

## ZX-6RR Swing Arm to 1976 KZ900-A4 Conversion: By Old Man Rock

I have rode bikes nearly all my life (first bike at 9 years old, I'm 49 now); I have repaired bikes to some form or another but haven't really modified (Street Machine) a bike to this extent. So as others in the forum have been so gracious to provide their tips, experiences and expertise, I present this tutorial. I'm sure there would have been better ways to accomplish but this is what I did and I'm pretty excited about the results. So use as you wish, some of this may be helpful, some not or all of the following.

The tutorial was written so as to help other newbies such as myself in retro fitting/building the following; A Bad-Ass Machine.

NOTE: The first thing I highly recommend is Search, Review, Read and ask questions for EVERY forum posting on the subject matter at hand. If you don't you won't succeed or at least you will put something together that for the most part my work but look like crap or worst case scenario won't be optimum in operations, especially regarding safety.

Ok, here we go... Oh By the way, buy the fucking service manual!

The love of my life, a 1976 KZ900-A4:

Obviously the first thing to do is strip her down. All cabling was taped and marked. Only thing left was front and rear end.



As this tutorial is for the rear swing arm, I started by Saw-Zawing off the rear passenger foot pegs and upper rear fender bracket under the seat..



I chose to remove the bottom center stand for they're clunky and look like crap. Yes I realize they have a purpose, and a good one at that, but my bike so I removed. LOL!

**NOTE: GRIND THE SPOT WELDS AND REMOVE, (NOT THE TWO MOTOR MOUNTS) TRY TO KEEP THE TABS FOR MEASURING & FABRICATING YOUR OWN BOTTOM MONO SHOCK SUPPORTS. WELL GET TO THAT IN A MOMENT...**



Now in trying to install your ZX-6RR(600) swing arm you will find it won't fit and the pivot bolts are different dimensions. The KZ pivot bolt is 5/8" where as the ZX pivot bolt is 3/4". Dilemma... Back to the forum and ask questions!

Basically **USE THE KZ BOLT, DO NOT DRILL AND ENLARGE THE PIVOT BOLT HOLES IN YOUR FRAME!**

You must have a sleeve made for the inside of the swing arm pivot tube that will except the 5/8" bolt and can fit snugly inside the pivot tube.

But wait, screw that for I don't want to have one made especially by someone else, I'll make one myself and here's how I did just that...

Start of my filing/grinding the inside frame welded pivot bolt spacers. Start slow, 1mm at a time on both sides to keep it even, you can always add spacers if required. I used both the bearing cap and collar from the ZX swing arm.

**GO SLOW, SEE IF IT WILL FIT, RE-MEASURE; GRIND SOME MORE, GO SLOW!** Don't get carried away for we still have to center the tire, we only want it to fit right now and we may have to grind one side or the other later.



Once your swing arm fits, fabricating the swing arm pivot tube sleeve...

As mentioned previously, the KZ pivot bolt is ~ 5/8" or 20mm. I tried various metals, brass, copper etc... but all had some play left in the swing arm. Then low and behold, my good old ACE hardware store has electrical conduit with a 5/8" inner diameter. Only down fall is the outer 20.5mm, had my calipers with me on this one. Lol!

Now what, I know, I'll belt sand, measure, try it out, I'll belt sand, measure, try it out, I'll belt sand, measure and try it out... See a pattern here? Yes, I know, I know, took about 3 hours but hey, on the money and it works beautifully.



Now comes the lower frame mono shock mounts. Remember those center stand tabs I told you to hang onto, well this is why. Use the original tab as a template for the new longer tabs required. I fabricated using 1/4" flat plate with 3/8" holes drilled for the lower attaching bolt. As can be seen on the left, I made them 1/2" longer and ground down as required. The image on the right is checking for large gaps around the frame tubing. Guess what, you need to make another but this time, use the new tab as the template...



Before attaching the mount, rotate your bike belly up!  
Measure the width of your tire and mark it. Then measure the middle of the frame in two places. Use a straight edge and verify that your tire is dead center.

**NOTE: This is where you may have to touch up "Grind" some of the frame pivot bolt sides to shift one way or the other. If you have to, you can always use 5/8" spacers to make up any difference. This is extremely important; the TIRE MUST BE DEAD CENTER BEFORE CONTINUING!**

With the tire dead center, you may continue...

Attach you lower 3/8" mounting bolt, slightly offset the curved tabs away from the motor mounts and tack weld. Then fabricate & weld a 1/4" flat plate to be used as tab supports (motor mount side). Trust me, this baby isn't going to move... Don't get hung up on your welds right now, we're welding to get everything secured and will clean up (weld completely & grind smooth) later on.



Now for the upper bracket! This really screwed with my head for converting to a mono shock constitutes a new battery/electrical cage fabrication. With that in mind I realized the strongest support and less room requirements the only way was up. First things first, I measured the original KZ swing arm shock mount being at 18" back from the center pivot bolt. I wanted to insure that I would have approximately the same angle for the chain to counter sprocket. Install brace/2x4 under the rear wheel to hold it in place!



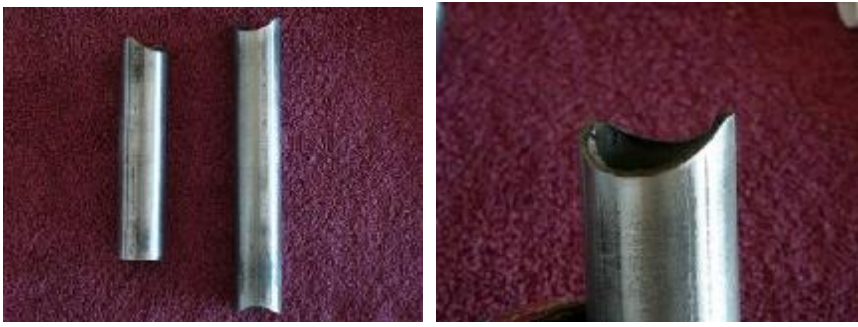
Here we go back to Home depot for some 1" steel piping!

