

The Right Wheel Bearing in the Left Bearing Pocket Mod

By: X Ring

Several months ago, I was talking with another board member about converting to the DarkSide. During our discussion, I mentioned I had a spare wheel and was going to have the car tire mounted on that to make it as much of a remove and replace operation as possible. In addition, I said since I didn't know the condition of the bearings in the wheel and I would be installing new bearings. I was then asked if I heard of people putting the 5204 bearing, the bearing in the right side of the rear wheel, in the left side instead of the 6204 bearing. I was surprised by this and it was explained to me that the 5204 is a double row ball bearing and is able to handle the angular and lateral stresses than the single row 6204, which are the rear wheel bearing that fails the most. The left side of the wheel is supported only by the axle and has to deal with not only the rotational forces of the driven wheel but the braking forces also; whereas, the right side of the wheel is supported by the axle and the final drive. This made a lot of sense. I was also told a well known name in motorcycle performance was performing the same mod on Boss Hoss motorcycles. After researching bearings, I chose the SKF 3204. The salesman at the bearing house informed me the top tier bearing manufacturers were renumbering their bearings to be consistent with the European designations.

After purchasing the new bearings, I proceeded to change them the next morning. First thing I discovered was I didn't have a punch long enough. Off I went to the local parts store and borrowed their pilot bearing removal tool and slide hammer.



The left bearing came out easily enough; however, on the fourth or fifth stroke with the slide hammer while trying to remove the right bearing, one of the two fingers broke.



Egad!!! It looked like I would have to buy this thing but the guy at the parts store wrote it up as a warranty issue and I got all my deposit back. After the pilot bearing tool broke, I grabbed a 3/8ths drive socket, my 3 and 6 inch extensions and a ball peen hammer. Inserting the socket with extensions through the left side of the wheel, I placed the socket against the outer race of the right bearing and started tapping with the hammer. After my second trip around the bearing, it fell out.



After looking at the right bearing, it's no wonder it wasn't easy to remove.



Of course, the left bearing and its pocket didn't look good either.



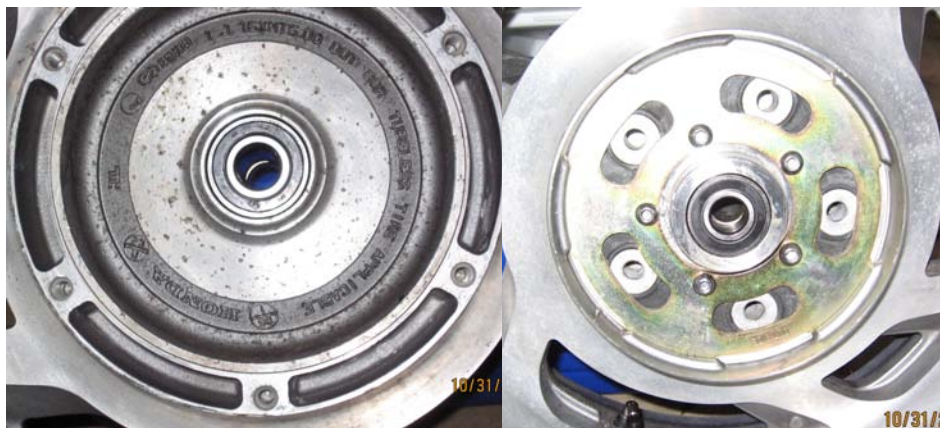
You can also tell the left bearing pocket has plenty of depth to handle the thicker bearing.

After cleaning out the bearing pockets and the inner spacer, I measured the inner spacer.



The inner spacer measured 4.662 inches in length and showed no signs of wear on either end. There was old crusty dried grease on it and it took quite a bit of soaking and scrubbing to remove it.

I then assembled my home made bearing press, a 5/8" piece of all thread with a nut and washer on one end. After sliding one bearing and the internal spacer on the press, I slid the bearing press through the wheel hub and slid the other bearing and washer onto the all thread and screwed the nut on. Using an adjustable wrench on each nut, I screwed the nuts down until the bearings seated in their pockets.



As you can see in the left pic, there isn't room for the dust seal; however, the bearing is protected to some degree by the disc brake rotor mounting hub and the outer spacer.

Putting the wheel in the bed of the truck, I took it to have the tire installed and the outer spacer machined. The 5204/3204 bearing is 20.6mm wide while the 6204 bearing is 14mm wide. In English measurements, this is a .260" difference. You have to get that removed from the small end of the space.



The spacer measured .885" thick before machining and .615" after. The machinist recommended removing another .010" to be on the safe side. (Editors Note: I don't like the idea of removing an additional .010". If the bearing is .260" wider, remove exactly .260" from the spacer.)

Here's a side by side comparison.



Removing .270" doesn't sound like a lot but as you can tell, it's quite a bit.

After performing Final Drive and Driveshaft maintenance, I put the rear end back together. There are plenty of how to articles on removing and reinstalling the rear wheel so I chose to omit those instructions. I smeared a light coating of grease on the outer surface of the new left bearing as the outer spacer will be riding against it.



This mod is very easy to do. Even though the bearings cost me just under \$100, the added peace of mind knowing there is a bearing up to the task on both sides of the wheel is worth it.

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