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# The Safety Chain

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When can tires on a vehicle might become unsafe for use? Tires with 50,000 miles of use; or tires that are six or 7 years old? How about a set of tires with the combination of 40,000 miles and ten years, but still has plenty of tread? What does the owner's manual for tires on a vehicle say about tire inspections? Do tires have an expiration date like the food we purchase or a "best if used by date"? Many questions, but what are the answers.

When my grandfather was alive he purchased a brand new Pontiac automobile which he purchased from a local dealer in Cincinnati. I really don't remember the model any longer, but when he died his automobile was more than 25 years old. The buyers who purchased his old Pontiac restored it to its original condition and now display it in car shows around the country. When my grandfather got to a certain age he quit driving and parked his Pontiac on the back patio of his home covering it with a tarp where it remained until his death in 1996. The only other thing I remember about this car is that everything (including the tires, which still had a lot of tread) was original equipment. I had the pleasure a few years later to meet the buyers and see my grandfather's former restored Pontiac. I asked how they relocated the car, the new owners said "... we avoided the expressway and high speed driving. We drove only on city streets and well within the speed limit." Later the new owners told me every piece of rubber, tires, hoses, etc. had to be replaced due to dry rot.

Automobile owner's manuals tell car owners the tires should be inspected at least annually for cracks, tread wear, uneven tread wear, and should be rotated to even out tread wear. Tread depth can be checked by simply using a penny. If you see the top of Lincoln's head, the tires should be replaced because there is not enough tread.

Let's talk a little about tire manufacturing. The manufacturers add a chemical into the mix to aid in slowing down tire aging. Whether tires are in use or sitting on the shelf they age. Some of the factors which causes tire to age include oxygen, heat, and sun light, which are just a few reasons. Eventually the rubber begins to break down and dry rot. We may or may not be able to see or find the dry rot.

What do tire manufacturers recommend? Tires should be considered for replacement when the tires are six years old. After some research on tire dealer's websites, I find tire warranties lasting somewhere between five to six years years.

How many things do we use after the warranty expires? Well, a lot of things. For example, electronic devices and appliances usually come with ninety warranties, and we continue to use them for many years after that. We don't purchase a tv set with a ninety day warranty and then on the 91<sup>st</sup> day throw it out and purchase another tv set. How many times have we used this mindset with tires? TVs can be used after the warranty expires, but what about tires?

So, how do we determine when a tire was manufactured? Well, it is not hard. Figure 1 breaks down the DOT code used by tire manufacturers. The week and year of manufacture is found by locating the four digits to the far right of the DOT number. The example in Figure 1 shows the week and year as 1016.

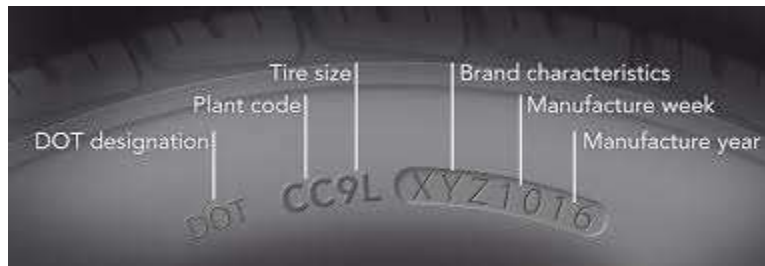


Figure 1.

This indicates this tire was manufactured sometime during the 10<sup>th</sup> week of 2016. This is the week of March 7, 2016. According to the tire manufacturers, the replacement date for this tire should be around the 10<sup>th</sup> week of 2022, six years after manufacture. Ok, you purchased this tire July 1, 2017, 15 months after it was manufactured, and the tire has a 60,000 mile, six year warranty. When should the tire be due for replacement? Six years after the tire was purchased which is July, 2023, or somewhere around March 2022? After all, the warranty does not begin until the tire is sold to the vehicle's owner. The answer, the tire should be replaced in 2022. Tire manufacturers recommend tires be replaced 6 years after manufacture regardless of the number of miles on the tire.

Take some time this summer and check the manufacture date of your tires. If the recommended replacement time is coming near make note of it and plan on replacing the tires on your vehicle regardless of how much tread remains on your tires. And, as recommended have your tires inspected and rotated each time you change the oil in your vehicle. One last note. Be sure when new tires are mounted on your vehicle, have the DOT code visible from the outside and write down the code of each of tires on your invoice for easy reference.

*Semper Vigilans*