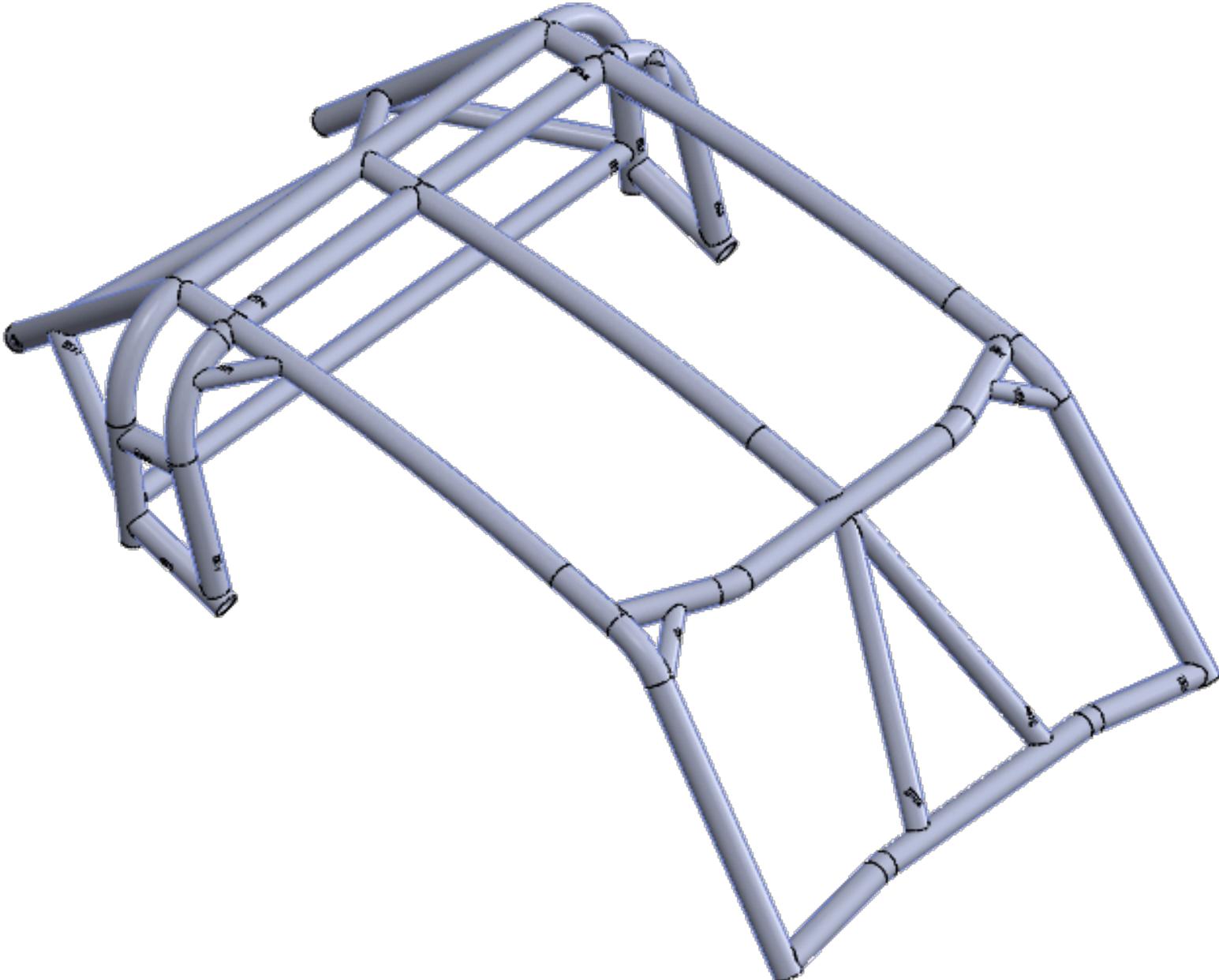
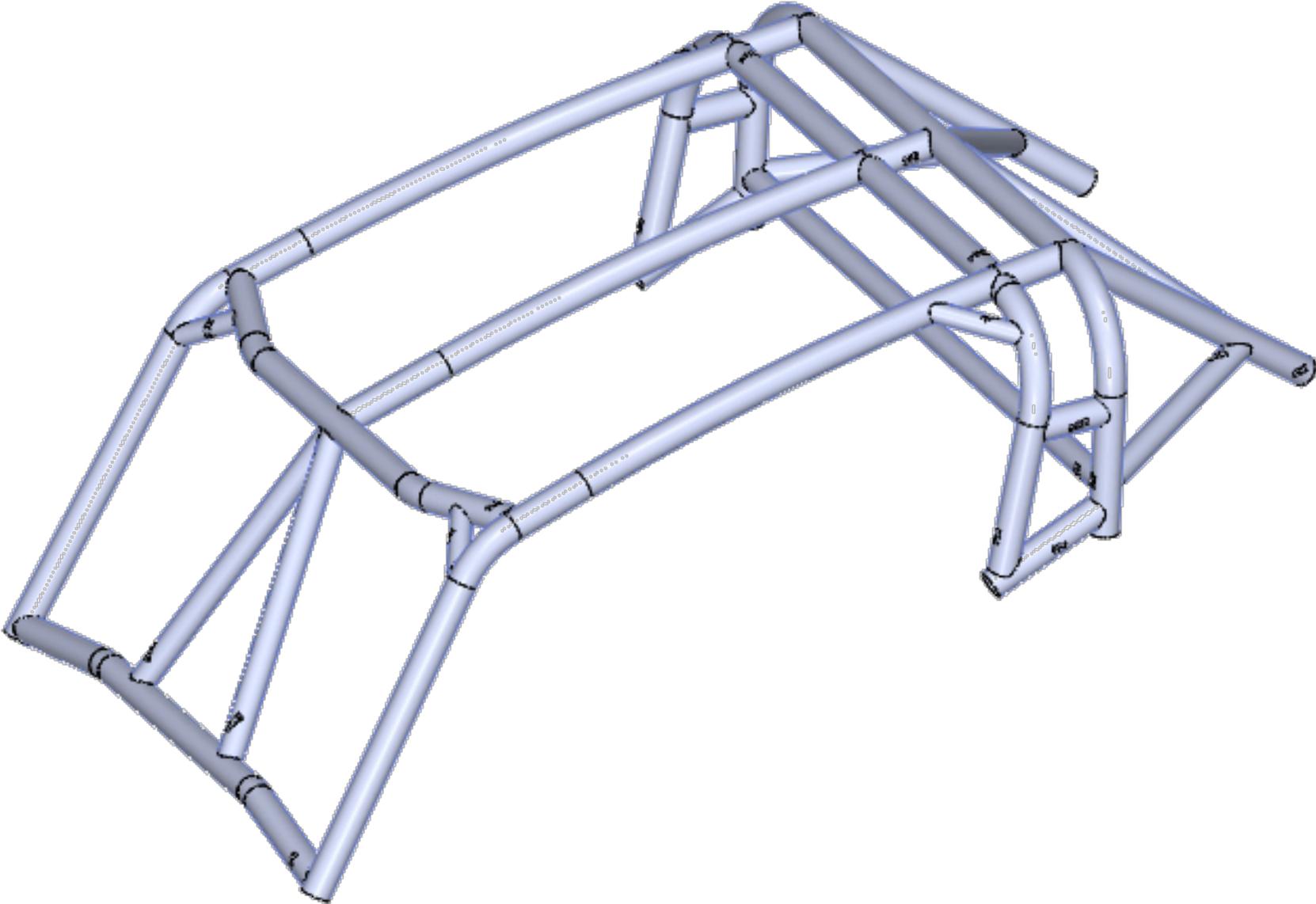


Overview



Overview



Overview (Kit Contents)



Overview

Fitment: This kit will fit 2014+ 2 seat rZR models (except Pro or S/trail)
Shown in this installation is a Turbo S model. The additional rear tubes on these models are not structural and therefore not included in our kits. You could trim yours to fit this kit if you really wanted though.



