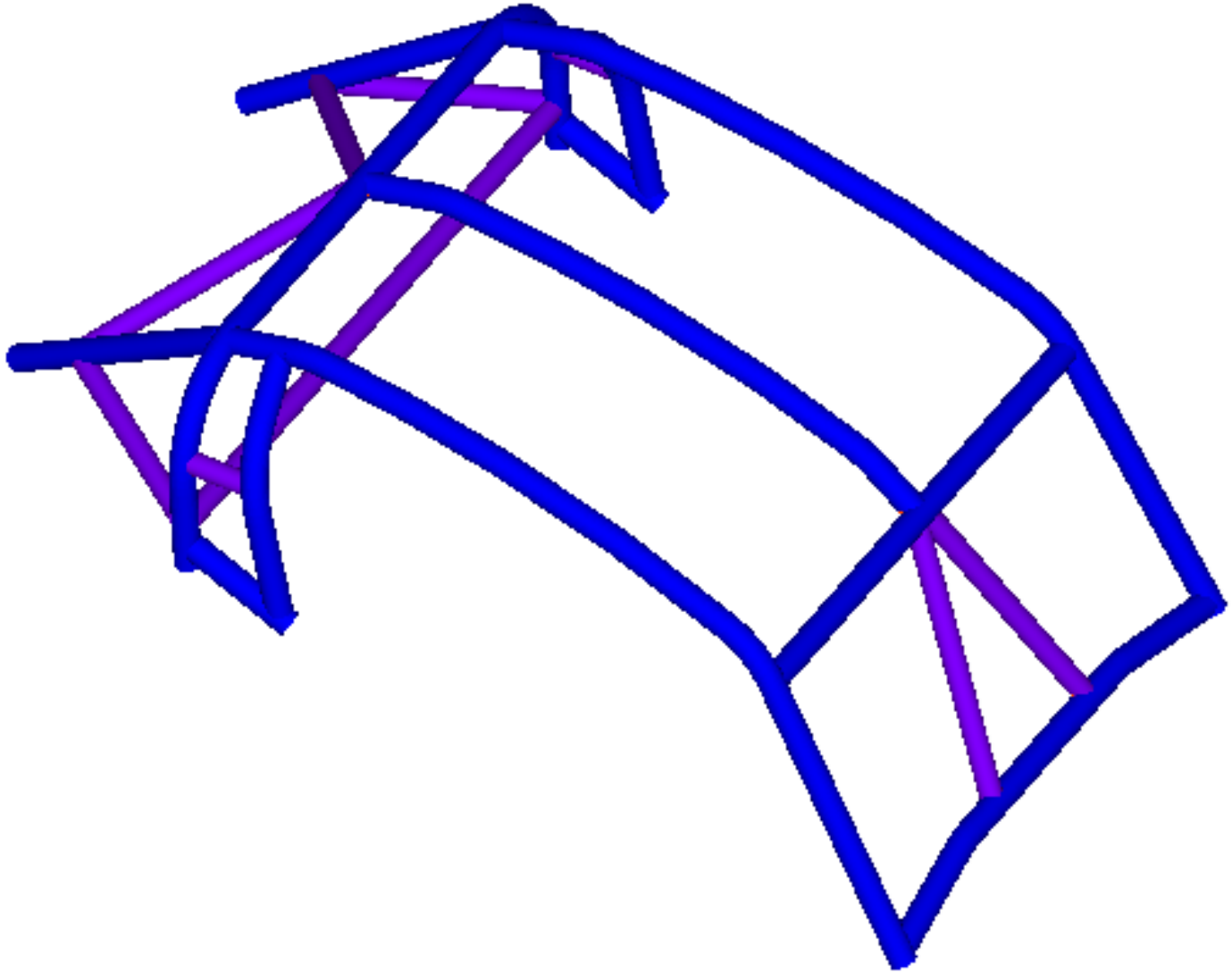
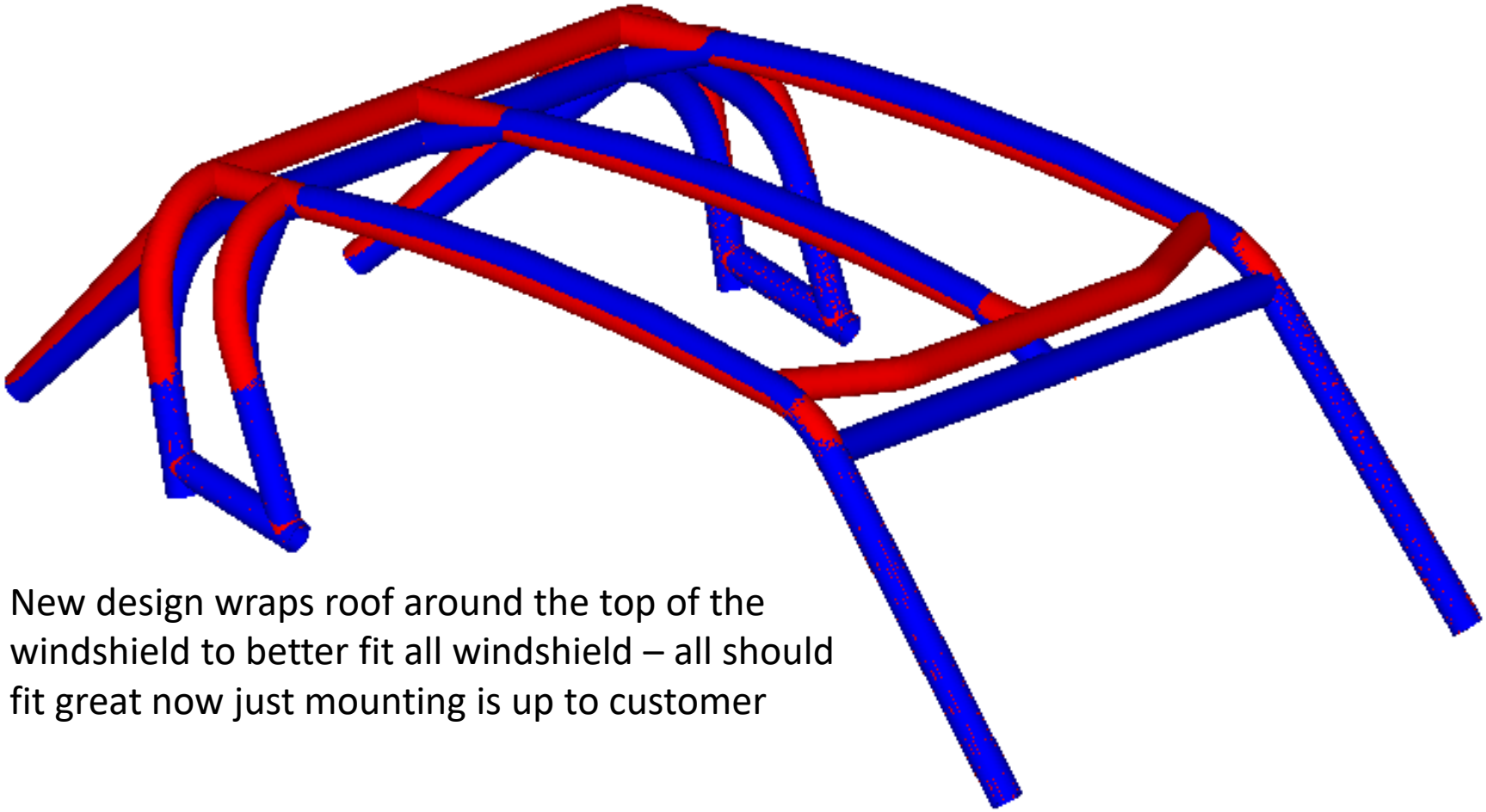
Updated design



