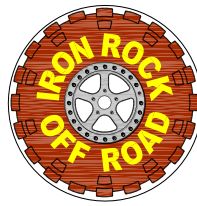


# Installation Instructions: Hack and Tap Slip Yoke Eliminator (27 spline)



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## **Fitment and additional parts required:**

YJ Jeep Wrangler (1987-1995): Requires seal flange and custom length double cardan driveshaft.

TJ Jeep Wrangler (1997-2006): Requires custom length double cardan driveshaft.

XJ Jeep Cherokee (1984-2001): 1995 model year or older require seal flange, most XJ's with 4.5 to 8" lift height can use a front driveshaft from 1998 XJ Cherokee with automatic transmission (verify with measurement below), all other lift heights require custom length double cardan driveshaft.

ZJ Jeep Grand Cherokee (1993-1998) \*\*\*Requires drilling and tapping hardened steel, spacer washers for proper seal surface placement, custom length double cardan driveshaft.

WJ Jeep Grand Cherokee (1999-2004) with 27 spline output only: Requires drilling and tapping hardened steel, spacer washers for proper seal surface placement, custom length double cardan driveshaft. 32 spline version also available from IRO.

## **Shipping Checklist:**

- Instructions
- Iron Rock Off Road Decal (1)
- Hack - N - Tap Yoke 88022 (1)

### **Hardware Kit 48 (Hack-n-Tap)**

- 3/8"-16 x 3/4" gr.8. hex bolt (1)
- 5/16"-24 x 1-1/4" gr.8 hex bolt (4)
- 3/8 USS washer (5)
- M10 x 30 cl10.9 hex bolt (4)
  - With optional seal housing only:**
    - HNT Seal Housing p/n 88015 (1)

### **Hardware kit 63**

- Seal 4970N (1)
- M10 x 20 shcs (3)

- With optional tool kit only:**

### **Hardware kit 62**

- 1/4" Drill Bit
- 5/16" Drill bit
- 3/8"-16 hand tap

- With optional drill jig only:**

- 27 spline drill jig p/n 89087 (1)



## **Prior to starting work, ensure that all parts are present and in good condition.**

- a) Ensure that you have the type of transfer case output shaft shown in the photo to the right (middle photo). If your transfer case has a tail cone around the yoke you will need our seal housing (sold separately). Seal housing is not available for WJ and ZJ, the only option is to leave the shaft uncut and drill and tap the case hardened steel then use spacer washers for proper seal surface alignment.
- b) Verify that this kit will fit your vehicle. Certain XJ Cherokee's will require a custom driveshaft (mostly 1989 or older, but follow the measurement procedure in step 14 to be sure). Grand Cherokee's and Wranglers will require a custom length driveshaft.
- c) Read and understand all installation instructions.
- d) If you have any questions before, during, or after installation contact Iron Rock Off Road (see contact information above).

## **Tools You Will Need:**

- o Hand Drill
- o Good quality 1/4" drill bit (available from IRO)
- o Good quality 5/16" drill bit (available from IRO)
- o 3/8"-16 hand tap and tap handle (available from IRO)
- o 4" angle grinder with cut-off wheel, or other means of cutting the output shaft.
- o Torque wrench
- o Center punch
- o Hammer
- o High strength threadlocker such as Loctite red
- o Basic hand tools
- o Drill jig highly recommended (available from IRO)

## **Remove transfer case drop kit (if equipped):**

1. If you do not have transfer case drop spacers between your transfer case crossmember and unibody, proceed to step 6.
2. Support transfer case and transmission with either floor jack or transmission jack.
3. Unbolt transfer case crossmember, and remove transfer case drop spacers.
4. Apply anti-seize compound to the mounting bolts (M10 x 30)
5. Re-install transfer case crossmember without spacer blocks.



Seal housing not required for this type.

## **Slip yoke eliminator installation procedure:**

6. Place the vehicle on level ground and chock the wheels, or place the vehicle on jack stands under the front and rear axles.
7. Ensure the vehicle is secure.
8. Remove rear driveshaft by unbolting the rear pinion u-joint straps and slide the slip yoke off the end of the transfer case.

### **Measure for cutting:**

- 9.
10. For XJ's with use of stock XJ front driveshaft only: With the rear pinion yoke horizontal, make a mark where the transfer case output shaft will be cut by measuring from the center of the u-joint (or at the flat surface) on the rear pinion yoke to the transfer case output shaft and mark at 33-3/4". See photo. Mark for cutting. A silver Sharpie marker works great for this. \*This must be done with the vehicle weight on the suspension as the vehicle will be normally driven. Verify that this measurement leaves a minimum 1.25" of complete splines after cutting and chamfering. If necessary, it is acceptable to vary cut location by up to 3/4" in either direction as long as minimum spline requirement is maintained.  
\*If using our seal housing, verify that this cut location will allow the yoke to completely engage the seal.
11. For XJ's using a custom driveshaft: Mark the shaft so that 1.25" of splines remain after cutting.
12. For Wranglers (all years): Mark the shaft so that 1.25" of splines remain after cutting.
13. For Grand Cherokees (all years): If no seal housing is available (see lower right photo) you will need to drill and tap the case hardened steel while leaving the output shaft uncut. This will require a 5/16 carbide drill bit for the tap drill, also a 3/8 carbide drill bit to remove the hardened area before tapping. Then a standard high speed steel tap can be used. This will also require spacer washers for proper seal alignment.
14. Use cut-off saw to cut off the transfer case output shaft at the mark from the steps above.
15. Ensure that end of shaft is perfectly straight and square. Our drill jig makes this easier.
16. Chamfer the outside corner of the output shaft so the yoke slides on smoothly.
17. If possible drill using the drill jig. Otherwise with the yoke in place, mark where to drill the hole using a sharpie marker or scratch awl. Alternatively, you can use a 3/8" drill bit and drill through the yoke into the transfer case output shaft just enough to make a good center mark.
18. If needed, use center-punch and hammer to mark where to drill shaft.
19. Drill with 1/4" drill bit 1-1/8" deep (Peck drill and use lubricant/coolant).
20. Re-drill same depth with a 5/16" drill bit (Peck drill and use lubricant/coolant).
21. Tap with 3/8"-16 Tap (Make sure to use lubricant and back out the tap frequently to clear chips).
22. Make sure 3/8" x 3/4" bolt threads in completely.
23. Apply high strength threadlocker to threads of bolt.
24. Install yoke onto output shaft and torque fastener to 30 foot-pounds.
25. Install CV driveshaft and tighten any remaining loose bolts.
26. Grease slip shaft, double cardan ball and socket, and u-joints if possible.



Seal housing not available for this exact type.  
Mostly found on ZJ and WJ Jeeps. Seal housing is available for most XJ and YJ and not required on any TJ.