31/12/2022 - Drill right axle gear leg wheel nut - 4h

Category: 4.4. Landing gear
Published: Thursday, 01 June 2023 08:59
Hits: 732

I installed the packed (greased) wheel bearings and cleaned outside rubber gasket. This is very important as the procedure of fastening the wheel is very specific and well described in the manual of the wheels and brakes.

The bearings should be installed fully greased and then the gaskets should be dry cleaned. When installing the outside nut that holds the wheel in place, the nut should be fastened until the black rubber bearing gasket is no longer spinning anymore.



I clamped my engine mount on the workbench this time. I had a small accident earlier with whole thing tilting over as it wasn't very stable. Wit the 2 wheels on, this thing is heavy and will move over. This time I put some straps over which I screwed to the workbench.



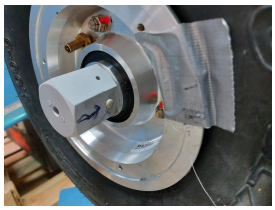
Performed the procedure of thightening the nut. It was kind of stressing to determine the final position of the nut.
Other builders told me that there will be a little more play on the wheel as things start to seat in after a couple of ground rolls in real usage.
So it's better to put it a little thighter. Mine is not spinning but also doesn't have very heavy drag on it, hoping that after usage it will settle and become a little looser.
I clamped the outer tyre out of the way and drilled the hole with an long drill bit. Protect the tyre and axle with some duct tape just in case.
Here I have the hole drilled to #30 and have put a rivet in to make sure it stays in place as I drill through the other side.



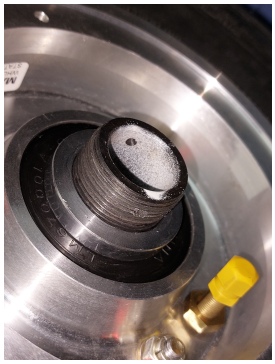
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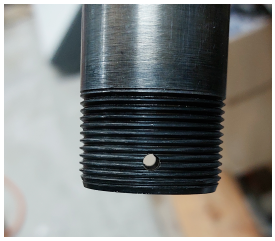
Also drilled the other side, then removed the wheel and ran the drill bit through both holes. In the end, a big cotter pin will go through here and it's impossible to see the alignment accuracy when the nut is on.



Deburred and ready for very final installationb.



Very good alignment



Reinstall the wheel and put on the nut is next. Here is a little close up shot that shows how well the bearings are packed. On the inside it oozes out

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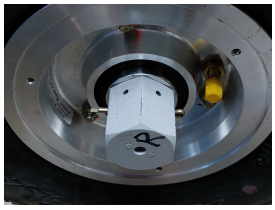
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Here the wheel is back on, the nut in place and the cotter pin in place.



Close up of the cotter pin through the axle. When remove this nut and reinstalling it. It's important to remember the amount of rotations to get the nut in the proper position.
Once drilled, you lock in the position of the nut on the axcle. There is no option to loosen or thighten later on. The only thing that would still be possible is grinding down the spacers on the bearing a little it things would be too thight.



One wheel done, up to the next...

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