*Instructions Created by an:*

Automotive Service Excellence
MASTER AUTO TECHNICIAN

# Toyota Off Road U-Joint, Lifetime Warranty, Pickup/Tacoma/ 4Runner/Tundra/Sequoia (SKU# TDI-UJ-OFFROAD)

# Installation Instructions

**CAUTION:** Safety glasses should be worn at all times when working with vehicles and related tools and equipment.

**Suggested Tools:**

- Impact Deep Socket: 9/16 “, 1/2 Drive
- Ball Peen Hammer
- Pin Punch: 1/16”
- Bench Vice with an Anvil
- Small Standard Screwdriver
- Standard Pocket Screwdriver

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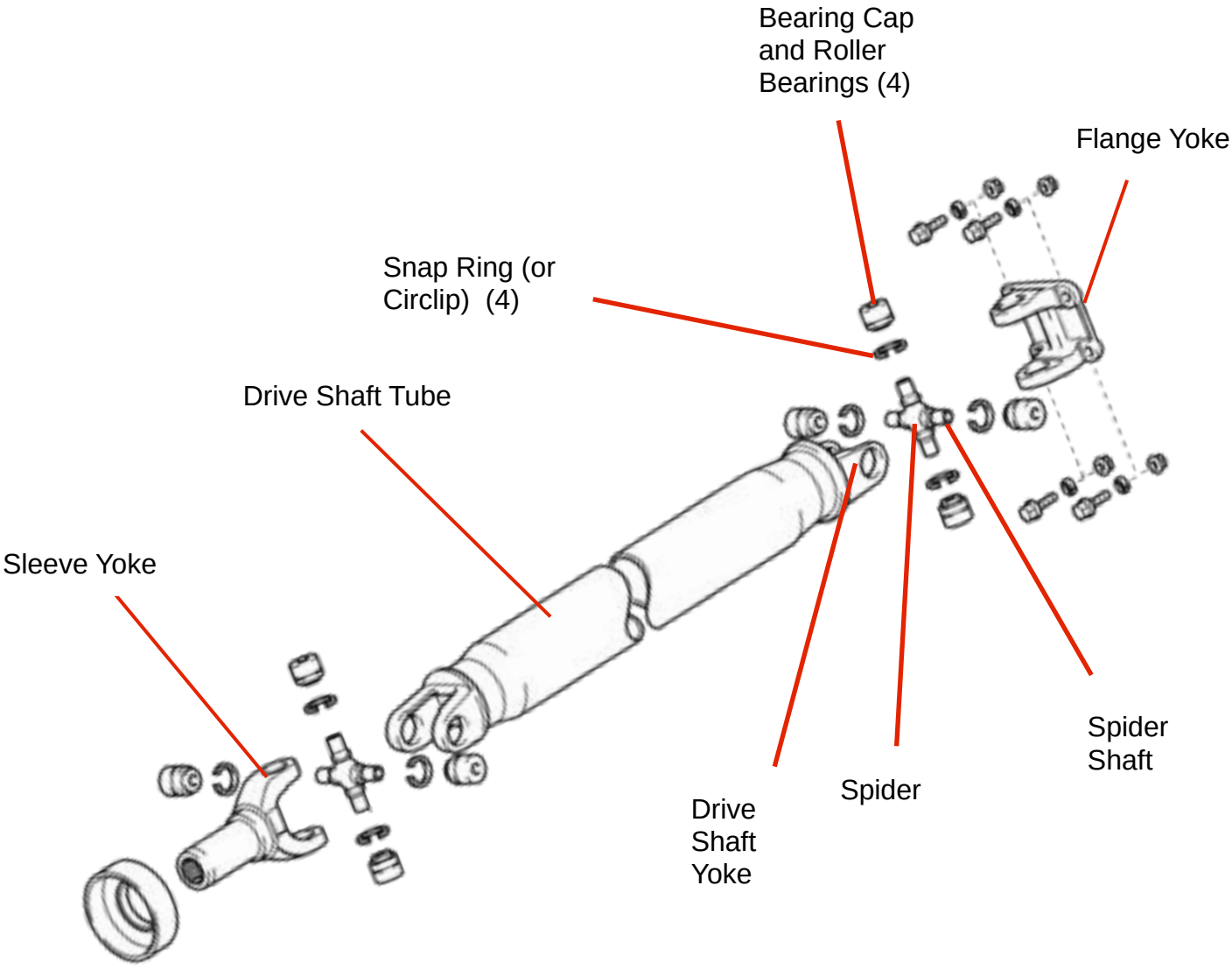
# Drive Shaft and Universal Joint Parts



## Step 1

Clean any dirt and debris from the snap ring area using a punch or small standard screwdriver.

## Step 2

Drive the snap ring out using a hammer and punch.

