## Link Pin Drop Spindle Install

Our goal is to make the install a breeze. Please read the entire guide.

- 1. Loosen the lug nuts 1/4 turn before jacking the vehicle up.
- 2. Jack up the front of the vehicle and place stands underneath the chassis.
- 3. Remove the wheels and place under the chassis as a fail safe.
- 4. Disconnect the battery.
- 5. Starting on the drivers side, you must first remove the cir clip from the speedometer cable. I like to use a piece of clear tap to save the cir clip from falling in a crack or getting lost. Stickit to your beer.
- 6. Remove the dust cap, the spindle nuts and slide off the drum.Remove the (3) bolts holding the backing plate onto the spindle and set to the side. Do not break loose any brake lines to avoid having to bleed the brakes afterwards.
- 7. The outer tie rod ends will need to be removed from the spindle. To do this, loosen the 17mm nuts on the bottom but do not totally remove them. There are two ways to remove the swedged fit connection here. Utilizing an air hammer, from the bottom, place the air hammer fitting on the stem of the tie rod and force up. This should pop the end out of the spindle. If you don't have an air hammer, you need to loosen the swedge by tapping the side of the spindle with a hammer. I know, I know, NEVER USE A HAMMER ON A VW. I get it. But I am against using a pickle fork or any of those heinous acts. You are going to tap towards the strongest part of the spindle until it pops loose. Then remove the nuts.
- 8. Before removing the spindle, you are going to do a series of tests to verify that both the link pin bushings and king pins are reusable. Rock the spindle in and out from top to bottom. Did you feel or see play? If you didn't, sweet! If you did, you need to invest in a quality link pin kit as well as a king pin kit. The PRO's like to use FEBI.
- 9. You will need to remove the 4 link-pin bolts on the back side of the spindle. Both bolts and nuts should be 17mm. Quick tip, the outer ends of the link pins are 9/16" or 14mm wrench sizes. You can rotate the link pin to disengage the bolts easier.
- 10. Remove the spindle assembly from the car and repeat on the Passenger side.
- 11. If you purchased a set of PRObuilt drop spindles, congrats, you are going to love them! You get to skip to step (20).
- 12. If you didn't and you read the next few steps and this is waaaaaay out of your skill set, you're in luck. Call the PRO's and we can make it happen for you.
- 13. You are gonna want to soak your spindle in WD40 to make the next few steps work as easily as possible. I am going to be vague because this takes a special finesse and understanding to get right.
- 14. You are going to need a press for the next few steps. First, remove the grease zerks with the correct tool. Press the link pin bushings out of the spindle carriers.
- 15. Now press out the king pin. Keep the thrust washer and bake-o-lite washer with each sides spindle carrier.

help@airkewld.com Doc 1.2 12/15/23

- 16. It is now time to clean up the spindle assemblies individually. Check the pins and bushings for wear. If they check out, you are in luck. If not, time to invest in some quality FEBI products.
- 17. If all is good during the inspection process, it is time to prep the parts. The PRO's like to pre-assemble the parts to verify that the thrust and feel is correct to spec. Fit the spindle into the carrier with the thrust washer and BOL washer and verify that the fit is nice, snug but fluid as it turns. If it does, you're pretty lucky. If it doesn't, you will need to adjust by removing thousands of an inch to various thrust washers, BOL washers or the carrier to achieve the proper fit and finish. If you need to replace the king pins and bushings, you will need to located the proper reamer to do the job correctly. After reaming, check the fit with all parts to properly ok fit and finish. Once you have achieved this fit, on to paint.
- 18. A good coat of paint on both the spindle and the spindle carrier will protect them from rust and corrosion.
- 19. Lubricate all parts prior to pressing them together. Press the king pins in, along with the link pin bushings and reinstall the grease zerks.
- 20. It is time to install the spindles with link pins. Check out the diagram to install the correct amount of shims on each side.
- 21. It is now time to install the tie rod ends. Lower the vehicle on the ground.
- 22. Install your brakes in the reverse order of removal. When tightening the spindle nuts, tighten until the drum no longer spins with force, then back off 1/4 turn.
- 23. Lube your speedo cable so it can pass through the spindle and protrudes past the spindle shaft. Place the dust cap over the cable and install the eClip and tap the cap on until it bottoms out. Install your wheels and snug the lug nuts up.
- 24. Lower the vehicle on the ground.
- 25. Now it is time to get the alignment close. Adjust the tie rods until the tire look parallel to the fenders on each side. Take a measurement from the front of the tires from the same place on each tire. Then take a measurement on the back of the tires from the same tread you measured from on the front. Adjust to make the measurements the same. This is a rough alignment. It is always recommended to have an alignment specialist do a 4 wheel one digitally to ensure your tires will wear evenly and the best user experience is obtained.
- 26. Once this is done take a grease gun with a new grease tube and pump grease into the four zerks evenly. Remember when taking apart your VW in the first place, your VW was caked with grease. These cars need lube to work properly. Wipe off the excess grease from any area it has secreted from. It is recommended that each time you do a valve adjustment or oil change to pump those zerks with a couple pumps each to ensure that they are properly lubed at all times.

Place your old spindle assemblies, (if PRObuilt Spindles were purchased) in the same box and stick on the supplied label and drop them off at a FedEx drop off location. Information on the rebate will be on the a separate document.