

Hubba Hubba

Rebuilding the rear hubs.
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The rear hubs are a part of the Corvair that are usually given no thought at all until one of them fails. When a failure occurs it will leave you stranded in more ways than you might think.

Yes you can have to have it towed to a repair shop to be repaired but then your not likely to find anyone with the knowledge to do the repairs. Even if they do they aren't likely to even know where to get the parts to repair it so its best to take care of these little gems before a problem occurs.

Do not just drill the hub and start pumping grease in there. It takes a lot of grease to fill that cavity and it may not even fill both bearings before it squirts out one of the seals and you think its full. Also when you get on the highway and it heats up and expands it will squish out the seals, ruin your brakes and make an awful mess under the car.

We certainly don't want an oily, greasy mess under our Corvair now do we. It could give them a bad reputation.

Note: The repairs in this section will require access to the following tools: Dial indicator with magnetic base, calipers or micrometer, torque wrench, gear puller and a hydraulic press. Don't forget the shop manual.



1. Measure the hub end play. It should be .001 to .006 according to the shop manual. If you can see it move its probably too much.



2. After removing the rear brakes and half shaft (refer to shop manual) remove the 4 hub attaching bolts.



3. Turn the axle yoke to align in the rectangular hole in the swing arm then tilt the assembly down and it should pull out of the swing arm.



4. Use a penetrant on the axle nut then remove the cotter pin and nut from the yoke.



5. Use a puller to remove the yoke. Use lots of penetrant and give it some time to soak. It may have to be pressed off if this doesn't work.



6. Once the yoke is removed try the puller to remove the axle shaft (see fig. 7). Sometimes this works sometimes it doesn't.



7. If the puller doesn't work this too will have to be pressed out. Keep the left and right side parts separate. Shims may not be the same thickness.



8. From the back side of the backing plate drive off the dust shield. Here I'm using a long handle gasket scraper to catch the edge of the shield.



9. From the other side of the backing plate drive off the outer seal in the same manner as the dust shield in fig. 8.



10. Drive out the inner bearing and seal with a large blunt chisel. Concentrate the blows on the center of the bearing and not the bearing cage.



11. Here is an example of a bad bearing cup. Always replace both the cup and the roller together. This are too critical to leave to chance.



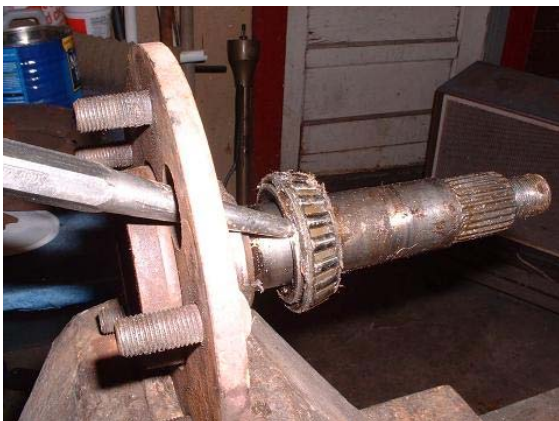
12. Use the slots in the hub to drive out the bearing cup. *Walk* it out by first hitting one side then the other until the cup walks out.



13. Measure the shim thickness with calipers or similar and record this reading. This is what sets the bearing preload and will be referenced later.



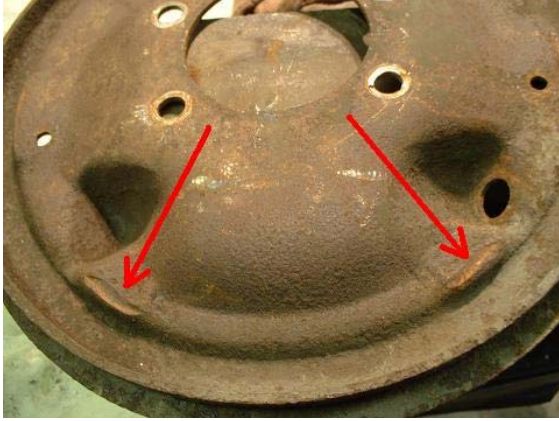
14. If you don't have a bearing splitter use a sharp chisel to wedge between the bearing and axle until the bearing moves. Then wedge with larger chisel.



15. Once the bearing has moved enough use a long punch through the hole in the axle to drive it off the shaft.



16. Although difficult to see in this photo this bearing has some very fine pitting. Always replace all the bearings, cups and seals if possible.



17. There is considerable wear on the 6 contact points on this backing plate. This is the perfect time to replace or weld and repair the plate.



18. After cleaning all the parts start the reassembly by driving in the bearing cups. Use drivers or a socket that fits the outer edge of the cup.



19. Drive the bearing cup all the way down until it contacts the bottom of the flange. Now flip the hub over and install the other bearing cup.



20. Here is one tool I recommend every DIYer own. A bearing packer uses a grease gun to force grease into the bearing much easier than by hand.



21. Pack all the bearings at once to facilitate clean up. Smear grease on the outside of the bearing and anywhere the packer didn't fill.



22. Be sure to put the bearing on the axle shaft in the right direction. Drive it down until it seats on the bottom.



23. Slip the big spacer and the small shim over the axle shaft. If you didn't measure the shim thickness earlier now is your last chance.



24. Slip the backing plate over the hub and install the outer seal. Use some type of driver, don't just drive it in with a hammer or you'll bend it.



25. It should look like this. I always smear grease on the bearing cup and seal. Put 2 bolts and nuts in the backing plate to hold it in place for now.



26. Now invert the entire assembly and slip it down over the axle shaft and outer bearing.



27. Drive the inner bearing over the axle shaft until it stops. Now install the yoke, washer and nut. Don't install the seal just yet. Torque it to 100 ft. lbs.



28. Clamp the axle in a vice to hold it in place. Mount a dial indicator and set it to 0.



29. Try to raise the backing plate with the axle clamped in the vice. This will give you the bearing end play. Here I have .009 and max is .006.



30. Disassemble the unit and replace with a thinner shim. They come in .003 increments. My original was .138 so a .133 should put me within tolerance.



31. When assembling this time install the inner seal and the dust shield. The manual says to pack this cavity with grease. This must keep out water.



32. Install the yoke and note the position of the hole for the cotter pin in the photo. This makes it much easier to install and remove the pin.



33. Slip the washer and nut on the shaft and torque to 100 ft. lbs. If the hole doesn't align tighten the nut *as little as possible* to make the hole align.



34. Install the proper size cotter pin and bend *only the long half* of the pin up and over the top of the axle shaft. Now reinstall the unit on the vehicle using the torque values in the shop manual.