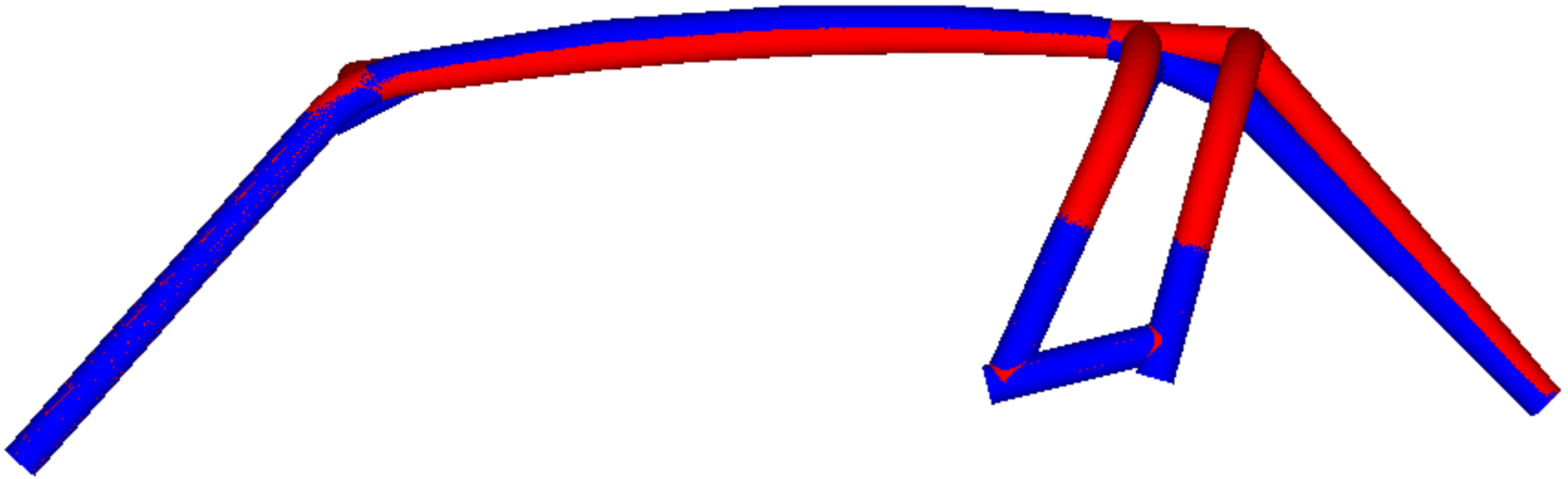
Comparison to Old Design



New design wraps roof around the top of the windshield to better fit all windshield – all should fit great now just mounting is up to customer

Old Elite – Red
New Elite – Blue
Only main tubes shown

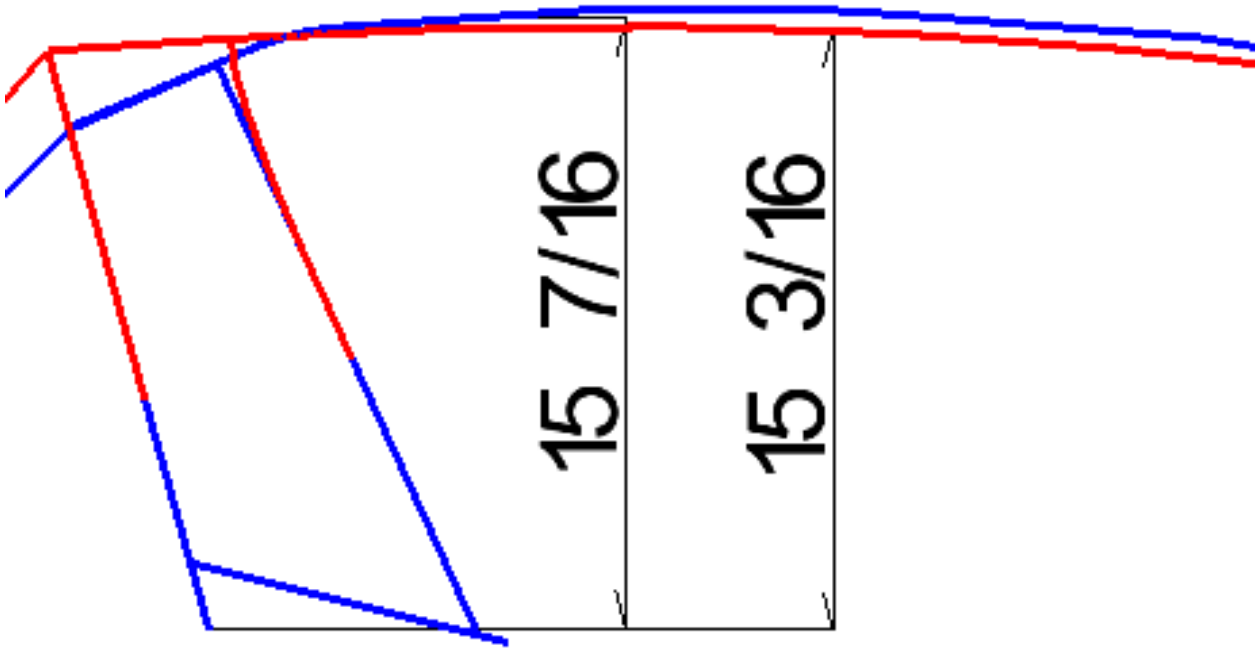
Comparison to Old Design



Even though the main hoop is now 2” lower the same head room is maintained with the new design.