Stock Height (Turbo S)

Shown are heights of a stock turbo S cage from the factory seat (no lowering bases) to the bottom of the cage tubing.



Stock Height (Turbo S)

Shown are heights of a stock turbo S cage from the factory seat (no lowering bases) to the bottom of the cage tubing.

Depending on the angle of the picture it's hard to tell but lets call the factory turbo S model 12.5"



Elite Series Height (Turbo S)

Shown are heights of our Elite RZR cage kit from the factory seat (no lowering bases) to the bottom of the cage tubing.



Elite Series Height (Turbo S)

Shown are heights of our Elite RZR cage kit from the factory seat (no lowering bases) to the bottom of the cage tubing.

Depending on the angle of the picture it's hard to tell but our cage is about 7.5-8" taking the same measurement
Approximately 5" lower





Cage Height

Given this information you must decide if this is proper cage kit for you and your passengers safety. We recommend a minimum of 4" clearance between helmet and the cage when properly seated and harnessed in. Lowering bases are available from numerous suppliers and definitely a good option for taller people. They replace the factory plastic with steel to better secure the seat. Good harnesses worn at **ALL TIMES** is a **REQUIREMENT**. We don't want to see anyone get hurt, no one wants to see anyone hurt, if the key is in the ignition the harness is on and tight!! Teach your passengers how to secure themselves and their hands prior to leaving in your ride. Ride responsibly and live to ride again!

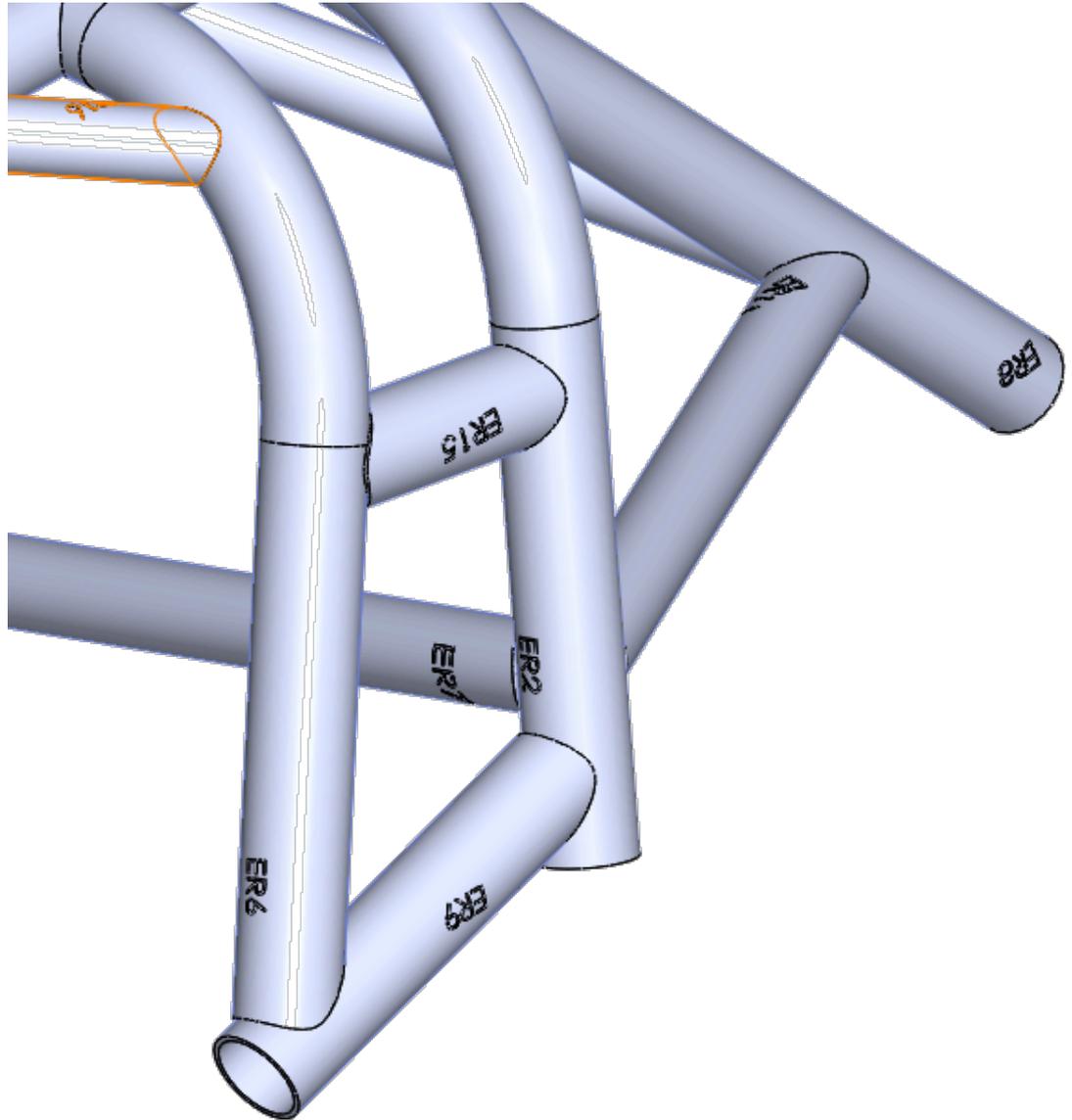
A quick and easy test of clearance is a closed fist on top of your helmet and a friend to measure the height from the seat.

This is the lowest kit we have and ever will offer, if you need more clearance we will happily make you another style kit with more height but we will not go lower!

All people are shaped difference, Personally I'm 5'10" but tall torso and sit taller than my 6'1" friend by several inches. We can't account for all shapes and sizes so you have to do a bit of homework before ordering.

