

# **INSTALLATION INSTRUCTIONS**

# Maverick X3 Trailing Arms PARTS LIST

| ITEM | PART #         | DESCRIPTION               | QTY |
|------|----------------|---------------------------|-----|
|      | S3140          | Trailing Arm (1 LH, 1 RH) | 2   |
|      | ST037-19       | Nut Retainer A            | 4   |
|      | ST037-20       | Nut Retainer B            | 4   |
|      | 11126          | Misalignment Spacer       | 4   |
|      | 11230          | Spring Retainer Spacer    | 2   |
|      | MXM-12         | 3/4" RH Heim Joint        | 2   |
|      | JN34FZ         | 3/4" Jam Nut              | 2   |
|      | S3BK-CMAVX3-TA | Bolt Kit                  | 1   |

- 1. Place Maverick X3 on flat ground and in the Park (P) position and support vehicle with proper jack stands in the rear.
- 2. Remove rear tires.
- 3. Remove rear brake calipers by loosening and remove the two bolts on each side holding the calipers to the knuckles.
- 4. Using a drill and a 3/16 drill bit, drill out the rivets securing the brake lines to the factory trailing arms. Let the calipers and lines rest on the ground for now; remove the clamps from the brake lines.



- 5. Remove the axle nut cover and cotter pin on each axle. Remove the axle nuts and the hubs.
- 6. Remove the bolt and nut that secures the middle link to the spindle. There are 2 very thin washers on each side of the hub. Keep up with these.
- 7. Remove the top bolt that secures the upper radius rod and the spindle to the trailing arm. Note- the radius rods will fall so hold them to let them down easily or put some sort of padded under them to prevent damaging the powder coat.
- 8. Now remove the lower bolt that secures the lower radius rod and spindle to the trailing arm. Allow all three radius rods to lay gently on the ground. Remove the spindles.
- 9. Next, remove the rear shocks.
- 10. Remove the bolts that secure the sway bar links to the trailing arm. Leave the links connected to the sway bar. Note- if you are upgrading sway bar links, you can remove the factory link completely.
- 11. Remove the bolts and nuts that secure the trailing arm to the frame and remove the factory arms. Note- If you are upgrading the radius rods or pull plate, go ahead and install them at this point and leave the outer ends hanging before installing the new trailing arms.
- 12. Next, install the rear shock spacers. This will require a spring compressor or complete disassembly of the springs by running the preload adjusters all the way up the shock body. If you are getting help from a friend on this install, you may be able to compress the main spring by hand to slip the spring retaining spacer under the spring retainer. See Figure A. Note- Watch your fingers if you are doing this step by hand.
- 13. The spacer goes between the lower spring retainer and the lower shock and eyelet. The tapered end faces downward and fits into the groove on the eyelet and the top of the spacer into the retaining groove. See pic for fit!
- 14. Once you have the spacers installed, reinstall the rear shocks. Tighten the upper bolts and leave the shocks hanging at this time.
- 15. Next, prep the S3 trailing arms for assembly. Start by installing the upper and lower nut retainers. This is done by taking one of the factory black nylock nuts and inserting it into the nut retainer along with the retainer spacer. See Figure B and C.
- 16. Next, install the nut retainers onto the trailing arms with the supplied M6 Bolt. DO NOT tighten the M6 bolt just yet. Now insert the factory bolts through the trailing arm and adjust the nut retainer to make sure the bolt and



factory nut line up. NOW you can tighten the M6 bolt. The goal is to be able to insert the bolt and not have to hold the nut or adjust it. You can now remove the factory bolt after tightening the M6 Bolts. See figures D and E.

- 17. Repeat this process for the 2<sup>nd</sup> trailing arm.
- Next, install the <sup>3</sup>/<sub>4</sub> chromoly heim joints w/ jam nuts into the trailing arms. Make sure the heim joints are equally screwed into the trailing arm on both sides.
- 19. Take a measurement of the factory trailing arm from the sway bar bolt hole to the middle of the radial joint on the factory trailing arm. Then replicate on the S3 trailing arm.
- 20. Set the 3/4" heim joints w/ the misalignment spacers installed to the exact same length.
- 21. Typically, the heim screwed all the way in with the jam nut on will achieve this length.
- 22. Make sure the heim is horizontal with the trailing arm. See Figure F.
- 23. Install the trailing arms into the frame tabs using the factory hardware. Note- the trailing arms are left and right. Make sure the logo faces towards the outside of the machine and the end of each arms faces outward. Tighten the bolt holding the trailing arms to the frame.
- 24. Install the shock onto each arm using the supplied M12x150 bolt, M12 Flat washers, and M12 nylock nuts.
- 25. Install the sway bar links into the trailing arm tabs using the M12x70 bolts, M12 washers, and M12 nylock nuts.
- 26. Now installed the spindles onto the arms while inserting the CV axles into the bearing races.
- 27. Slide the hubs down the CV stub shafts and into the spindles.
- 28. Hand start the axle nuts and washers to hold the assembly together. Notethe spindles are left and right and up and down. The spindles have marking on them showing their proper locations.
- 29. Slide the brake calipers over the rotors and hand tighten the caliper bolts. We recommend using a little red thread locker on the caliper bolts. Notemake sure the brake line orientation is correct. The brake lines run down the backside of the trailing arm and over the top near the spindle.
- 30. Insert the lower radius rods into the trailing arm and insert the lower factory bolt through the arm, radius rod, spindle, and thread into the nut with the retainer. We recommend using red thread locker. Tighten this bolt.



- 31. Next, install the middle radius rods onto the hub. Note- there is a small washer on each side of the hub. Tighten this bolt and nut after applying a small amount of red thread locker.
- 32. Install the upper radius rods into the trailing arm and insert the bolt through the arm, radius rods, and spindle. Thread the bolt into the nylock nut that's held in place by the nut retainer you installed into the trailing arm earlier.
- 33. Tighten the axle nut. Please apply some red thread locker. Don't forget the cotter pin.
- 34. Tighten the brake caliper bolts. Zip tie the brake lines to the arms using the tabs on the arms. Recheck all hardware including the jam nuts on the heim joints mounted onto the frame and install the rear wheels/tires.
- 35. Set unit on the ground. No alignment should be necessary unless you installed aftermarket radius rods. If the alignment is off, perform an alignment on the machine.
- 36. Test drive vehicle and recheck hardware one more time.

Thank you for choosing S3 Power Sports for your HD Trailing Arms. If you have any questions or issues installing, call us at 855-221-7097.

Please post pics of your arms, tag us, hashtag "S3Nation" on Instagram and Facebook



#### Figure A





#### Figure B





#### Figure C





#### Figure D





#### Figure E





#### Figure F

