

## **Install Directions**

Moosehead Engineering | Spherical Upper Control Arm Bearing Rebuild Kit





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From all of the asses at Angry Ass, thanks for purchasing an Angry Ass rebuild kit for your Moosehead Engineering spherical upper control arm bearings!

Please read this entire installation manual prior to attempting to install or use the Angry Ass rebuild kit for your Moosehead Engineering spherical upper control arm bearings to ensure proper installation and safe use.

The Angry Ass rebuild kit for your Moosehead Engineering spherical upper control arm bearings should only be installed by persons skilled in vehicle component installation and performance. Angry Ass Limited shall not be held liable for any damage or personal injury (including direct, indirect, or consequential damage) sustained as a result of improper installation of the Angry Ass rebuild kit for your Moosehead Engineering spherical upper control arm bearings or its use and maintenance contrary to the instructions and warnings contained herein.

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Thanks again for choosing Angry Ass!



## PARTS LIST

The following parts are contained in your kit:

- 1. 4X Bearing races
- 2. 2X Small o-ring seals
- 3. 2X Large o-ring seals

## **TOOLS & SHOP SUPPLIES**

You will need the following:

- 1. Adjustment spanner or suitable tool
- 2. 3/32" Allen wrench
- 3. Scissors
- 4. Cleaning spray/degreaser
- 5. Isopropyl alcohol (rubbing alcohol)
- 6. High temperature and wash out resistant bearing grease
- 7. Paper towels or shop rags
- 8. Gloves







1. While it is possible to unbolt the bearing end of the control arm and position it for clearance, we are writing this as a bench top document, all steps apply. Begin by removing the set screw for the retaining plate using your 3/32" Allen wrench and setting aside, see Figure 2.



Figure 2



2. Next using your spanner or a pair of needle nose pliers remove the retaining plate, turn counterclockwise. We are going to replace the o-ring seals so don't worry about them. See Figure 3.

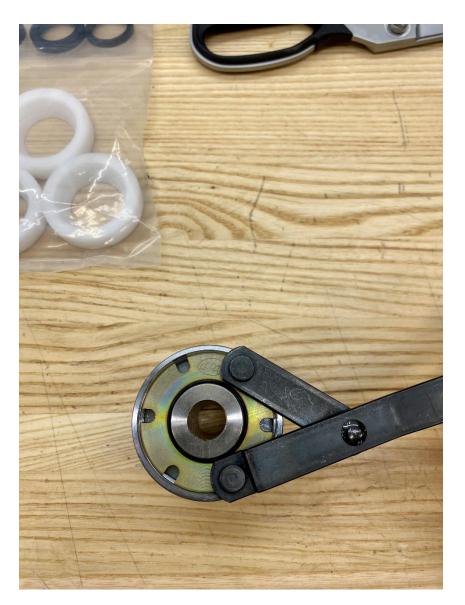


Figure 3



3. With the retaining plate unscrewed from the housing, press the joint from the back side out of the housing. Be careful not to drop it! Set joint aside, see Figure 4.



Figure 4



4. Remove the retaining plate from the joint and carefully remove the o-ring or o-ring remnants from the joint on both sides. Disassemble joint into individual components as seen in Figure 5.



Figure 5

5. Clean and inspect the ball joint, retention plate and base for any major damage or corrosion using your rags and cleaning agent. Clean housing as well of debris.



6. Begin reassembly by placing the base back into the housing. It can be helpful to lightly coat the base and housing with grease to help keep things in place during reassembly. Suggest using those gloves! See Figure 6.





7. With your base in its time to cut open your repair kit with your scissors and install your first new race covered in a good amount of grease along with the ball joint. The "cupped" side of the race should face you and the ball should sit in it. See figure 7.







8. Add your second race that you've coated with a liberal amount of grease, "cupped" side down so that it matches the ball joint. Press onto the ball joint and into the housing, some grease will squeeze out, that's ok. See Figure 8.



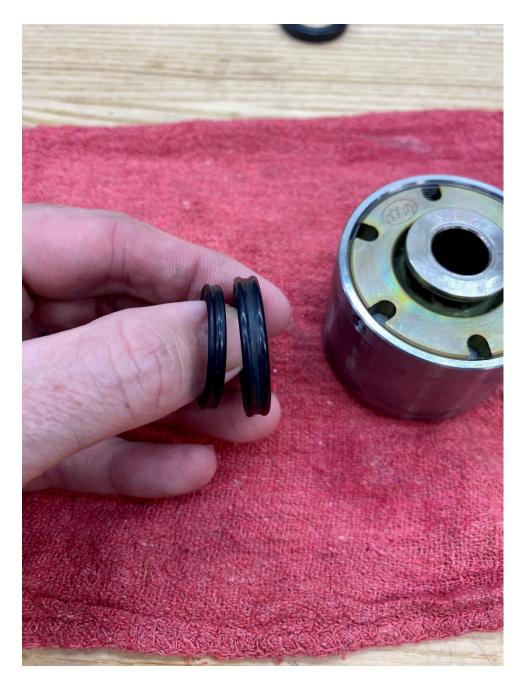


9. With your new races installed and wipe off any excess grease from the threads of the housing and reinstall the retention plate with the stamped logo facing you. Tighten so its snug, no need to set play just yet! See Figure 9.





10. With your bearing reassembled it's time to add the o-ring seals to it. You'll notice there are two different size seals, one large and one small. See figure 10.





11. The smaller o-ring is used on the retention plate side. Coat the o-ring with isopropyl alcohol to help lubricate it and roll it onto the ball joint end and under its flange and into the retention plate gap. There should be no twisting or distortion of the o-ring. See Figure 11.





12. Now it's time to install the larger o-ring on the base side. Again, lubricate with isopropyl alcohol and roll onto the ball joint end and under the flange and so it sits flat on the base. See Figure 12.





13. With your o-ring seals in place it's time to set the end play in the joint. Using your spanner or needle nose pliers adjust the retention plate until you can just move the ball by hand. Keep in mind you will have some loss of motion with the o-ring seals. If it becomes too tight just back off one notch of the retention plate. **ATTENTION: As the bearing heats up from use, the ball expands, so if there is not enough play the joint will bind when hot.** 

14. With end play set reinstall your set screw with your 3/32" Allen wrench. We suggest using Loctite 243 to help with seizing and retention, anti-seize works as well. See Figure 13.



Figure 13

## 15. Repeat steps 1-14 for other bearing.



<u>NOTES</u>