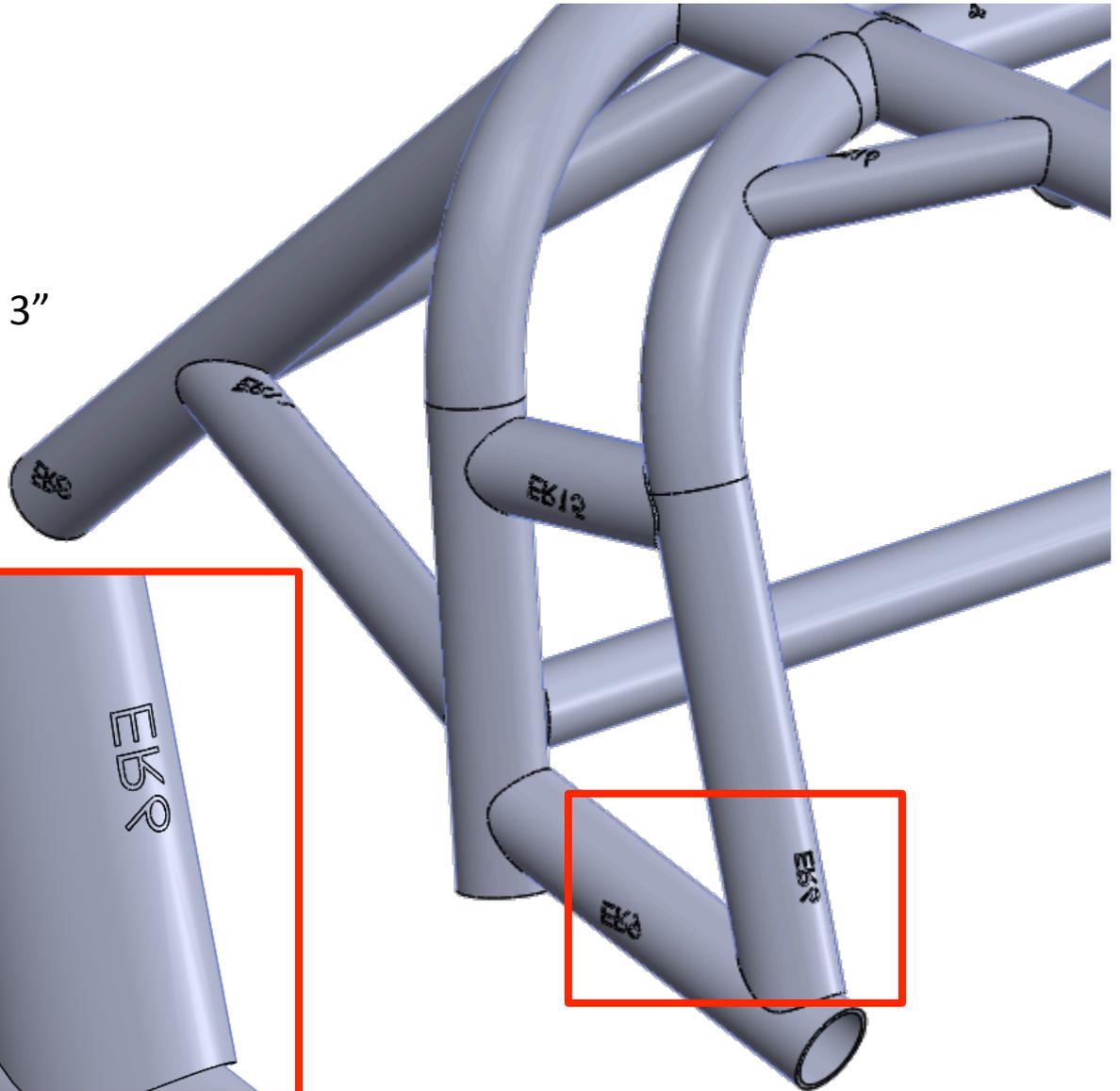
Driver side part number examples

Part Numbers etched within 3"
of the end of part
Passenger side parts are
mirrored