Using a 1/4" saddle design to wrap around the frame tubing for additional support I came up with the following. Again, go slow, over measure and grind down slowly for a snug fit.

Tube on the left:

From squared bottom to upper saddle is 4 3/4", to saddle is at 4 1/2". This will be used for mounting to existing mono shock top mounting bracket.

Tube on the right is 6" to low saddle and 6 1/8" to low saddle on the opposite side. The KZ frame is skewed.



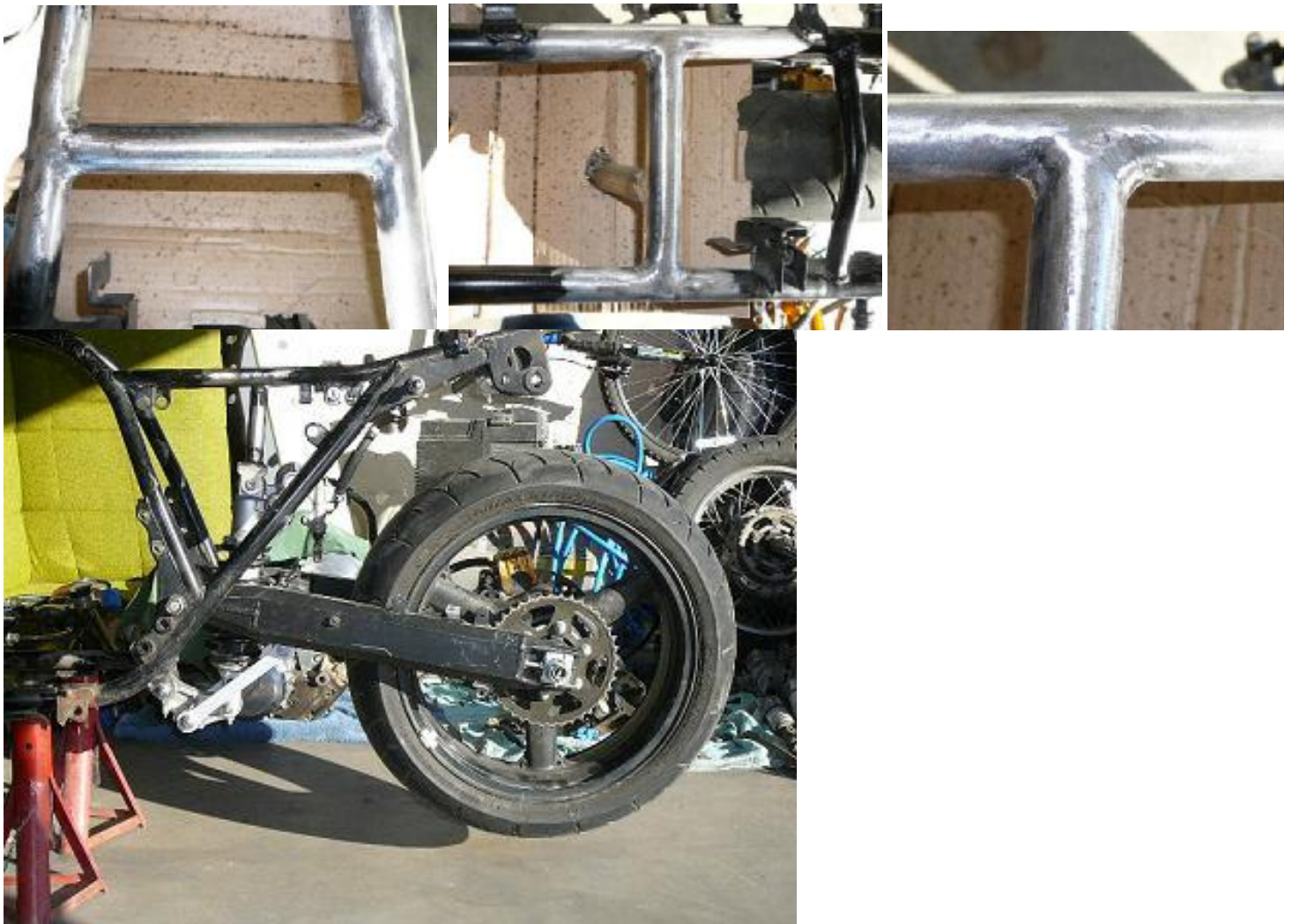
Measure back on both sides and tap from seat support bracket back 5 1/2".



Insert piping, make sure you have enough clearance from shock springs to pivot tube and tack weld your shock support to t support.  
**Don't tack to the frame yet, we'll remove and give it a good weld first then install back on for the frame welds.**



Install T support back onto frame, attach 3/8" upper shock bolt, tightened into place, insure shock spring clearances, tack and weld completely. Grind all rough surfaces on top and bottom supports! Primer with sealer will make this look like it's all one piece when painted!



The swing arm is going to be stripped and buffed aluminum! The frame will be stripped of original paint later on. Want to get all fabrications, welding, grinding, cuttings first.

Now on to the front end swap out, ZX-6R (636). I purchased a 6 Ton press for the steering shaft replacements from Harbor Freight for \$60, sweet, how can you beat that! But that will be the next tutorial.

Hope this helps,

