

INSTALL INSTRUCTIONS

**2023+ FORD F250-350
PICKUP - 10-12" FRONT &
REAR AIR SUSPENSION
LIFT - CENTER CRADLE**



KIT # 10031904

kelderman



KELDERMAN MANUFACTURING

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KIT NUMBERS

- THIS INSTALLATION MANUAL COVERS THE FOLLOWING AIR RIDE KITS.

KIT NUMBER	DESCRIPTION
10031904	KIT - 2023+ FORD F250-350 PICKUP - 10-12" FRONT & REAR AIR SUSPENSION LIFT - CENTER CRADLE



F250 Crew Cab Short Box Shown

INTRODUCTION

IMPORTANT

- ◆ IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH INSTALLATION.
- ◆ IF YOUR KIT WAS ORDERED RAW, OPEN EVERY BOX AND LOCATE ALL PARTS. THERE ARE SEVERAL SMALLER BUSHING PIECES AND BOLTS THAT ARE PACKAGED SEPARATELY INSIDE THE MAIN BOX.

PRODUCT INSTALLER RESPONSIBILITIES

- ◆ INSTALLER IS RESPONSIBLE FOR INSTALLING THIS PRODUCT IN ACCORDANCE WITH KELDERMAN MFG. INC. SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
- ◆ INSTALLER IS RESPONSIBLE FOR PROVIDING PROPER INSTALLATION OF VEHICLE COMPONENTS AND ATTACHMENTS AS WELL AS REQUIRED OR NECESSARY CLEARANCE FOR SUSPENSION COMPONENTS, AXLES, WHEELS, TIRES, AND OTHER VEHICLE COMPONENTS TO ENSURE A SAFE AND SOUND INSTALLATION AND OPERATION OF THIS PRODUCT.

DEFINITION OF TERMS

- ◆ **WARNING:** INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.
- ◆ **CAUTION:** A POTENTIAL HAZARDOUS SITUATION MAY RESULT IN PROPERTY DAMAGE.
- ◆ **NOTE:** PROVIDE INFORMATION OR SUGGESTIONS THAT HELP CORRECTLY PERFORM A TASK.
- ◆ **TORQUE:** WHEN ITALICIZED “TORQUE” ALERTS THE INSTALLER TO TIGHTEN FASTENERS TO A SPECIFIED VALUE.

BOLT TORQUE CHART

BOLT SIZE	GRADE 5 TORQUE	GRADE 8 TORQUE
1/4"-20	<i>8 FT-LB</i>	<i>12 FT-LB</i>
3/8"-16	<i>31 FT-LB</i>	<i>44 FT-LB</i>
3/8"-24	<i>35 FT-LB</i>	<i>49 FT-LB</i>
1/2"-13	<i>75 FT-LB</i>	<i>106 FT-LB</i>
1/2"-20	<i>85 FT-LB</i>	<i>120 FT-LB</i>
9/16"-18	<i>121 FT-LB</i>	<i>171 FT-LB</i>
5/8"-11	<i>150 FT-LB</i>	<i>212 FT-LB</i>
5/8"-18	<i>170 FT-LB</i>	<i>240 FT-LB</i>
3/4"-16	<i>297 FT-LB</i>	<i>420 FT-LB</i>
7/8"-14	<i>474 FT-LB</i>	<i>669 FT-LB</i>

SAFETY

YOUR SAFETY AND THE SAFETY OF OTHERS IS VERY IMPORTANT.

- ◆ READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND INSTRUCTIONS BEFORE INSTALLING THIS PRODUCT.

CAUTION: TRUCKS EQUIPPED WITH PARKING SENSORS OR OTHER LIKE DEVICES.

- ◆ RELOCATION OF THESE DEVICES WILL ALTER THE FIELD OF VIEW. IT IS THE RESPONSIBILITY OF THE OWNER TO UNDERSTAND HOW THESE CHANGES AFFECT THE OPERATION OF THESE SYSTEMS.

WARNING: COMPONENTS UNDER PRESSURE.

- ◆ BLEED ALL PRESSURE FROM THE AIR SYSTEM BEFORE PERFORMING ANY MAINTENANCE OR SERVICE. SERIOUS INJURY COULD OCCUR IF COMPONENTS ARE REMOVED WHILE SYSTEM IS PRESSURIZED.

WARNING: CARELESS INSTALLATION CAN RESULT IN SERIOUS INJURY OR PROPERTY DAMAGE

- ◆ WEAR EYE PROTECTION.
- ◆ DISCONNECT THE BATTERY BEFORE DOING ANY WORK ON THE VEHICLE.
- ◆ WORK ON FLAT LEVEL GROUND.
- ◆ ENSURE TRUCK IS PROPERLY SUPPORTED BY JACK STANDS. NEVER WORK UNDER A VEHICLE SUPPORTED ONLY BY HYDRAULIC JACKS.
- ◆ TAKE PRECAUTIONS WHEN LIFTING PRODUCT. DUE TO THE SIZE AND WEIGHT OF THIS PRODUCT TWO PEOPLE ARE RECOMMENDED FOR INSTALLATION.
- ◆ NEVER WORK DIRECTLY UNDER THE PRODUCT UNTIL IT HAS BEEN SECURELY FASTENED TO THE VEHICLE.
- ◆ AVOID SHARP, HOT, AND MOVING COMPONENTS WHEN ROUTING ELECTRICAL CABLES AND AIR LINES.
- ◆ IF DRILLING, INSPECT BOTH SIDES OF THE SURFACE AND REMOVE/RELOCATE ANY OBJECTS LOCATED IN THE WAY.
- ◆ ENSURE ALL BOLTS ARE PROPERLY TIGHTENED BEFORE DRIVING.

PRODUCT OWNER RESPONSIBILITIES

- ◆ PRODUCT OWNER IS SOLELY RESPONSIBLE FOR PRE-OPERATION INSPECTION, PERIODIC INSPECTIONS, MAINTENANCE, AND USE OF THE PRODUCT AS SPECIFIED BY KELDERMAN MFG. INC. OF PARTICULAR IMPORTANCE IS THE RE-TORQUE OF FASTENERS.
- ◆ THIS RE-TORQUE MUST BE PERFORMED WITHIN 2500 MILES OF THIS PRODUCT BEING PUT INTO SERVICE.
- ◆ THE KELDERMAN AIR SUSPENSION IS FULLY AUTOMATIC IN CONTROLLING THE HEIGHT OF THE CHASSIS WHEN PROPERLY INSTALLED.
- ◆ NO MANUAL INTERVENTION TO CONTROL AIR PRESSURE OR RIDE HEIGHT IS NEEDED DURING THE COURSE OF NORMAL OPERATION.
- ◆ PRODUCT OWNER IS RESPONSIBLE FOR “*DOWN TIME*” EXPENSES, CARGO DAMAGE, AND ALL BUSINESS COSTS AND LOSSES RESULTING FROM A WARRANTABLE FAILURE.

SERVICE INTERVALS

FIRST 2,500 MILES

- ◆ CHECK RIDE HEIGHT $\pm 1/4$ ”
- ◆ CHECK FOR AIR LEAKS AROUND FITTINGS.
- ◆ CHECK FOR ANY LOOSE OR RUBBING HOSES AND WIRES.
- ◆ RE-TORQUE ALL HARDWARE.

EVERY 30,000 MILES

- ◆ CHECK RIDE HEIGHT $\pm 1/4$ ”
- ◆ CHECK FOR AIR LEAKS AROUND FITTINGS.

DISASSEMBLY

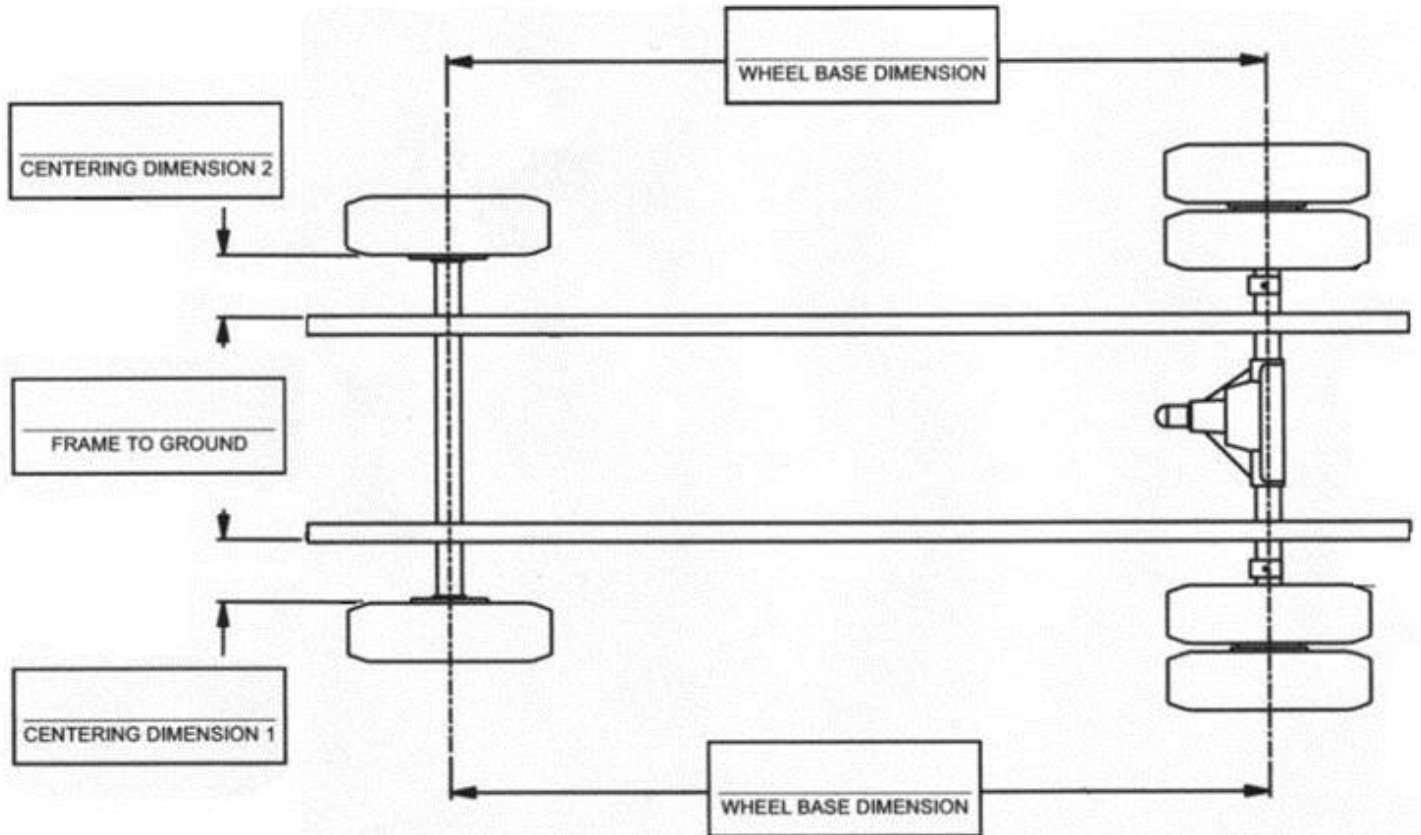
BEFORE DOING ANYTHING, MEASURE THE PINION ANGLE AND RECORD IT. THIS IS IMPORTANT BECAUSE YOU WILL NEED TO PUT THE AXLE BACK TO THIS MEASUREMENT AFTER INSTALLATION. SEE FIGURE 1.

FRONT PINION ANGLE _____

REAR PINION ANGLE _____



TAKE THE FOLLOWING MEASUREMENTS FOR FUTURE REFERENCE. THESE MEASUREMENTS WILL BE USED TO ADJUST THE SUSPENSION AFTER INSTALLATION.



DISASSEMBLY

1. REMOVE THE BOLTS FROM THE BOX, PUSH THE FUEL AND DEF LINES THROUGH THE BOX AND REMOVE BOX FROM THE TRUCK



2. REMOVE THE REAR BUMPER FROM THE TRUCK AND DISCONNECT THE HARNESSSES ATTACHED TO THE BUMPER

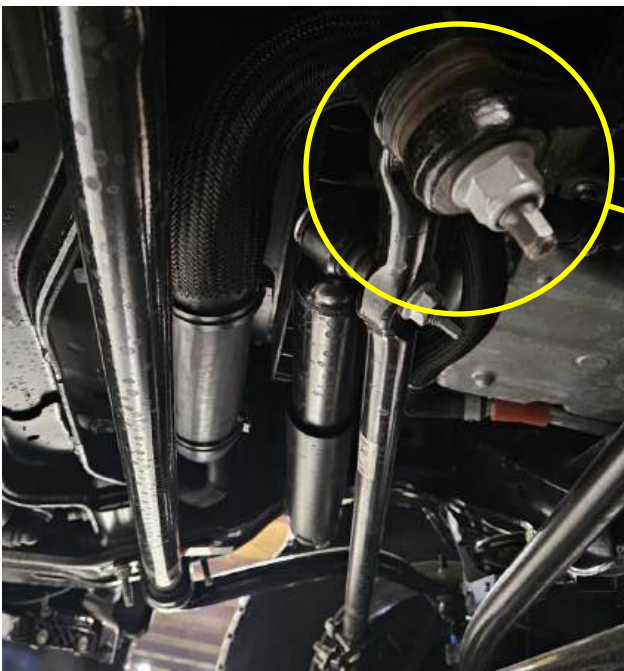
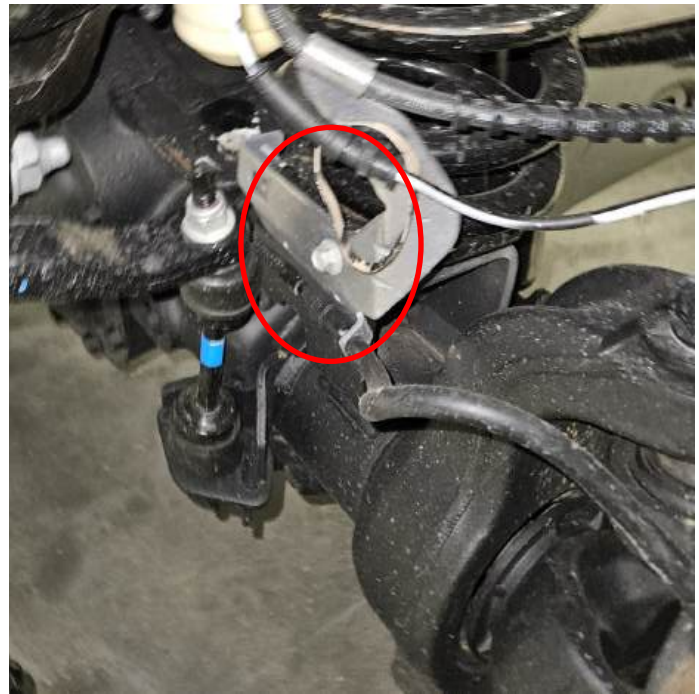


3. ONCE THE KIT IS INSTALLED, IT IS REQUIRED TO PUT THE AXLE BACK TO THIS MEASUREMENT. THIS WILL KEEP THE CORRECT CASTER AND CAMBER. **REMOVE THE FRONT DRIVESHAFT AND HAVE IT LENGTHENED 1-3/4"**.

4. REMOVE THE TRANSMISSION SKID PLATE AND REMOVE THE REAR DRIVESHAFT. DISCONNECT THE FRONT SWAY BAR END LINKS AND REMOVE THE FRONT SWAY BAR. PLACE A JACK UNDER THE DIFFERENTIAL AND LIFT THE TRUCK UNTIL THE WHEELS ARE 4-5" OFF THE GROUND. PLACE A JACK STAND ON EACH SIDE OF THE FRAME UNDER THE RADIATOR SUPPORT.



5. REMOVE THE WHEELS, SHOCKS, STEERING ARM, PITMAN ARM AND FACTORY STEERING STABILIZER SHOCK. YOU WILL NEED AN AIR HAMMER TO PRESS THE PASSENGER SIDE BALL JOINT UP AND OUT OF THE AXLE. LOWER THE JACK AND REMOVE THE COIL SPRINGS (THEY SHOULD HAVE SOME TENSION ON THEM). REMOVE THE CUP ON TOP OF THE AXLE THAT HELD THE BOTTOM OF THE COIL IN PLACE, AS WELL AS THE 8MM BOLTS THAT HOLD THE ABS WIRE IN PLACE. REMOVE THE UPPER BRAKE LINE BOLT THAT HOLDS THE BRAKE HOSE LOCATED BY THE REAR SIDE OF UPPER COIL BUCKET.



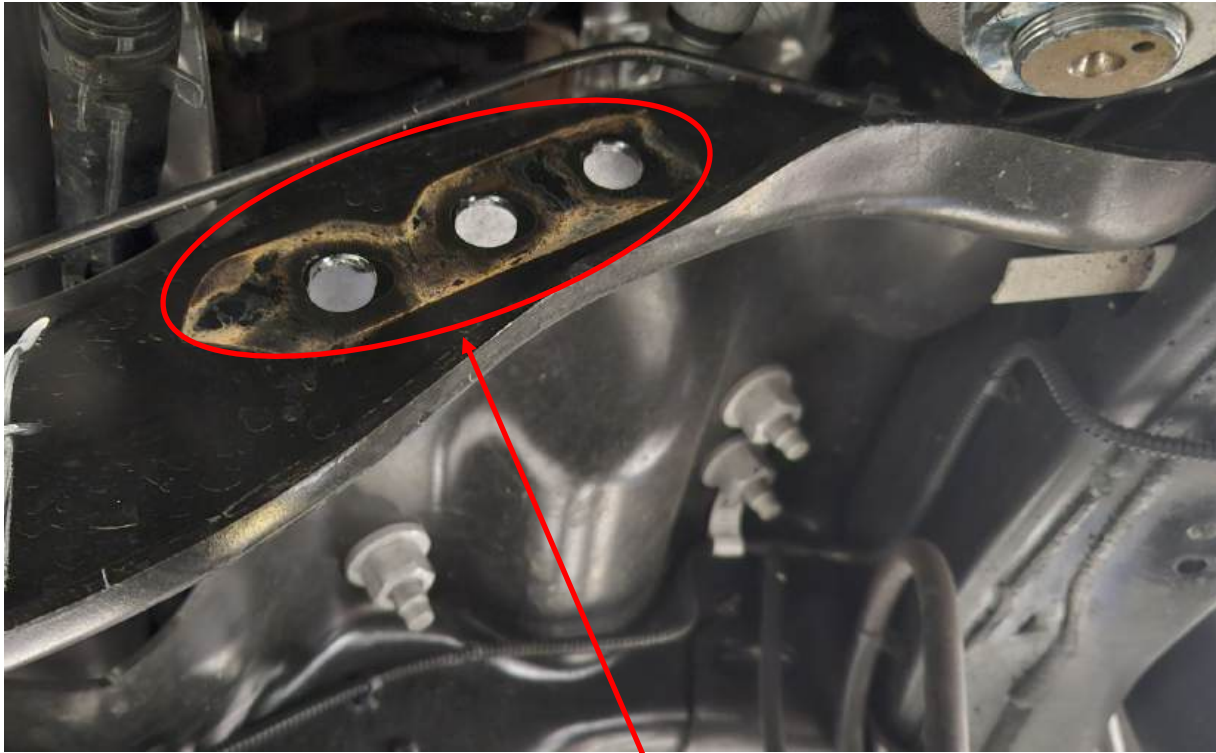
6. REMOVE THE FACTORY SWAY BAR, D-RINGS AND SWAY BAR END LINKS. THESE CAN BE DISCARDED BUT KEEP THE FACTORY HARDWARE AS IT WILL BE RE-USED DURING THE FRONT INSTALL.



KEEP HARDWARE



7. REMOVE THE FACTORY TRACK BAR MOUNT BRACKET AND KEEP ALL HARDWARE EXCEPT TRACK BAR BOLTS, AS IT WILL BE USED LATER DURING FRONT INSTALL.



THIS HARDWARE WILL NOT BE RE-USED

8. REMOVE BRACKET FOR PAN HARD BAR AND UN-INSTALL FACTORY PAN HARD BAR.



9. REMOVE THE FACTORY FRONT TRAILING ARMS. REMOVE THE BUMP STOP AND REMOVE THE BOLT THAT HELD THE MOUNTING CUP IN PLACE. THESE WILL NOT BE REUSED.



10. PLACE A JACK UNDER THE TRANSMISSION. REMOVE THE TRANSMISSION CROSSMEMBER.

11. REMOVE THE TRANSFER CASE FROM THE BACK OF THE TRANSMISSION. THE TRANSFER CASE WILL NEED TO INDEXED LATER DURING THE INSTALL.



12. REMOVE BLOCKS, AXLE CLAMPS AND FACTORY BOLTS ON THE AXLE AFTER REMOVING LEAF SPRINGS. BOTH AXLES SHOULD LOOKS AS PICTURED BEFORE INSTALL PROCESS. KEEP FACTORY LEAF SPRING BOLTS FOR KIT INSTALL.



13. REMOVE BRAKE LINE BRACKET & LOOSEN BRAKE LINES SO THEY ARE OUT OF THE WAY DURING INSTALL

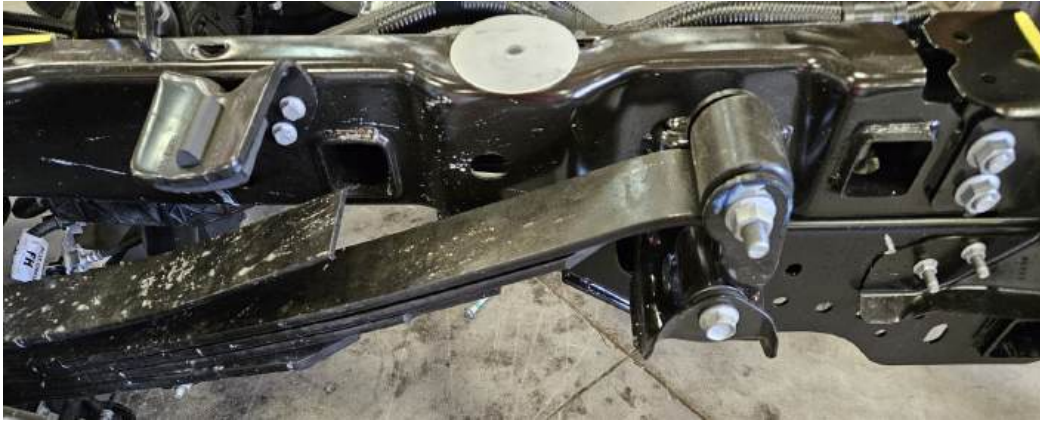


14. REMOVE OVERLOAD PERCHES AND KEEP (4) BOLTS FOR LATER INSTALL



15. REMOVE LEAF SPRINGS, BOLTS, BUMP STOPS & BRACKET FOR BRAKE LINE. REMOVE EXHAUST BRACKET BOLTS AND KEEP FOR AFTER INSTALL IS COMPLETE.