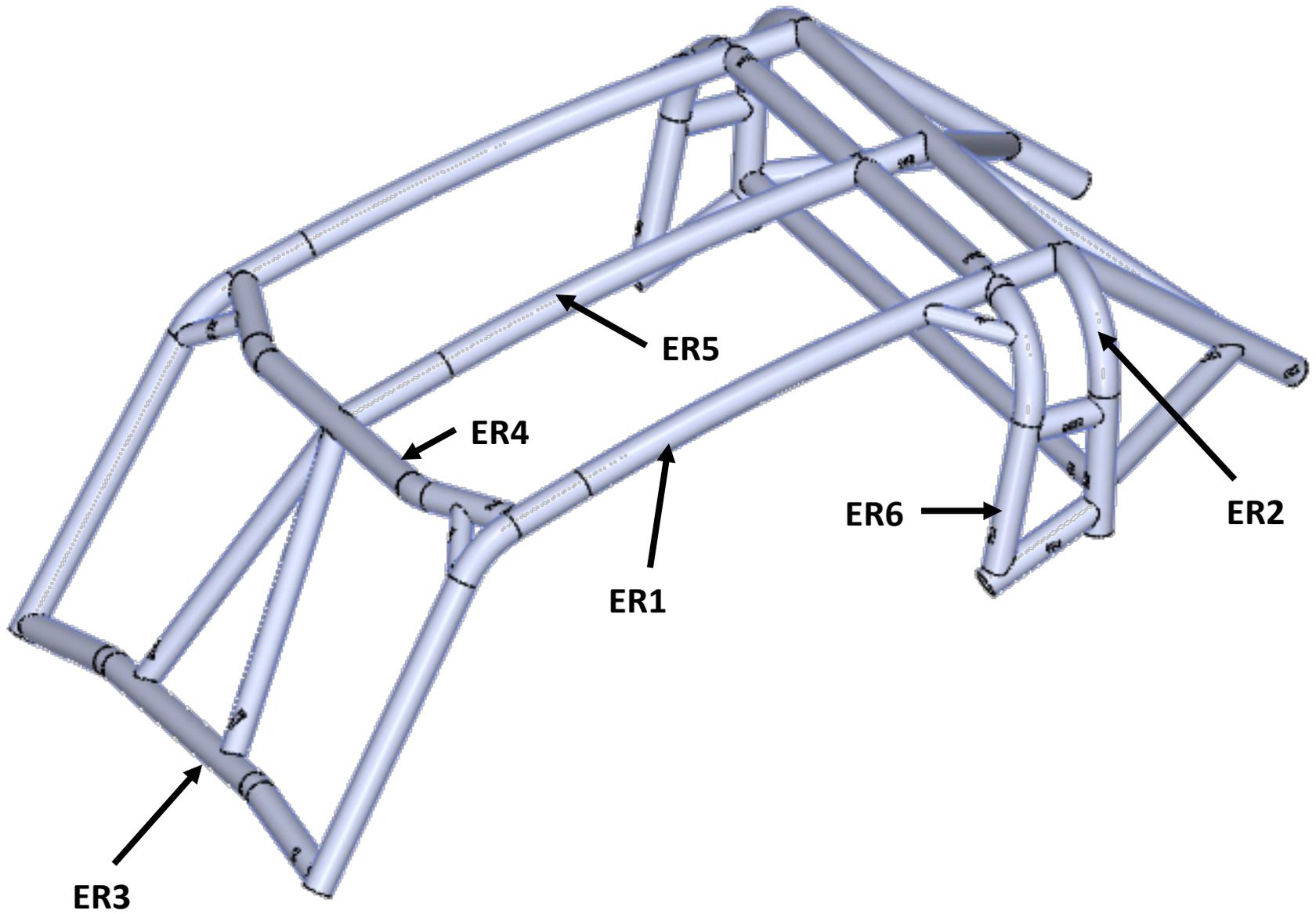


Passenger side part number examples

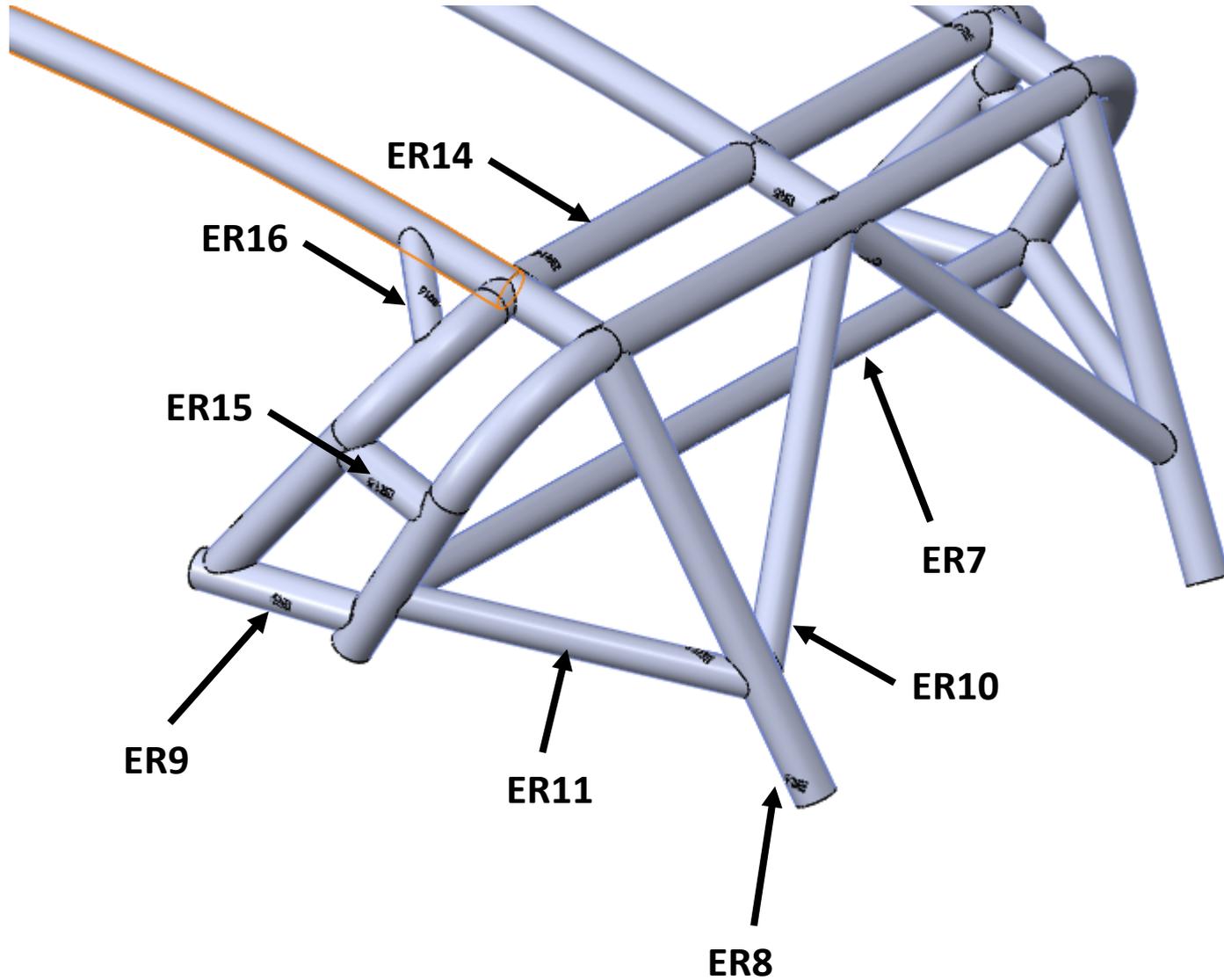
Part Numbers etched within 3"
of the end of part
Passenger side parts are
mirrored



