



Toyota Celica Troubleshooting Front Hub Assembly / Wheel Bearing Failing ; Replacement.

This job seemed like it would be quick and...

Written By: Robin Taylor



INTRODUCTION

This job seemed like it would be quick and easy; but the force required to remove parts such as the Hub nut, (The car moved backward against the hand brake/parking brake before it would loosen and I had to put the car in 1st gear to get it off!) makes the job more difficult. Even with penetrating oil and a blow torch, some parts seemed immovable others such as separating the lower ball joint from the hub assembly were immovable!

A longer breaker bar and/or a decent impact driver would probably have made this job quicker and easier.

I was doing this repair on a *very* limited budget and my Celica is old and in far from perfect condition. If you have a concourse GT or GTS you would probably be best spending more on parts!



TOOLS:

[3/8" Breaker Bar \(1\)](#)

[Hyper Tough 1 2 in. drive 15 inch](#)

[Flex-Head Extendable Ratchet 3/8 in. \(1\)](#)

[10mm Socket \(1\)](#)

[14mm 6 point Socket 3/8 in. \(1\)](#)

[17mm 6 point Socket 3/8 in. \(1\)](#)

[19mm 6 point Socket 3/8 in. \(1\)](#)

[30mm 12 point Socket 1/2 in. \(1\)](#)

[32mm 12 point socket 1 2 in. \(1\)](#)

[19mm XL Combination Wrench TEQ \(1\)](#)

[22mm Combination Wrench Crescent \(1\)](#)

[Propane Torch \(1\)](#)

[Mallet \(1\)](#)

[Permatex Medium Strength Threadlocker, Blue \(1\)](#)

[Moly Grease \(1\)](#)

[Plastic Drinking straw \(1\)](#)

[Toyota lug nut wrench \(21mm\) \(1\)](#)

[Toyota scissor jack \(1\)](#)

[Axle stands \(1\)](#)

[Mini Locking Pliers \(1\)](#)



PARTS:

[Toyota Celica Front Hub Assembly \(used\) \(1\)](#)

[ACDELCO 46D2308A Lower Ball Joint \(1\)](#)

Step 1 — Loosen Hub Nut and Wheel lugs



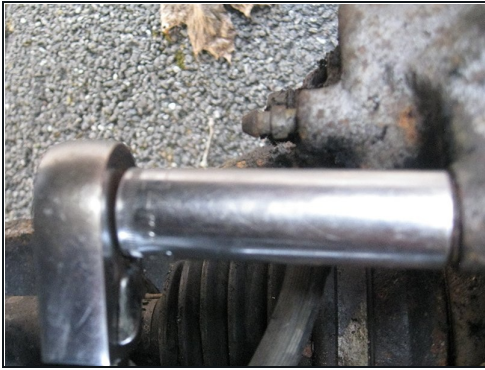
- Original Toyota 12 point 30mm Hub nut. What you should find!
- You may find an aftermarket Dorman etc. 6 point 32mm(?) Hub nut. Which I found on the passenger's side.
- Whilst the car is still on the ground loosen the wheel nuts and apply some heat with a propane torch to help loosen the hub nut.

Step 2 — Loosen Hub nut and Lug Nuts, Jack up the car put it on stands and remove the wheel



- With the hand brake on and the car in 1st gear or Park. Loosen the Hub nut using a breaker bar, you can use a longer bar, a pipe to extend it. On the passenger's side using a jack to create leverage worked. On the other a swift blow from a mallet.
- Then Jack up the car and lower it onto axle stands. Remove the lug nuts, remove the wheel and then remove the hub nut and store it safely