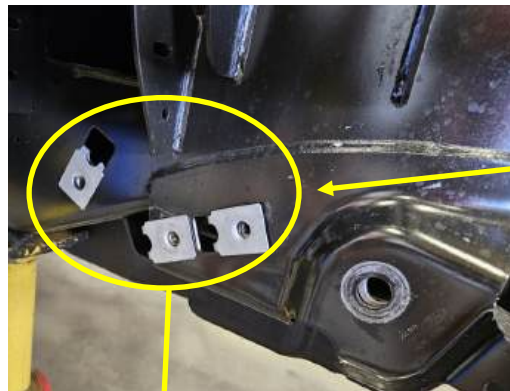
NOTE: MAKE SURE TO JACK UP AXLE TO HELP REMOVE LEAF SPRINGS *WHEN FUEL TANK IS RE-INSTALLED.*



16. REMOVE PLATE FROM DRIVERS SIDE. IF TRUCK DOESN'T NOT COME WITH FACTORY SWAY BAR, THEN YOU WILL NEED TO KEEP THE (4) BOLTS FOR THE END LINKS INSTALL. REMOVE BRAKE LINE BRACKET AND FACTORY BRAKE LINES.



THERE IS A 4TH BOLT UNDERNEATH THAT NEEDS TO BE REMOVED.



REMOVE THE CLIPS AND THEY WILL BE USED FOR THE END LINK MOUNT BRACKETS.



NOTE: THE FUEL TANK WILL NEED TO BE SLID TOWARDS THE CENTER OF THE VEHICLE TO GET THE DRIVERS SIDE FORWARD BOLT OUT OF THE LEAF SPRING PERCH.



15. REMOVE FUEL TANK STRAPS AND BOLTS BEFORE REMOVING LEAF SPRING BOLT.



17. CUT OFF 3/4" FROM LEAF SPRING BOLT THAT IS NEAR FUEL TANK SO IT DOESN'T HIT WHEN FUEL TANK IS REINSTALLED.

IF TRUCK COMES EQUIPPED WITH A FACTORY SWAY BAR THEN THE BOLTS WILL NEED TO BE REMOVED AND LET THE SWAY BAR HANG FROM THE END LINKS.



PASSENGER SIDE PICTURED. THIS TRUCK IS EQUIPPED WITH FACTORY SWAY BAR

18. REMOVE FIFTH WHEEL PLATE AND MOUNTING BRACKETS



19. REMOVE FACTORY HEIGHT SENSOR BY PINCHING TABS. DISREGARD AS YOU WILL NEED TO USE THE PROVIDED SENSOR LOCKS IN THE INSTALL.





REAR WITH PLATES REMOVED



SPARE TIRE REMOVED

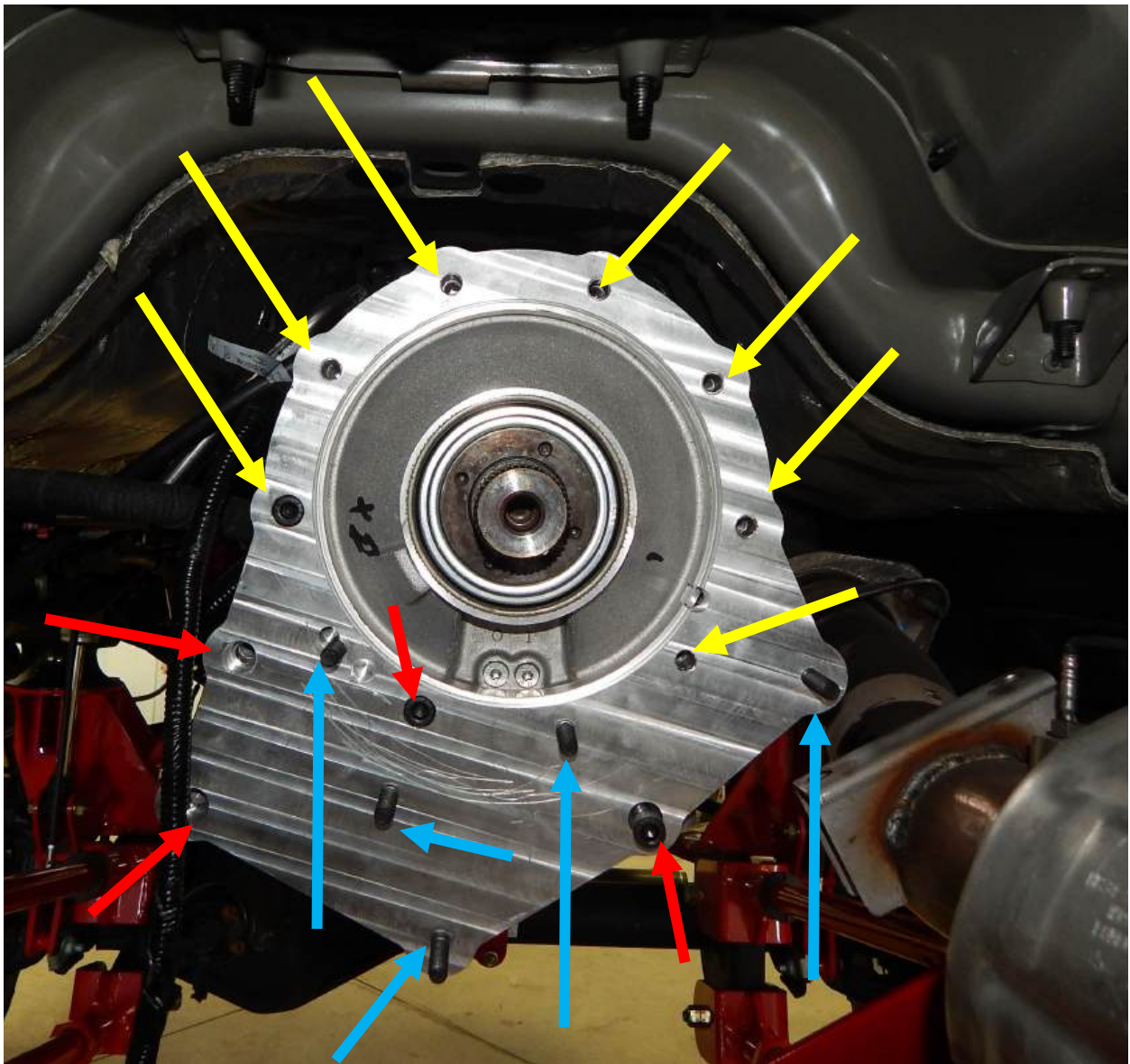


FRONT READY FOR INSTALLATION

TRANSFER CASE INDEX

1. LOCATE THE INDEXING PLATE (PART # 70536) AND STUDS. THE INDEXING PLATE INSTALLS TO THE BACK OF THE TRANSMISSION WITH THE FOUR M10 X 35 ALLEN HEAD BOLTS. USE RED LOCTITE AND TORQUE THESE BOLTS TO 30 FT./LBS.

10MM X 60 BOLTS FASTEN TRANSFER CASE TO INDEXING PLATE AND TRANSMISSION

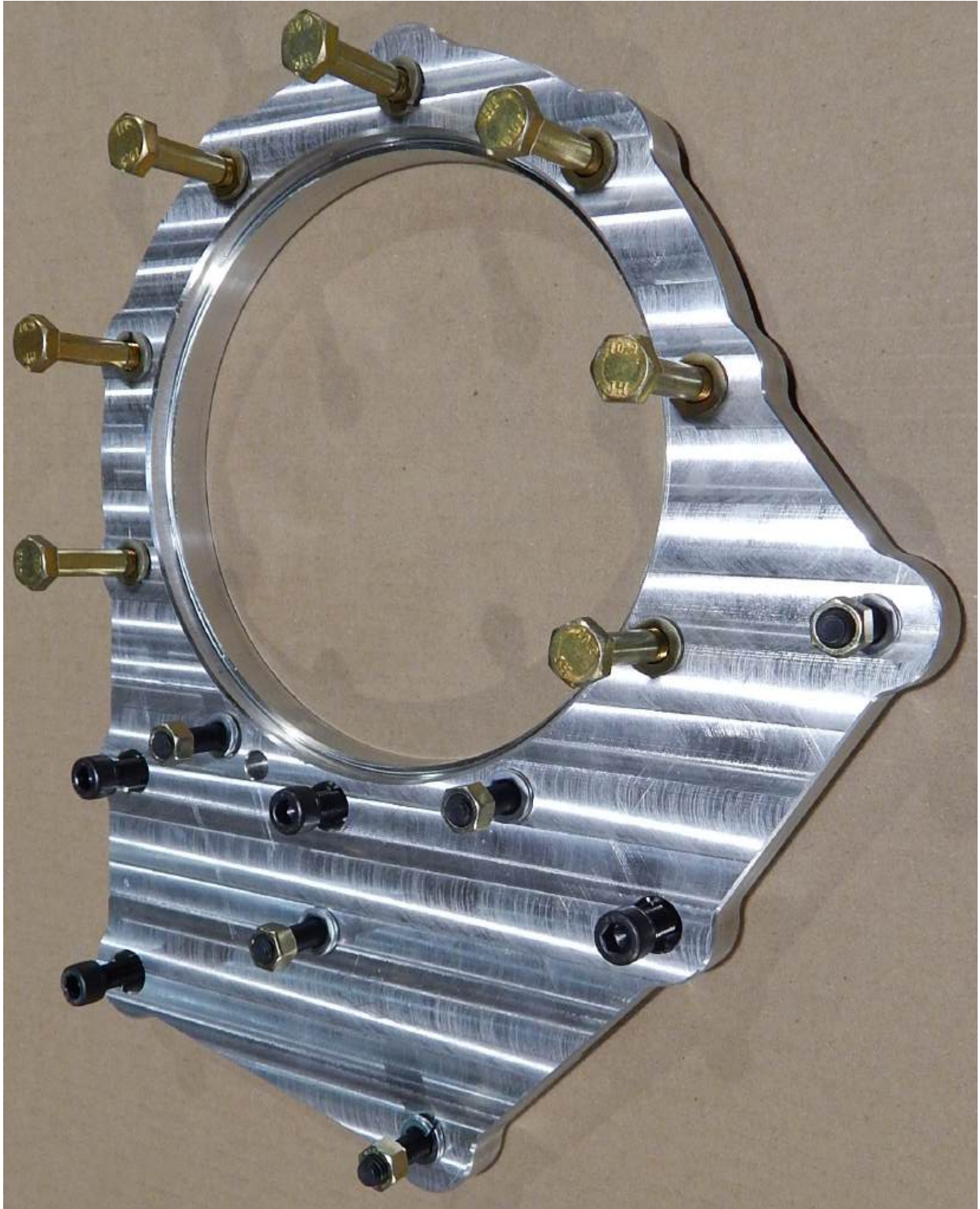


BLUE = 5) 3/8" STUDS

YELLOW = 7) M10 X 65 BOLTS

RED = 4) ALLEN HEAD M10X35

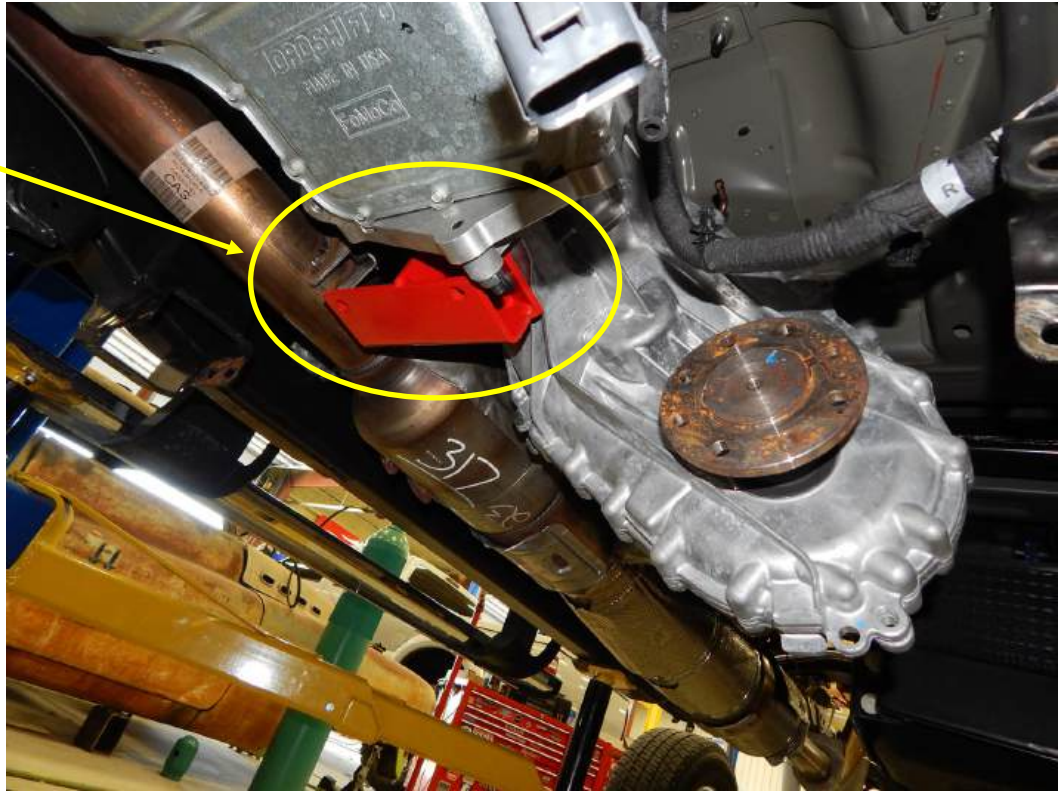
USE RED LOCTITE ON ALL THE BOLTS AND STUDS.



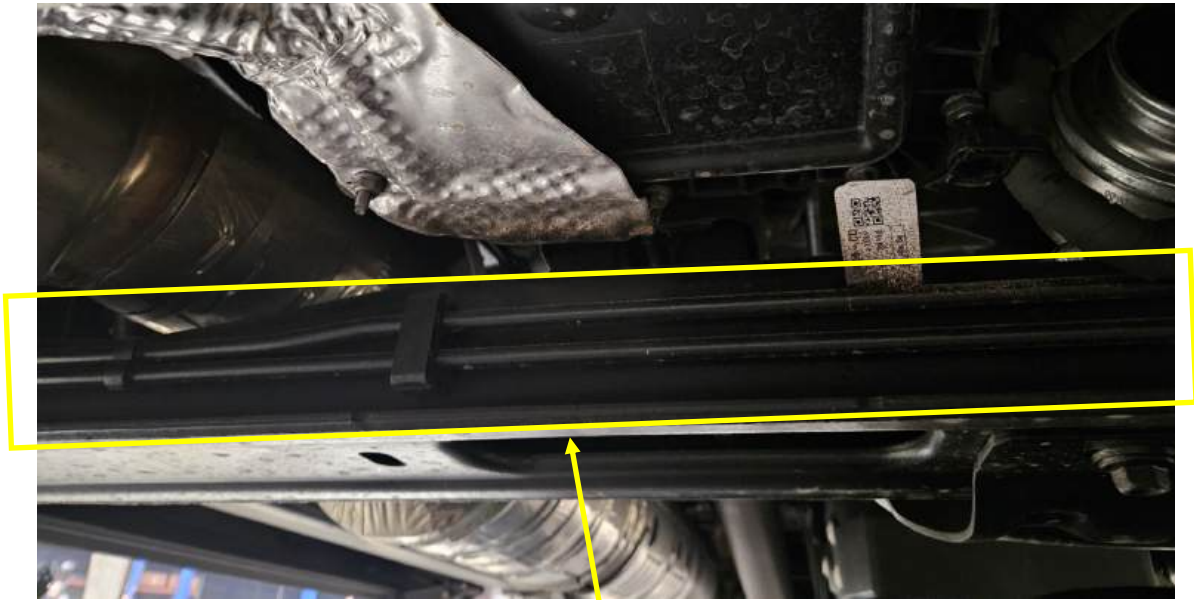
PART # 10006732—37.50° INDEXING RING

2. ONCE THE INDEXING PLATE IS INSTALLED, LOCATE THE WEDGE (PART # 69100) AND INSTALL ON THE BOTTOM OF THE TRANSFER CASE WITH THE FACTORY BOLTS. INSTALL THE FACTORY RUBBER MOUNT TO THE BOTTOM OF THE WEDGE. **NOTE: YOU WILL HAVE TO CUT THE LAST FEW THREADS OFF THE STUD THAT HITS THE WEDGE.**

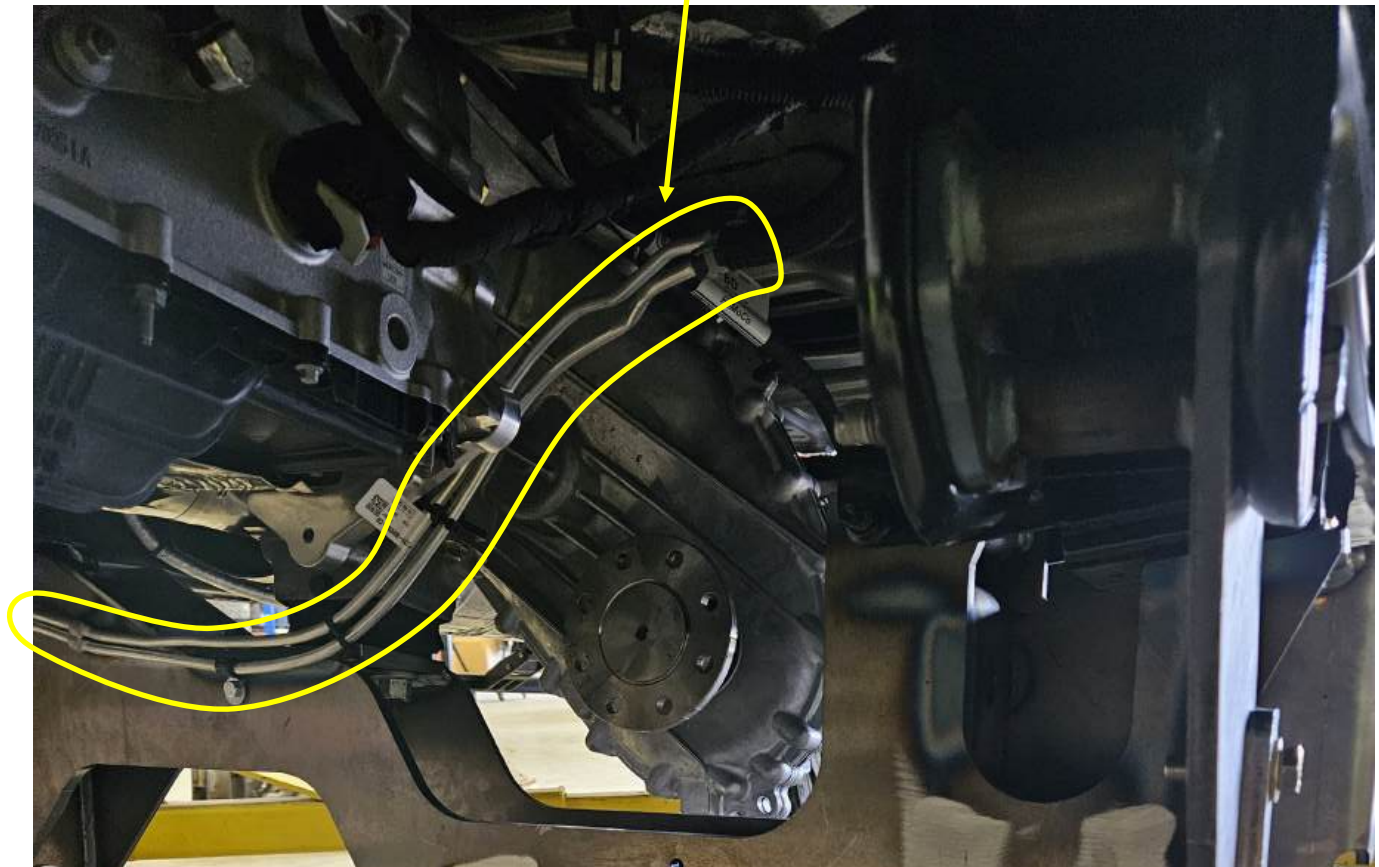
#69100
WEDGE



3. AT THIS TIME YOU WILL HAVE TO RE-ROUTE THE DEF LINES SO THEY WILL NOT INTERFERE WITH DRIVESHAFT AFTER INDEXING TRANSFER CASE.

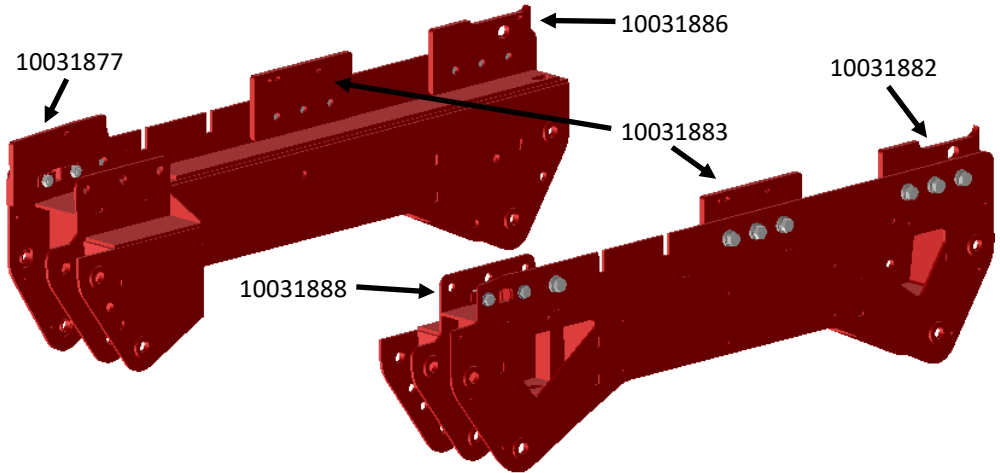


FACTORY DEF LINES THAT NEED TO BE RE-ROUTED



CRADLE ASSEMBLY

1. ATTACH THE WELD ON PLATES TO THE CRADLE SIDE WELDMENT WITH 5/8"-18 X 1" BOLTS AND THEN RAISE THE CRADLE TO THE SIDE OF THE FRAME WITH A JACK OR LIFT. THEN MARK AROUND THE PLATES SO THEY CAN BE WELDED TO THE FRAME.