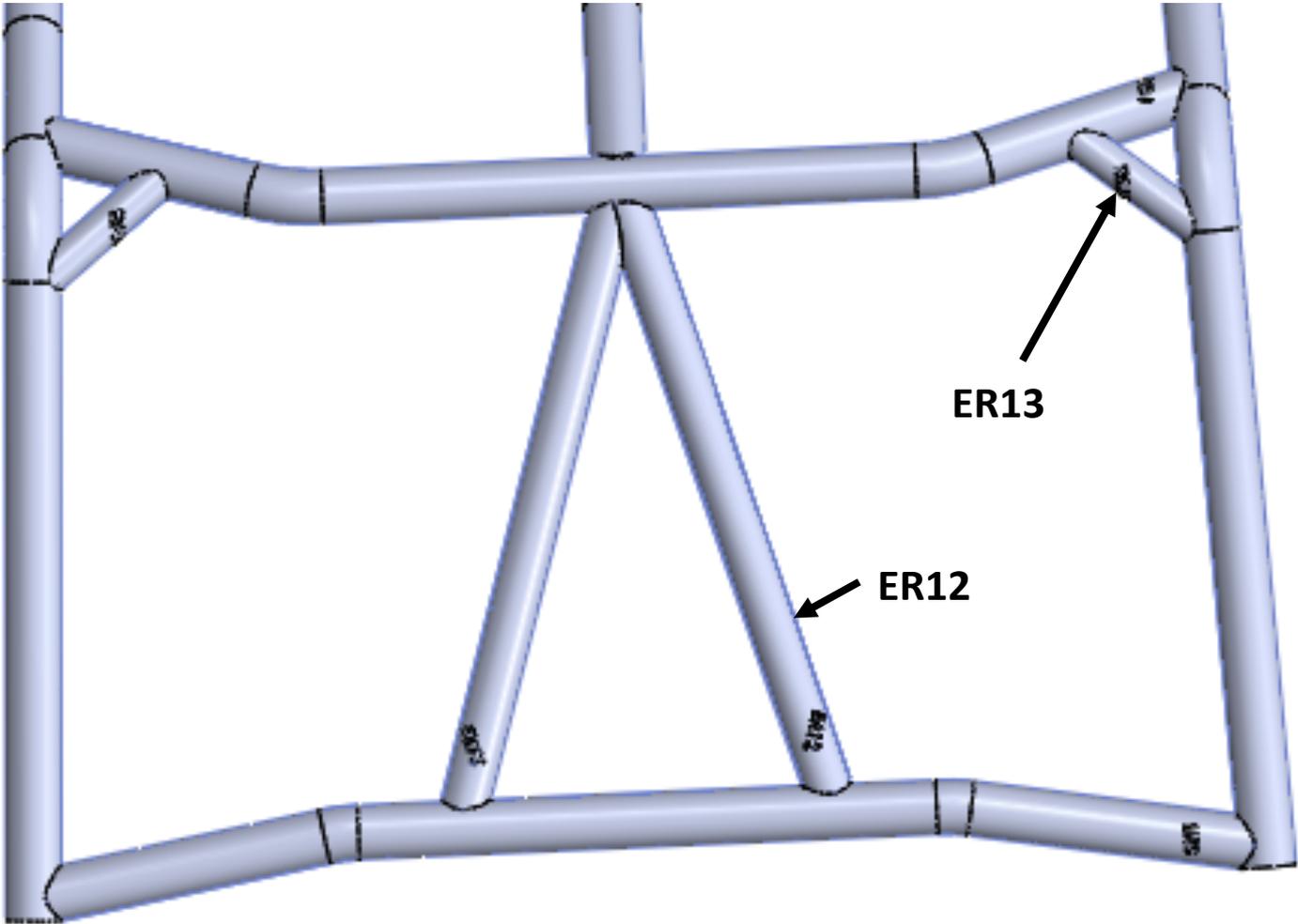
Part Numbers



Part Numbers



Part Numbers



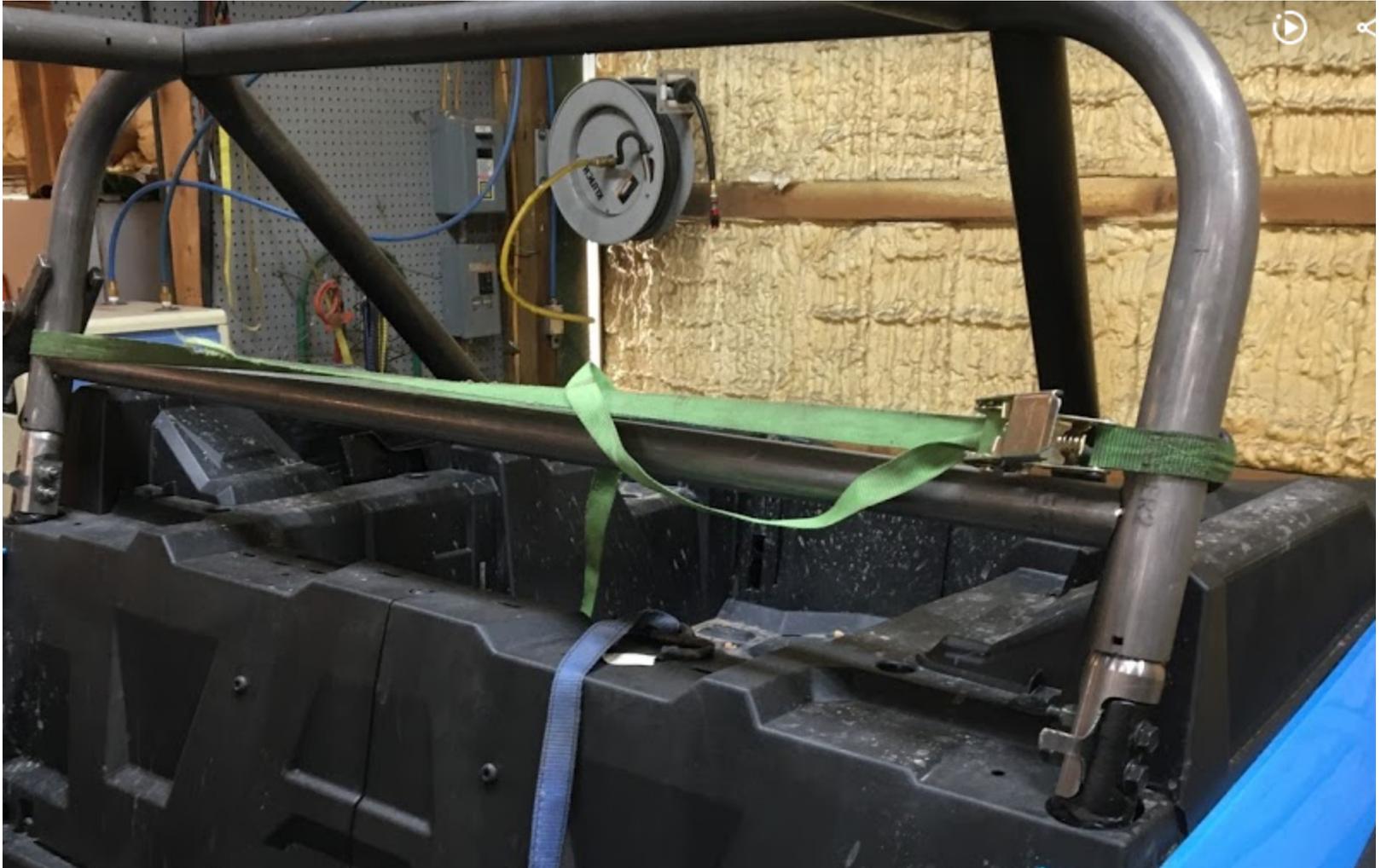
Before removal of the stock cage support the machine with weight off of the suspension.

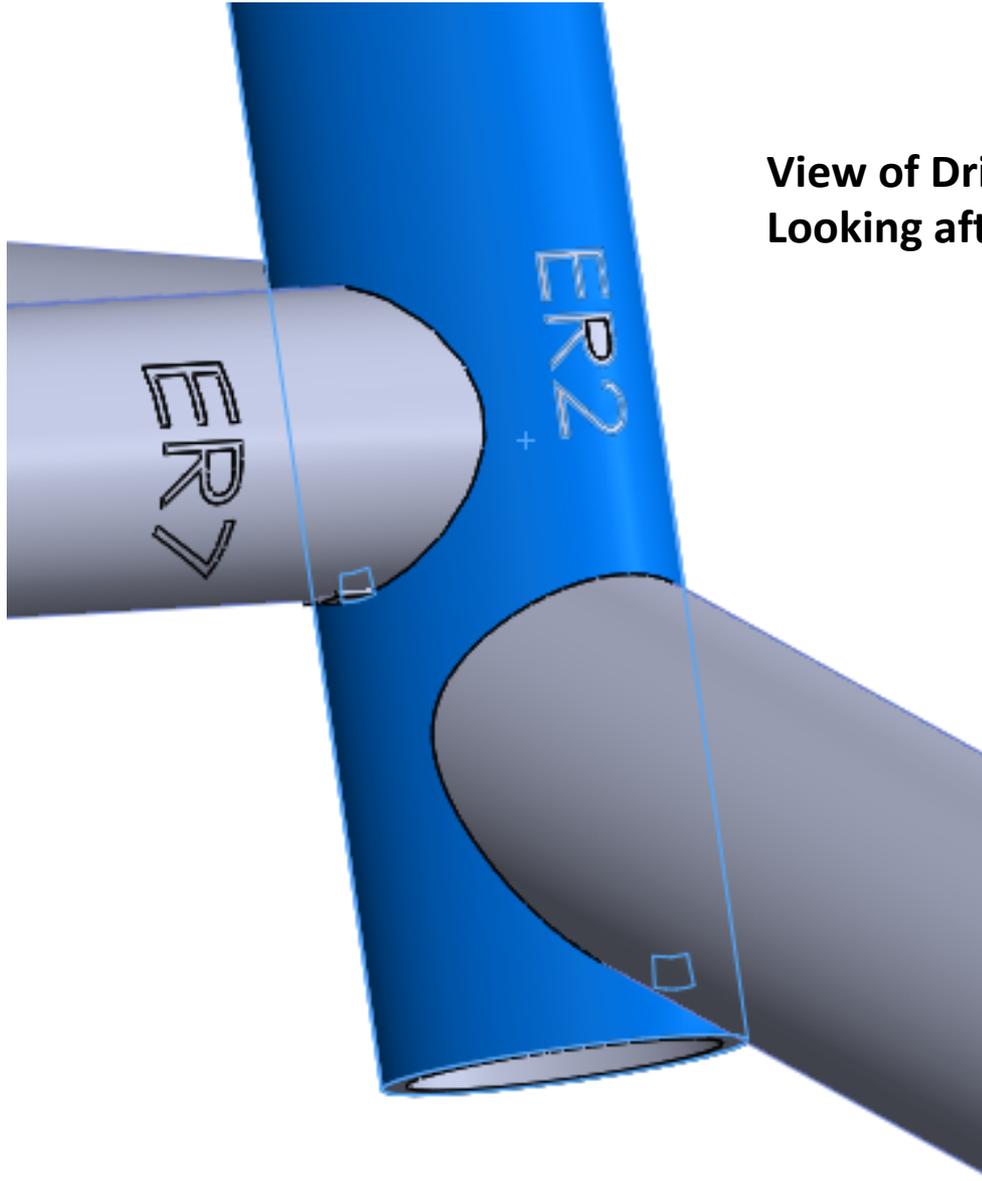


Directions

1. Clean all the bungs before bolting to the machine/jig. Bungs have oils and contaminants from the manufacturing process that will affect the welding process. Bolt bungs on to the machine/jig loosely but inline. Small washers are suggest in between the bungs at the A and B pillars. This will help with removal and reassembly after welding. We use a custom shim from 0.100" mild steel but a thin washer on each bolt will work. This is optional but may be beneficial in the following steps as all machines are different
2. Clean all tubes, inside and outside around the areas to be welded. Again contaminates will be present from the manufacturing process. Now is a good time to check all the part numbers and lay them out for quick assembly.
3. Place ER7 into the slots on ER2 with the tabs on the tube on the lower part of the tube. This sub assembly can be placed on the b pillar bungs. Part ER2 has two 90 degree bends and there is some variation in the manufacturing process. The machines also vary (even new), we have noticed up to ½" variation on new showroom models. Our domed bungs help account for this as well as part ER7 has been made slightly longer than the average. This was done to ensure no gaps should be present on any machine and tube weld joints will fit tightly. The washers/shims mentioned in step 1 can be adjusted or ER7 can be lightly sanded to remove material if necessary. This is your main structure, so take the time here to ensure a good solid fit for proper welding. Typically no modifications are necessary but we want to give all the options here.

