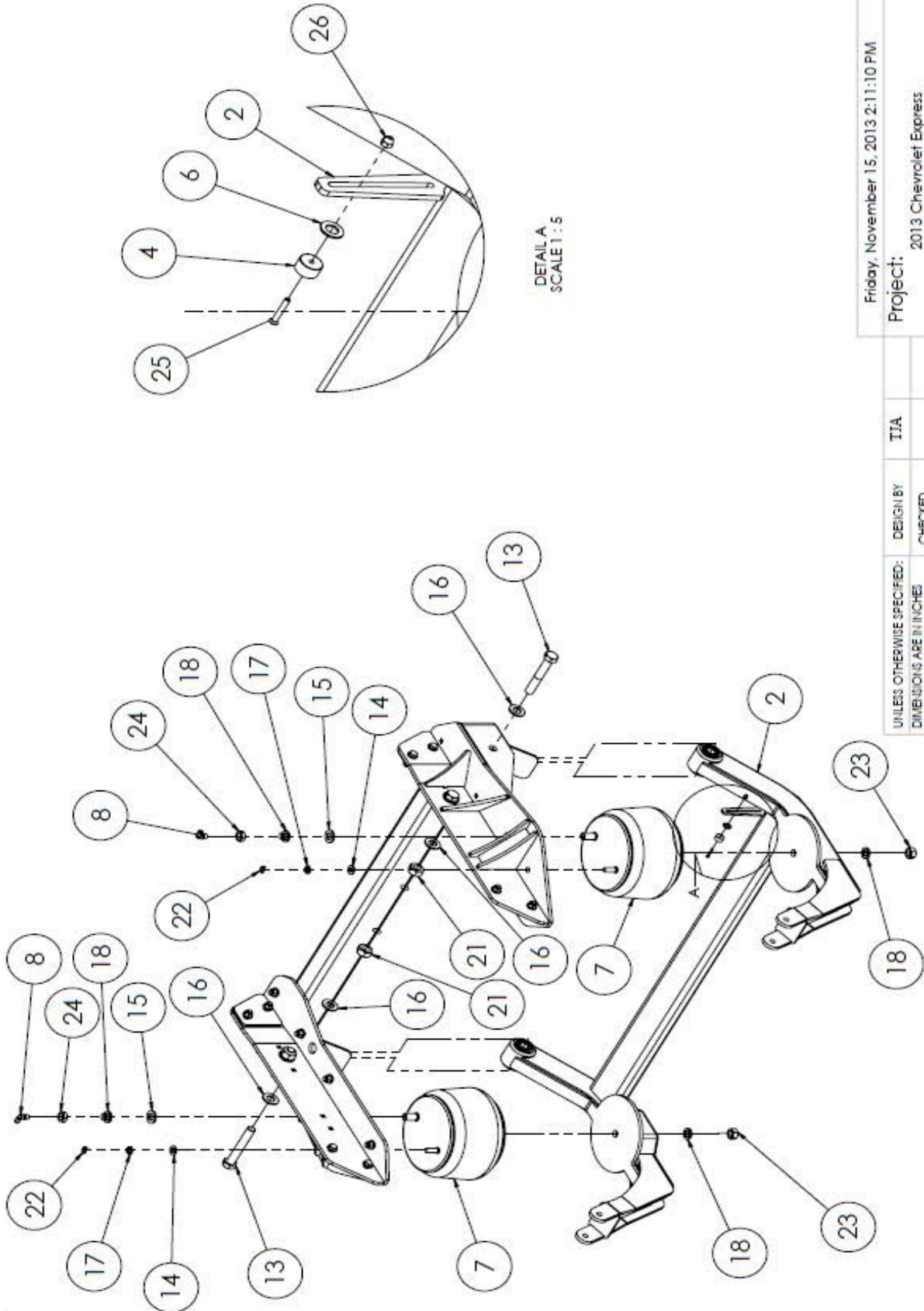
The AMK version operated with the magnet 1" above the line.

9. Install the rear exhaust. It will have to be modified to fit around the exhaust.

9. Now that the air ride installation is complete, the exhaust will need to be installed. As with all shuttle busses, the install will be custom. It is recommended to try and keep the tailpipe at least 2" away from the air bag.

10. Now that install is complete, recheck all the bolts to make sure all the nuts are tight.

ITEM NO.	PART NUMBER	DESCRIPTION	Free Movement/QTY.
	<i>Assemblies</i>		
1	18851	Top Frame	1
2	18864	Swing Arm Assembly	1
	<i>Parts</i>		
3	18878	1/4" Fill Plate	2
	<i>Purchased Parts</i>		
4	80011-10966	Magnet	1
5	80011-24060	ECU - Height Control	1
6	80011-Plastic Washer	Plastic Washer Supplied in 80011	1
7	80012-9039	Firestone W01-358-9039 Air Bag	2
8	80013	90° Air Fitting 1/4"NPT to 1/4" Tube (SMC)	2
	<i>Hardware</i>		
9	12007	BOLT - 1/2"-20 X 1 1/2" GR8	12
10	12009	Bolt - 1/2"-20 X 1 3/4" - GR8	4
11	12108	Bolt - 1/4"-20 X 3/4" - GR5	2
12	12605	Bolt - 7/8"-14 X 2" GR8	2
13	12631	BOLT - 7/8"-14 X 5 1/2" - GR8	2
14	13004	Washer - 1/2" - Flat - SAE	34
15	13028	Washer - 3/4" - Flat - SAE	2
16	13030	Washer - 7/8" - Flat - SAE	8
17	13050	Wahser - Locking - 1/2"	2
18	13056	Washer - Locking - 3/4"	4
19	13100	Nut - Locking - 1/4" - 20 - GR5	2
20	13104	Nut - Locking - 1/2"-20 - GR8	16
21	13130	Nut - Locking - 7/8"-14 - GR8	4
22	13144	NUT - 1/2"-13 - GR5	2
23	13148	Nut - 3/4"-10 - GR5	2
24	13208	Nut - Jam - 3/4"-16 - GR5	2
25	14048	Machine Screw - #10 - 24 X 1.25" - Allen- Countersunk	1
26	14050	Nut - Locking - #10-24	1



DETAIL A
SCALE 1:5

Friday, November 15, 2013 2:11:10 PM

Project:
2013 Chevrolet Express
4500 Shuttle Bus 2-Bog Rear

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32"	DESIGN BY TIA	TIA
	CHECKED	
	NEW DXF	