

RACE >>>

BUILDING A TERYX OFF-ROAD RACE PROJECT

Part 2



In the last issue we showed you what the team at Side X Side Outfitterz did so we could get through the desert safe and sound and our roll cage would pass technical inspection. In this issue we will show you what it takes to install the CST long-travel suspension and Walker Evans shocks so we can tackle the huge whoops that the Trophy Trucks and Class 1 cars leave behind for us. With the stock arms on the Teryx being 4" longer than the Rhino, we opted to go for a +3 kit as opposed to the traditional +6 suspension you usually see on a desert SXS.



We installed this triangular bar to tie the upper shock mounts into the roll cage giving them additional support. We wanted to make sure our Walker Evans shocks stayed in place and did not get out of alignment during the race.



We did the same thing with the rear upper shock mounts, too. The worst thing you can have happen is tabs bend or break and take you out of the race. Always make sure to reinforce the proper areas.



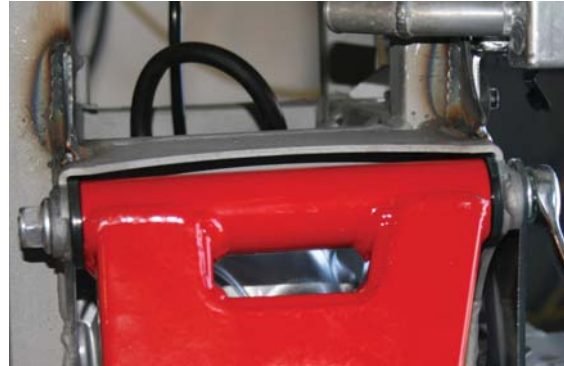
This piece from FST ties the front suspension mounts together and helps keep everything in line and rigid. This piece required no welding to mount and is held in place using the four factory bolts that hold the suspension arms.



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The rear gusset plate from FST installs the same way that the front plate did. With the addition of this plate it does make it a little fun to check and fill the fluid levels in your differentials. The added strength is well worth the extra time it takes.



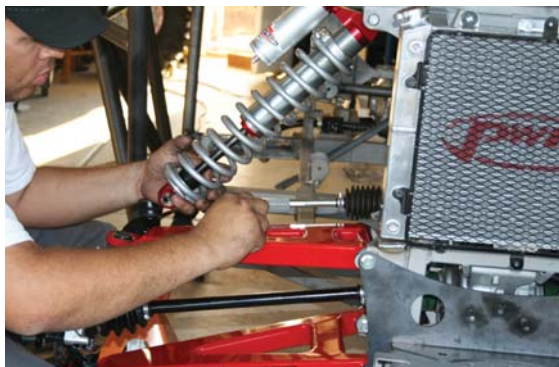
Here you can see we built our own gussets on the upper front suspension mount. A little triangulation goes a long way and will help to alleviate the force that can be exerted on the upper arm in a hard G-out.



Here is a look at the rear axles. The top is a stock assembly, the middle a stock axle, and a lower a CST axles. Notice the difference in thickness in the diameter of the shaft. This added thickness will help prevent you from breaking axles by making it stronger.



Once the arms are installed and the axles and CVs are put together, it's time for the spindle, hub, and brake rotor. When installing the spindle it is always a good idea to use a new set of cotter pins. A cotter pin can only be bent so many times before it will break and fail.



The shock is the last part of the suspension that needs to be put in place to complete the front end. Be sure when installing the shocks that you install the front and rear shocks in the right location, as they are different and require the use of different-sized spacers to fit properly.



Here is a complete view of the front suspension assembly. The most difficult part of the job was removing and reinstalling the factory ball joints. A bench or floor press would have made things great. The dirtiest part... swapping the axles in the CVs.



Here Dave aligns the holes for the arms as I work the arms into the mounts. Having two people always make the job easier. When removing and reinstalling the factory bushings in the new arms, it takes a little time for them to seat correctly into their home.



The benefit of the CST suspension kit is that it retains usage of all of the factory hardware so finding replacements is a breeze. The downside of using the factory kit is there is no adjustability to the camber, but the good side is there's no option to get it wrong.



From this angle you can see the purpose of the diamond-shaped notch in the lower arm. This notch allows the suspension to travel farther without allowing the CV or boot to get in the way.



Here is a close-up of the adjustable reservoir shocks from Walker Evans. These shocks have 16 different adjustments to control the dampening from soft to hard. When tuning the shocks, only take it a click at a time; a little bit goes a long way.



Here is the completed rear suspension with the arms, axles, shocks, and chassis stiffener plates. The only thing left to do is get the car finished so that we can set the ride height and fine tune the shocks from there.



Stay tuned as, in the next issue, we will show you what it takes the guys from Side X Side Outfitterz to build the aluminum body panels and do the bodywork on the Teryx.