Old Elite – Red
New Elite – Blue
Only main tubes shown

Comparison to Old Design



Dimensions shown are from the weld seam at the main hoop to the center of tubing above the seat.

Old Elite – Red
New Elite – Blue
Only main tubes shown

Overview (Kit Contents)

Old pic of kit

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.

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


POLARIS


RZR
POLARIS

Cage Height

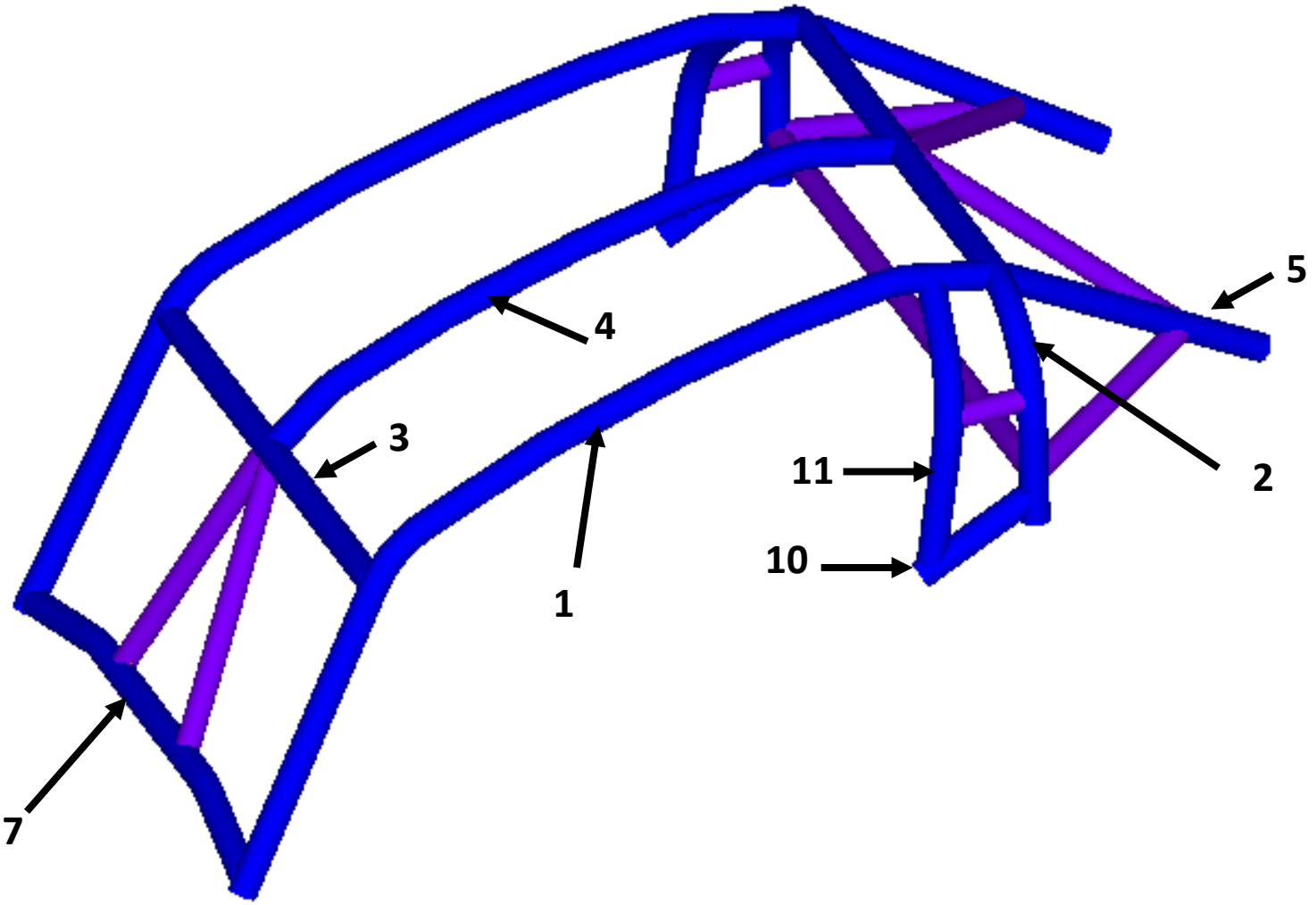
Given this information you must decide if this is proper cage kit for you and your passengers safety. We recommend a minimum of 4” clearance between helmet and the cage when properly seated and harnessed in. Lowering bases are available from numerous suppliers and definitely a good option for taller 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!

