

Many thanks to the fellow who originally posted these on Corvette Forum, and I've merely put them here since they were such a good reference. Feel free to mail me updates, and I'll incorporate them into this original document.

Cheers - Jake

C5 Corvette Front Wheel Bearing Replacement

Helpful Hints:

- Only use a breaker bar (or impact wrench) to initially break the clamping torque of a bolt during removal. Use a ratchet, or wrench to remove it the rest of the way. This way, you can tell if the nut or bolt starts to cross thread. This will give you a chance to do something about it.
- Use common sense.
- Take your time.
- If you don't understand something, ask somebody for help.
- Torque Specs are as follows:
 - o 125 ft/lb - caliper mounting bolts
 - o 96 lb/ft - wheel bearing/hub torx bolts
 - o 52 lb/ft - lower ball-joint
 - o 33 lb/ft - tie-rod end
 - o (Page 3-25 of the service manual (Thanks Steve Thomton)
- This procedure is not official and is intended as an aid to the Do-It-Yourselfers out there.
- I take no responsibility for anything that happens to your car during or after this installation. It is up to YOU to ENSURE that all of your bolts are tightened, etc. (*Sorry to mention this, but there are too many intellectually challenged people out there who like to half-ass things like this!*)

- It took me about 1hr and 30min per side for this replacement. The dealer charges 2 hours per side for this job (@\$95/hr).

TOOLS:



- Torque Wrench (up to 150 ft-lbs)
- Breaker bars (3/8" and/or 1/2")
- Ratchets (3/8" and/or 1/2")
- 1/2" to 3/8" socket adapter (if needed)
- 3/8" extension (if needed)
- 21mm wrench
- 18mm wrench
- 18mm socket
- T55 Star Tool
- # 6 Allen socket (3/8")
- Hammer
- Rubber mallet
- Screwdriver

- WD-40
- Jack
- Jack Stands
- Large C-clamp (5-6")
- Wooden 2x4 - 12 inches long
- Four 2x4x12" wood choc blocks
- The picture above shows a ball joint puller, but you don't need it!☺
- Common Sense

PARTS:

Complete Hub assembly with ABS sensor -
AutoZone Part Number: 513139
(This is also the same as the TIMKEN part no.)

Cost: \$155.00 each (or \$600 at the Chevrolet dealer if
you're a sucker.)



PROCEDURE:

- 1.) Break the initial torque on the front lug nuts (so that you can finish taking them off when you jack the car up).

On level ground, chock the rear wheels with the 2x4x12 wood chocks and jack up the front of the Vette high enough to remove the front wheels. Insert two jack stands under the front sub frame, and lower the car down onto the stands to provide a stable working environment.
(See diagram below)



- 2.) Remove the lug nuts and front wheels.
- 3.) Remove the brake caliper bolts (2) with a 21mm wrench. (See diagram below)



- 4.) Remove the caliper and brake disc as a whole and use the disc (sitting on the ground) to hold the caliper up to keep tension off of the brake line.
(See diagram below)



- 5.) Disconnect the front tie rod (18mm socket) from the knuckle.

The best way to disconnect the tie rod is by first loosening the 18mm nut until it is flush with the end of the threads, and then tapping (NOT WHACKING!!!) the ball joint w/ a hammer until it falls down (see diagram). If you're hitting it hard enough to show physical damage, you may want to use a piece of wood (small 2x4) and placing it between the hammer and ball joint. (See diagram below)



6.) Remove the nut and move the toe link out of the way
(See diagram below).



- 7.) Remove the lower ball-joint nut (21mm) (bottom inside of upright). You may want to WD-40 the threads before you start loosening the nut to ease removal.