Here you can see our custom shim used ER2/ER7 assembly supported by ER8 in the rear.





**View of Drivers side
Looking aft.**



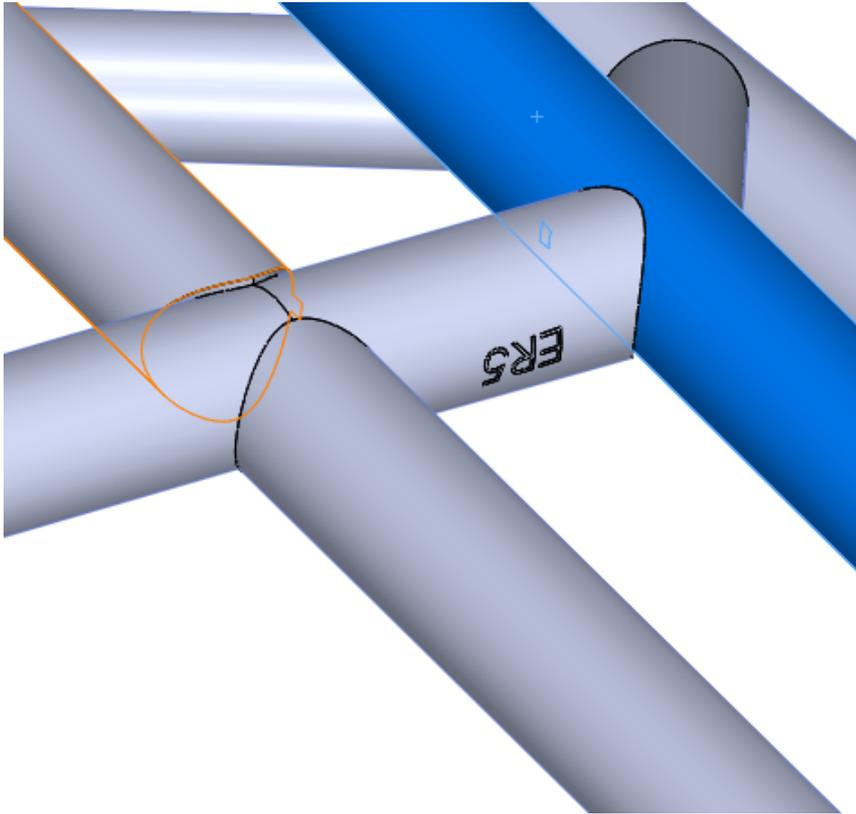
**View of Drivers side
Looking aft.**



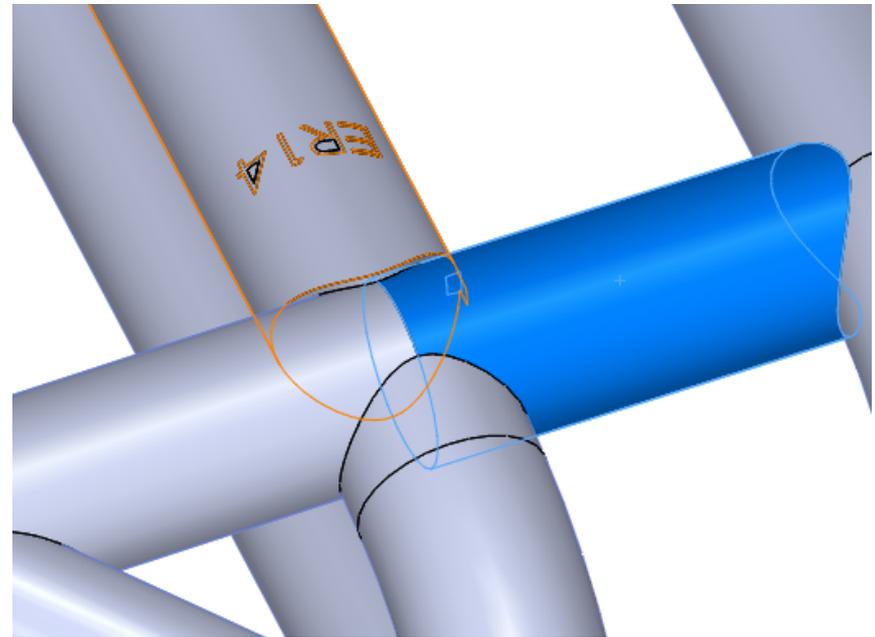
Directions

4. Before welding on any machine with electronics disconnect the negative battery terminal.
5. We also suggest the removal of the seats and use of good welding blankets to prevent damage to your machine.
6. Use ER8 and mirror at the back to temporarily support the ER2 ER7 assembly as well as small ratchet straps to hold it all in place.
7. Place ER1 and mirror on the A pillar bungs. Start the notched end near the center of ER2 and slide it outward until it fits decent. This may not be the final location so don't tack anything yet.
8. Place ER3 at the bottom of the windshield between ER1 and mirror.
9. Place ER4 between ER1 and mirror at the top of the windshield, holding it in place with a ratchet strap. Part number on the passenger side and facing up. ER4 should be at the end of the bend on ER1.
10. Place ER5 with part number aft and tabs on the passenger side of the tube. ER4 can be tapped aft to create a good fit between ER5/ER4/ER2 and held with a strap. Measure from ER2 to ER4 on each side to make sure this is square. Take a step back and check that the assembly isn't leaning to one side.
11. Use ER14 to space ER1 from ER5. ER14 and mirror part numbers will be towards the outside of the vehicle. The tabs on ER14 and mirror will be on the rear side of these parts.

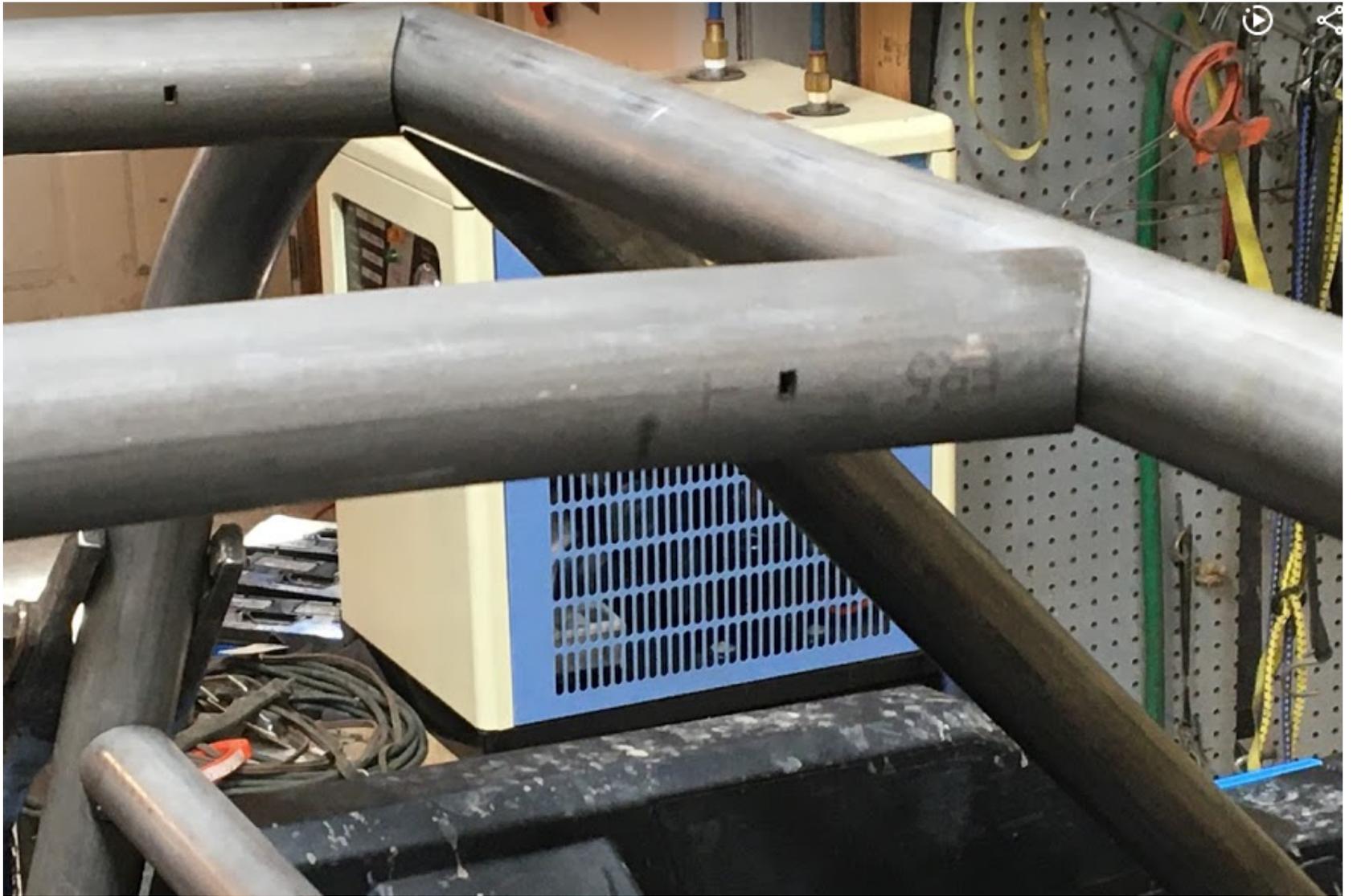
**ER5 Part number aft facing driver side
Slot and tab to the passenger side. This
will automatically center this tube.**