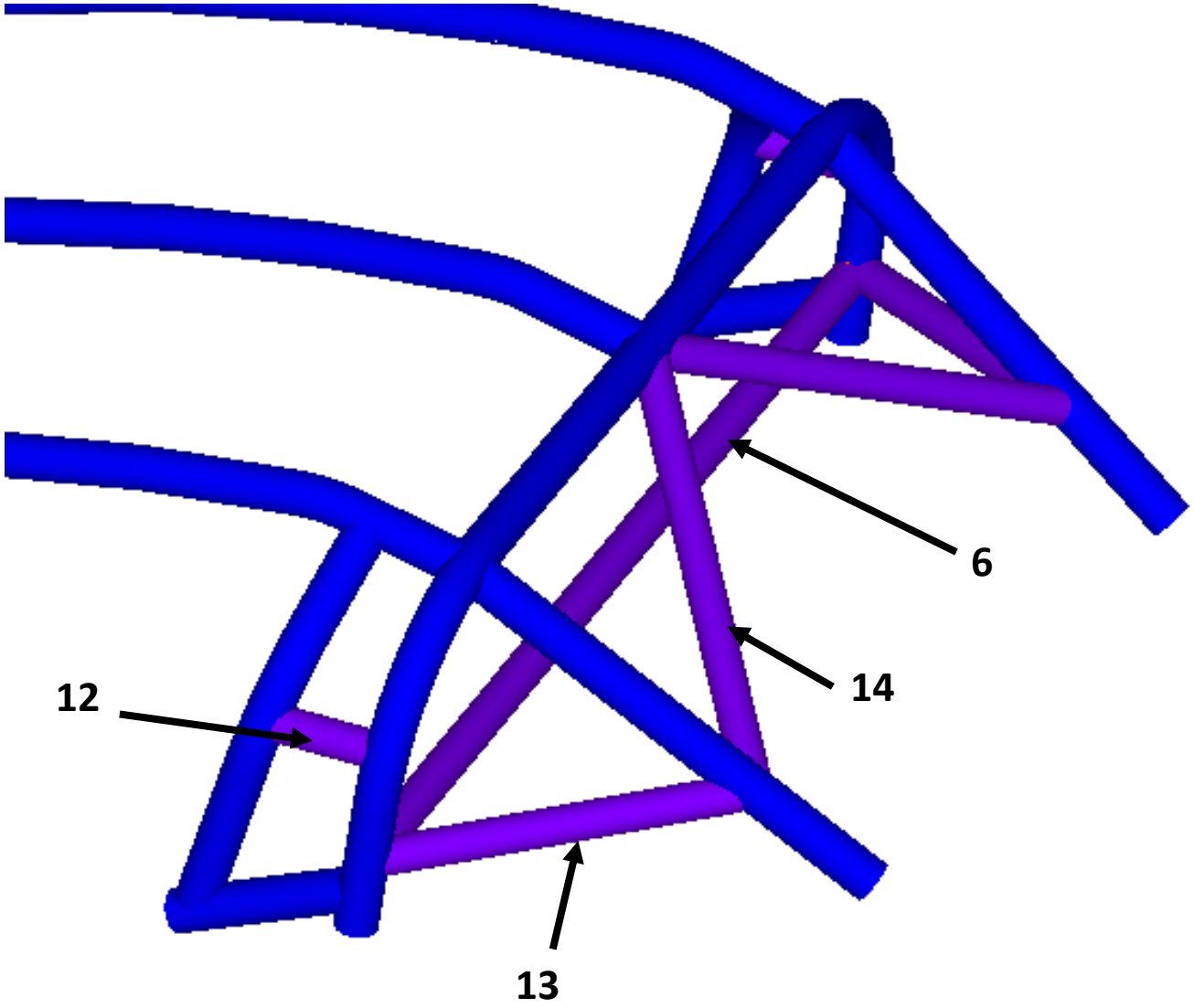
All people are shaped difference, Personally I’m 5’10” but tall torso and sit taller than my 6’1” friend by several inches. We can’t account for all shapes and sizes so you have to do a bit of homework before ordering.