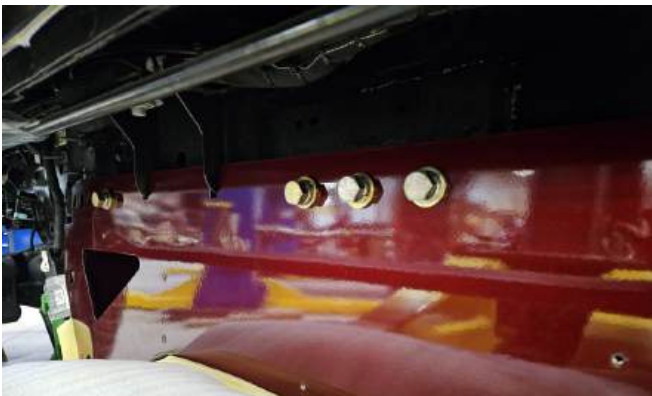


2. WELD THE CRADLE MOUNT PLATES ON THE FRAME.

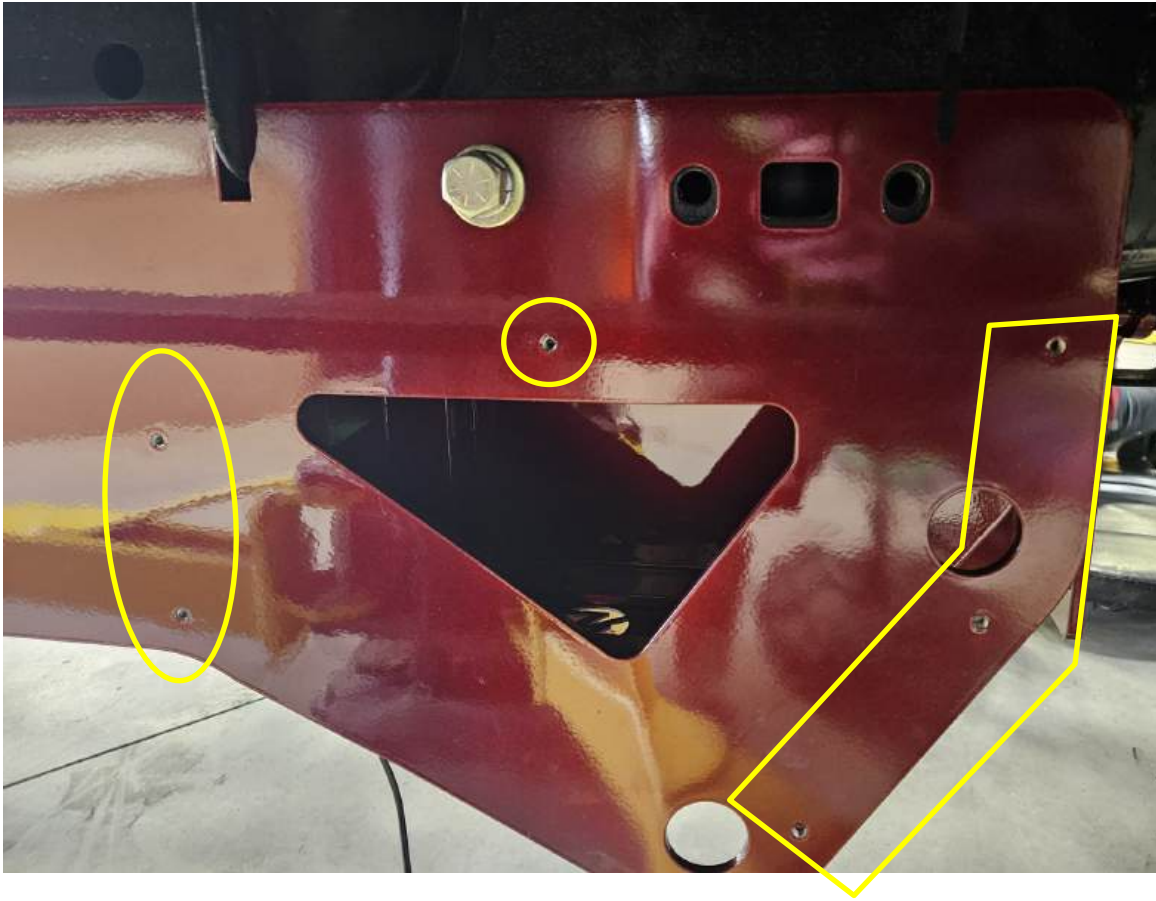


NOTE: WHEN WELDING USE AN ANTI SURGE PROTECTOR OR UNHOOK THE BATTERIES TO REDUCE THE CHANCE OF DAMAGING THE TRUCK'S ELECTRONICS.

3. AFTER PLATES ARE WELDED, BOLT THE CRADLE SIDE PLATE WELDMENT TO THE WELD ON PLATES WITH 5/8"-18 X 1" BOLTS, THICK WASHER, LOCK WASHER AND NUT TAB WELDMENTS. DO NOT TIGHTEN DOWN, LEAVE LOOSE FOR CROSSMEMBER INSTALL.



4. LOCATE OUTER NAME PLATES (#10031800-DS & 10031783-PS). PLATES ATTACH TO THE CRADLE SIDE PLATES WITH 1/4"-20 X 5/16" BUTTON HEAD CAP SCREWS.

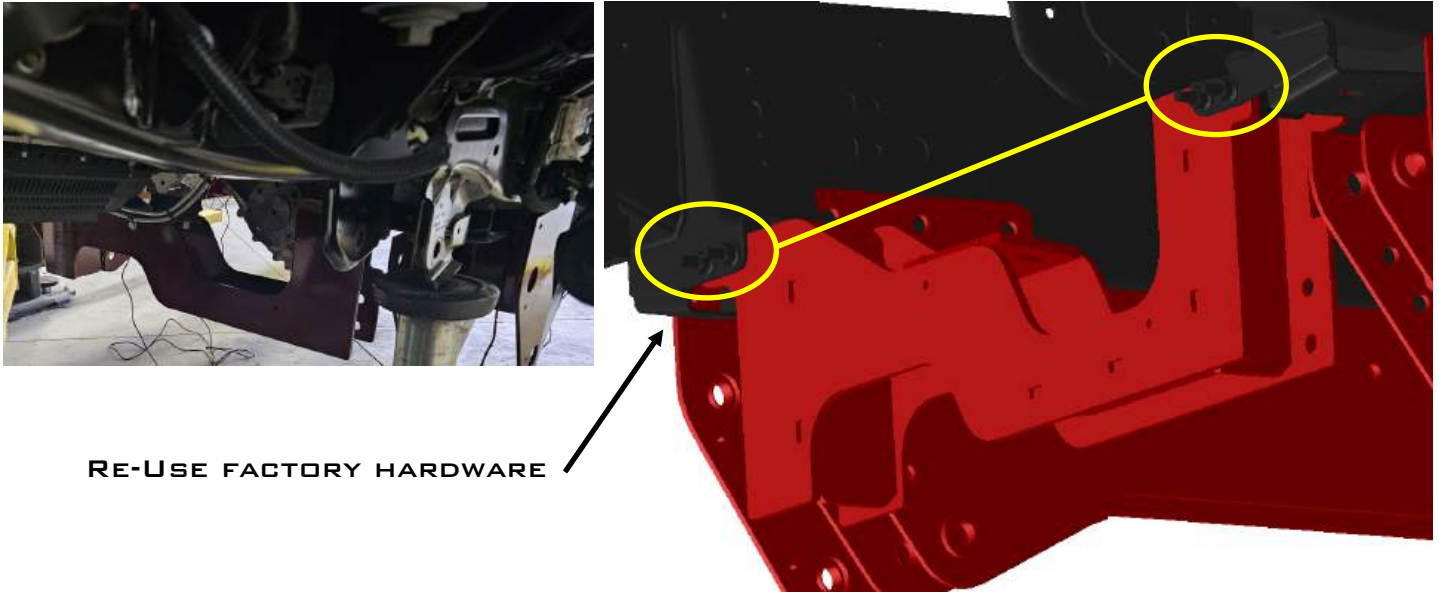


1/4"-20 TAPPED HOLES



OUTER PLATE SHOWN IN *OPTIONAL* MIRRRORED STAINLESS STEEL

5. INSTALL CRADLE CROSSMEMBER WELDMENT. ATTACH THE CROSSMEMBER TO THE FACTORY MOUNT LOCATION OF THE OEM CROSSMEMBER THAT WAS REMOVED.



6. INSTALL SIDE PLATE/CROSSMEMBER GUSSET WELDMENTS TO CRADLE SIDE PLATE AND CROSSMEMBER WITH 5/8"-18 X 2" BOLTS. DO NOT TIGHTEN DOWN UNTIL STEP 6.



7. INSTALL REAR CROSSMEMBER WELDMENT TO CRADLE SIDE PLATES WITH 5/8"-18 X 2" BOLTS. TIGHTEN DOWN ALL CROSSMEMBER AND SIDE PLATE BOLTS.



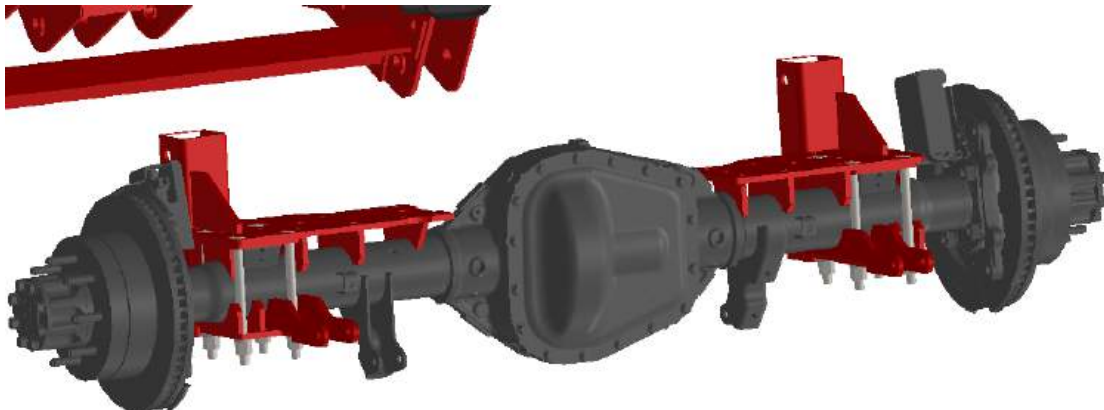
AFTER COMPLETING THE CRADLE INSTALL, IT IS RECOMMENDED TO START ON THE REAR INSTALL.

REAR ASSEMBLY

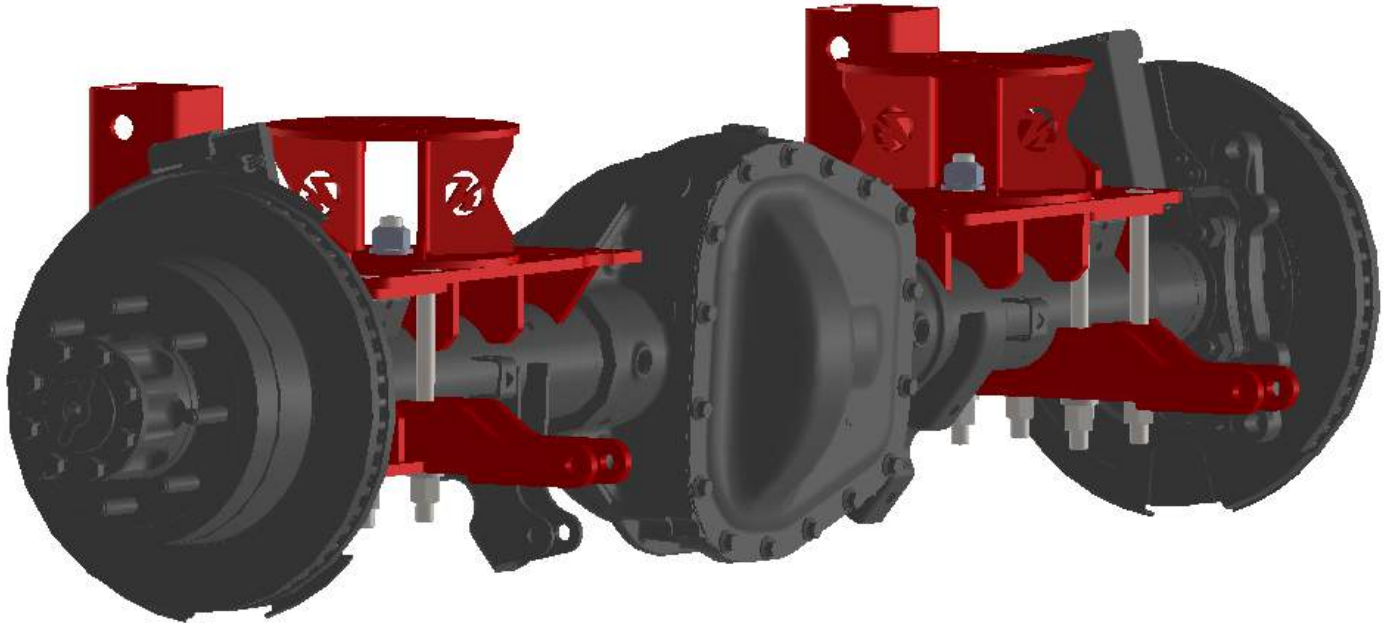
1. THE REAR DRIVESHAFT NEEDS TO BE EXTENDED 2". **NOTE:** *ONLY ONE PIECE ALUMINUM DRIVESHAFTS NEED TO BE EXTENDED, TWO PIECE DRIVESHAFTS WILL USE SHIMS TO KEEP PINION ANGLE.*

2. RAISE THE TRUCK, ENOUGH TO REMOVE THE LEAF SPRINGS. IF YOU HAVEN'T ALREADY, REMOVE THE BOLTS THAT HOLD THE FRONT OF THE LEAF SPRING AND REAR SHACKLE IN PLACE. THE LEAF SPRINGS AND THE SHACKLES WILL NOT BE REUSED. REMOVE THE REAR SHOCKS. THEY WILL NOT BE REUSED. ON THE DRIVERS SIDE FORWARD BOLT, YOU WILL HAVE TO DROP THE FUEL TANK A COUPLE INCHES AND MOVE IT INWARD TO GET THE BOLT OUT.

3. LOCATE THE LOWER AIR BAG MOUNT WELDMENTS AND FASTEN THEM IN PLACE WITH THE LOWER AXLE CLAMPS. USE THE 5/8"-18 X 9" BOLTS AND MAKE SURE THE BOLTS GO FROM THE TOP DOWN. USE THE EXTENDED NUTS AND THICK WASHERS. TORQUE TO 150 LB./FT. THE SHOCK MOUNTS ON THE LOWER AXLE CLAMPS MUST BE MOUNTED TOWARDS THE INSIDE OF THE FRAME.



4. LOCATE AIR BAG RISERS AND BOLT TO THE LOWER BAG MOUNTS WITH 3/4"-16 X 2" BOLTS. ORIENTATE THE RISER SO THE "K" IS 45 DEGREES AS SHOWN BELOW.



5. LOCATE THE UPPER BAG MOUNT/SPACER WELDMENTS AND BOLT TO THE UNDERSIDE OF THE FRAME TO THE STUDS WITH M10-1.5MM X 25MM NUTS.



6. LOCATE THE SIDE PLATE WELDMENTS. THEY SANDWICH THE FRAME WITH THE UPPER BAG MOUNTS AND BOLT WITH 5/8"-18 X 4-1/2" BOLTS AND THE FACTORY HARDWARE REMOVED DURING DISASSEMBLY. IF TRUCK HAS FACTORY FIFTH WHEEL BRACKET, IT WILL GET RE-INSTALLED AT THIS POINT ON THE OUTSIDE OF THE SIDE PLATE.

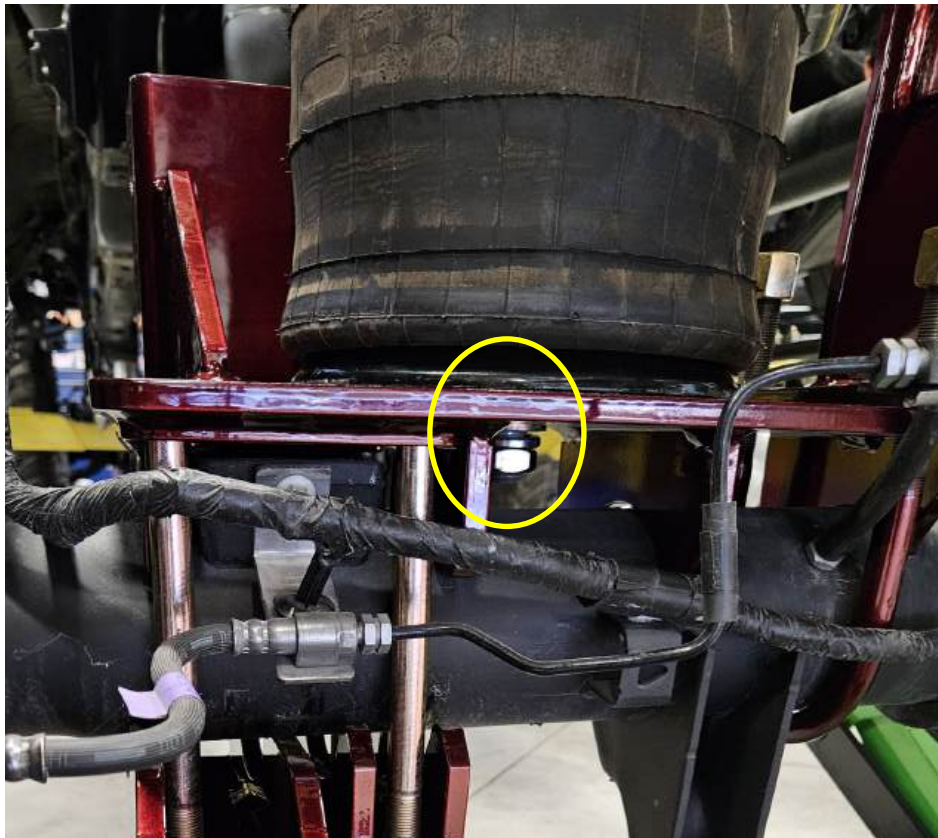


INSTALL FACTORY BOLTS FIRST TO HOLD THE PLATE IN PLACE WHEN INSTALLING THE OTHER BOLTS.



FACTORY 5TH WHEEL BRACKET

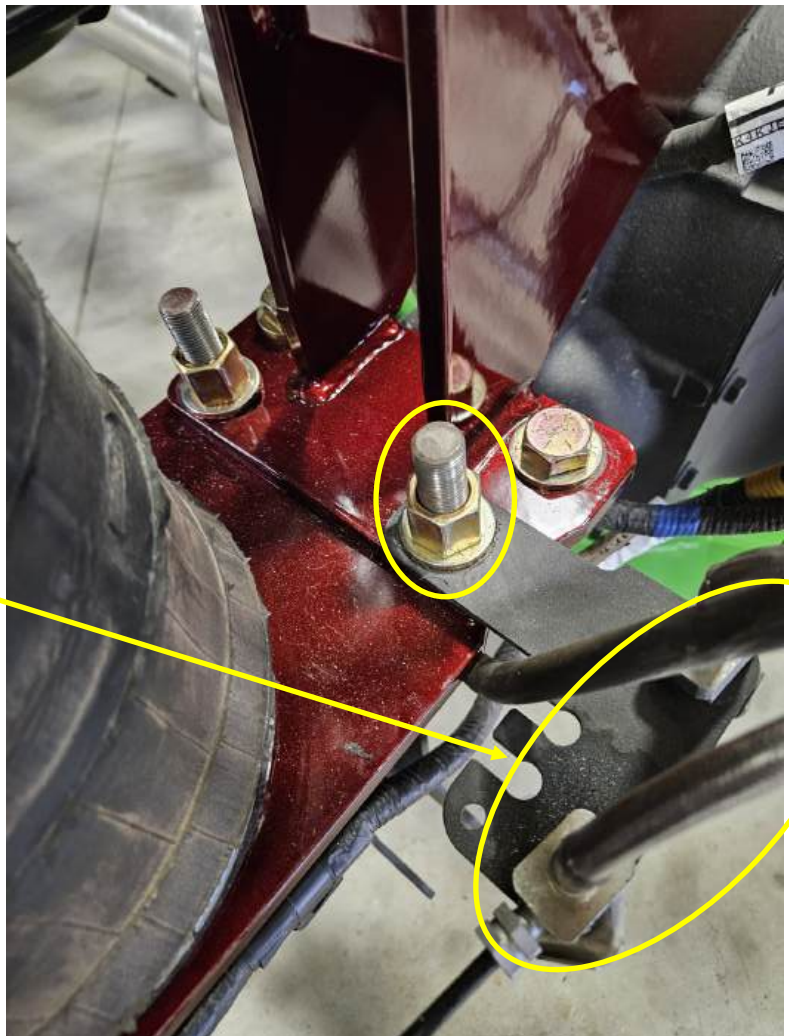
7. LOCATE THE AIR BAGS (#80012-5748). BEFORE INSTALLING AIR BAG, INSTALL 90° AIR FITTING WITH RED LOCTITE. NOW ATTACH AIR BAG TO LOWER BAG MOUNT FIRST WITH 3/4"-10 JAM NUT, LOCK WASHER AND FLAT WASHER.