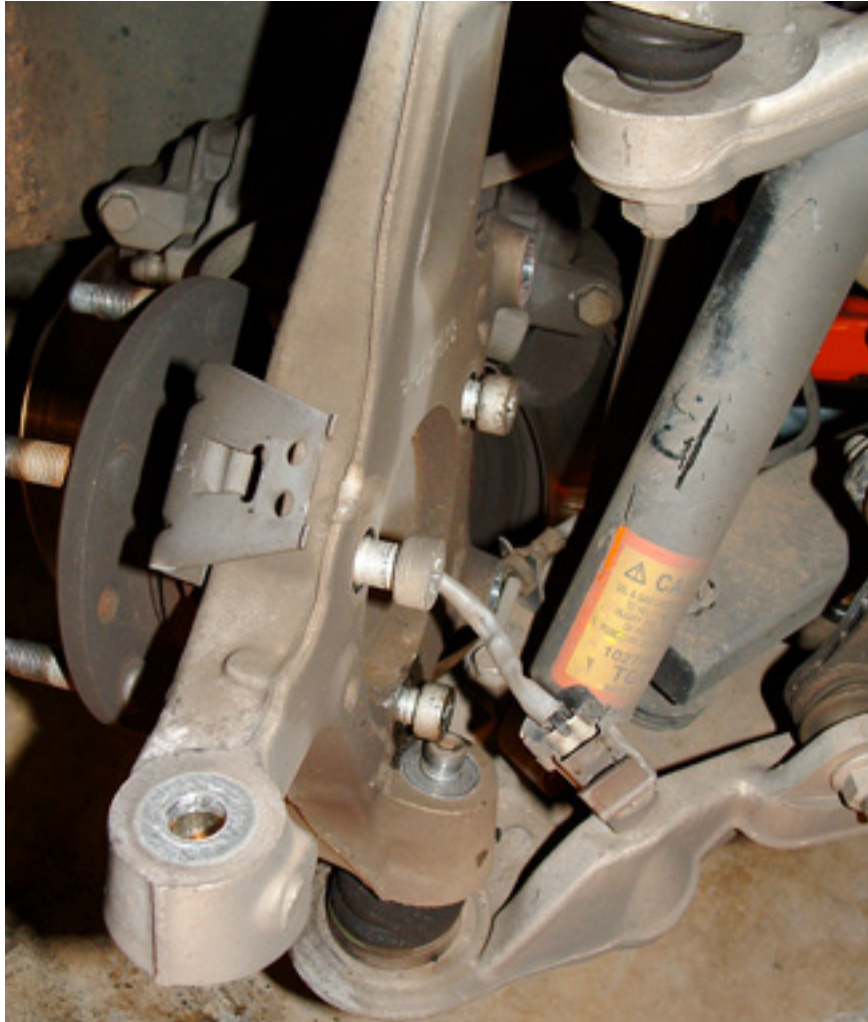
Using a 12" long wooden 2x4, knock the lower ball joint loose by placing one end of the block on the tip of the lower a-arm and hitting it w/ a hammer. (See diagram).



- 8.) Rotate the upright so that you can get to the three star bolts (T55 Star Socket) which bolt the bearing housing into the upright.

Disconnect the ABS sensor plug. NOTICE where the ABS sensor wire is coming out from behind the upright. We'll want to replace it back this way w/ the new bearing housing.

Remove the three star bolts. You may have to use a breaker bar to break the initial clamping torque on these bolts. Use WD-40 to lubricate the bolts then remove them w/ a ratchet to ease removal and prevent cross threading. (See diagram below)



- 9.) Remove bearing assembly from upright.
(See diagram below)



- 10.) Remove bearing assembly from abs sensor mount.
(See diagram below)



- 11.) Install the new hub assembly into the abs plate, and install/bolt that assembly back into the knuckle. (Make sure you put the plate back on, like you took it off, with the abs flange pointing in towards the engine. Or, just look at the pics below!)