1.75 Diameter Part Numbers

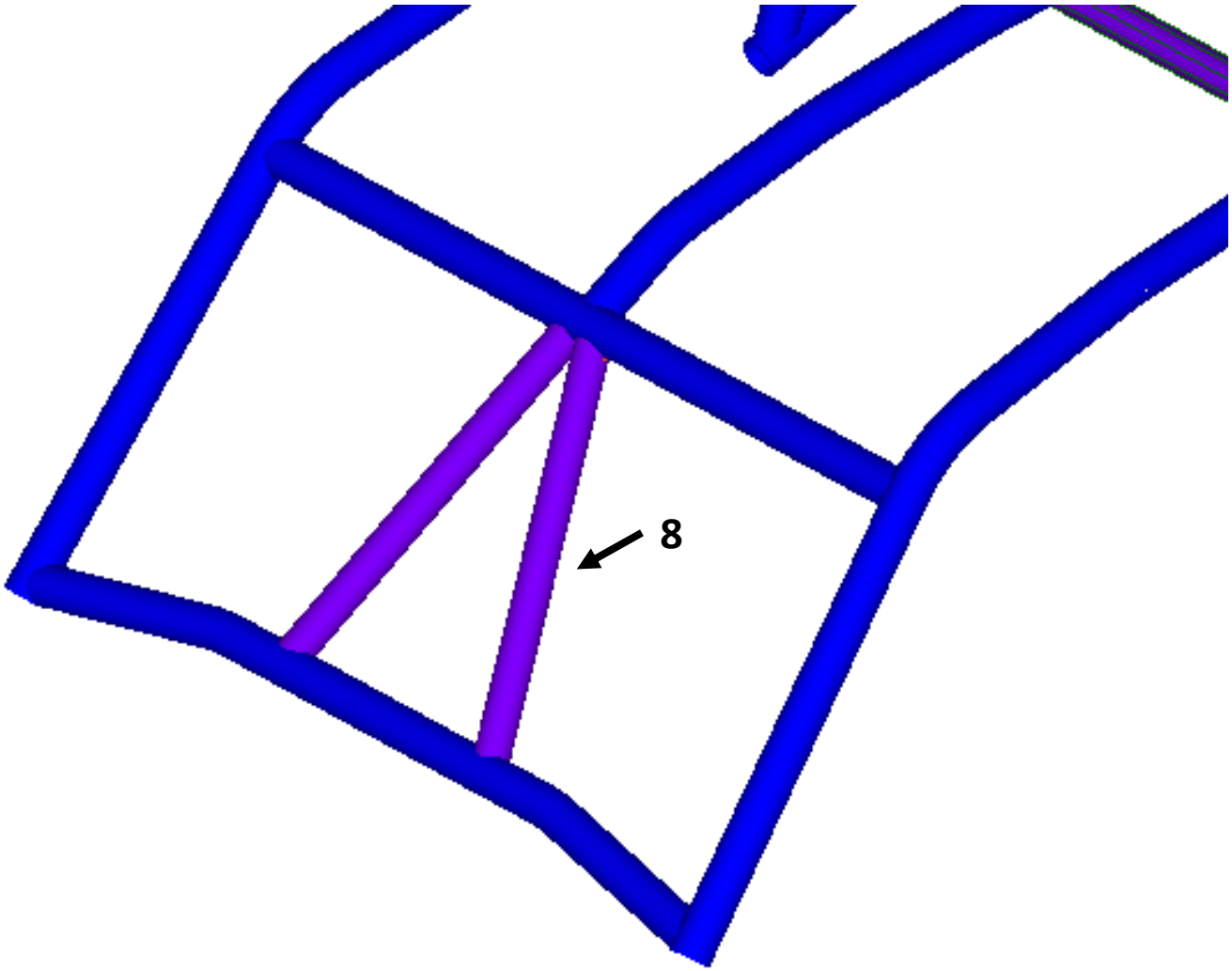


Part numbers engraved within 3” of end of part. Passenger side numbers followed by an “M” for Mirror

Part Numbers

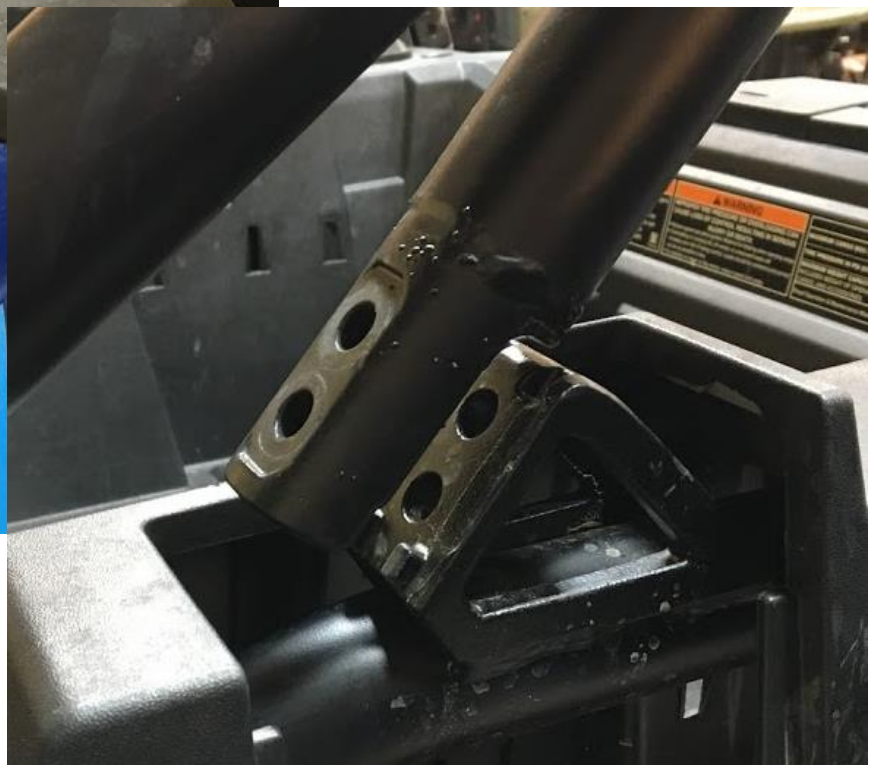


Part Numbers



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

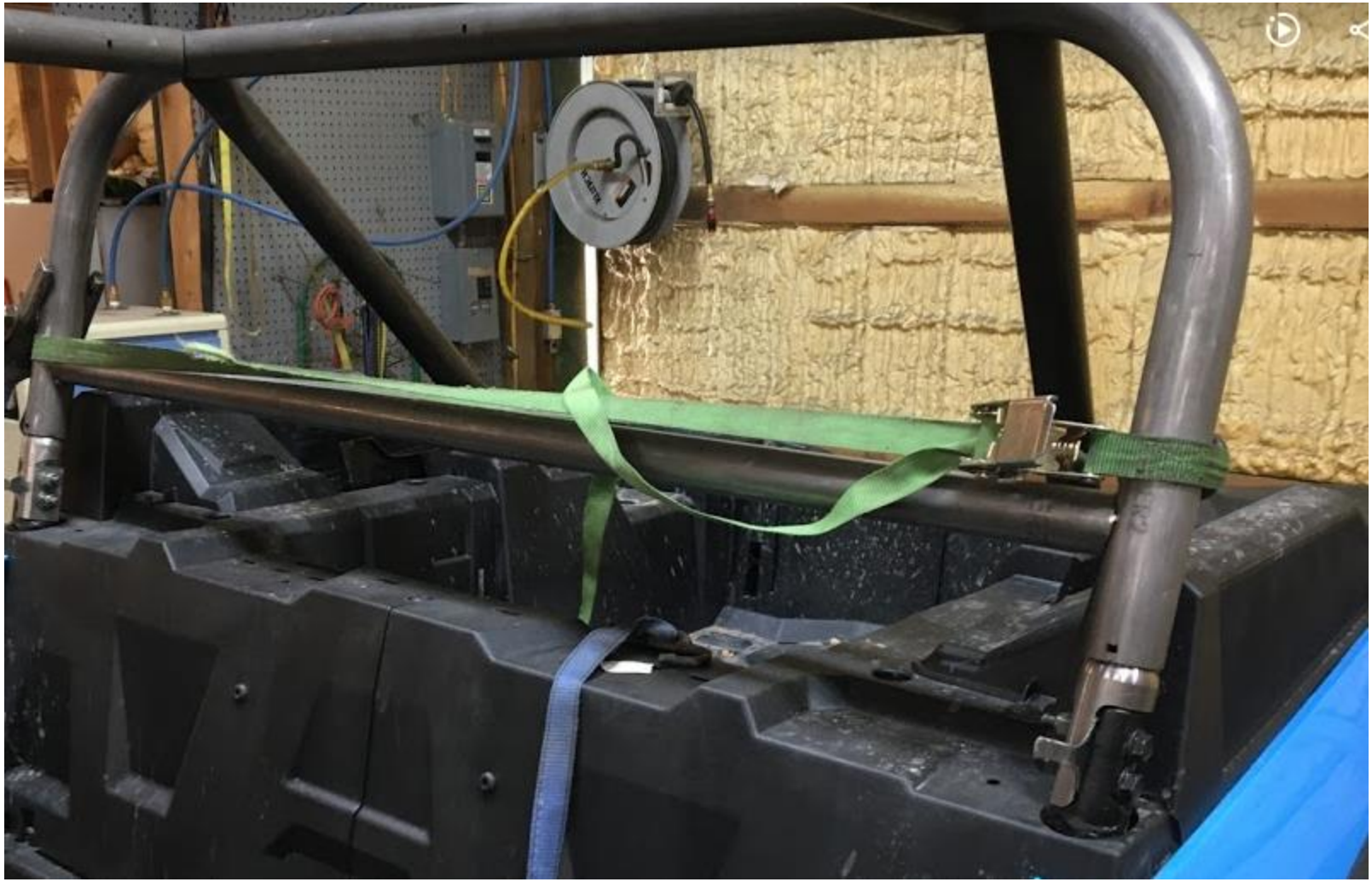
Even with proper support the factory cage will spring out of alignment depending on the condition of the machine as well as factory tolerances.

