



SYNERGY MFG. 870 INDUSTRIAL WAY, SAN LUIS OBISPO, CA (805) 242-0397

SYNERGY MFG HEAVY DUTY BALL JOINTS

4120, 4120-04, 4140-60, 4140-6004, 8009-12, 8009-1204, 8012-60, 8012-6004

Version 1.6

GENERAL NOTES:

- These instructions are also available on our website; www.synergymfg.com. Check the website before you begin for any updated instructions and additional photos for your reference.
 - Refer to the factory service manual for general installation instructions for ball joints, these are no different, any important differences are noted below.
 - A special ball joint C-frame press and adapters are required for installation. OTC and Miller special tools have quality tools available.
 - Lubricate the ball joints at every oil change using Synergy High Performance Chassis & Bearing Grease (4119).
 - These HD ball joints carry a 12-month unlimited warranty available to the original purchaser from the date of purchase and is non-transferable.
 - Non-knurled ball joints should be replaced with non-knurled ball joints. Knurled ball joints should be replaced with knurled ball joints.
1. Remove the boots prior to installation to prevent damage. Do not forget to reinstall them prior to installing the knuckles.
 2. Orient the lower ball joint so the grease fitting is pointing forward. The upper ball joint does not need to be oriented in any specific way.
 3. Install the ball joints using the factory service manual as a guide. Torque the lower ball joint nut to 80 lb-ft, then tighten the upper ball joint nut to 75 lb-ft. Further tighten to align the cotter key holes, do not loosen to align the cotter key.
 4. Wait until the ball joints are installed to install the grease zerk fittings. You have two options for the lower ball joint grease zerk: Use the flush style grease zerk ONLY if you are using RCV axle shafts; you will need a long needle adapter to grease the lower ball joints. If you are using standard U-joint axle shafts, you can use the regular grease zerk provided, and a standard grease gun fitting will work.
 5. Recheck the vehicle alignment after new ball joints have been installed. Worn ball joints could result in a change in caster or toe due to excessive play.
 6. Due to the nature of metal on metal ball joints, these ball joints will require a small break-in period for the first 500 miles or so for the bearing surfaces to seat. The steering may feel *sticky* or lack self-centering during this time.