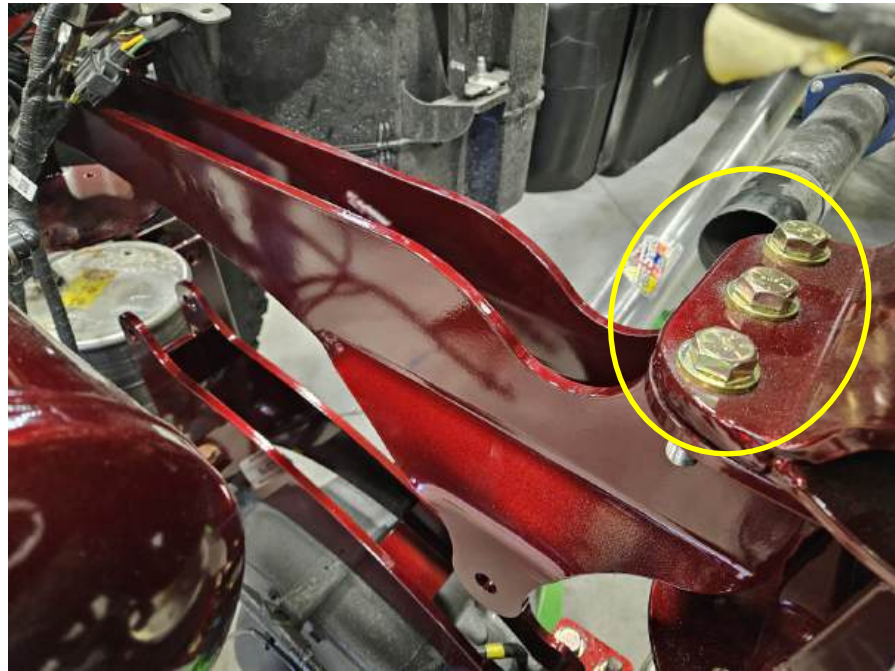
8. LOCATE THE LOWER PAN HARD BAR MOUNT WELDMENT (#). INSTALL TO LOWER BAG MOUNTS WITH 5/8"-18 X 2" BOLTS AND U-BOLTS (#14114). U-BOLTS GET A THICK WASHER AND EXTENDED NUT EACH. PLACE BRAKE RELOCATION BRACKET (#69713) ON TOP OF DRIVERS SIDE OF PHB MOUNT WELDMENT AND GOES ON REAR PORTION OF DRIVERS SIDE U-BOLT (SHOWN BELOW).



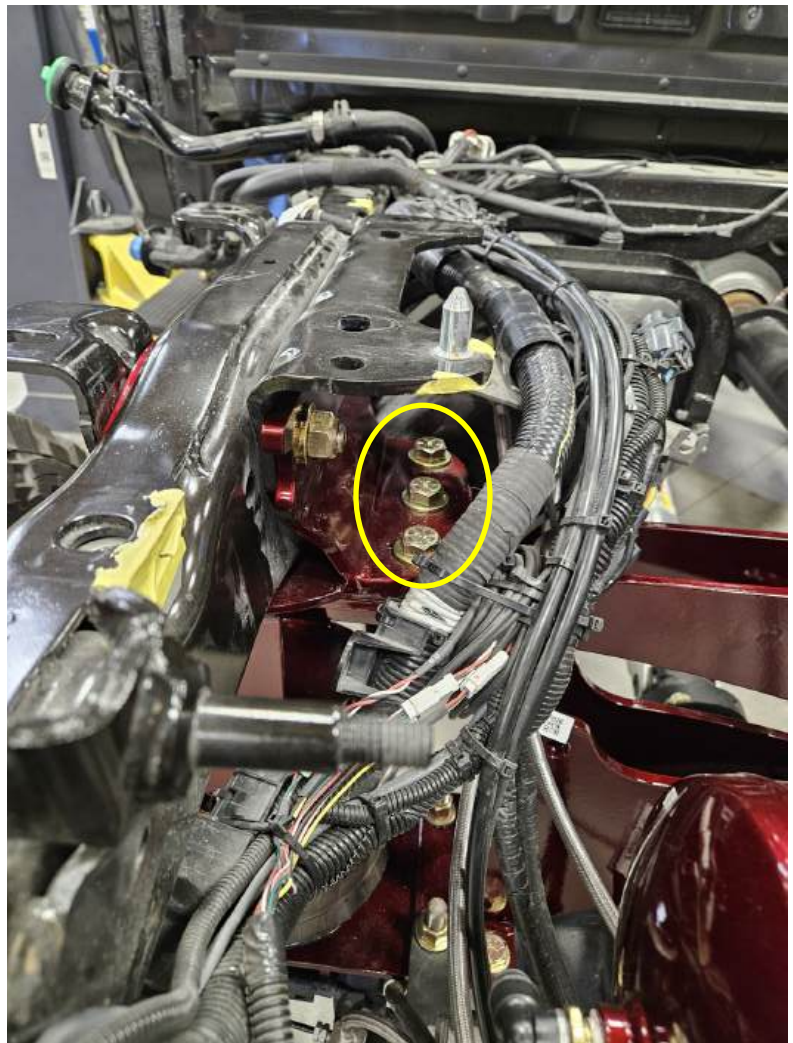
9. AFTER INSTALLING THE MOUNT ON THE PHB MOUNT THEN INSTALL THE BRAKE LINES. MAKE SURE TO BLEED THE BRAKES BEFORE THE INITIAL TEST DRIVE.



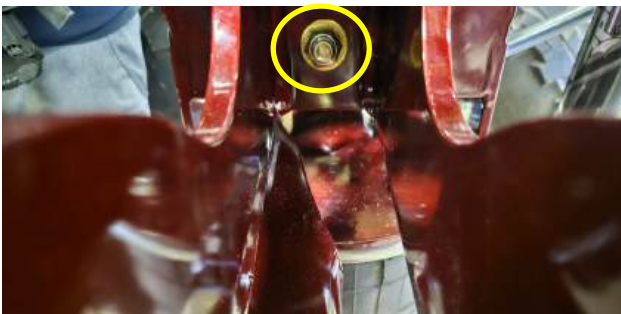
10. LOCATE UPPER PANHARD BAR CROSSMEMBER WELDMENT (#10015523). INSTALL TO THE UPPER BAG MOUNTS WITH 1/2"-20 X 2" BOLTS. ALSO BOLT THE UPPER CROSSMEMBER TO THE PASSENGER SIDE UPPER BAG MOUNT WITH 5/8"-18 X 2" BOLT.



YOU WILL NEED TO CLIP THE TIES HOLDING THE WIRING HARNESS TO BE ABLE TO TIGHT DOWN THE BOLTS ON THE DRIVERS SIDE.



5/8"-18 X 2" BOLT ON PASSENGER SIDE UPPER BAG MOUNT/ CROSSMEMBER



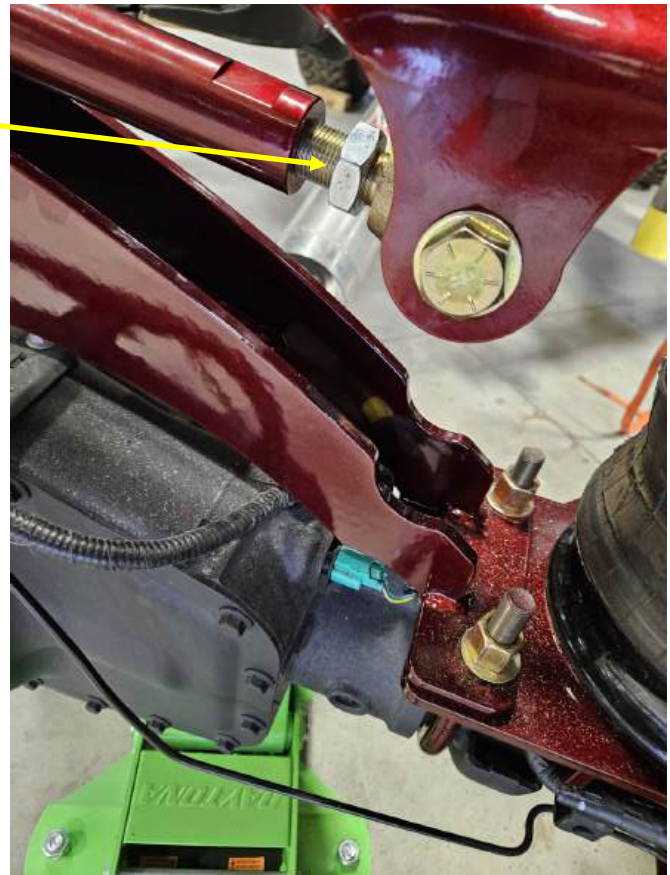
11. LOWER THE TRUCK DOWN AND ATTACH THE AIR BAG TO THE UPPER BAG MOUNT WITH 3/8"-16 X 1" BOLTS, LOCK WASHERS AND FLAT WASHERS. MAKE SURE THE 90° AIR FITTING IS ORIENTED TOWARD THE REAR OF THE TRUCK.



12. LOCATE THE PANHARD BAR ASSEMBLY AND ATTACH TO THE UPPER AND LOWER PAN HARD BAR WELDMENTS WITH 3/4"-16 X 4-1/2" BOLTS. LEAVE THE JAM NUTS CLOSE TO THE JOHNNY JOINTS, YOU HAVE TO BE AT RIDE HEIGHT BEFORE YOU ADJUST THE BAR.



DO NOT TIGHTEN JAM NUT TO THE BAR UNTIL AFTER TRUCK INSTALL HAS BEEN COMPLETED

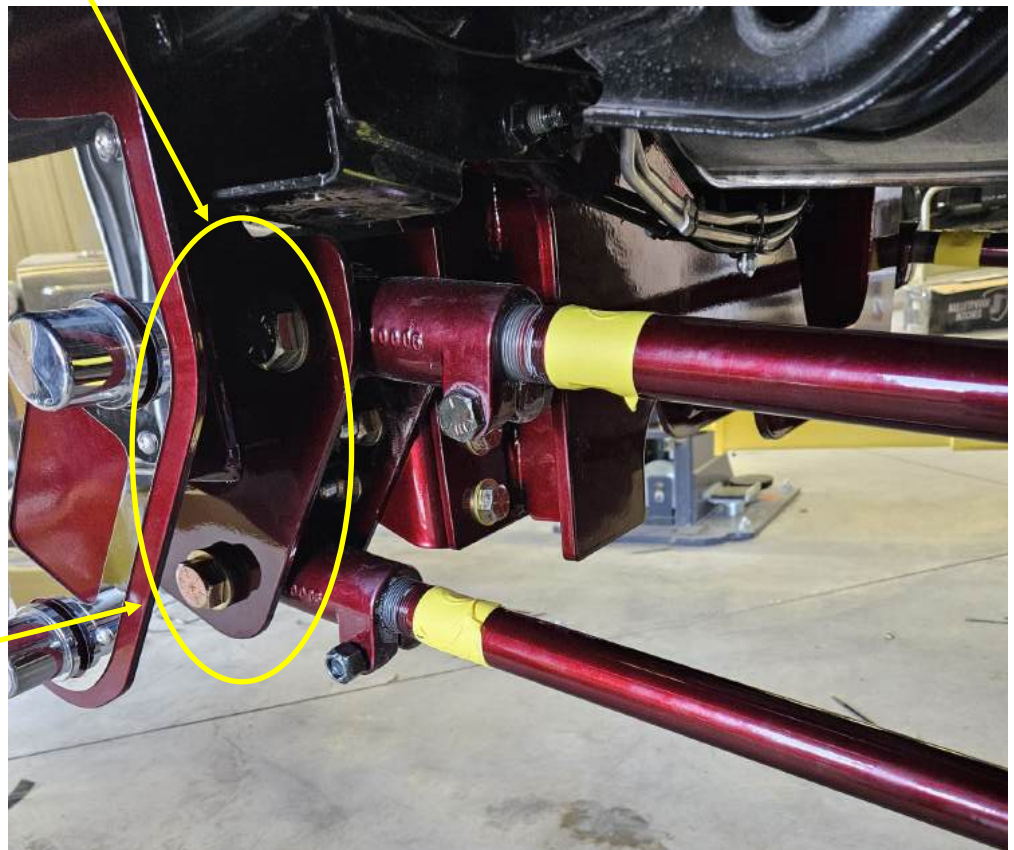


13. LOCATE THE REAR TRAILING ARM ASSEMBLIES (48" UPPER BAR AND 52" LOWER BAR). THEY ATTACH TO THE LOWER BAG MOUNTS AND TO THE CRADLE WITH 7/8"-14 x 5" BOLTS FOR THE LOWER BAG MOUNT AND 7/8"-14 x 5-1/2" BOLTS FOR THE CRADLE.



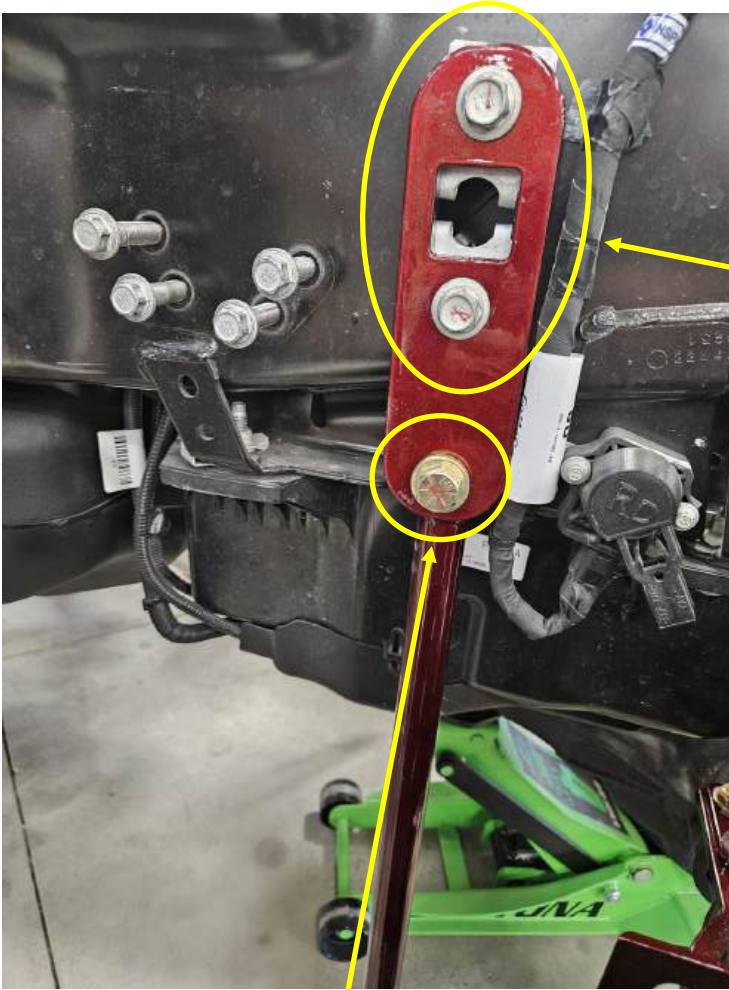
7/8"-14 x 5-1/2" BOLTS

TO TIGHTEN DOWN BOLTS, YOU WILL NEED TO PUT SOCKET THROUGH. THERE WILL BE SPACE ON THE INSIDE FOR A WRENCH.



7/8"-14 x 5" BOLTS

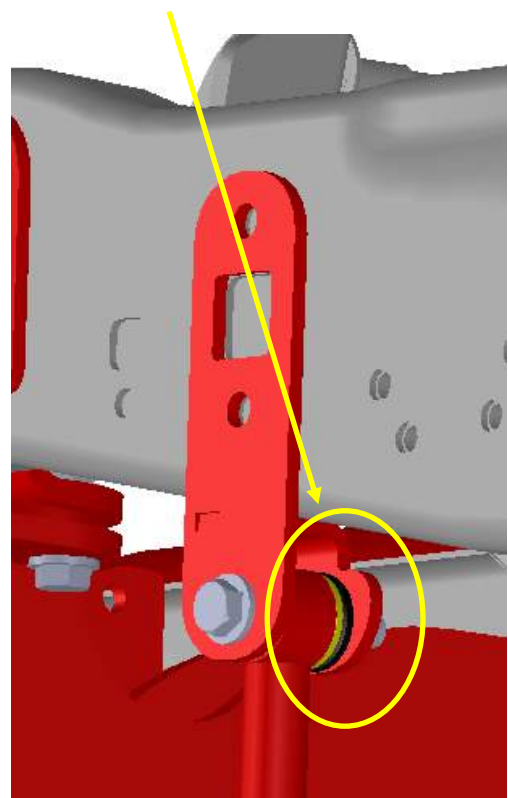
14. LOCATE THE END LINK MOUNT WELDMENTS (#69335-DS & 69338-PS) AND 21" END LINKS (#69539. THEY ATTACH TO THE FRAME WITH THE FACTORY SWAY BAR END LINK BOLTS OR BOLTS REMOVED IN DISASSEMBLY STEP 14. ATTACH END LINK TO MOUNT WITH 1/2"-20 X 3" BOLTS AND SPACER BUSHING (#11551) ON EACH SIDE.



FACTORY HARDWARE

1/2"-20 X 3" BOLTS

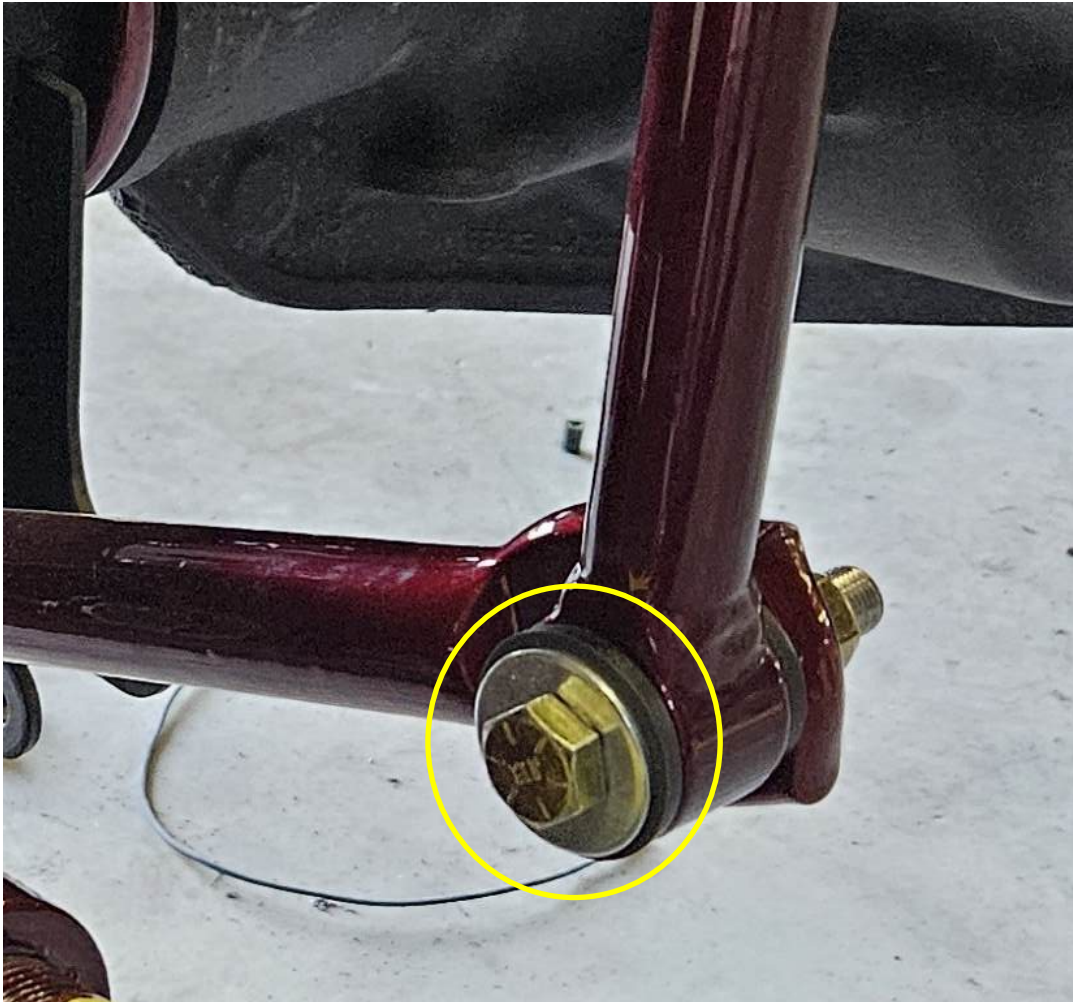
SPACER BUSHING



15. LOCATE THE SWAY BAR (#10007457), D-RINGS (#80308) & D-RING RETAINERS (#80046). GREASE THE D-RINGS BEFORE INSTALLING TO THE SWAY BAR. ADJUST THE D-RINGS TO LINE UP WITH FACTORY D-RING LOCATION ON THE AXLE. THEN USE 10-1.5MM X 35MM FLANGE BOLTS TO BOLT THE RETAINERS OVER THE D-RINGS TO THE AXLE.



16. ATTACH THE SWAY BAR TO THE BOTTOM OF THE END LINK WELDMENT WITH 1/2"-20 X 3" BOLTS. MAKE SURE TO INSTALL SPACER (# 11551) ON THE OUTSIDE OF THE END LINK BEFORE BOLTING TOGETHER.