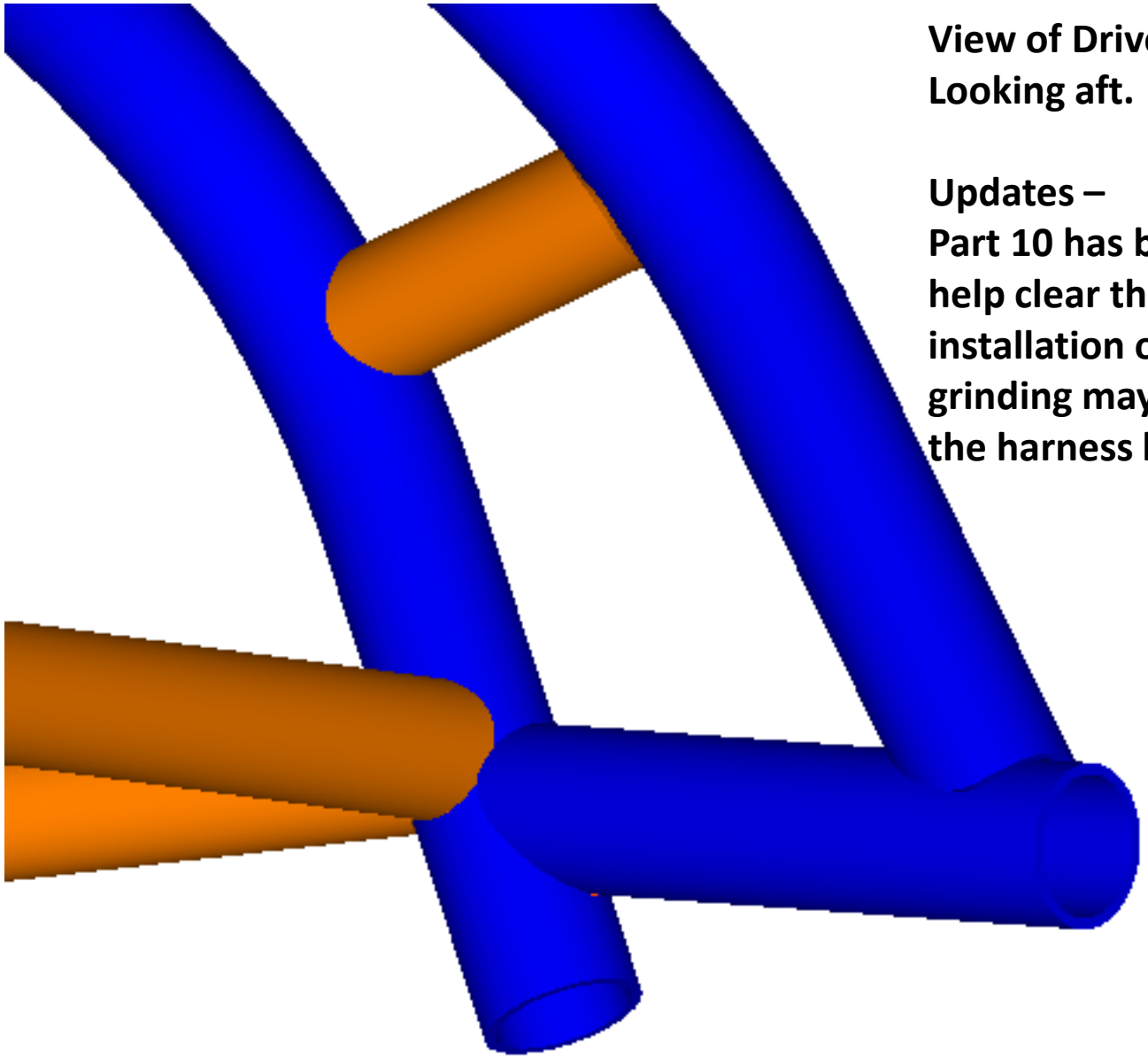


Directions

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 6 into the slots on 2 with the tabs on the tube on the lower part of the tube op the driver side and on the top on the passenger side (No longer slot and tabbed 2/62024). This sub assembly can be placed on the b pillar bungs. Part 2 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. The washers/shims mentioned in step 1 can be adjusted or 6 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.

Here you can see our custom shim used 2/6 assembly supported by 5 in the rear.



