How To:
Bore Aluminum Wheels
A CFans Members Mod Project by burn

Skill Level: Advanced

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PURPOSE: This is a how to on boring out the centre hole in aluminum wheels to accommodate the large bore that is found on the GMT355 trucks. The majority of the vehicles that the GMT355 shares a bolt pattern with of 6 x 139.7mm (6 x 5.5") typically have a smaller centre bore hole of 75mm (3") whereas the GMT355 uses a 101mm centre bore hole (4"). By removing 1/2" from the radius, the diameter increases by 1" - enough to clear the stock axles.

Please be aware that although this is a fairly straight-forward process, it’s very easy to damage a rim beyond repair. In fact, I screwed up while boring out the first rim - but by learning from my mistakes was able to bore out the other 3 wheels flawlessly. I was able to salvage the first rim that I screwed up on by over-boring the hole. This left me with 1 wheel that the bore depth is 11/16" whereas the other 3 wheels have a bore depth of 1/2". It will have no impact on the usability of the wheel; it will just be a few grams lighter than the other 3. The shop I got these from is giving me a 5th wheel for free as compensation for having to go through this. I will bore the 5th wheel correctly then keep the buggered wheel in the attic in case I bust a wheel on a pot-hole.

REQUIRED PARTS:
- Wheels of choice

REQUIRED TOOLS:
- Router
- Rabbet router bit with a 1/2" depth and width of cut
- WD-40

INSTRUCTIONS:
1. I picked up a set of RTX Blackhawk 20x8.5" wheels. The RTX wheel search said that these wheels would fit, but when I got them in I found that the centre bore was too small. It was only 75mm.
2. The stock bore on the Colly is 101mm. I have marked out what 101mm would look like.
3. I picked up a Freud rabbeting bit. It will cut up to 1/2" width, as well as 1/2" depth. It has different bearings that you can swap out on the tip to give you different widths. I had to use the smallest bearing to give the widest cut of 1/2".

4. Back of the packaging for the model number in case you want to get the same one. I got this from Home Depot for $38.
5. Be sure to use lots of WD-40 to keep the bit lubricated while cutting.

6. I figured out (after screwing up on the first wheel) that it’s best to cut the bore in 2 steps. Set the bit in at half-depth to cut out the first 1/4".
7. Then put the rim face down on some carpet, and slowly & carefully work your way clockwise around the opening, gradually opening it up. The bearing will limit you so you can’t cut the width beyond 1/2” more than the stock bore. Just keep going until it stops cutting:

8. Here is a finished wheel bored to 101mm (4"), cut 1/4" deep.
9. Then adjust the router to give the full 1/2" deep cut.

10. Now this is the rim that got screwed up - but I was able to salvage it. The bore in the top half of the pic is cut to the full depth, and the bottom half of the bore is nearly complete. You just have to keep whittling it down.
11. Once it’s all done, you can measure the bore and will find that they are all now the necessary 101mm bore. See the pic below.