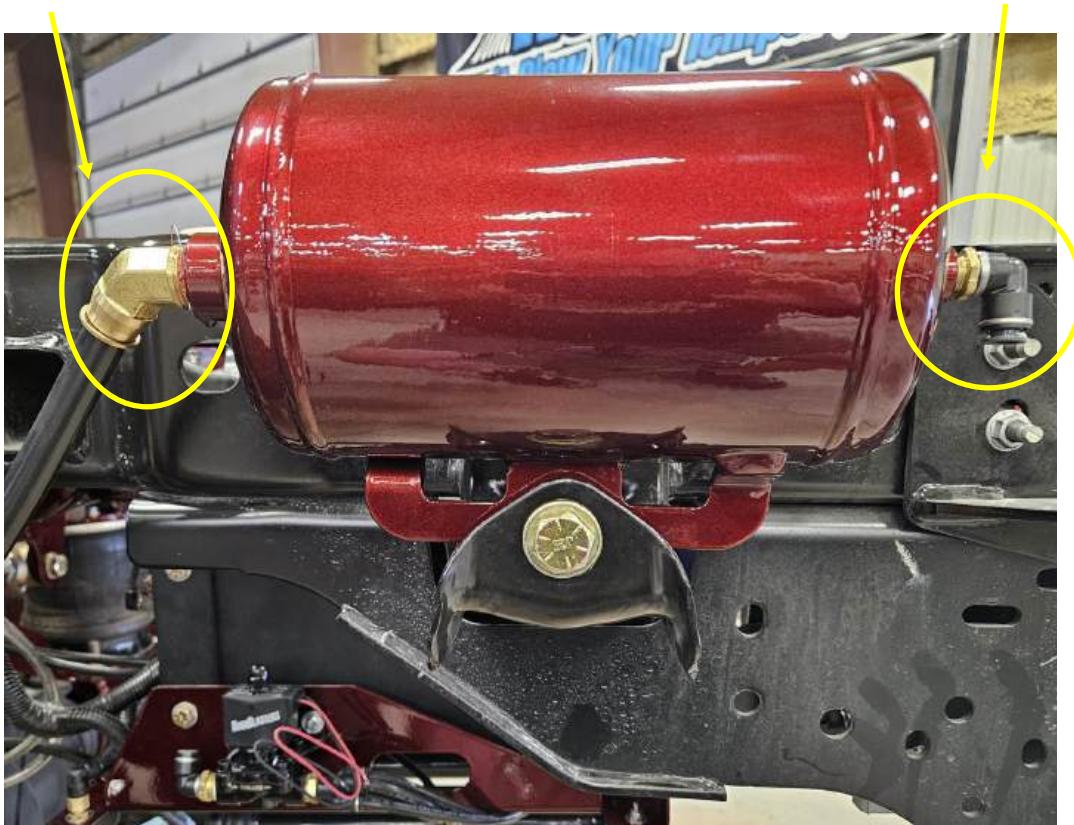


17. LOCATE THE ACCUMULATOR TANKS (#69150-DS & 69151-PS). THEY ATTACH TO THE FACTORY REAR LEAF SPRING MOUNT LOCATION WITH THE FACTORY BOLTS FROM THE REAR LEAF SPRING. TANKS SHOULD HAVE THE LARGE PORT FACING TOWARDS THE FRONT OF THE TRUCK.

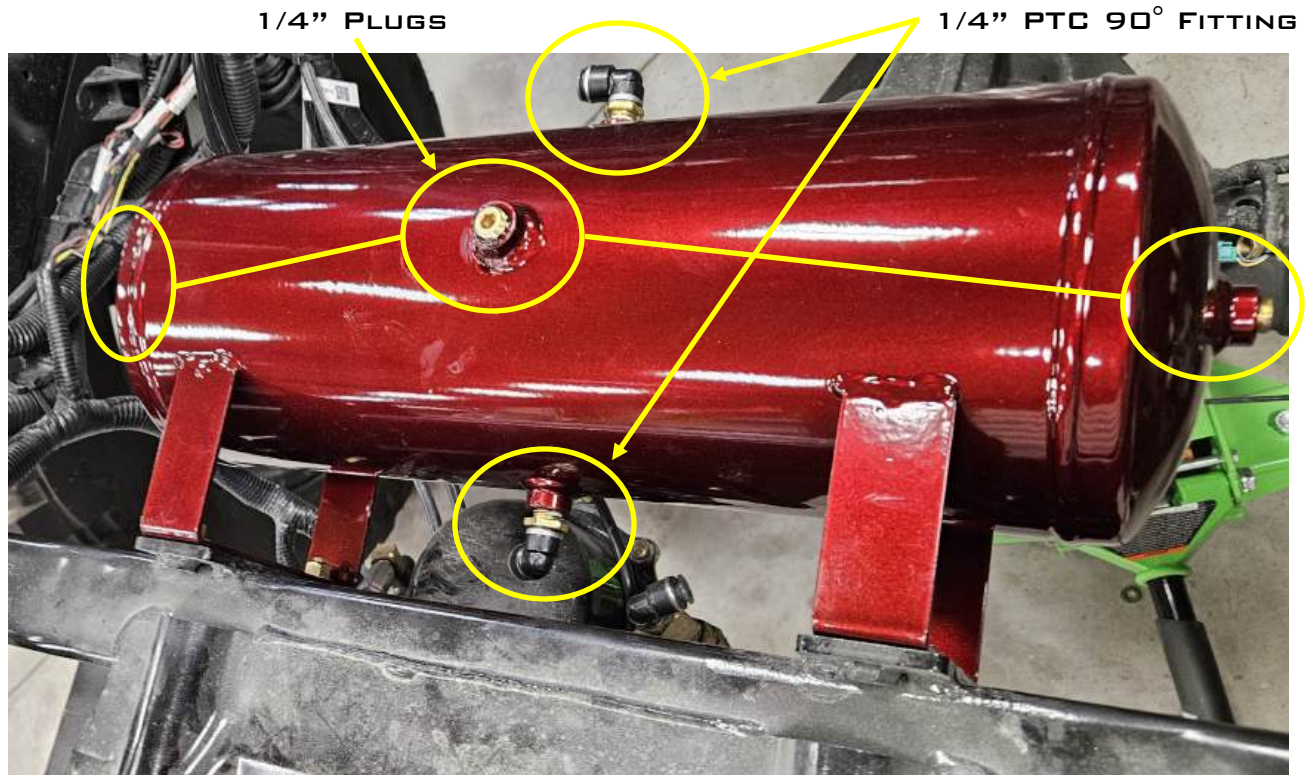
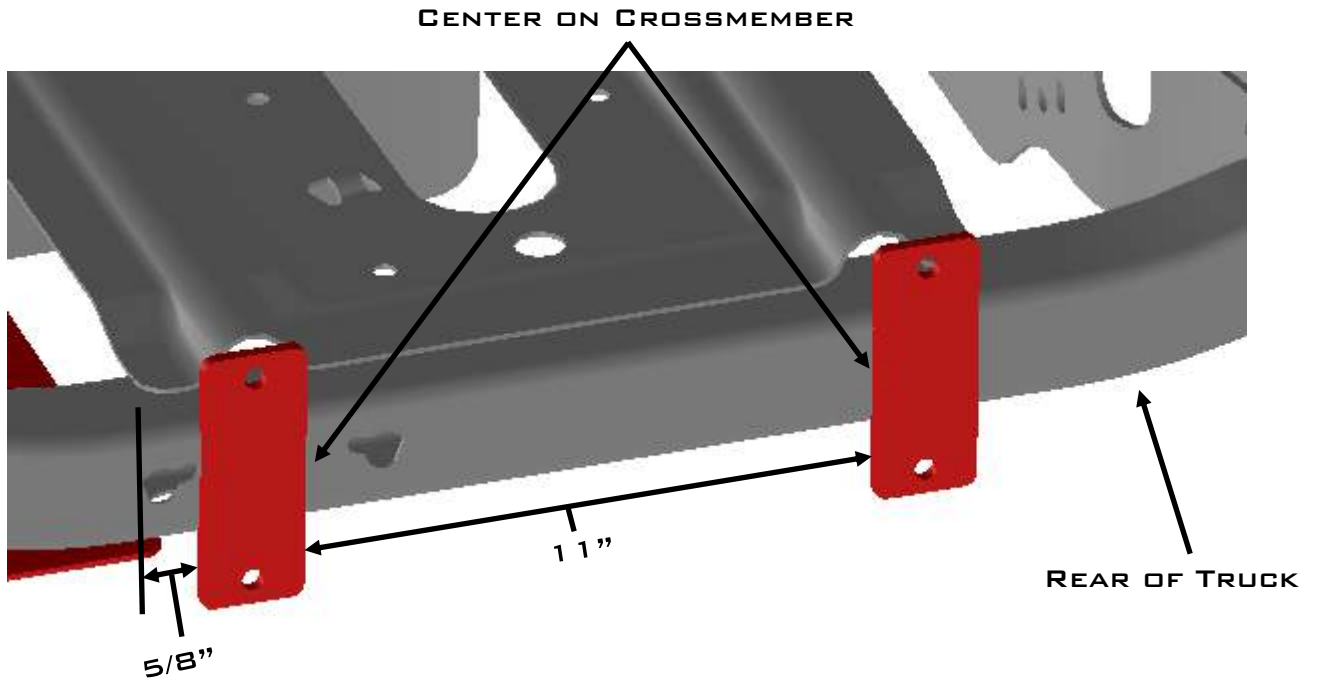


3/4" - 45° ELBOW FITTING

1/4" - 90° ELBOW FITTING



18. LOCATE THE TANK BRACE PLATES (#51768). THEY WILL BE WELDED TO THE FRONT SPARE TIRE CROSSMEMBER, SHOWN BELOW. LOCATE AIR TANK (#2002174) AND INSTALL AIR FITTINGS AS SHOWN BELOW.



PORT NOW SHOWN WILL TAKE A 1/4" NPT DRAIN FITTING WITH WING NUT

19. LOCATE THE AIR TANK MOUNT PLATE (#51635). PLATE WILL NEED TO BE WELDED TO THE UNDERSIDE OF THE FRAME ON THE PASSENGER SIDE OF THE SPARE TIRE MOUNT. LINE UP LEFT SIDE OF PLATE WITH RIGHT SIDE OF FACTORY SPARE TIRE PLATE. WELD, GRIND AND SPRAY PAINT TO AVOID RUSTING. INSTALL AIR TANK FITTINGS AND TANK TO MOUNT PLATE. (#2002174).

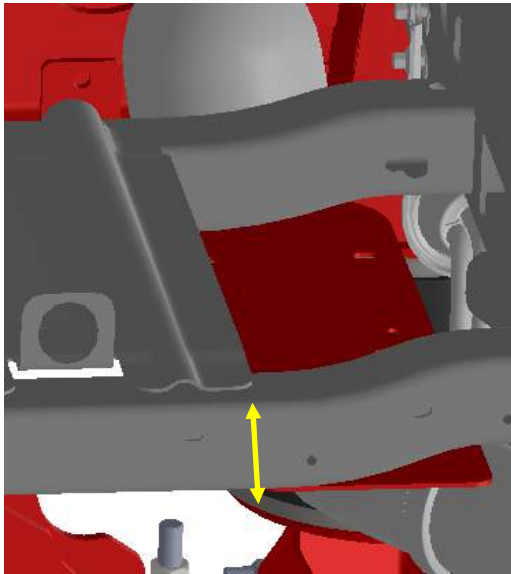
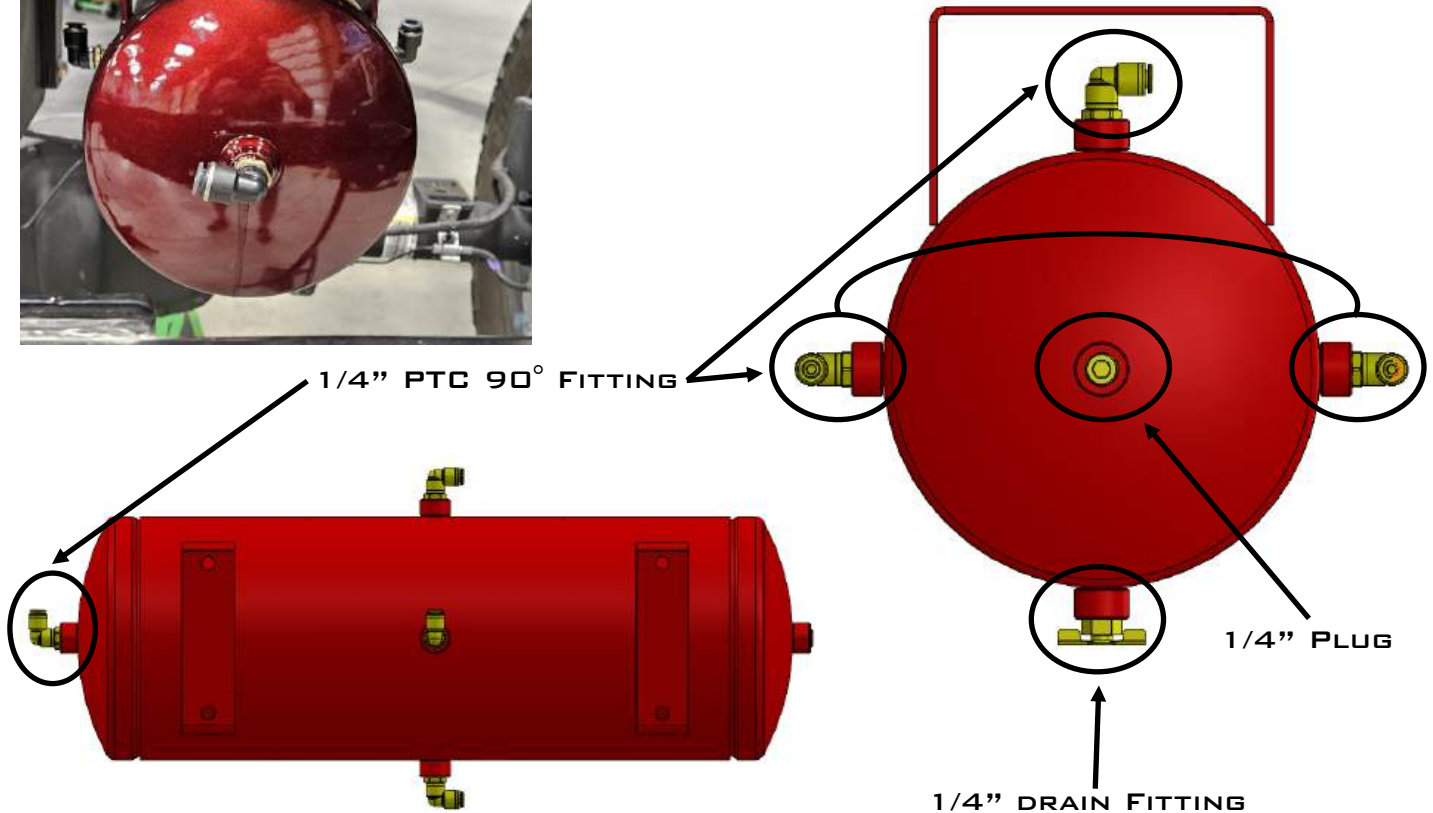
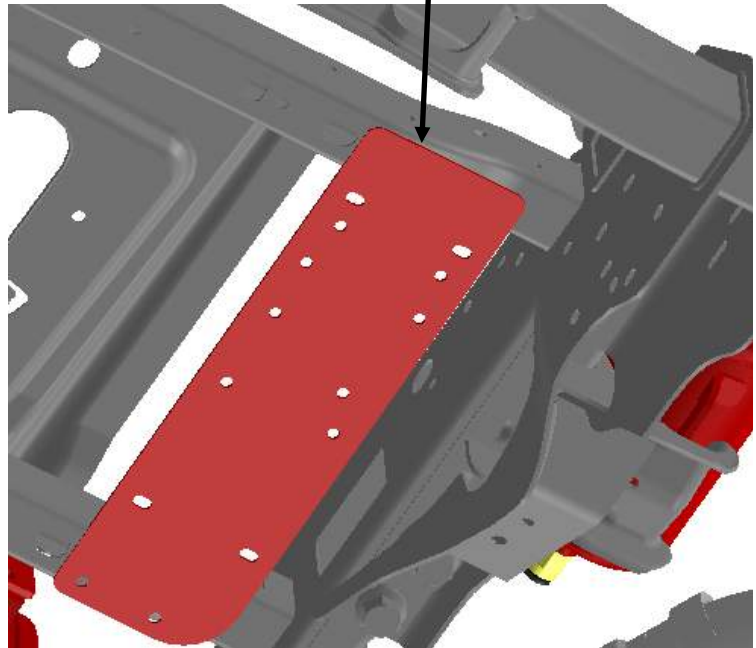


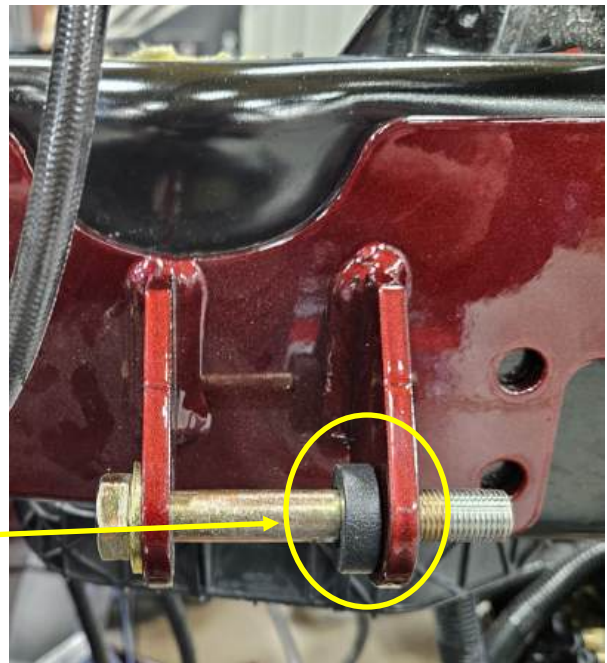
PLATE SHOULD BE FLUSH WITH SPARE TIRE REAR CROSSMEMBER



20. LOCATED SENSOR MOUNT PLATES (#10011863-DS & #10011897-PS). ATTACH TO SIDE OF FRAME WITH FACTORY HARDWARE REMOVED DURING UN-INSTALL STEP 12. LOCATE SENSOR (#80166) AND BOLT TO SENSOR PLATE WITH ARM FACING TOWARDS REAR OF THE TRUCK. INSTALL LINKAGE TO SENSOR AND TRAILING ARM BAR WITH BALL STUD SPLIT COLLAR. ADJUST COLLAR SO THE SENSOR ARM IS PARALLEL WITH THE TOP OF THE FRAME.



21. LOCATE SHOCKS (#10003384-DS & #10006717-PS). THEY INSTALL TO AXLE CLAMPS AND SIDE PLATES WITH 1/2"-20 X 3-1/2" BOLTS. EACH SHOCK WILL HAVE A SPACER (#18769) ON THE UPPER AND LOWER MOUNTS OF THE SHOCK. THE REMOTE RESERVOIR WILL ATTACH TO THE ALUMINUM SPLIT CLAMPS (#80227) ON TOP OF THE UPPER BAG MOUNTS.



SPACER (#18769)

ALUMINUM SPLIT COLLAR (#80227)



FRONT ASSEMBLY

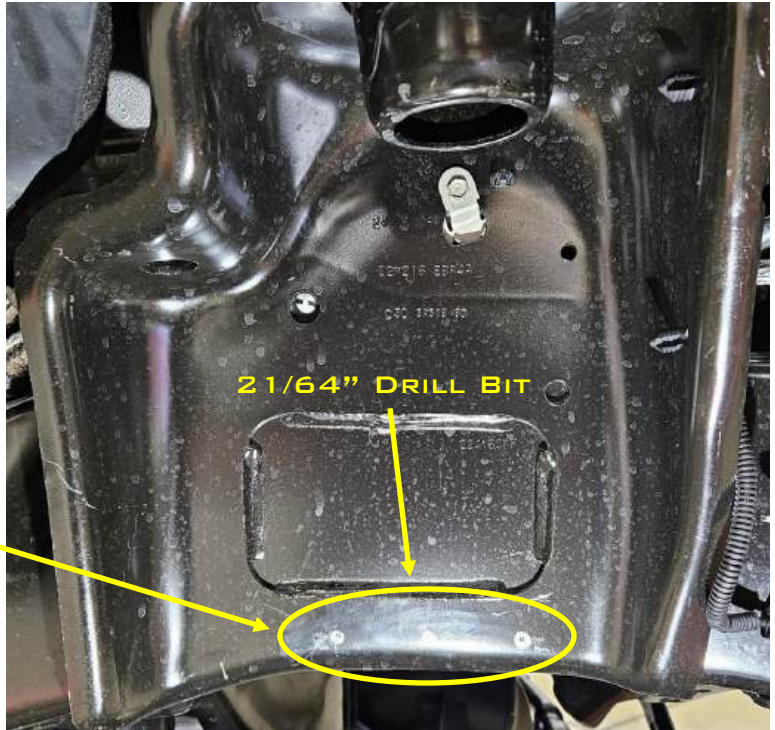
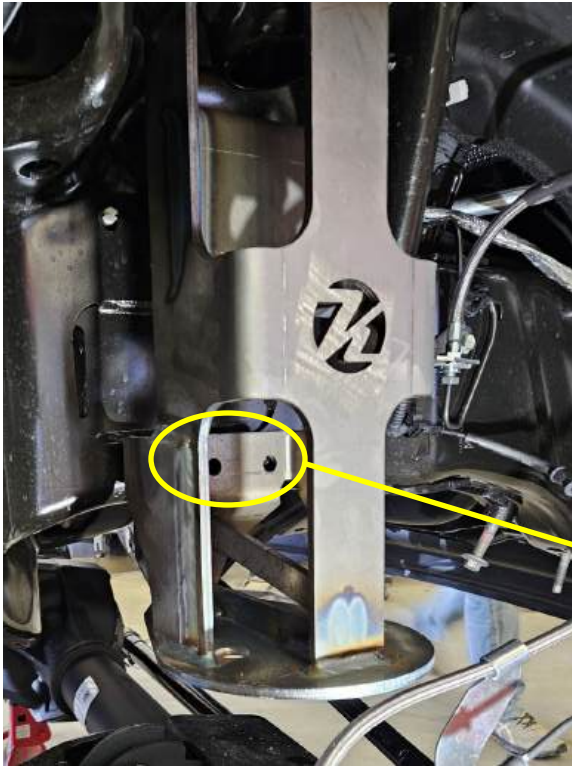
1. LOCATE UPPER BAG MOUNT (#10015654-DS & #10015815-PS). HOLD WELDMENT UP TO TOP OF SPRING BUCKET AND MARK HOLES TO BE DRILLED. DRILL HOLES WITH 25/64" DRILL BIT. BOLT THE UPPER PORTION OF THE UPPER BAG MOUNT WITH 3/8"-24 BOLTS. (CONTINUED ON THE NEXT PAGE)...



25/64" DRILL BIT



MARK THE HOLES TO BE DRILLED ON THE LOWER BACK OF THE UPPER BAG MOUNT. REMOVE THE UPPER BAG MOUNT AND DRILL THE HOLES WITH 21/64" DRILL BIT AND TAP HOLES WITH 3/8"-24 TAP. BEFORE INSTALLING UPPER BAG MOUNT, MAKE SURE TO INSTALL SHOCK RESERVOIR MOUNT (#10016008-DS & 10016009-PS) ON TOP OF THE UPPER BAG MOUNT THEN ATTACH UPPER BAG MOUNT WITH 3/8"-24 BOLTS.