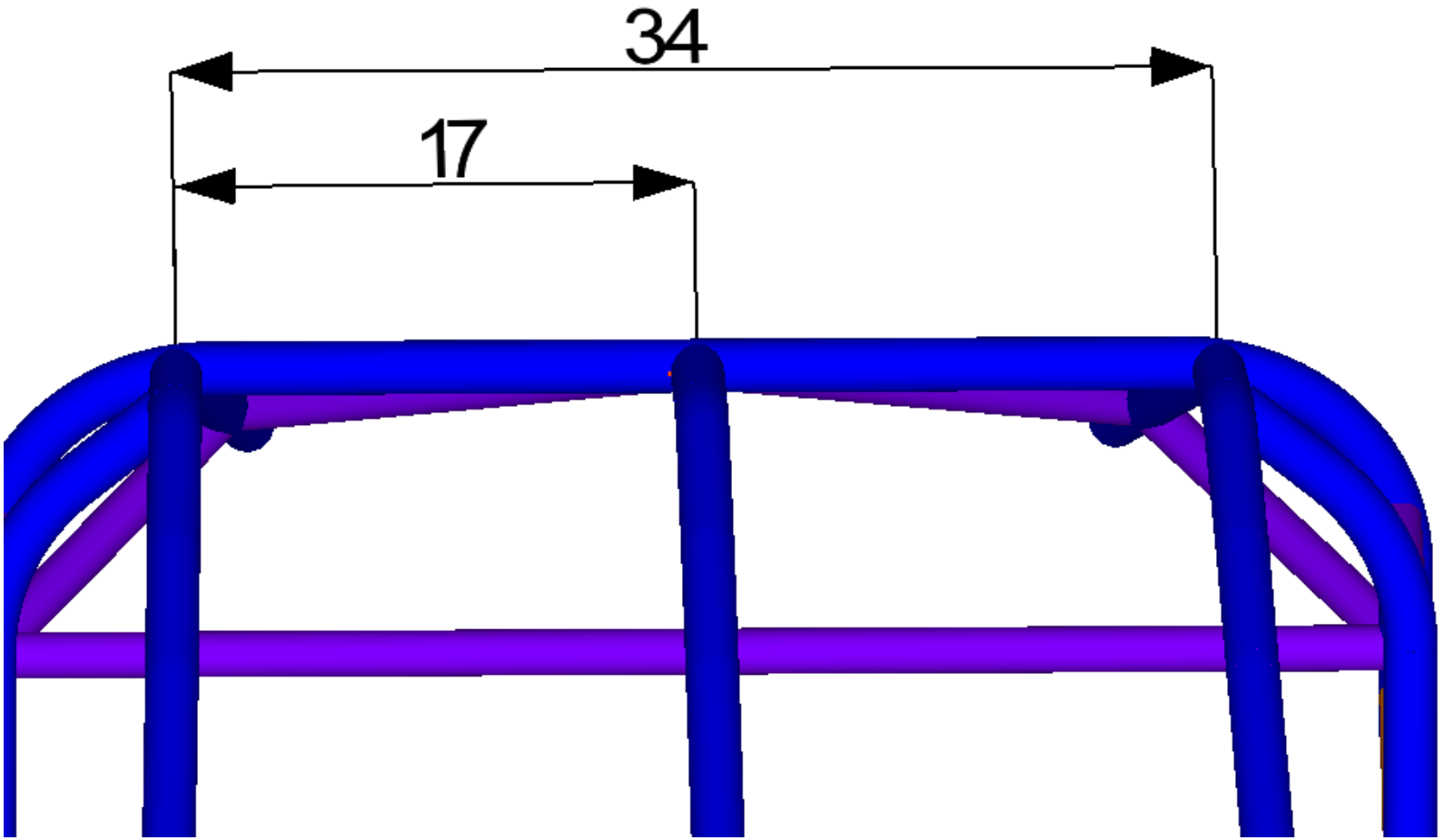


View of Drivers side
Looking aft.

Updates –
Part 10 has been raised slightly to help clear the door mount and ease installation once complete – slight grinding may be necessary to clear the harness bar

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 5 and mirror at the back to temporarily support the 2/6 assembly as well as small rachet straps to hold it all in place.
   UPDATE !!!
   Part 5 has been lengthened by 1.5" to ensure we are long and not short, these can be trimmed to fit but don't over do it. Do the front parts first
7. Place 1 and 1M on the A pillar bungs. Start the notched end near the center of 1 and slide it outward until it fits decent. This may not be the final location so don't tack anything yet.
8. Place 7 at the bottom of the windshield between 1 and 1M.
9. Place 3 between 1 and 1M at the top of the windshield, holding it in place with a ratchet strap. Part number on the driver side. 3 should be near the start of the bend on 1.
10. Place 4 with part number forward (aft 2/6/2024) and tabs on the passenger side of the tube. 3 can be tapped aft to create a good fit. Measure from 3 to end of tube on 1 and 1M on both sides and diagonally to make sure 3 is even and square . Take a step back and check that the assembly isn't leaning to one side.
11. 1 and 1M should be 33.975" center to center on the main hoop. Or 16.988" from 4 – center to center.