## Step 3

If the snap ring does not come all the way out using a punch, remove it the rest of the way using a standard screwdriver.

Repeat Steps 1 through 3 on the other 3 snap rings.

## Step 4

Place the drive shaft in a vice and clamp securely.

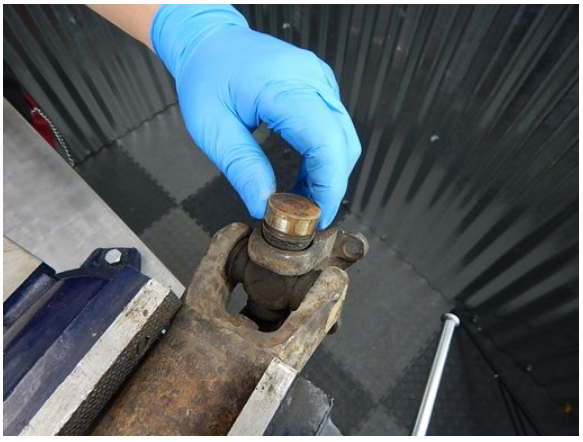
**Caution:** Clamp the drive shaft on the drive shaft yoke. Avoid clamping the drive shaft on the tube, if at all possible. Any damage (dents or nicks) to the drive shaft tube could weaken the drive shaft leading to premature failure.

## Step 5

Strike the yoke just off to the side of the bearing cap as shown. This will force the bearing cap out of the yoke.

## Step 6

Continue striking the yoke until the bearing cap can be removed.



## Step 7

Remove the bearing cap

## Step 8

Rotate the drive shaft in the vice 180° and strike the yoke as before until the second bearing cap can be removed.

## Step 9

Remove the second bearing cap.

## Step 10

Remove the flange yoke and set it aside.

## Step 11

Rotate the drive shaft in the vice and strike the spider shafts; first one side . . . .

## Step 12

. . . and then the other.

## Step 13

Continue striking the shafts until the third bearing cap drops out the bottom.

## Step 14

Rotate the drive shaft in the vice 180°. Place a 9/16” impact deep socket on top of the spider shaft and strike it with a ball peen hammer.

**Caution:** Be aware this socket could become damaged to where it is not usable as a socket again.

## Step 15

Continue striking the socket until the bearing cap drops out the bottom.

## Step 16

Remove the spider.

## Step 17

Clean away any rust, nicks, or debris from the drive shaft yoke and the flange yoke, using fine emery cloth or sand paper.

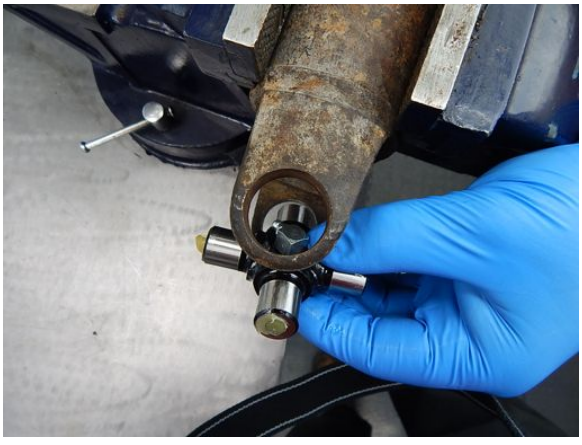
## Step 18

Remove all 4 bearing caps from the new universal joint. Inspect each cap to see that all the roller bearings are in place.

**Caution:** Be sure to keep the bearing caps and spider clean. Any dirt, sand, or debris of any kind can greatly reduce the life of a universal joint.

## Tech Tip 18

If at any time during installation, the bearing rollers fall out of place simply reposition them using a small standard screwdriver. Applying a small amount of good quality wheel bearing grease inside the bearing cap will help keep the needle bearings in place.



## Step 19

Position the new spider in the bottom yoke first and then the top.

Note: Be sure the grease fitting is oriented toward the drive shaft tube.

## Step 20

With the spider resting in the bottom yoke, install the bottom bearing cap.

**Caution:** Lifting the spider too high could allow the roller bearings in the bearing cap to slip out of place.

## Step 21

Place the second bearing cap in the upper yoke and push it into place as far as you can by hand. Lift the spider up so it engages the roller bearings in the top bearing cap, but not so far that it releases the roller bearings in the bottom cap. The idea is to place the spider evenly spaced between the two caps.

## Step 22

Keeping the spider evenly spaced between the two bearing caps, place the drive shaft in the vice as shown.

## Step 23

Press the two bearing caps into place by tightening the vice jaws.

## Step 24

Stop pressing when the vice jaws contact the yoke.

Note: Check to see that the spider rotates freely at this point. If it does not it could be that one or more of the roller bearings has fallen out of place inside the cap.

