

# Tires and Wheels

## Part 1 of 4

### Sizing Wheels and Tires

One of the things that many people do to make their Corvairs faster or more unique is to install different wheels and tires, a task that can be very frustrating if you just try to put on whatever seems to fit. Much of the facts for this article came from Hot Air Mail and is an attempt to help Corvair enthusiasts properly fit non-stock wheels and tires, whether new or used. Since so many folks change the wheel and tire combination on their street cars, I've now broken this page into two sections, street and competition. We will cover street first.

You want the tires to do what?

Let's look at the tires first. I use and recommend only radial tires, so that's what this information covers. If you want to use bias-ply tires, you're on your own, because I know nothing about them. The size radial closest to stock is 185/80 - R13, but unless you have a factory stock show car, you may wish to use a larger size. Most major tire manufacturers make several different types of tires, so to decide which of these types and in what size it helps to realistically decide how much money you want to spend and what kind of use you'll put them to.

Answering the following questions usually helps:

- 1.) How well do you want the car to ride?
- 2.) How much do you drive your Corvair?
- 3.) Is stock appearance important?
- 4.) Is all-weather ability important?
- 5.) Do you want more cornering grip?
- 6.) Will the tires be used for autocross or other competition?

These dimensions will affect your decision in various ways, so keep the following in mind:

- 1.) Width - a wider tire will generate somewhat more grip but is more likely to hydroplane, and may hit various parts of the car if the wheel size is not optimum. Wide tires also reduce fuel economy. If you want tires wider than 205mm, you must get wider wheels.
- 2.) Profile - a lower profile tire has more grip, but the ride will be rougher.
- 3.) Speed rating - generally unnecessary on U.S. roads, but this is an indication of a high quality tire.
- 4.) Wheel diameter - if it isn't 13 inches, you will need non stock wheels.
- 5.) Overall height - This affects the gearing and speedometer. Note that the height of the tire off the car is not the same as the rolling diameter, since loading, construction, and air pressure affect the height. Although you can't easily measure this dimension, you can often find it as part of the tire specifications, expressed a couple different ways:
  - 6.) Loaded radius. Stock is 11.8" (to 65) and 12.1" for 7.00-13 (66-69 and wagons), or: revolutions per mile. Stock is 853 revs/mile, according to Chevy specs. Oddly enough, the calibration for the speedometer doesn't quite match - the '66 up speedos are set for 825 revs/mile.

If you'd like to measure a tire, you need to have it mounted and on a car. Make a mark on the bottom of the tire, roll the car through ten revolutions and measure the distance the car traveled. Divide by ten, then two times pi (6.28) and you'll have the loaded radius. If you're buying new tires, bear in mind that there is a tolerance in the specification for a given size, you should check with the tire dealer to be

sure what size the tires you want really are. Also, after seeing the many sizes that folks have used and ended up with accurate speedometers, it is obvious that although stock speedometers may have been accurate when new, now that they are over thirty years old they are likely to be a bit off. The tires that produced good results with my car are technically a bit short. The upshot of this is that once you have select your tires, you should do an odometer check of at least ten miles, and if possible a speed check as well (one mile per minute at 60 MPH, do three or more miles if possible).

Having said all that, I went ahead and surfed over to The B.F. Goodrich site to come up with some examples of tires that would work well on Corvairs, see the note as for where they will fit. They have data sheets for all of their tires there, I used the specs from the Radial T/A here, other models will be a bit different. You should be aware that the sizes are a range, so it's a good idea to get the data sheet if you can, especially if you have chosen a size near the limit of what will fit. Unfortunately, BFG doesn't offer a 13" Radial T/A that will work well, these are 14, 15 and 16 inch:

P185/70R14 (all)

P195/70R14 (all)

P205/60R15 (may rub on an early, fits lates)

P205/55R16 (may rub on an early, fits lates)

These sizes will not fit an early, and probably not the front of a late due to width, but they will work well on the rear of a late:

P225/60R14

P235/60R14

P215/60R15

P225/50R16

So what we're saying here is that it is virtually impossible to find a 13 inch tire today that will be approximately the diameter of the original stock tires. If you want to remain with the stock 13 inch wheels so you can use the original wheel covers you'll have to compromise of tire diameter or switch to 14 or 15 inch wheels and use a custom wheel cover.