# Aftermarket Wheels and Tires for your Fiero

Most of us are dealing with aftermarket wheels and tires for our Fiero's.

The stock wheels are almost impossible to find as replacement wheels, and the originals are 35 plus years old and need a lot of refurbishing at best. Also, procuring 14 or even 15 inch tires is becoming very difficult.

So what are the challenges to new wheels and tires?  A few target specs may help:

First off go to Pennock's Fiero Form and look up "LUG NUTS" as a discussion topic. I'll save you most of this effort by giving you the key information:

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- Lugs nuts require 100 foot pounds of torque … dry. Tighten in a star pattern skipping to opposite lugs. Tightening should be done on cold wheels and brakes.
- 12 mm of lug depth is a minimum; this is equivalent to about 8 complete turns on each lug. Less than that requires new longer studs.
  (This becomes critical depending on the thickness of the new wheels and the offset of the new wheels.)
- Hub diameters on stock Fieros are 57.1mm and the bolt pattern is 5 X 100.
- Lugs should be tightened after 20 miles or so of initial use and at every oil change.
- Most aftermarket wheels will be either 66.6 mm hub center diameters or 73.1 mm. You will need "hub spacers" to take up the open area between the outside 57.1 hub dimensions and the inside of the wheel centers.
- Hub spacers are generally made in plastic and aluminum. Many think plastic are better as they don't bond to the steel pate on the outside of the brake assembly. Frozen hub spacers are a big deal when you want to disassemble
- Wheel off sets are all over the map and are typically not a perfect dimension to match the stock wheels. Slightly more outward off set is OK as long as you are within 3 mm of the inside diameter of the front and rear fender wheels with tires mounted.

  Slightly less off set may require wheel disk spacers that are hub centric (57.1mm) and match the 5 X 100 lug pattern. These round flat aluminum or tungsten plates are generally available in 3mm, 5mm, and larger sizes as needed. You can probably maintain lug depth with the stock lugs and 3mm. Anything larger will likely require extended lugs to be installed. You would like at least 3mm to 4mm of space between the inside tire side wall and the outside of the spring cup assembly!

  **This is an important dimension!**

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**NOTE: Popsicle sticks are about 1.5 mm in thickness. Two sticks glued together is a good measuring tool. If this homemade gauge fits with no resistance between the side wall and the shock cup, you are good-to-go.**

**Bear in mind that all tires are not created equal. Similar tire dimensions can have different side wall clearance specs. Since you are dealing in mm, a slightly wider side wall profile can become a real problem.**

Luckily, both wheel and hub spacers and extended lugs are available through Amazon or your local automotive supply stores.

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Now that you have the basics down pat (ha ha), let's take a trip through an actual problem on a 1985 Fiero Restomod with modified suspension and an elevated rear rake of about 1.5 inches. This car has American Racing Wheels 16 inches in diameter, 7.5 inches wide and a wheel offset very close to stock.

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Who said Resto Mod Fieros would be easy? I bought this car 9 years ago and it came with old high performance Firestone tires that needed to be replaced due to age not tread depth. I replaced these with Cooper Zeon 160 MPH Comp tires with the exact same specs. At this point in time I did not think to check for side wall clearance. I assumed the tire dealer would be responsible to check all the above out … not a good assumption. These tires were on the car with no apparent problem but had a minimal rear tire clearance to the shock cups of about 2.5 mm. The fronts were 225/50 ZR 16s and the rears were 245/50ZR16s.

The next tire dealer (2024) recommended B. F. GeForce Comp high performance 160 mile per hour tires width the same exact specs. You-guessed-it, the side walls were about 1 mm thicker and clearance to the shock cups was well under spec. I had 1.5mm clearance and the suggested clearance specification was 3.0mm +. This clearance discovery spawned my search for tire / wheel / lug / info.

One very good thing about belonging to the **Michigan Fiero Club** is the knowledge and willingness to share, that personifies literately every person that belongs to this club. I called our **President Jim** and our **Treasurer Don** and got an education in the specs that mattered. This knowledge along with the "Pennock's "data, gave me a research path to find all the answers I needed. Thanks again guys!

**So here is the final solution:**

I bought four Hub spacers 57.1 X 73.1 mm one for each wheel. The front hub spacers are probably not doing much as the front hub cup is slightly less than 57.1 mm in outside dimension. But the rears are very tight and provide a centering aide as well as additional support.

I also bought two brake surface spacer plates that were hub centric to the 57.1mm rear hubs, and included a 5 X 100 bolt pattern … I put them in the rear. These need to be placed flat side out … towards the fender well lips as there is a little bevel to clear the attachment welds between the hub and the disc assembly. The hub spacers also have a small ridge that goes inward to center the wheel center to the hub spacer.

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Here are some pictures of the hub spacers; short side 73.1 mm goes out, 77.5 mm flange goes toward the brake assembly:


**…** and here are pictures of the 3mm thick spacer plates to accommodate the wheel offset discrepancy:


Note: the inside bevel to clear the hub weld points. These are installed flat side out and need to be installed before the hub spacers.

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**One last note of caution**, rear shock cup to tire side wall clearance is also affected by suspension alignment. Both our front and rear tires have adjustable specs and both are in slightly negative camber at rest when set to normal specs.

Performance specks usually add additional negative camber front and rear and close (tighten) the rear shock cup to sidewall clearance measurement. Check this measurement after you get an alignment adjustment.

**And you were ready to throw away you coveted double pop cycle gauge?**

I hope this helps some of you.

*Best … Roger Fagnani*