Step 3 — Remove the Brake and Rotor/Disc



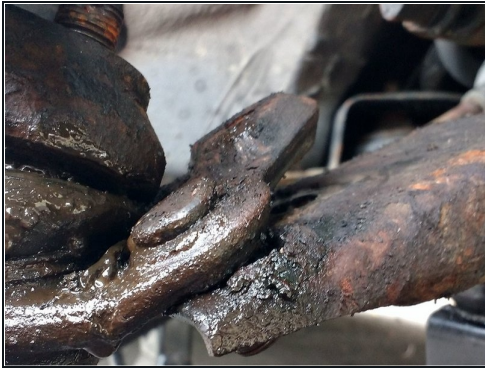
- Using a 14mm socket, remove the 2 bolts holding the Brake Caliper on.
- Once the Caliper is removed, hang it from the spring to relieve tension/stress on the brake hose!
- Using a 17mm socket, remove the 2 bolts holding the bracket on. remove the pads and bracket, store them safely.
- Remove the rotor/disc and store it safely.

Step 4 — Remove the hub to strut bolts and tie rod from the hub



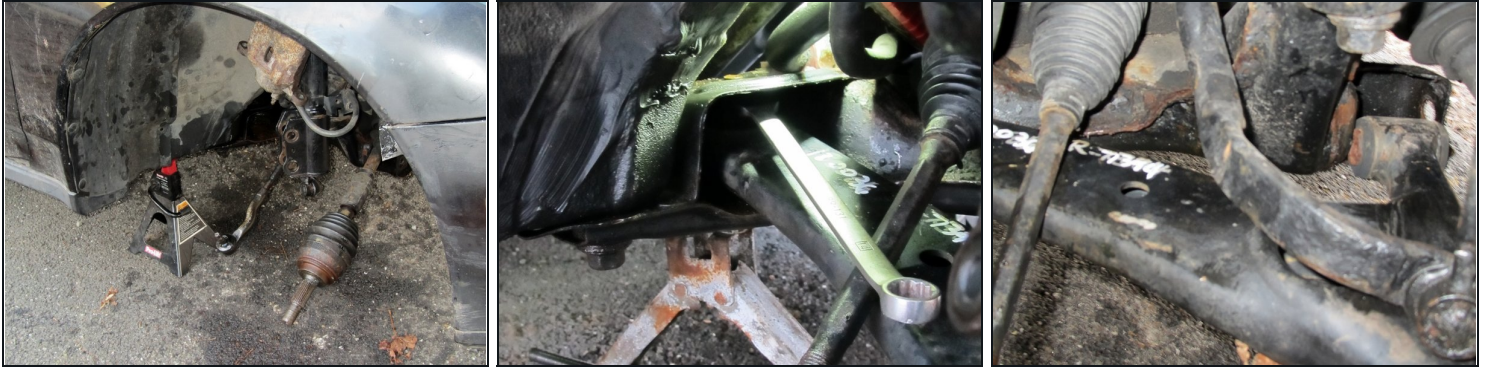
- Remove Hub to Strut bolts. First Give them a good heating ,(On the driver's side I left the torch there for several minutes!) with a propane torch
- Hold the bolt in place,(later I purchased a 19mm combo wrench...) and using a 19mm socket wrench with remove the nut. (I used an extendable wrench).
- Remove the Tie Rod bolt. 17mm Castle bolt with a cotter pin through it. On mine the pin was missing. The pin will be rusted in you can twist the ends till they break off and chisel it flat. Apply heat but try to avoid too much. Soak the area in penetrating oil once the nut is off. Then hit the bar with a mallet and it will drop out

Step 5 — Remove the lower ball joint from a A-arm / control arm



- The Lower Ball Joint had to come off! I cleaned the 2 nuts and bolt with a wire brush, applied lots of penetration oil. Then I heated each nut up for a few minutes, then removed them with a 19mm socket. I did the same to the bolt, 19mm socket, it too came out.
- After lifting out the hub assembly, I cleaned and spray painted the arm. **Note:** If suspect the arm may be bad, swap it, I didn't and my replacement bearing failed on the passenger side, the drivers side lasted. see next *Optional* step
- I then order my new lower ball joint and awaited its arrival. For the other side I ordered the same ball joint in advance!

