

10mm Spacer Modification

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 Kitchener, Ontario, Canada

Time:

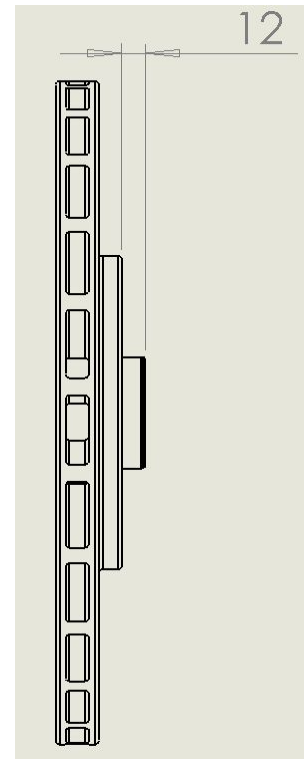
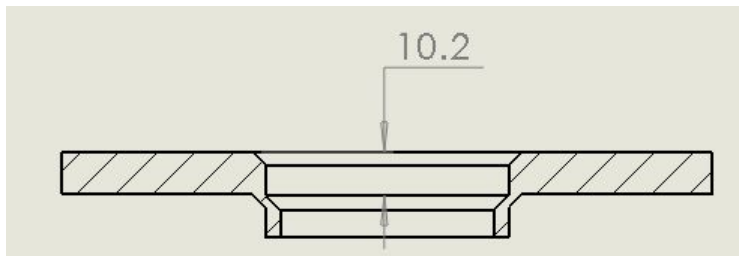
- ~20 minutes per wheel

Tools required:

- **Grinder with abrasive wheel**

Why is this modification required:

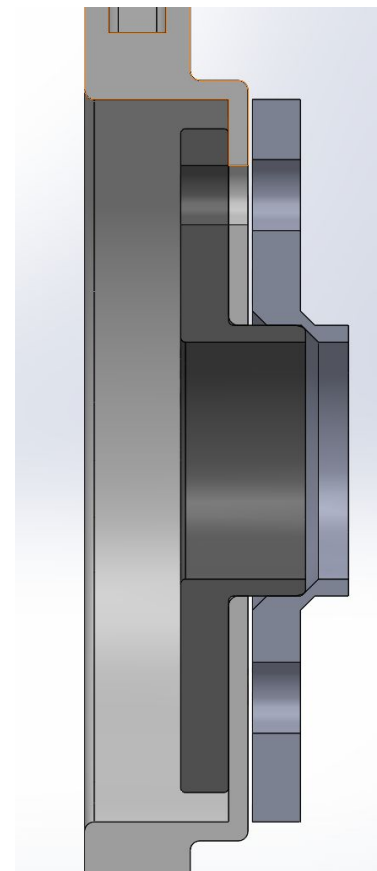
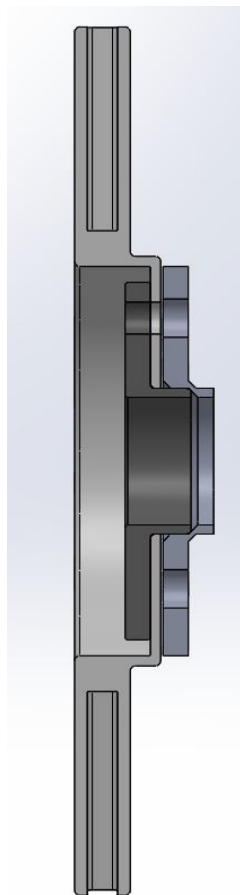
The main issue is that the hub of the car is usually about 12mm long as seen in the image to the right, and the spacer has room for only ~10mm as seen in the image below.



The spacer being 10mm, means that 2mm of the hub protrudes past the mounting face of the spacer. This causes a standard 10mm spacer to hit the hub lip before it sits flat on the rotor face causing a gap as seen in the far right image.

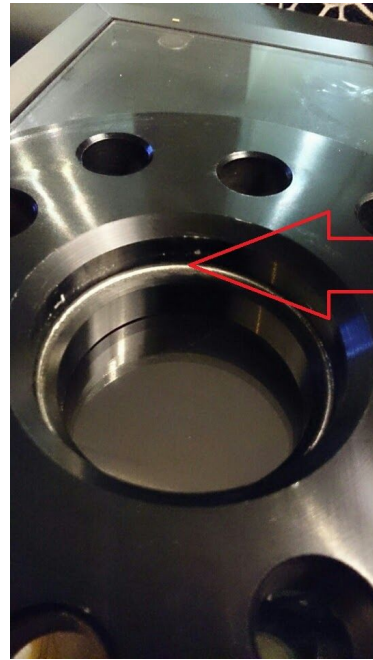
In some cases a custom spacer can be made so this effect is not present but it increases the chamfer on the wheel side and if the wheel does not have a large enough clearance chamfer we run into this issue again on the wheel side.

The only solution to run a 10mm spacer with a built in hub lip is to grind the hub down until the spacer sits flat against the rotor face.





GAP BETWEEN THE SPACER AND THE ROTOR HAT INDICATES THAT THE HUB TOUCHES THE SPACER ON THE LIP, NOT ALLOWING THE SPACER TO SIT ON THE HUB PROPERLY



MARKED SPACER FROM TOUCHING THE HUB. IF THIS IS PRESENT, THE HUB OF THE CAR NEEDS TO BE MODIFIED



MEASURE HOW FAR THE HUB LIP STICKS OUT, SPACER SHOULD HAVE THE SAME OR MORE CLEARANCE BEHIND THE SPACER HUB



SPACER HUB CLEARANCE IS DEPENDENT ON THE SPACER THICKNESS AND HUB SIZE

Instructions on how to modify the hub:

1. Remove wheel and clean hub of any debris
2. Remove Dust cap if present
3. Using the grinder carefully remove ~2mm to shorten the hub.
 - a. Best practice is to grind ~0.5mm at a time and test fit the spacer on until it sits flat on the rotor and there is no gap all around
 - b. When spacer fits properly, debur the edges
 - c. Test fit with dust cap if one was present to begin with
4. Install spacer and wheel and torque bolts to 90lbft (120Nm) in a star pattern
 - a. Remember to re-torque wheels after a day or two (<100km)

IMPORTANT TO NOTE: Once this modification has been done, it will be transparent. It will not have any adverse effects on driveability or fitting on brakes, wheels without spacers or other spacers.

NOTE 1: Wear protective equipment when working with a grinder as small pieces of metal can fly into your eyes

NOTE 2: Ensure you use long enough bolts for the spacers you selected



**EXAMPLE OF MODIFICATION
PROCESS FOR THE HUB**