**ER14 is used as a spacer to properly
locate ER1 the correct distance outboard.**







ER8 inline with ER1



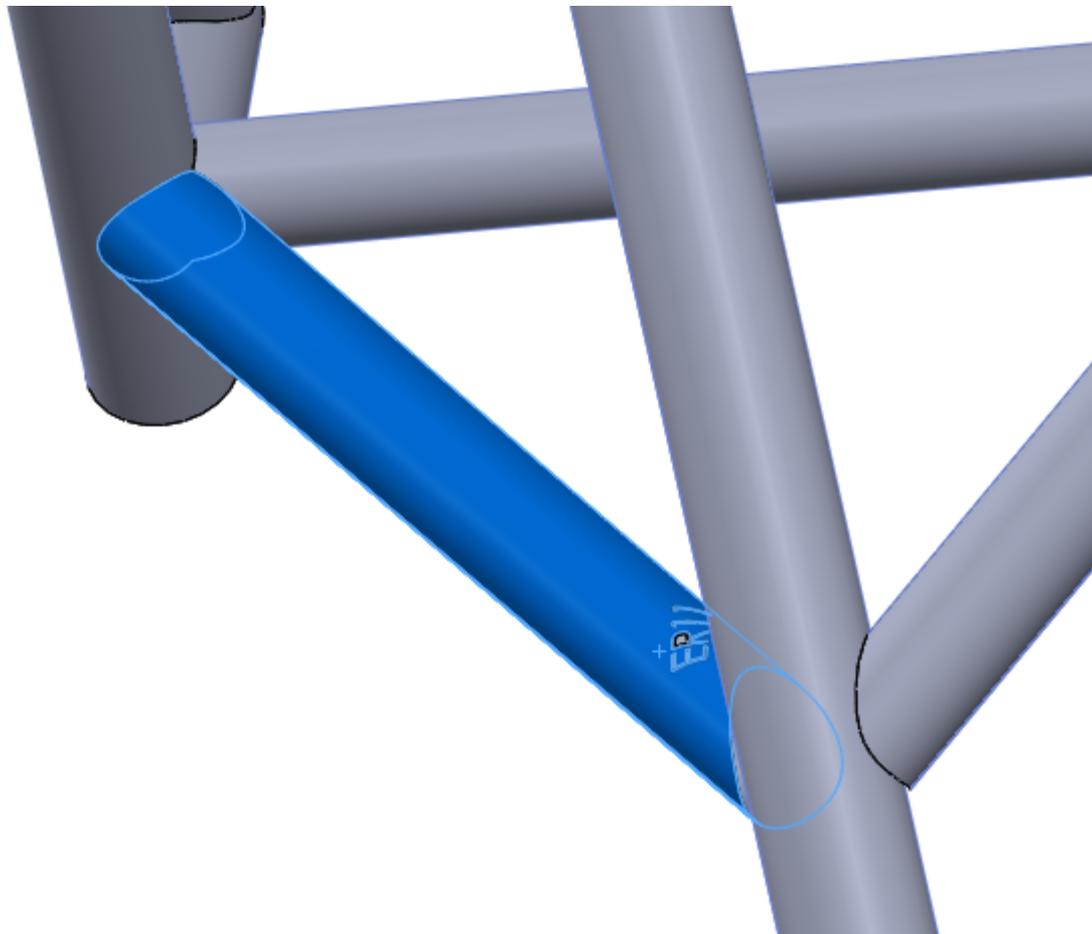
ER14 spaces ER1 to the proper width. This is done to ensure our roof or file can be used with exact fitment.



Directions

12. With the previous steps loosely assembled start lightly tacking parts together. Place tacks in locations that will be easy to remove if necessary as well as planning for final welding.
13. Line up ER8 and mirror to meet ER2 at the same location as ER1 does on the other side. Slight adjustment of the bungs will help snug every joint up for proper fitment prior to welding. Once this is accomplished tighten the bolts down to prevent further movement.
14. Once again check square and all the joints before tacking.
15. A full weld around the aft portion of ER7 (harness bar) is necessary before adding additional parts.
16. The tips of ER11 and mirror will need to be trimmed to clear the weld on ER7 and then this piece can be added.
17. ER10 meet in the center and should line up with ER5. Add these parts and tack in place.

ER11 will cover the ER7 – ER 2 joint and therefore this joint needs to be welded prior to placing ER11 and it's mirror.