## Step 25

Rotate the drive shaft 90° and set it on the vice anvil or on a solid work bench. Using a 9/16” impact deep socket and a hammer continue driving the bearing cap into the yoke.

## Step 26

Continue driving the bearing cap into the yoke until the snap ring groove is fully exposed.(See Arrow)

## Step 27

Install the snap ring in the groove by pushing it as far as you can by hand.

## Step 28

Drive the snap ring the rest of the way using a standard screwdriver and hammer.

## Tech Tip 28

Be sure it is seated all the way around. It may be necessary to tap the snap ring with a screwdriver and hammer to be sure it is seated.

## Step 29

Place the drive shaft on the anvil with the second bearing cap up. Place a 9/16” impact deep socket on the bearing cap and strike it with a ball peen hammer.

## Step 30

Continue until the second snap ring groove is fully exposed. (See Arrow)

## Step 31

Install the second snap ring in the second groove. Push it into place as far as you can by hand.

## Step 32

Tap the snap ring the rest of the way using a standard screwdriver and a hammer.

## Tech Tip 32

Insure that both snap rings are seated in the grooves.

## Step 33

Position the flange yoke over the spider shaft; first one side . . .

## Step 34

. . . . and then the other.

## Step 35

Push the spider out of the flange yoke and place a bearing cap on the spider shaft. This keeps the roller bearings in place.

## Step 36

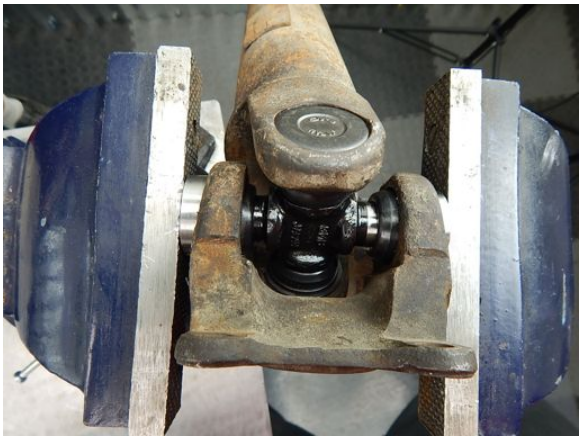
Then push the bearing cap into the yoke as far as you can by hand.

## Step 37

Place the forth bearing cap in the yoke and push it into place as far as you can by hand.

## Step 38

Slide the spider to the mid point between the two cap.  This keeps the roller bearings from falling out of either cap.



## Step 39

Keeping the spider centered between the two bearing caps, place the drive shaft in the vice with the jaws pushing against both bearing caps.

## Step 40

Tighten the vice until the bearing caps are flush with the yoke.

## Step 41

Remove the drive shaft from the vice and place it on the anvil as shown. Using a 9/16” socket and a hammer, drive the bearing cap the rest of the way in.

## Step 42

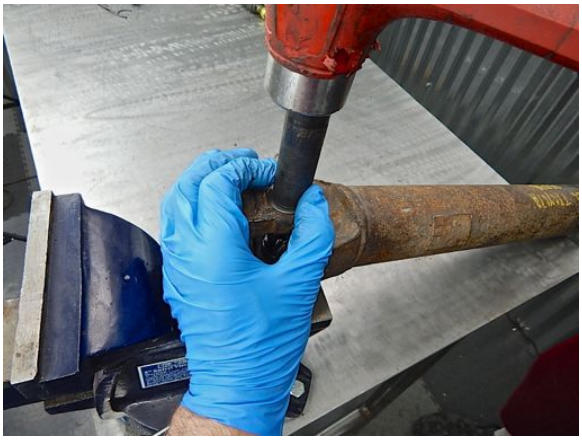
Continue driving the bearing cap until the snap ring groove is fully exposed. (See Arrow)

## Step 43

Install the snap ring.  Push it into place as far as you can by hand.

## Step 44

Finish installing the snap ring using a standard screwdriver and a hammer.



## Step 45

Place the drive shaft on the vice anvil with the forth and last bearing cap upward.  Using a 9/16” impact deep socket and a hammer, drive the bearing cap into place.

## Step 46

Continue driving the bearing cap until the snap ring groove is fully exposed. (See Arrow)

## Step 47

Install the forth and final snap ring in the groove. Be sure it is seated all the way in the groove.

## Step 48

Insure that the universal joint works freely in a full range of motion.

## Step 49

Be sure to inject grease into the universal joint either before or after the drive shaft is installed in the vehicle.

## Congratulations!!!

You have successfully installed a universal joint. We hope these instructions have been helpful. If you have suggestions on how we could improve our instructions (or products) please email your ideas to sales@lowrangeoffroad.com.

As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F 7:30am-5:30pm MST. Thank you for purchasing from Low Range Off-Road.


These instructions are designed as a general installation guide. Installation of many Low Range Off-Road products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 801-805-6644 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

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