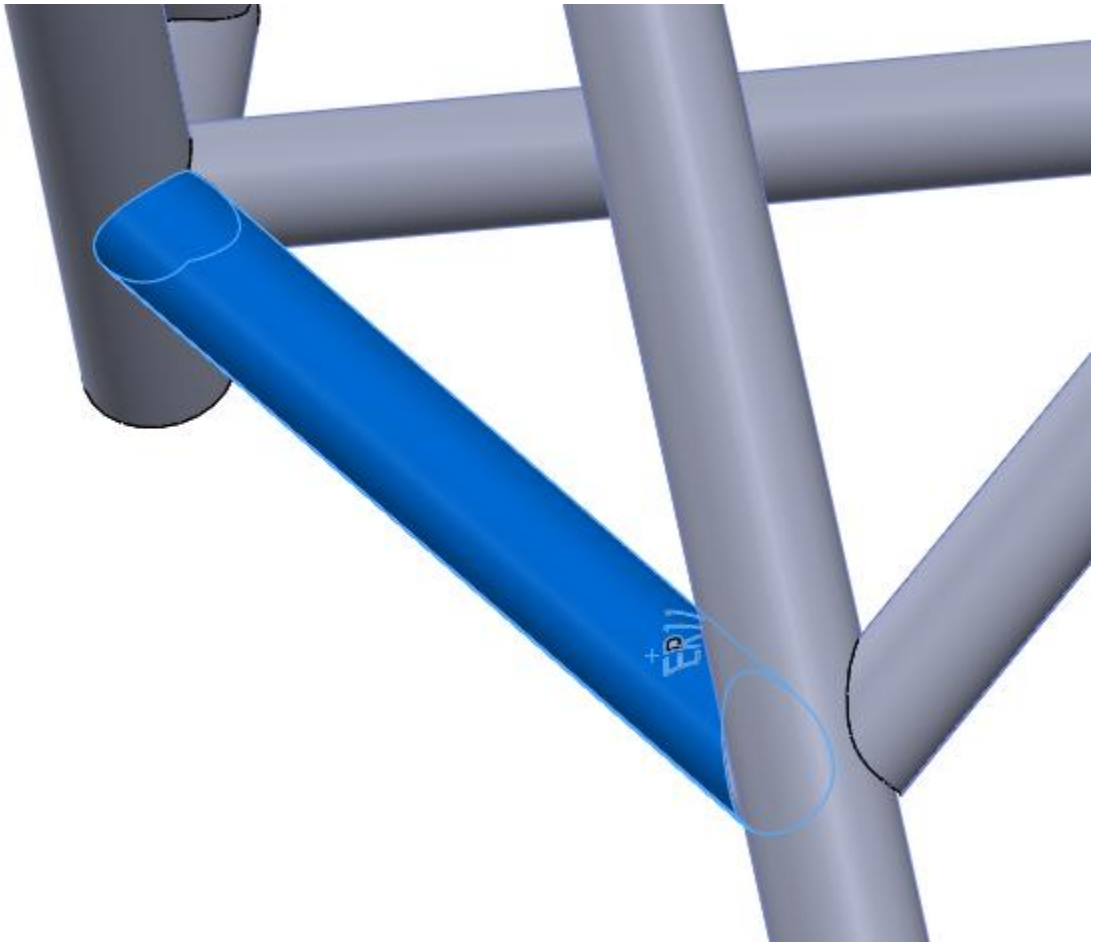

34
17

1 inline with 5

Directions

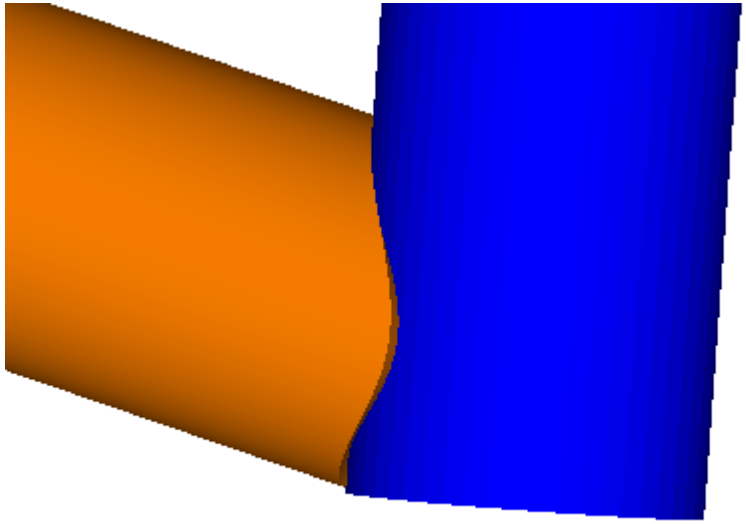
12. With the previous steps loosely assembled start lightly tacking parts together. Place tacks in locations that will be easy to remove if necessary as well as planning for final welding.
13. Line up 5 and 5M to meet 2 at the same location as 1 does on the other side. Slight adjustment of the bungs 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 6 (harness bar) is necessary before adding additional parts.
16. The tips of 13 and 13M will need to be trimmed to clear the weld on 6 and then this piece can be added.
17. 14 and 14M meet in the center and should line up with 4. Add these parts and tack in place.

13 will cover the 6 – 2 joint and therefore this joint needs to be welded prior to placing 13 and it's mirror.

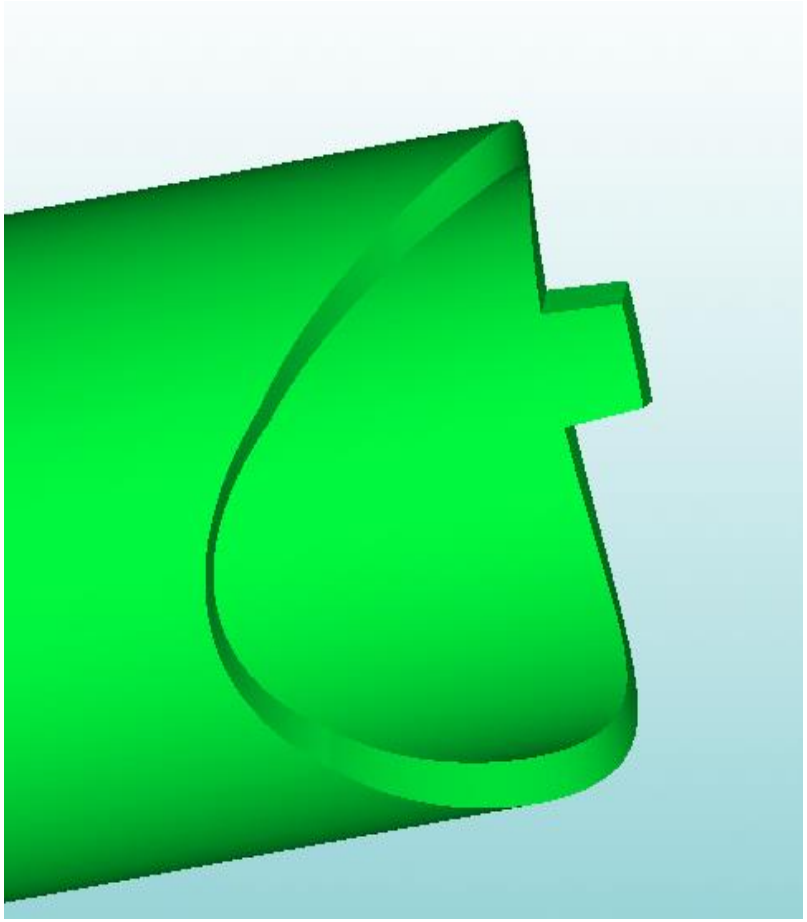


Directions

18. We prefer to weld the provided end caps onto 10 and 10M 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.
19. Place the remaining parts in the assembly according to the first pictures and ensure a good fit on each joint before tacking in place.
20. 8 and 8M are optional but should space 7 above the end of the tubing on 1, 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 1 and 1M to the bung before proceeding this must be accessible and properly welded.



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 cut and therefore the edges can have some scale from the cutting process. Tubes also have mill scale, contaminates 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!