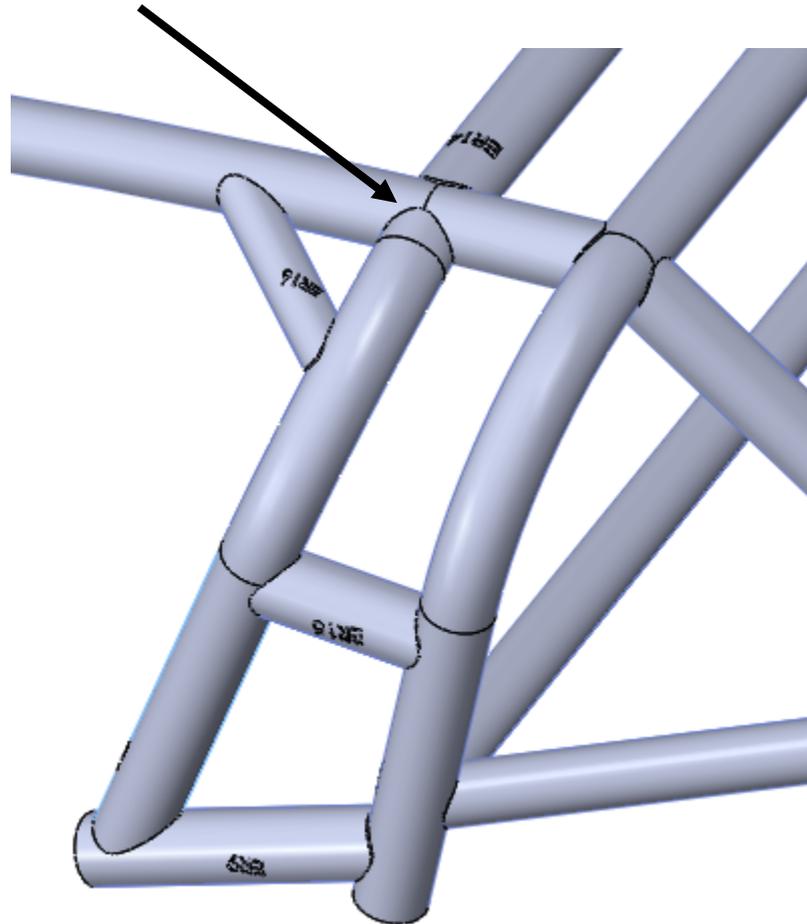


Additional pieces fit and tacking has begun



Directions

18. ER6 and mirror have the notch too close to the bend for our manufacturing process and therefore this piece must be hand notched. It's super easy though as we have provided an etch line to cut to. Follow the pictures to see how to do it. We prefer to use a porta-bandsaw but a cut off wheel and grinder will work too.



Find the etched notch line and highlight it with a marker or soap stone.



Rough cut the notch a touch long. Look up chop saw notching on youtube, two diagonal cuts are all that's needed.



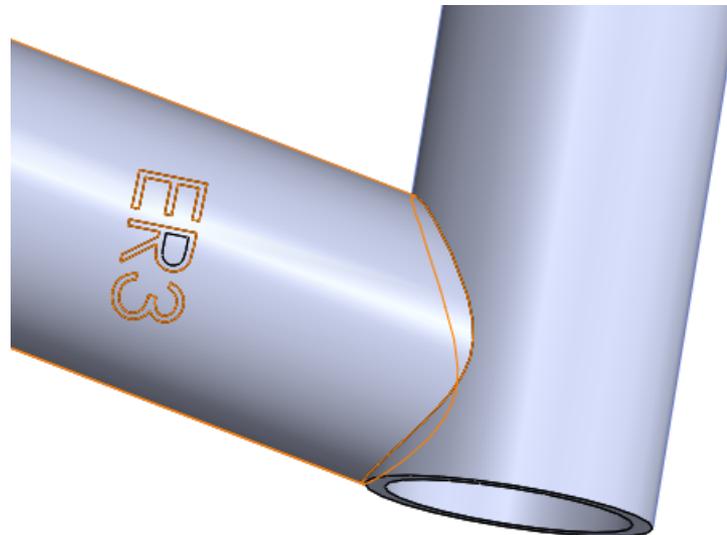
Grind to the line. The line is the mark to grind to full thickness all around the tube, unlike a typical notcher that will leave knife edges. Always maintain full tube thickness for proper weld joints. This makes it easier to grind as the flap disc or grinding wheel can be perpendicular to the tube for full thickness joints.

Being too aggressive with your grinding or cutting will burn off the marker or soap stone so take your time.



Directions

19. We prefer to weld the provided end caps onto ER9 and mirror on the bench with a fusion tig weld as it is easier to roll the tubing instead of flipping the entire cage or welding overhead in tight spaces. You can do this first so the part is cool when time comes for assembly.
20. Place the remaining parts in the assembly according to the first pictures and ensure a good fit on each joint before tacking in place.
21. ER12 and it's mirror are optional but should space ER3 above the end of the tubing on ER1, evenly on each side. If they are off slightly or vary from side to side it can mean a number of things. First the assembly could be out of square, or the machine is out of square. Ensure you can get a full weld around the end of ER1 and mirror to the bung before proceeding this must be accessible and properly welded.



Remaining parts fit and tacked.



SLOT AND TABS



Slot and tab cuts will locate the parts with these features.

It is a good practice to assemble ALL parts to ensure they fit prior to tacking any of the pieces. Good clamps, magnets, ratchet straps and a few extra hands make this easier.

It is possible to flip a part backwards and still fit, but the mating parts will not fit and you'll know something isn't right. Please check this before contacting us.

If necessary these tabs can be ground down and the tubes slightly moved from where they were intended but the mating slot will also need to be properly welded closed.

Welding

Again this is a crucial part of your machine's safety and should only be assembled by a qualified welder, don't skimp here. And please pay your welder fairly! These kits can and have been fit and welded in an hour but that isn't typical. Expect 4-5 hrs of shop time at a standard rate.

All tubes are mild steel and can be mig, tig or even stick welded.

Once the kit has been assembled/fit on the chassis with all the pieces you can start to tack pieces together. Having dry fit the kit once you should be able to figure out what pieces can be installed in what order. Some of our kits have tubes that can't fit back in after other pieces are installed – we try to avoid this though! It's recommended to fully weld every joint, even under joints that will be covered by another tube, slight grinding to clear the previous weld may be necessary.

There should be no excessive gaps or holes to fill, if there are STOP and check fitment of all the other tubes. If nothing is working please don't hesitate to contact us!

The Elite series kits are CNC laser cut and therefore the edges can have some scale from the laser. Tubes also have mill scale, contaminants and oils on or inside of them. For best results a light sanding of the outside/inside and edges to be welded is recommended. With any welding process bright shiny clean metal produces the best results.

Welding Tips

The bungs provided in this kit are solid steel chunks and therefore will draw more heat from the welding process. Preferably these should be preheated before welding as well as wiped clean from contaminants. A dual pass tig weld is preferred at these joints.

Welding tubing is different than most welding contact us for some practice pieces, we would be happy to send you something to hone your skills.

Additional parts

We prefer the wrap around harnesses for ease of adjustment and a clean look but if you need tabs to bolt on your harnesses we will be offering them on our miscellaneous parts page or you can order them from our suppliers.

Simple tabs we typically use these
AA-028-C Trick Tab, 1/8" Steel, 1/2" Hole
From www.aa-mfg.com

For Click 6 harnesses we use these
<https://ajkoffroad.com/shop/click-6-tabs/>

Although we are not a fan of these style harnesses and prefer a simpler more secure harness.

Harness recommendations

Just some opinions here, ignore them if you want.

These are the preferred type of harness latch for what we do with these machines.



Harness recommendations

Just some opinions here, ignore them if you want.

This style will fill with sand/mud/dirt and either not unlatch for you when needed or not properly click in easily.



Harness recommendations

Just some opinions here, ignore them if you want.

This style will fill with sand/mud/dirt and either not unlatch for you when needed or not properly click in easily.



If you have either of these style already we recommend swapping them out or at the very least properly clean and lubricant them VERY often and ensure they are functioning properly BEFORE the time comes to test them.

RE-INSTALL

After the cage is fit to the vehicle and welded by a qualified professional, you may experience difficulty re-installing it onto the factory cage mounts. This is likely due to the factory chassis flexing and/or the cage moving from the welding process. The cage is now more rigid than the factory cage and the chassis will move some to accommodate this. It is a good idea to support the chassis (no weight on suspension) **PRIOR** to removing the factory cage and **DURING** assembly of the cage kit.

Since the cage is assembled and welded on the chassis it should fit back on nicely but may not fit a different vehicle of the same year/model. If there is excessive fitment issues please call us 636-271-5696 and we'll try to help but don't use anything more than a small ratchet strap and an alignment punch to locate the cage.

We find it best to re-install cages starting with the a-pillar mounts loosely then move rearward. Don't forget the door mounts when doing the b-pillar or you'll have to start over!