

Some do it this way:

Mark the nut and the pinion shaft first, open up the locking washer and then back off the retaining nut and then re-torque so that the marks line up again and note and record the torque that it takes to do so.

Remove the nut and locking washer, the old flange. Good to replace the front seal at this time, I have only had 1 leaker out of 25 or so that I have done. but would do it as PM!

Take the 850 flange and install, use copious amounts of red Loctite on the threads (Threads should be clean) install the nut and torque to the previously recorded torque. DO NOT USE THE MARKS as the flange lengths will be different, the marks were only to record the original torque. Even if the torque reading is low, this should not crush the internal washers any further so the pinion set-up shouldn't change.

Install the locking washer and clinch.

Another way is:

Remove the nut, locking washer, and old flange,

Replace the seal.

Install the 850 flange and using again copious amounts of Loctite, torque the nut to 100 Lb/ft, install the locking washer.

What I do is kinda a combination of the above two:

I mark the pinion shaft and nut, open the locking washer and slightly back off the nut and then tighten while watching the torque. I will not go over 150 lb/ft even if the marks are not lined up yet. If it is less then 100 lb/ft to line up the marks, I use this torque number when re-assembling unless it is below 80 lb/ft.

Replace the seal

Install the 850 flange. I use copious amount of red Loctite on the threads. I re-torque to the previously record torque number unless it is below 80 lb/ft in which case I go to 90 lb/ft.
If it was originally around 100 lb/ft, I use 100 lb/ft. If it was originally around the high side (150 lb/ft) I will go to 135-145lb/ft. That is it.

All of this is done with a custom piece of metal that I attach to the flange so that it is VERY stationary and stable.

Lastly, BMW has this spec:

Remove the washer/nut/flange.

Replace the seal

Install the flange

Loctite the threads and torque to 150lb/ft

Install the lacking washer.

I get quite concerned that any higher torque values the internal crush washers will start to deform further and increase pinion clearance. I have seen guys go above the 150 lb/ft to line up the marks and used this high value to re-torque and had a whiner!