



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

## JK DRIVE SHAFT INSTALLATION INSTRUCTIONS

Version 1.1

### GENERAL NOTES:

- These instructions are for the installation of 1310 and 1350 JK drive shafts, any differences will be noted
- Front and rear procedures are the same, any differences will be noted.
- Pinion yoke torque is very critical, follow the instructions completely or you may over crush the crush sleeve and have to completely disassemble the differential to replace it.
- We recommend that you install a new pinion nut when replacing the pinion yoke. New nuts are available from the dealer at a reasonable price.
  - Front pinion nut: 04720895
  - Rear pinion nut: 05191197AA

### PINION YOKE

1. Support the axle on jack stands and remove the tires and wheels
2. Remove the factory drive shafts.
3. Using a flat head screwdriver wedged between the inner brake pad and caliper piston, push the brake caliper piston in slightly. Slide the caliper outward so the brake pads do not touch the rotors as to relieve any drag between the brake pads and rotors.



4. Rotate the pinion gear three or four times and record pinion torque to rotate with an inch pound torque wrench.



5. Remove the T-case yoke nut and yoke. An air impact works well. Sometimes a puller is needed to remove the yoke.
6. Install the new pinion yoke with a new nut. The new pinion yoke do not use the dust shield like the original yoke did. You can remove the dust shields from the old yoke and install on to the new yokes if you want. The new front and rear pinion yokes are the same. If you are not installing a new pinion nut, use red loctite on the old pinion nut threads.
7. Tighten the pinion nut to 160 ft-lbs and measure the pinion torque to rotate. The new pinion rotating torque needs to be 5 in-lbs more that it originally was.
8. If pinion rotating torque is low, tighten the pinion nut in 5 ft-lb increments until the desired pinion rotating torque is achieved.

**CAUTION: If maximum tightening torque of 200 ft. lbs. is reached before torque to rotate is achieved, the collapsible spacer may have been damaged. Never loosen pinion gear nut to decrease pinion gear bearing rotating torque and never exceed specified preload torque. Failure to follow these instruction may result in damage.**

#### **TRANSFER CASE YOKES**

9. Remove the T-case yoke nut and yoke. A puller is normally needed to remove the yoke from the output shaft.
10. The new yokes may come with or without dust shields. If the yokes have dust shields, use them. If they do not come with dust shield, they are not required, do not try to re use your original one.
11. The new yokes may or may not be machined for the factory O-ring that is under the nut. If it is machined for the O-ring, reuse the original O-ring, if not use some silicone sealer on the output shaft splines and under the nut.
12. Install the new T-case yoke, tighten the yoke nut to 110 ft-lbs, and use some red loctite on the yoke nut.

### **INSTALL DRIVE SHAFTS**

13. Grease the u-joints and center ball of the CV joint if they are greaseable. It is very difficult to access the grease zerk when installed on the vehicle so grease them before you install the CV joint.
14. Install the new drive shaft using the u-bolts and 5/16 bolts for the 1310 or metric 12 pt bolts for the 1350 CV flange. Use some blue loctite on the u-bolts and CV bolts.
15. For a 1310 CV, tighten the 5/16 bolts CV bolts and axle yoke U-bolts to 8.5 ft-lbs. A tip to install them is to tighten the nuts until the lock washer is flat then tighten an additional ¼ turn.
16. For a 1350 CV, tighten the 12 pt metric bolts to 50 ft-lbs and the axle yoke U-bolts to 12 ft-lbs. A trick to install the u-bolts is to tighten the nuts until the lock washer is flat then tighten an additional 1/3 turn.