3/8"-24 TAPPED HOLE



2. LOCATE THE UPPER BAG MOUNT CROSSMEMBER WELDMENT (#10012928) AND ATTACH TO THE UPPER BAG MOUNTS WITH (4) 3/8"-24 X 1-1/4" BOLTS. ORIENT THE BOLTS SO THEY FACE DOWN WITH NUT ON THE BOTTOM.

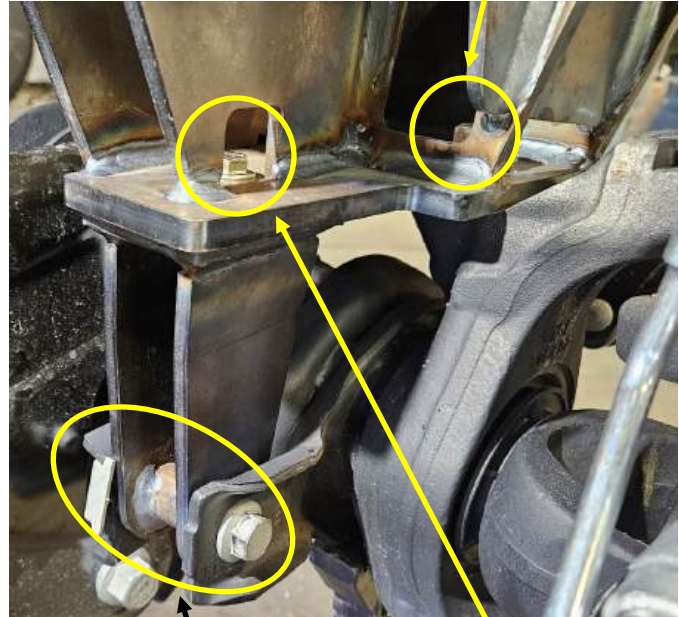


3. LOCATE LOWER BAG MOUNTS (#10015653-DS & 10015820-PS). PLACE THE LOWER BAG MOUNTS ON THE LOWER SPRING MOUNT. INSTALL M14-2MM X 25MM BOLT AND ATTACH THE SHOCK SUPPORT WELDMENTS (#10015901-DS & 10015911-PS) TO THE FACTORY LOWER SHOCK MOUNT WITH FACTORY HARDWARE AND THE LOWER BAG MOUNT WITH 3/8"-24 X 1-1/2" BOLT. DRILL 17/32" HOLE USING HOLE IN LOWER BAG MOUNT AND BOLT WITH 1/2"-20 X 1-1/2" BOLT.

M14-2MM X 25MM BOLT

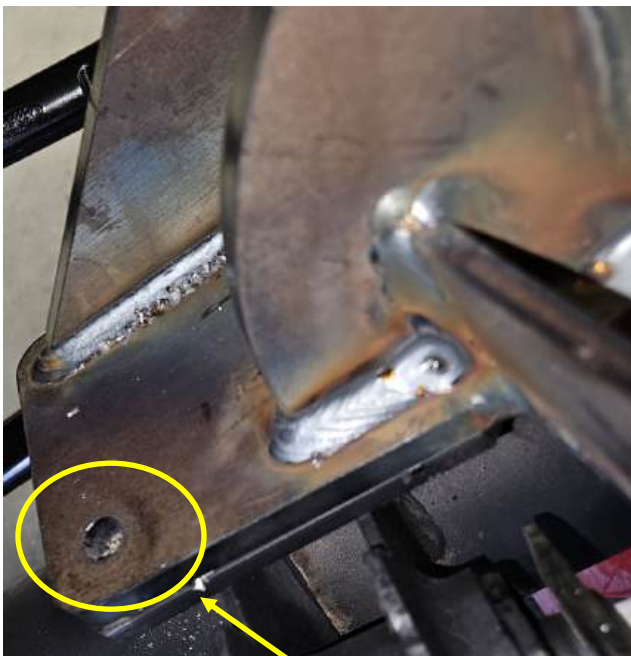


LOWER SPRING MOUNT—INSTALL M14 BOLT HERE



3/8"-24 X 1-1/2" BOLT

FACTORY SHOCK BOLTS



DRILL 17/32" HOLE USING HOLE IN THE PLATE AS A GUIDE



1/2"-20 X 1-1/2" BOLT

4. LOCATE THE BRAKE LINE KIT (#FORD118F11) AND FLATTEN OUT THE BRAKE LINE BRACKET. BOLT THE BRACKET TO THE OUTSIDE FACE OF THE PASSENGER SIDE LOWER BAG MOUNT WITH PROVIDED HARDWARE. REPLACE FACTORY BRAKE LINES WITH NEW BRAKE LINES.



FLATTEN
BEND
SHOWN.



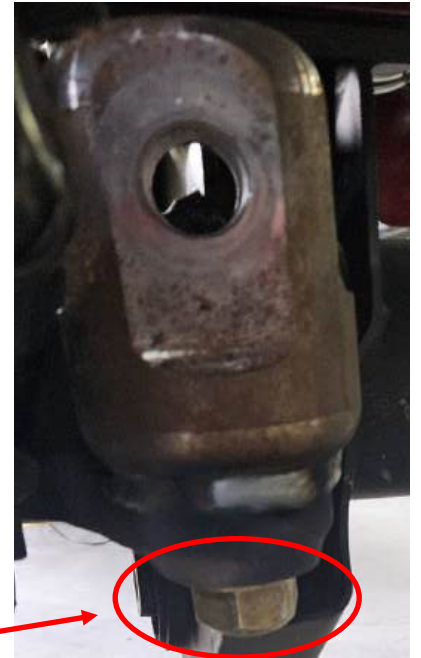
5. LOCATE THE AIR BAGS (#80012-5323). INSTALL BAG TO LOWER BAG MOUNT WITH 1/2"-13 X 5" HEX BOLT. LOWER THE TRUCK DOWN AND INSTALL AIR BAG TO UPPER BAG MOUNT WITH 1/2" AND 3/4" AIR BAG HARDWARE.



6. LOCATE FRONT SHOCKS (#10006714-DS & 10003380-PS). ATTACH THE SHOCKS TO THE FACTORY SHOCK LOCATION IN THE SPRING HANGER. THE LOWER PART OF SHOCK ATTACHES TO THE LOWER BAG MOUNT SHOCK MOUNT. USE SHOCK HARDWARE FOR THE TOP AND 1/2"-20 X 3" HEX BOLTS FOR THE BOTTOM. ATTACH RESERVOIR TO RESERVOIR MOUNT WITH SPLIT CLAMPS.



7. LOCATE THE LOWER PANHARD BAR MOUNT (#69447) & PANHARD BAR ASSEMBLY. INSTALL TO FACTORY AXLE LOCATION AND BOLT THROUGH BOTTOM WITH A 3/4"-16 X 3-1/4" BOLT. INSTALL PANHARD BAR WITH 7/8"-14 X 3-1/4" BOLT WITH BOLT HEAD FACING TOWARD THE OUTSIDE. INSTALL HEIM END SIDE TO THE LOWER PANHARD BAR MOUNT.



HEX BOLT 3/4"-16 x 3-1/4"



LOWER PANHARD BAR MOUNT AND AXLE GROUND

HEX BOLT 7/8"-14 x 3-1/4"

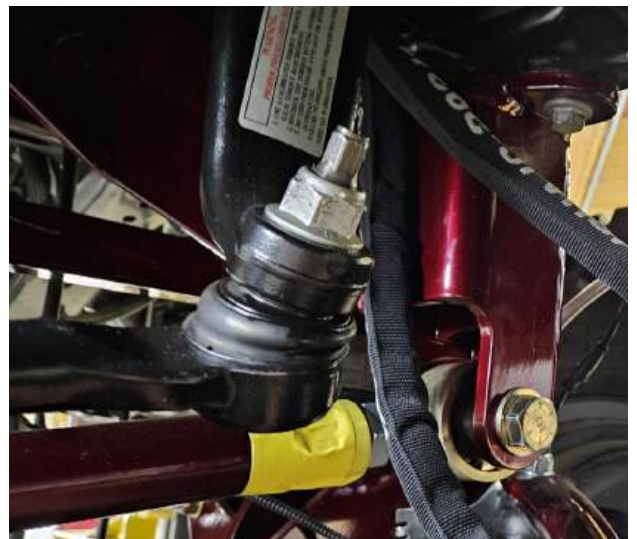
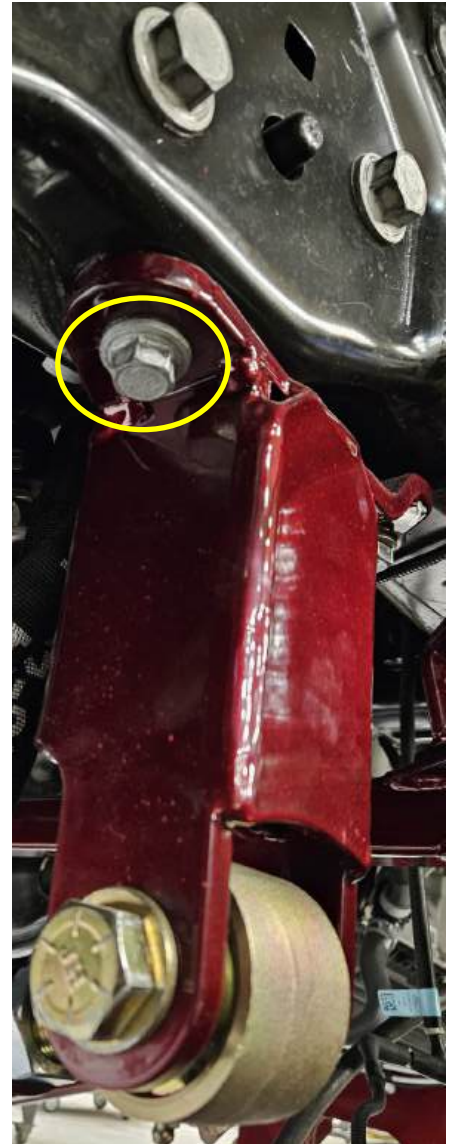


LOWER PAN HARD BAR MOUNT WELDED TO AXLE

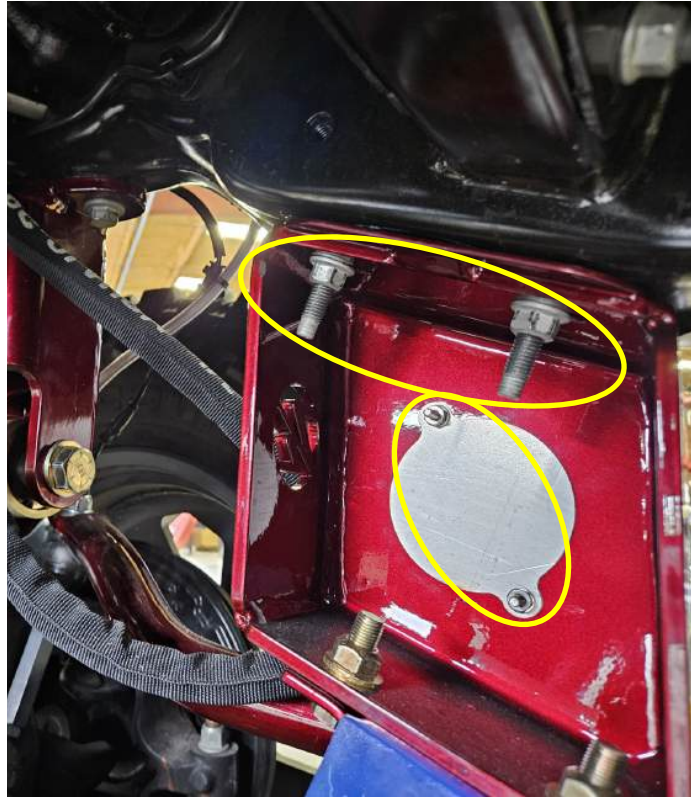


PANHARD BAR WITH 7/8" HEIM END AND JAM NUT.

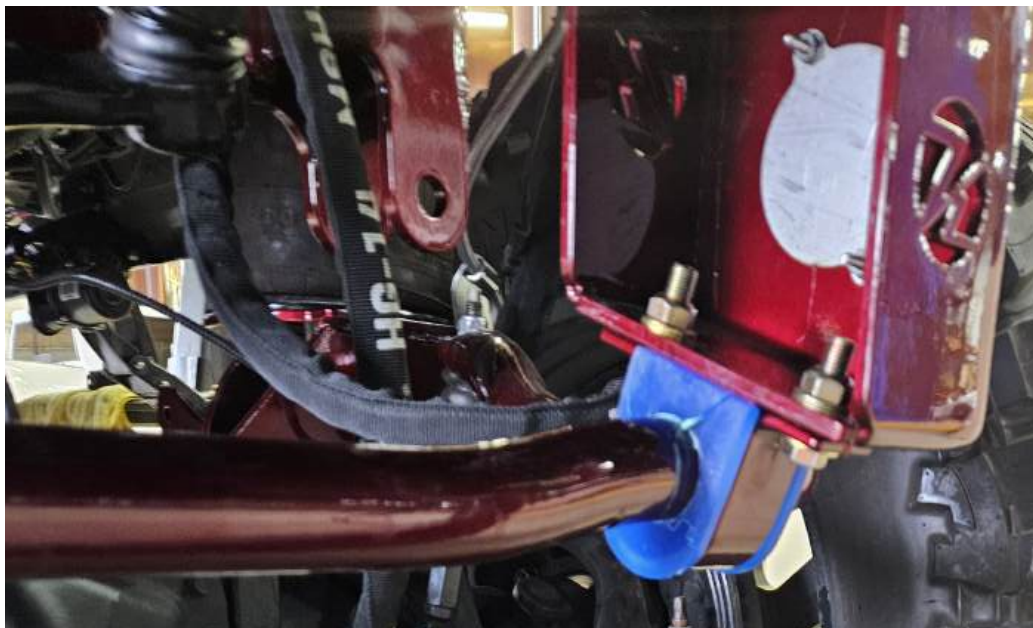
8. LOCATED UPPER PANHARD BAR MOUNT WELDMENT (#10007401). ATTACH TO FACTORY TRACK BAR MOUNT LOCATION. RE-USE HARDWARE SAVED FROM DISASSEMBLY STEP 6. ATTACH JOHNNY JOINT END OF THE LOWER PANHARD BAR TO THE UPPER MOUNT WITH 3/4"-16 X 4-1/2" BOLT.



9. LOCATE SWAY BAR DROP WELDMENTS (#69109-DS & 69110-PS) AND LOGO BACKING PLATE (#10007430). INSTALL BACKING PLATE TO THE SWAY BAR DROP WITH #10-24 NUTS AND FLAT WASHERS. ATTACH TO FACTORY SWAY BAR LOCATION WITH FACTORY HARDWARE SAVED FROM DISASSEMBLY.



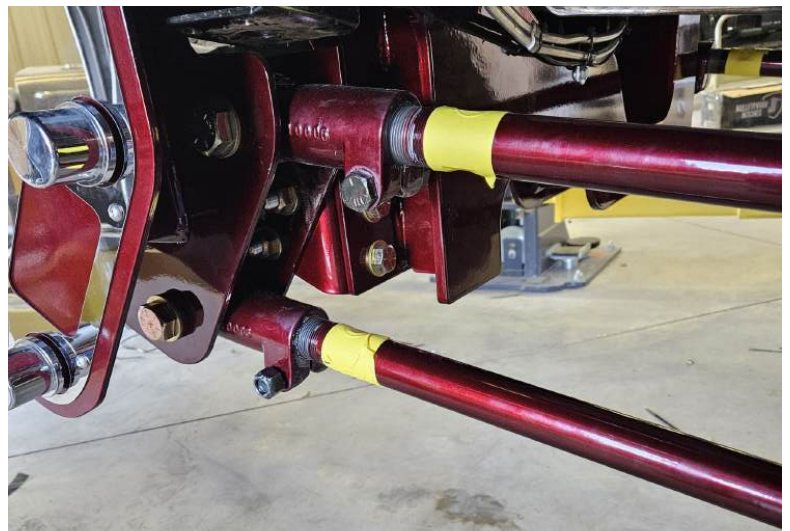
10. LOCATE SWAY BAR, D-RINGS AND BUSHINGS (#1139-180KLD & 4139-180). LOCATE THE PROVIDED GREASE AND GREASE THE SWAY BAR BUSHINGS LIBERALLY (CLEAN EXCESS AFTER INSTALL) BEFORE INSTALLING TO THE SWAY BAR. BUSHING SHOULD BE ROUGHLY PLACED RIGHT BEFORE BEND IN THE BAR. LOCATE D-RINGS AND PLACE D-RING AROUND BUSHING AND ATTACH TO SWAY BAR DROPS WITH 7/16"-20 X 1-1/2" BOLTS.



11. LOCATE SWAY BAR END LINKS (#80348). THEY WILL INSTALL TO FACTORY END LINK HOLE ON THE AXLE AND TO THE SWAY BAR ENDS.

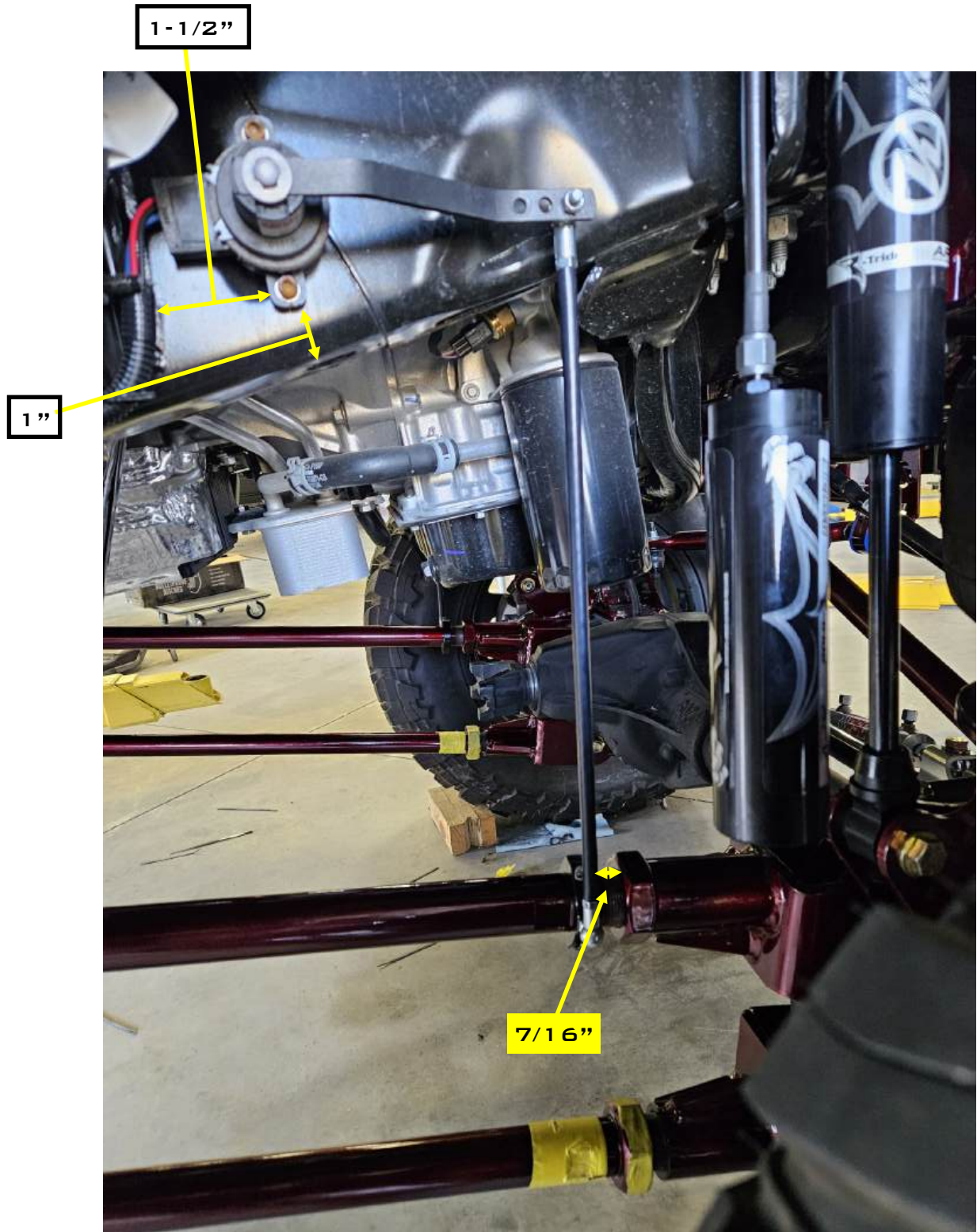


12. LOCATE THE FRONT TRAILING ARM ASSEMBLIES (41" UPPER BAR & 44" LOWER BAR). THEY WILL ATTACH TO THE FRONT OF THE CRADLE AND TO THE FACTORY RADIUS ARM LOCATION ON THE AXLE. THE SHORTER BAR WILL BE UPPER BAR AND LONGER BAR THE LOWER.