Torque the star bolts (hub/wheel bearing torxes)

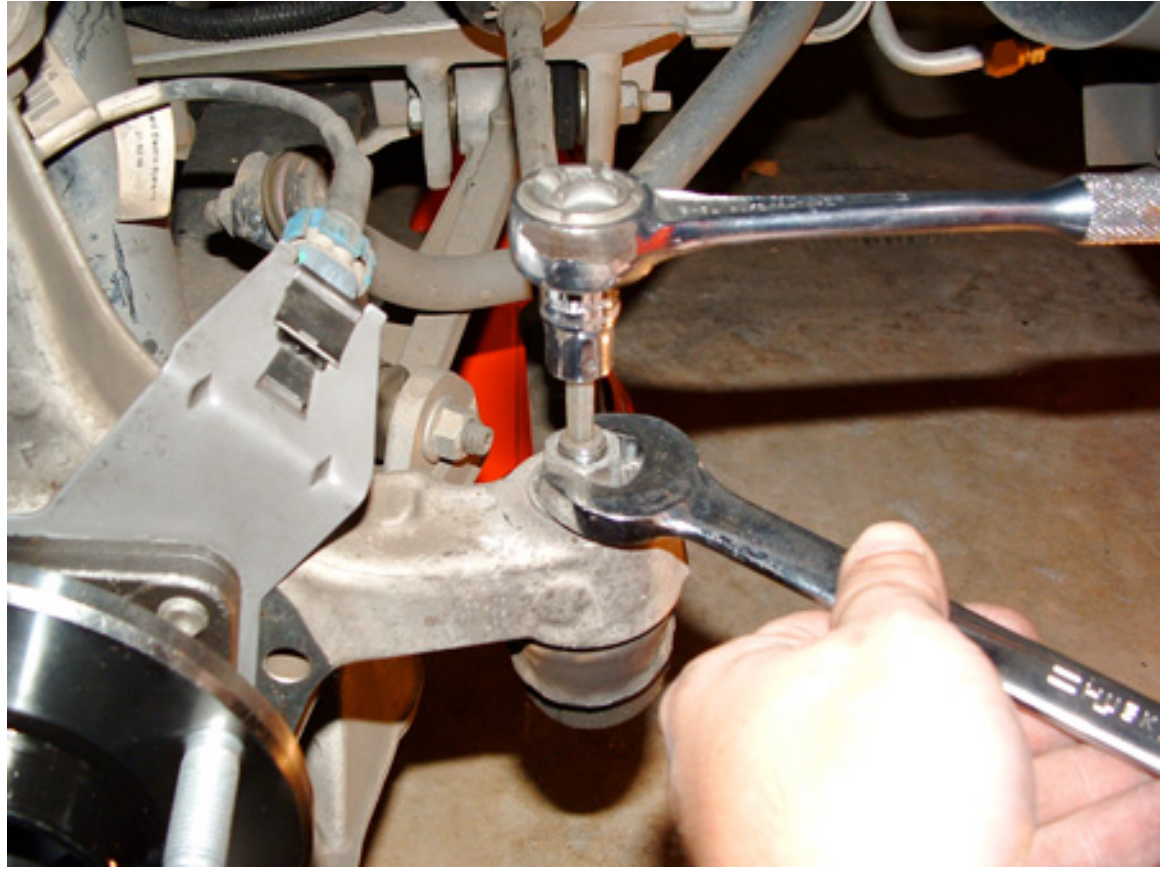
- 12.) Mount knuckle back onto lower ball joint and replace nut. Use a #6 Allen socket w/ ratchet to hold the ball joint shaft from spinning, while tightening the nut with a 21mm wrench.

Plug the abs sensor wire back into the abs plug once you have the bearing mounted in the knuckle. (See diagram below)



If you don't hold the ball joint shaft with the allen socket, it will simply spin when you install and tighten the nut! ☺ Once the ball joint has been seated, you can torque the nut w/ a torque wrench.

- 13.) Install tie rod link. Use the same method as above for tightening the tie rod ball joint nut (i.e. use the #6 allen socket and ratchet). Once seated, Torque to spec.(see above)



14.) Install brake caliper and brake disk
(See diagram below).



- 15.) DOUBLE-CHECK ALL nuts to ensure they are snug and torqued!
- 16.) Bolt wheel back on and snug lug nuts.
- 17.) Remove the jack stands and Lower car with the jack.
- 18.) Torque the lug nuts to 100 ft-lbs (that was the torque specified in my corvette owners manual).
- 19.) Enjoy the noiseless ride and the money you saved!

If anybody has anything they'd like to add to this procedure, lemme' know and I'll consider it.