Step 6 — (Optional) If your new bearing fails you may want to swap the Control Arm



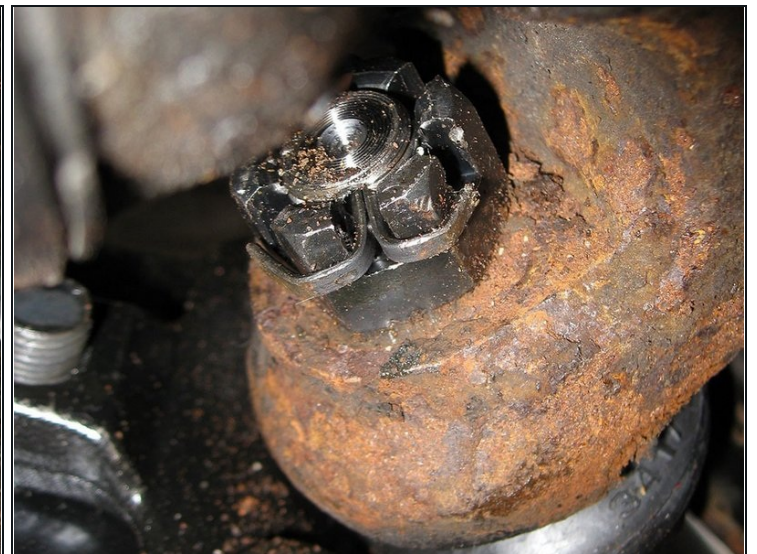
- The Control arm comes off with two 19mm Bolts after a little heat is applied. The vertical bolts are held by a 19mm bolt. Once it is removed, the bushing will move and hold the bolt partly out, grab it with locking pliers and hit the pliers down to remove it.
- To install the vertical bolt through the bushing, I used a socket extension to align the bottom of the bushing. Then push the bolt up, put it under pressure with a jack, and use a spanner/wrench to move the top of the bushing till the bolt, pops through! Put the Bolt on!
- The other part of the control arm aligns easily, slide in the horizontal hole and screw it in. Tighten both bolts up!

Step 7 — Mount the new Ball Joint



- Mount the new ball joint, I put a little Blue Thread Lock on the bolt, the nuts had nylon inserts.

Step 8 — Bolt on the Hub to the lower ball joint.



- Attach the Hub assembly with a 22mm 6 point combo wrench. This Nut size will depend on the manufacturer of the replacement Ball joint. This was an AC Delco 46D2308A.
- Insert the cotter pin and bend it into place. Bend the cotter pin with whatever you have to hand. I used a socket extension and a hammer.

Step 9 — Lubricate the Tie Rod bearing and reattach it to the hub



- I used a plastic drinking straw inserted deep into the Moly. grease, flattened the end, inserted into the Tie rod ball joint by squeezing it up. Squeezed down the straw to inject new grease into the ball joint. Then moved it around and cleaned excess from the exterior.
- Reattach the Tie rod to the hub. As the cotter pin had been missing since I owned the car, I used Blue thread locker and a lot of force to tighten the castle nut. You could probable drill out the old pin once the nut is on and put in a new cotter pin.

Step 10 — Do NOT hammer the Knuckle into the Strut



- I had to re-swap my Knuckle in the middle of Winter. The Knuckle did not go into the strut so I banged it in with a Mallet. DO NOT DO THIS!
- I broke the coil spring. The snow came I was out of gas I drove it to get gas and the spring came down and ripped a hole in my tire!
- Do it right by removing corrosion from the knuckle mounting point with an appropriate tool.
- **Note: The other side spring failed, six months later**, so it could just be age and it may be worth swapping both out? My car had 220000 miles and 21 years...

Step 11 — Attach the Hub to the steering Strut



- Attach the hub to the strut, I applied more Blue threadlocker and tightened. 19mm both sides, I used the combo wrench to hold the bolt heads and tightened with the extendable socket wrench and my foot!
- Add a little thread lock and replace the hub nut
- Reassemble rotor and brake. Put on the wheel, get the car back on the ground, tighten the hub nut first then the wheel lugs.

Once done take in for a short drive around the block with the windows down to listen for any noises.

Good luck!