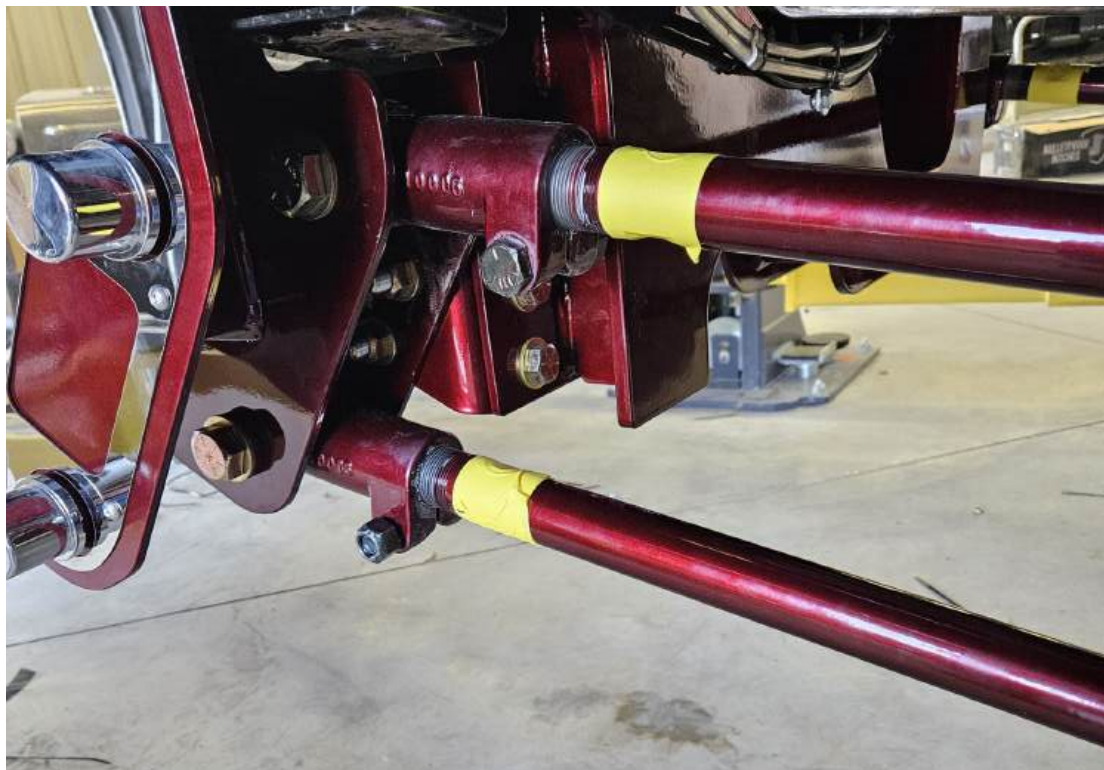


13. LOCATE SENSOR (#80166). USE THE DIMENSIONS SHOWN BELOW TO PLACE THE SENSOR AND MARK THE HOLE LOCATIONS. YOU WILL NEED TO DRILL THE HOLES TO $1\frac{3}{64}$ " AND THEN TAP THE HOLES WITH $1/4$ "-20 TAP. BOTH SIDES WILL BE THE SAME.



SET THE TRAILING ARM BARS TO THE LENGTHS SHOWN BELOW. NOTE: THESE LENGTHS ARE A STARTING POINT AND MAY HAVE TO BE ADJUSTED.

DRIVERS SIDE		PASSENGER SIDE	
FR UPPER	34	FR UPPER	34
FR LOWER	38.5	FR LOWER	38.5
R UPPER	41.5	R UPPER	41.5
R LOWER	45.25	R LOWER	45.25



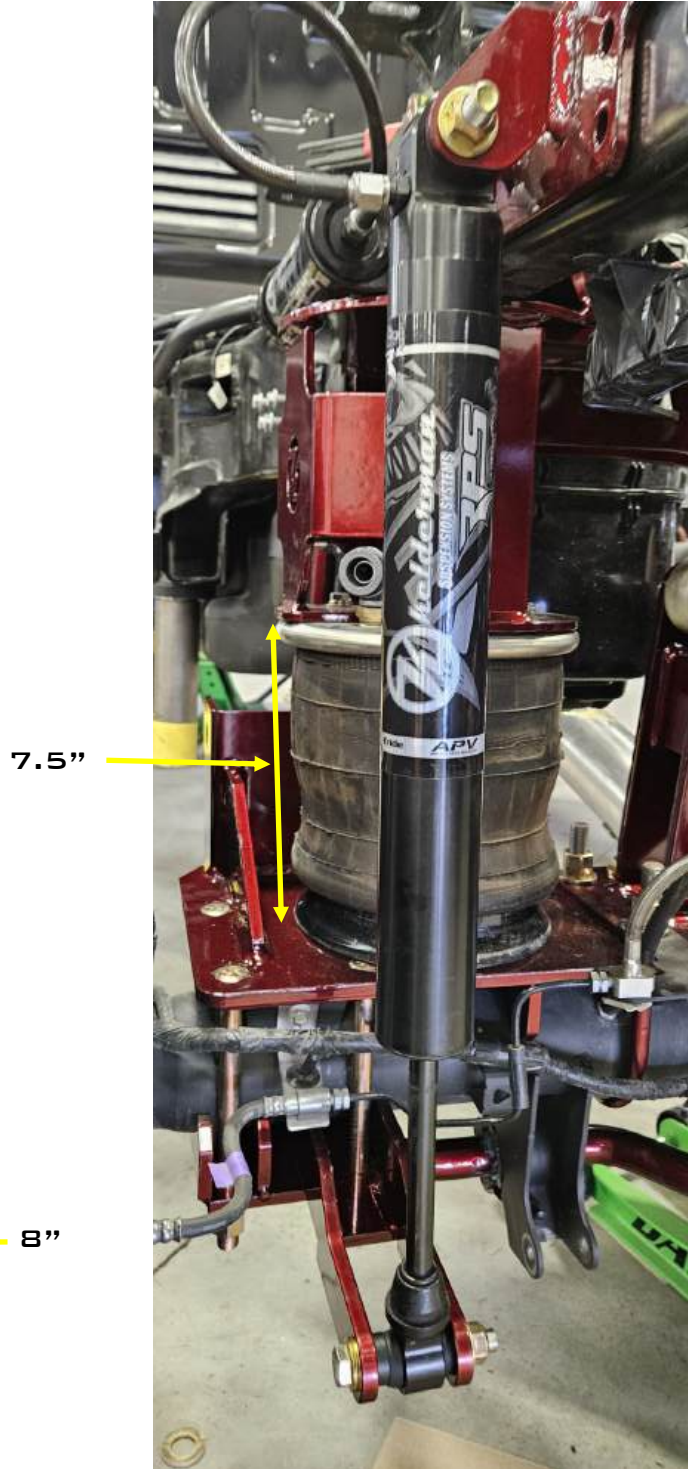
YOU WILL NEED TO PLUMB THE AIR SYSTEM BEFORE INFLATING THE AIR BAGS. SEE PLUMBING DIAGRAM ON PAGE 61.

INFLATE AIR BAGS AND SET THE FRONT AIR BAGS TO 8" AND THE REAR AIR BAGS TO 7.5".

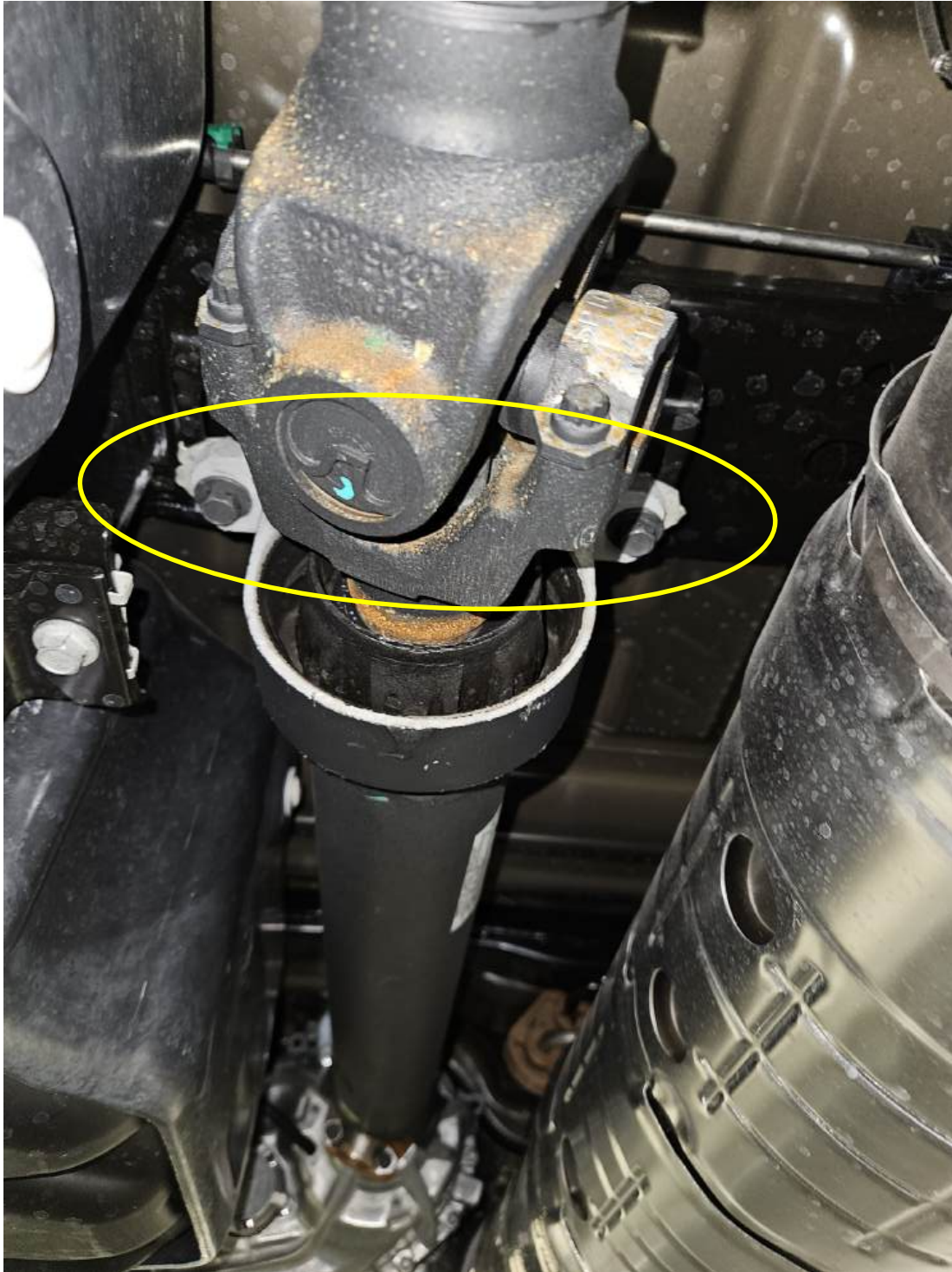
FRONT



REAR



IF YOUR TRUCK HAS A TWO-PIECE DRIVESHAFT, YOU WILL NEED TO SPACE THE CENTER CARRIER BEARING DOWN. USE THE SUPPLIED SHIMS TO DROP THE CARRIER BEARING.



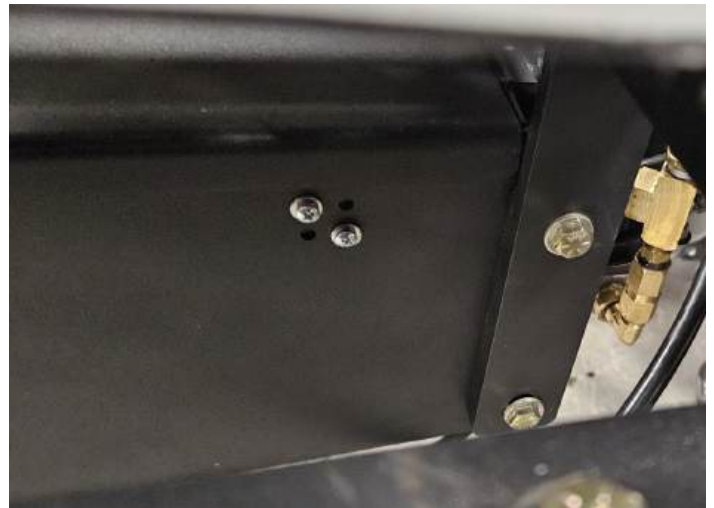
THE BEST PLACE FOR THE CONTROLS BOX AND AIR TANK IS WHERE THE SPARE TIRE ORIGINALLY WENT. USE THE SUPPLIED MOUNTING TABS AND WELD THEM TO THE SPARE TIRE CARRIER.

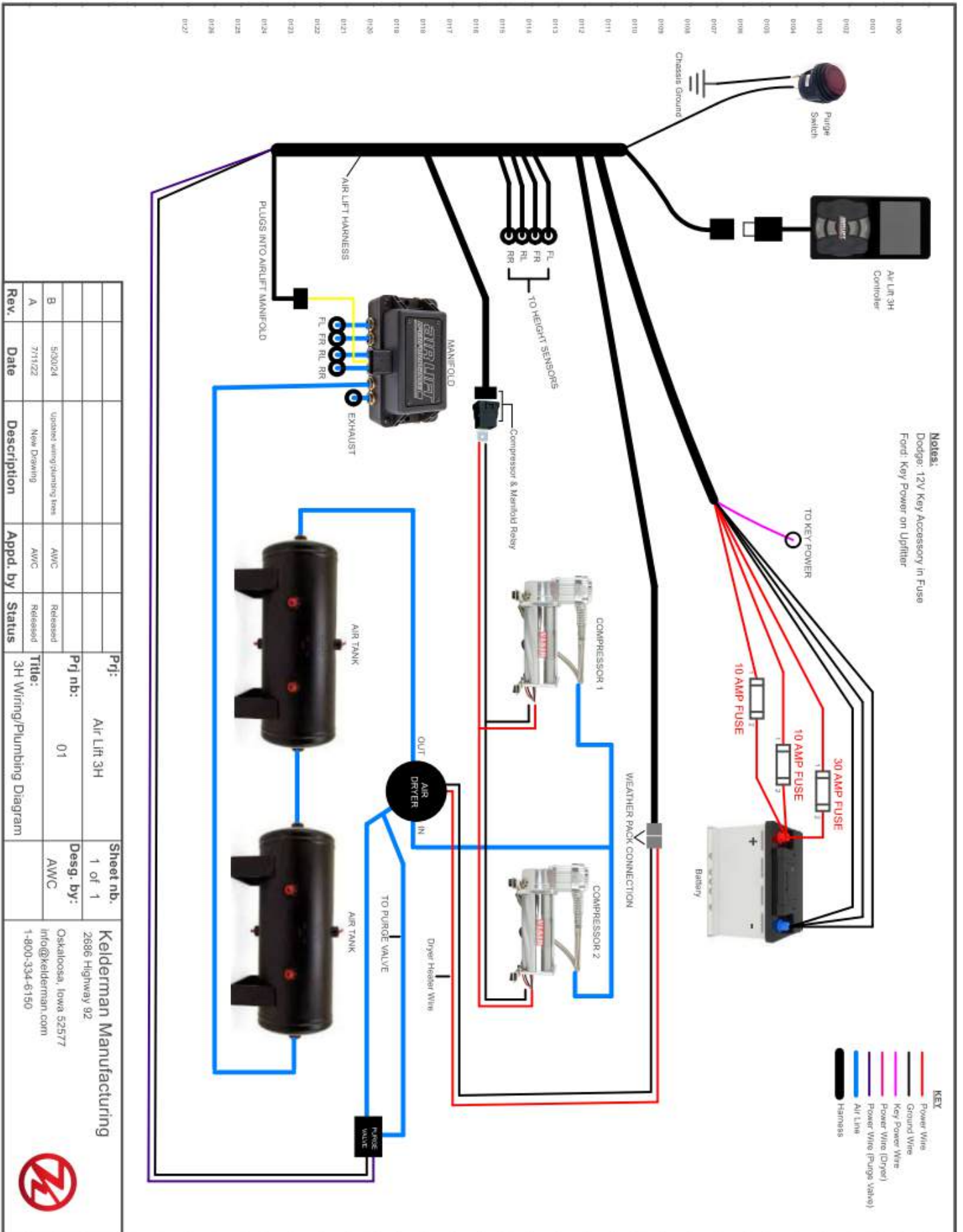
THESE AIR CONTROL SYSTEM MOUNTING LOCATIONS ARE MERELY SUGGESTIONS. CONTROLS CAN BE MOUNTED VIRTUALLY ANYWHERE ON THE TRUCK, BUT THESE WILL BE THE MOST CONVENIENT AND THE RECOMMENDED LOCATIONS.

THERE IS ALSO AN INSTALL VIDEO ON YOUTUBE THAT SHOWS HOW TO DIAL THE SYSTEM IN AFTER IT IS INSTALLED. OUR YOUTUBE PAGE CAN BE FOUND AT:

[HTTPS://WWW.YOUTUBE.COM/WATCH?](https://www.youtube.com/watch?v=1cseciu756w&list=PLW6vbg1KLqHwBWXWN7DUFWBBZZO4HANRG&index=3&t=21s)

[V=1CSECIU756W&LIST=PLW6VBG1KLQHwBWXWN7DUFWBBZZO4HANRG&INDEX=3&T=21S](https://www.youtube.com/watch?v=1cseciu756w&list=PLW6vbg1KLqHwBWXWN7DUFWBBZZO4HANRG&index=3&t=21s)



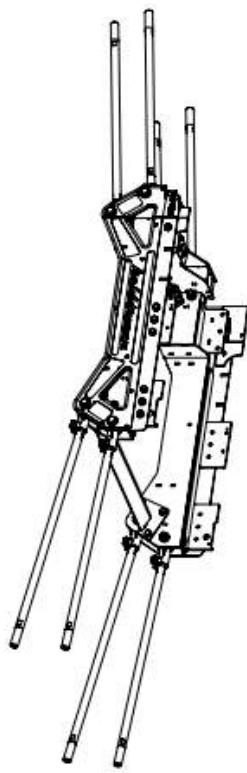


Rev.	Date	Description	Appd. by	Status	Title:	Pri:	Sheet nb.
A	7/11/22	New Drawing	AWC	Released	3H Wiring/Plumbing Diagram	Air Lift 3H	1 of 1
B	5/30/24	Updated wiring/plumbing lines	AWC	Released		Pri nb.: 01	Desg. by: AWC
Kelderman Manufacturing						2686 Highway 92	
Oskaloosa, Iowa 52577						info@kelderman.com	
1-800-334-6150							

KIT DRAWINGS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12006	Hex Bolt - 1/2"-1.3 x 1-1/2" - GR5 - Z	4
2	12401	Hex Bolt - 5/8"-1.8 x 1" - GR8 - YZ	14
3	12409	Hex Bolt - 5/8"-1.8 x 2" - GR8 - YZ	14
4	12418	Hex Bolt - 5/8"-1.1 x 3" - HT Plain	8
5	12601	Hex Bolt - 7/8"-1.4 x 1-1/2" - GR8 - YZ	4
6	12633	Hex Bolt - 7/8"-1.4 x 5-1/2" - GR8 - YZ	8
7	13024	Flt Washer SAE - 1/2" - GR8 - YZ	4
8	13026	Flt Washer SAE - 5/8" - GR8 - YZ	28
9	13030	Flt Washer SAE - 7/8" - GR8 - YZ	24
10	13054	Split Lock Washer - 5/8" - GR8 - YZ	14
11	13106	Top Distorted Thread Lock Nut - 5/8"-1.1 - WP/WAX	8
12	13126	Top Distorted Thread Lock Nut - 5/8"-1.8 - GR8 - YZ	14
13	13130	Top Distorted Thread Lock Nut - 7/8"-1.4 - GR8 - YZ	12
14	13503	Socket Head Cap Screw - 1/4-20 x 1/2" - 18-8 SS - Plain	8
15	13601	Button Head Cap Screw - 1/4-20 x 5/16" - 316 SS - Plain	26
16	13956	Thick Flat Washer - 5/8 - GR8 - YZ	14
17	10005	Cast Trailing Arm Knuckle (RH) (1-1/2"-12 UNCL)	4
18	10006	Cast Trailing Arm Knuckle (LH) (1-1/2"-12 UNCL)	4
19	20093	Bushing - 1-1/8"OD x .880"ID x 3" L	8
20	52141	41.00" Trailing Arm Bar	2
21	52144	44.00" Trailing Arm Bar	2
22	52148	48.00" Trailing Arm Bar	2
23	52152	52.00" Trailing Arm Bar	2
24	80136	Purchased - Poly HDI Bushing - 1.79"OD x 1-1/8"ID x 1-7/16" L	16
25	10029519	Weldment - Crossmember Brace Weld Nut Tab	4
26	10031656	Weldment - Crossmember Brace	1
27	10031704	Weldment - (DS) Side Plate/Trailing Arm Mount	1
28	10031783	Plate - Outer Name Plate (DS)	1
29	10031792	Weldment - (PS) Side Plate/Trailing Arm Mount	1
30	10031800	Plate - Outer Name Plate (PS)	1
31	10031877	Plate - (DS) Frame Mount Spacer	1
32	10031882	Plate - (DS) Rear Frame Spacer	1
33	10031883	Plate - Center Frame Spacer	2
34	10031886	Plate - (PS) Rear Frame Spacer	1
35	10031888	Plate - (PS) Frame Mount Spacer	1
36	10031922	Weldment - (DS) Side Plate/Crossmember Gusset	1
37	10031923	Weldment - (PS) Side Plate/Crossmember Gusset	1
38	10031931	Weldment - Cradle Crossmember	1
39	10032114	Plate - "K" Light Plate	2
40	10032115	Plate - Kelderman Logo Light Plate	2

REVISIONS		
REV.	DESCRIPTION	DATE



PROJECTIONS	ASSEMBLY	DO NOT SCALE DRAWING	1:32	APPROXIMATE WEIGHT - 535.674
PROJECTION	PART SPEC: Assembly			
OTHER SPEC:	DESCRIPTION: Assembly - 10-12 Center Cradle - 160WB CC SB			
DWG. INCHES:	PROJECT: 160WB CC SB			
3RD TOLERANCES:	PROJECT: 160WB CC SB			
XXX 1.00	PART NUMBER: 10032103			
2.00	DATE: 1/2/2025			
1.00	DESIGN BY: Alex Carlson			
FRAC.DWG. 1/32				
Dep. 1/32				



SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12007	Hex Bolt - 1/2"-20 x 1-1/2" - GR8 - YZ	8	43	69100	Weldment - Transercase Mounting Bracket	1
2	12021	Hex Bolt - 1/2"-20 x 3" - GR8 - YZ	2	44	69109	Weldment - (DS) Front Sway Bar Bracket	1
3	12213	Hex Bolt - 3/8"-24 x 1-1/4" - GR8 - YZ	4	45	69110	Weldment - (PS) Front - 6-1/2" Sway Bar Drop Bracket	1
4	12217	Hex Bolt - 3/8"-24 x 1-1/2" - GR8 - YZ	6	46	69447	Purchased & CR - Lower Panhard Bar Mount	1
5	12423	Hex Bolt - 5/8"-18 x 3-1/2" - GR8 - YZ	2	47	69538	Bushing - 7/8" ID - 1-1/8" OD - 5/16" Long - Lower Panhard Bar	2
6	12523	Hex Bolt - 3/4"-16 x 3-1/4" - GR8 - YZ	1	48	69554	Round Bar - 1.5" OD x 33.5" L - Panhard Bar - 7/8"-14 Internal Thread	1
7	12533	Hex Bolt - 3/4"-16 x 4-1/2" - GR8 - YZ	1	49	69566	Plate - 16ga - Round Point Plate	2
8	12615	Hex Bolt - 7/8"-14 x 3-1/4" - GR8 - YZ	1	50	80012-5323	Air Bag - Firestone 5323	2
9	13004	Flat Washer USS - 1/2" - GR5 - Z	4	51	80052	Purchased - (LH) Heim-End - 7/8"-14 LHT - 7/8"ID	1
10	13022	Flat Washer SAE - 3/8" - GR8 - YZ	20	52	80072	Purchased - Pitman Arm - 2005-2017 Ford SD - 4.8-5" Lft : Skylocker (FMS0)	1
11	13023	Flat Washer SAE - 7/16" - GR8 - YZ	8	53	80140	Purchased Parts - 4139-180 Sway Bar Bushing Kit 1.5"	2
12	13024	Flat Washer SAE - 1/2" - GR8 - YZ	12	54	80227	Purchased - Aluminum Split Clamp - 2.0" Dia	4
13	13026	Flat Washer SAE - 5/8" - GR8 - YZ	4	55	80252	Purchased - Aluminum Split Clamp - 2.17" Dia	4
14	13028	Flat Washer SAE - 3/4" - GR8 - YZ	4	56	80281	Heim End - 2.5" Johnny Joint Narrow - 7/8"-14 RHT	1
15	13030	Flat Washer SAE - 7/8" - GR8 - YZ	1	57	80348	Kryptonite - Sway Bar End Links (3-6") [Pair]	2
16	13046	Split Lock Washer - 3/8" - GR8 - YZ	4	58	10006732	Assembly - 37.50" Indexing Ring	1
17	13050	Split Lock Washer - 1/2" - GR5 - Z	4	59	10007401	Weldment - Panhard Bar Drop (4.41") - (3/4" Bolt)	1
18	13071	Flat Washer USS - 5/16" - 316 SS - Plain	4	60	10007430	Weldment - Logo Backing Plate	2
19	13122	Top Distorted Thread Lock Nut - 3/8"-24 - GR8 - YZ	10	61	10012928	Weldment - Upper Bag Mount Crossmember - 36-1/4"	1
20	13123	Top Distorted Thread Lock Nut - 7/16"-20 - GR8 - YZ	4	62	10014859	Assembly - Split Lock Collar w/Boil Stud - 1/1/2" Dia - Aluminum - Black	2
21	13124	Top Distorted Thread Lock Nut - 1/2"-20 - GR8 - YZ	6	63	10014992	Weldment - Radius Arm Shackle (DS)	2
22	13126	Top Distorted Thread Lock Nut - 5/8"-18 - GR8 - YZ	2	64	10015016	Weldment - (DS) Lower Bag/Axle Mount	1
23	13128	Top Distorted Thread Lock Nut - 3/4"-16 - GR8 - YZ	2	65	10015653	Weldment - (DS) Upper Bag/Fronte Mount	1
24	13130	Top Distorted Thread Lock Nut - 7/8"-14 - GR8 - YZ	1	66	10015654	Weldment - (PS) Upper Bag/Fronte Mount	1
25	13157	Hex Nut - 5/16"-18 - GR5 - Z	4	67	10015815	Weldment - (PS) Upper Bag Mount/Frame Mount	1
26	13411	Hex Bolt - 7/16"-20 x 1-1/2" - GR8 - YZ	4	68	10015820	Weldment - (PS) Lower Bag/Axle Mount	1
27	13595	Socket Head Cap Screw - 5/16"-18 x 1-1/2" - 18-8 SS - Plain	4	69	10015831	14 Gauge - 4" Transmission line drop	1
28	13890	Hex Bolt - M14-2mm x 25mm - Class 10.9 - YZ	2	70	10015832	14 Gauge - 3" Transmission line drop	1
29	13890	Flat Washer - M14 - Class 10.9 - YZ	2	71	10015901	Weldment - (DS) Shock Support	1
30	13892	Flat Washer - M18 - Class 10.9 - YZ	8	72	10015911	Weldment - (PS) Shock Support	1
31	13927	Nylon Lock Nut - M18-2.5mm - Class 10 - YZ	4	73	10016008	Plate 14 ga - Raptor Shock Resivor Bracket (DS)	1
32	13985	Hex Bolt - M18-2.5mm x 140mm - Class 10.9 - YZ	4	74	10016009	Plate 14 ga - Raptor Shock Resivor Bracket (PS)	1
33	14062	Flat Washer SAE - #10 - 18-8 SS - Plain	4	75	10029766	Front Sensor Lock Brackets (PS & DS)	1
34	14070	Hex Nut - #10-24 - 18-8 SS - Plain	4	76	10032325	Weldment - Hydraulic Ram Diff Mount	1
35	14086	Split Lock Washer - M10 - 18-8 SS - Plain	4				
36	1139-180KLD	Purchased Parts - 1139-180 Sway Bar	1				
37	13210	Jam Nut RHT - 7/8"-14 - GR5 - Z	1				
38	13211	Jam Nut LHT - 7/8"-14 - GR5 - Z	1				
39	13219	Jam Nut RHT - 1-1/2"-12 - GR5 - Plain	4				
40	18769	CR - 1" OD x .562" ID x .3" Long - Bushing	2				
41	50737	CR - 2.25" OD x 0.875" ID x 0.25" Thick - Spacer Bushing	4				
42	51742	Assembly - 15-1/2" CTC Height Control Ball End Linkage Rod	2				

UNLESS OTHERWISE SPEC. DIMS IN INCHES
 STD. TOLERANCES
 XXX ±.030
 YYY ±.010
 FZZ ±.015Z
 Dimp. ±.005Z

PROJ. ECT: 2023+ Ford F250-350 Pickup - 10-12" Crodle

PART NUMBER: 10032506

DATE: 12/02/2024

DESIGN BY: Alex Carlson

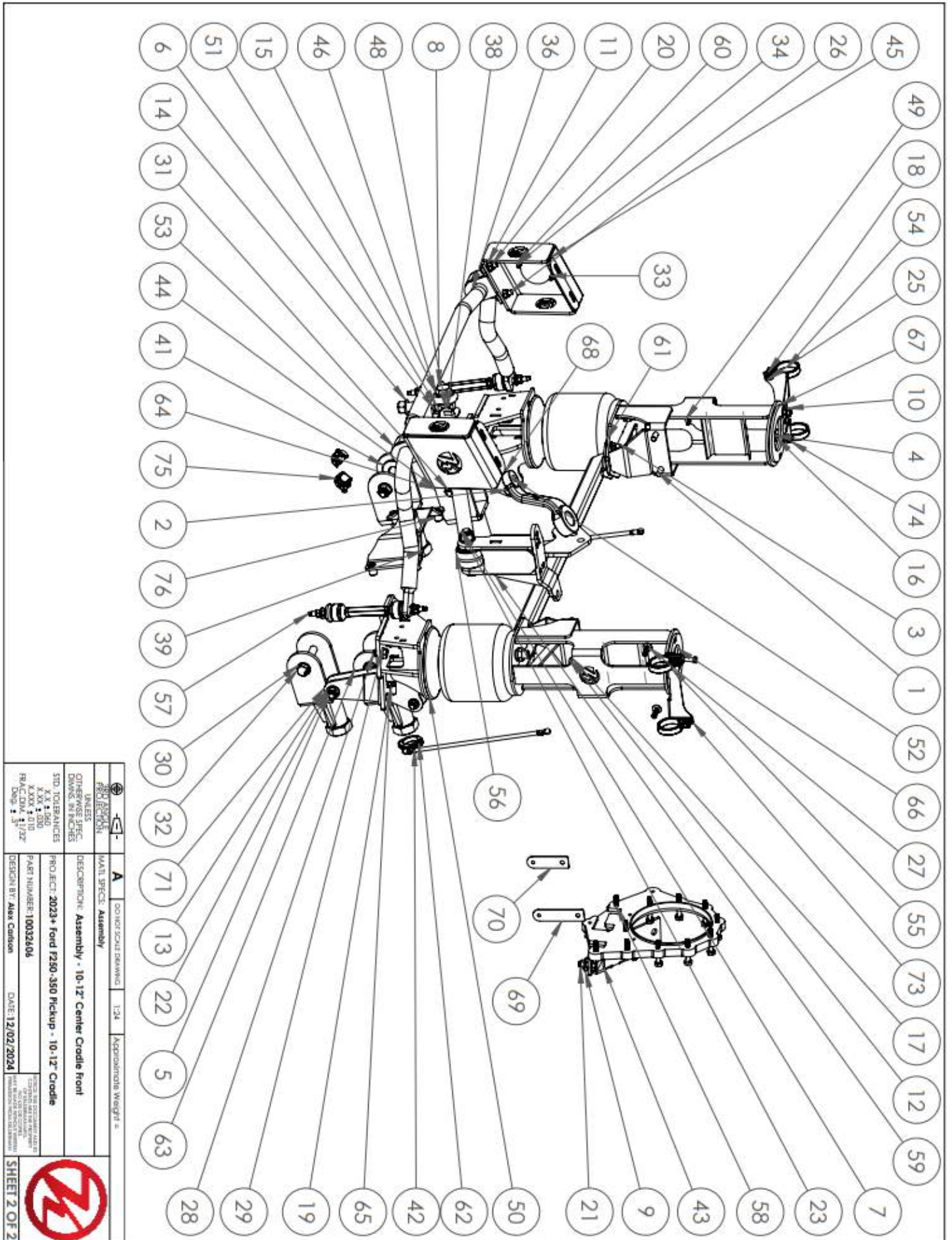
DO NOT SCALE DRAWING

1:24

Approximate Weight = 80



SHEET 1 OF 2

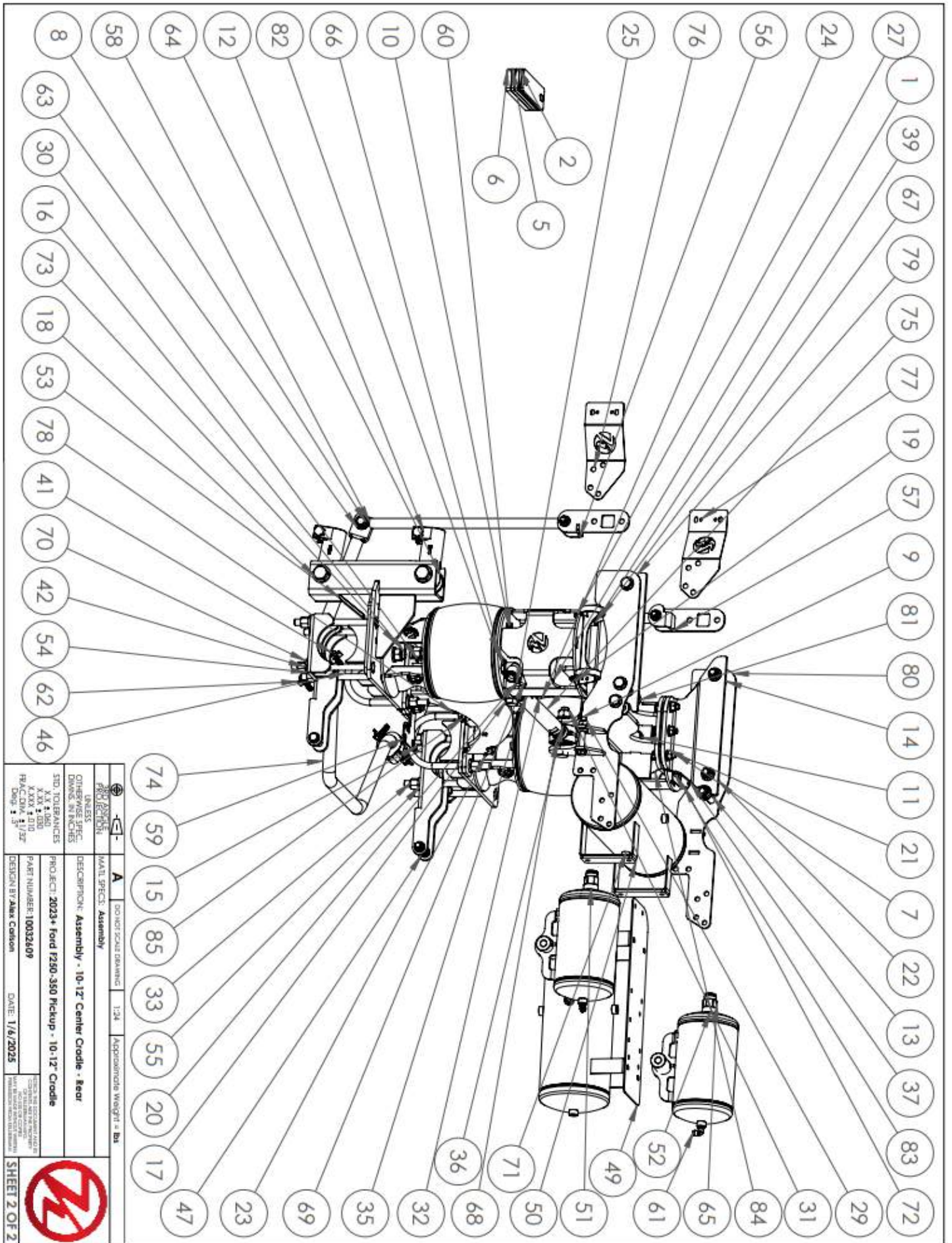


	PROJ: ASSEMBLY PROJ: TECHNICAL DRAWING	A DO NOT SCALE DRAWING	1/24 Approximate Weight =
	UNLESS OTHERWISE SPEC. DRAWING IN INCHES STD. TOLERANCES X.XX ± .001 X.XXX ± .010 FRACTIONS ± 1/32" DIMS ± .005"	DESCRIPTION: Assembly - 10-12" Center Cradle Front PROJECT: 2023+ Ford F250-350 Pickup - 10-12" Cradle PART NUMBER: 10032604 DESIGN BY: Alex Carlson	
THIS IS THE OCCURRENCE PART OF THE DRAWING. IT IS NOT TO BE USED FOR MANUFACTURING PURPOSES.			SHEET 2 OF 2



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	10006	Cast Trailing Arm Knuckle (LHT) (1-1/2"-12 UNCL)	4	47	18769	CRR - 1" OD x .562" ID x .3" Long - Bushing	4
2	10579	Plate - Carrier Bearing Shim - 1/4"	2	48	20093	Bushing - 1-1/8" OD x .880" ID x 3"L	4
3	11550	CRR - .75" OD x .511" ID - 1.375" Long - Bushing Sleeve	4	49	51635	Plate - 11ga - Air Tank Mounting Plate	1
4	11551	Plate - 1/4" - 1.5" OD x .53" ID x 1/4"	4	50	51687	Plate - 1/4" - Tank Brace	2
5	11927	Plate - Carrier Bearing Shim - 3/8"	2	51	69150	[DS] Accumulator Tank	1
6	11928	Plate - Carrier Bearing Shim - 1/2"	1	52	69151	[PS] Accumulator Tank	1
7	12011	Hex Bolt - 1/2"-20 x Z - GR8 - YZ	4	53	69261	Weldment - [DS] Lower Bog 4" Axle Mount	1
8	12021	Hex Bolt - 1/2"-20 x Z - GR8 - YZ	4	54	69330	Weldment - [DS] 4.00" Axle/Shock Mount	1
9	12025	Hex Bolt - 1/2"-20 x 3-1/2" - GR8 - YZ	4	55	69334	Weldment - [PS] 4.00" Axle/Shock Mount	1
10	12210	Hex Bolt - 3/8"-16 x 1" - GR5 - Z	4	56	69335	[DS] End-Link Bracket	1
11	12409	Hex Bolt - 5/8"-18 x Z - GR8 - YZ	4	57	69338	[PS] End-Link Bracket	1
12	12418	Hex Bolt - 5/8"-11 x 3" - HT Plain	4	58	69539	Weldment - 21" End-Link	2
13	12427	Hex Bolt - 5/8"-18 x 4" - GR8 - YZ	2	59	69713	Plate - 11ga - Brake Relocation Bracket	1
14	12431	Hex Bolt - 5/8"-18 x 4-1/2" - GR8 - YZ	4	60	80012-5748	Air Bog - Firestone 5748	2
15	12459	Hex Bolt - 5/8"-18 x 8" - GR8 - YZ	8	61	80013	90° Elbow 1/4" DOT Tube Push-to-Connect x 1/4"-18 MNPT	2
16	12511	Hex Bolt - 3/4"-16 x Z - GR8 - YZ	2	62	80046	Retainer (D-Ring)	2
17	12533	Hex Bolt - 3/4"-16 x 4-1/2" - GR8 - YZ	2	63	80134	Purchased Parts - Insert Press-In Bushing (End Link) - 1.160" OD x .745" ID	8
18	12629	Hex Bolt - 7/8"-x 5" - GR8 - YZ	4	64	80136	Purchased - Poly Hot Bushing - 1.79" OD x 1-1/8" ID x 1-7/16" L	8
19	13021	Flat Washer SAE - 5/16" - GR8 - YZ	4	65	80142	Straight Male Connector, Union, SAE Flare, 3/4" x 3/4" -14 NPT (Sedant)	2
20	13022	Flat Washer SAE - 3/8" - GR8 - YZ	4	66	80143	90° Male Connector, Union, SAE Flare, 3/4" x 3/4" -14 NPT (Sedant)	2
21	13024	Flat Washer SAE - 1/2" - GR8 - YZ	28	67	80227	Purchased - Aluminum Split Clamp - 2.0" Dia	4
22	13026	Flat Washer SAE - 5/8" - GR8 - YZ	20	68	80281	Heim End - 2.5" Johnny Joint Narrow - 7/8"-14 RHT	1
23	13028	Flat Washer SAE - 3/4" - GR8 - YZ	10	69	80282	2.5" Johnny Joint Narrow, 7/8"-14 LHT, Bolt Center 3/4" Hole Heim End	1
24	13030	Flat Washer SAE - 7/8" - GR8 - YZ	8	70	80308	Sway Bar Bushing - 1-1/4" ID [Pat]	2
25	13046	Spill Lock Washer - 3/8" - GR8 - YZ	4	71	2002174	Weldment - 7" OD - 3 Gallon Air Tank	2
26	13056	Spill Lock Washer - 3/4" - GR8 - YZ	2	72	10003914	Plate - 14ga - Rear Bog Mount Raptor Shock Reservoir Bracket	2
27	13101	Top Distorted Thread Lock Nut - 5/16"-18 - GR5 - Z	4	73	10005376	Weldment - Riser 4.50" - 5748 Bog - Spacer	2
28	13106	Top Distorted Thread Lock Nut - 5/8"-11 - WP/MAX	4	74	10007457	1.25" Sway Bar	1
29	13124	Top Distorted Thread Lock Nut - 1/2"-20 - GR8 - YZ	14	75	10011537	Round Bar - 1.5" OD x 13" L - Round Bar - 7/8"-14 Thread	1
30	13126	Top Distorted Thread Lock Nut - 5/8"-18 - GR8 - YZ	10	76	10011863	Plate - [DS] Hodley Sensor Bracket	1
31	13128	Top Distorted Thread Lock Nut - 3/4"-16 - GR8 - YZ	4	77	10011897	Plate - [PS] Hodley Sensor Bracket	1
32	13130	Top Distorted Thread Lock Nut - 7/8"-14 - GR8 - YZ	4	78	10015184	Weldment - [PS] Lower Bog Mount - 4.00" Axle	1
33	13179	Hex Nut High - 5/8"-18 - GR8 - YZ	12	79	10015341	Weldment - Sideplate w/ Shock Ears	1
34	13188	Jam Nut RHT - 3/4"-10 - GR8 - YZ	2	80	10015343	Weldment - Sideplate w/ Shock ears	1
35	13210	Jam Nut RHT - 7/8"-14 - GR5 - Z	1	81	10015523	Weldment - Upper Crossmember	1
36	13211	Jam Nut LHT - 7/8"-14 - GR5 - Z	1	82	10015544	Weldment - Upper Bog Mount/Spacer [DS]	1
37	13596	Socket Head Cap Screw - 5/16"-18 x Z - GR8 - BO	4	83	10015552	Weldment - [PS] Upper Frame/Bog Mount	1
38	13886	Flat Washer USS - M10 - Class 8.8 - Z	4	84	10015801	Plate - Round Point Plate Large	2
39	13891	Hex Bolt - M10-1.5mm x 25mm - Class 10.9 - YZ	4	85	10029867	Weldment - Round Bar Crossmember	1
40	13893	Split Lock Washer - M10 - 18-8 SS - Plain	4				
41	13949	Flange Bolt - M10-1.5mm x 35mm - Class 10.9 - BO	4				
42	13956	Thick Flat Washer - 5/8" - GR8 - YZ	12				
43	14062	Flat Washer SAE - #10 - 18-8 SS - Plain	4				
44	14086	Split Lock Washer - M10 - 18-8 SS - Plain	4				
45	14097	Hex Nut - #10-24 - GR5 - Z	4				
46	14114	Circle U-Bolt - 5/8"-18 x 8-1/4" x 4.5" ID x 3" Thread - GR8 - Plain	2				


PROJECT: 2023+ Ford F250-350 Pickup - 10-12" Crodle
PART NUMBER: 10032609
 DATE: 1/6/2025
 DESIGN BY: Alex Conson



	PROJECTION	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
	OTHERWISE SPECIFIED TOLERANCES ARE: X.X & ABOVE X.XXX & BELOW FRACTIONAL: 1/32	DESIGN BY: Alex Carson
	MATERIAL SPEC: Assembly	DO NOT SCALE DRAWING
	1:24	Approximate Weight = lbs
	DESCRIPTION: Assembly - 10-12" Center Cradle - Rear	
	PROJECT: 2023+ Ford F250-350 Pickup - 10-12" Cradle	
	PART NUMBER: 10032609	
	DATE: 1/6/2025	
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		SHEET 2 OF 2

NOTES

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