How To Read Tire Wear

The way your tires wear is a good indicator of other parts of your trailer. Abnormal wear patterns are often caused by the need for simple tire maintenance, or alignment. Tires should be inspected at every opportunity; once a week isn’t too often. Learning to read the early warning signs of trouble can prevent wear that shortens tire life or indicates the need for having other parts of the trailer serviced. Tires should be inspected 3 ways. First, visually examine all tires; second, feel the tread by hand to detect wear such as feathering and third, check all tires with a pocket type pressure gauge.

**Over Inflation**

Excessive wear at the center of the tread indicates that the air pressure in the tire is consistently too high. The tire is riding on the center of the tread and wearing it prematurely. Many times, the "eyeball" method of inflation (pumping the tires up until there is no bulge at the bottom) is at fault; tire inflation pressure should always be checked with a reliable tire gauge. Occasionally, this wear pattern can result from outrageously wide tires on narrow rims. The cure for this is to replace either the tires or the wheels.

**Under Inflation**

*This is the most common problem in trailers.* This type of wear usually results from consistent under inflation. When a tire is under inflated, there is too much contact with the road by the outer treads, which wear prematurely. Tire pressure should be checked with a reliable pressure gauge.

**Feathering**

Feathering is a condition when the edge of each tread rib develops a slightly rounded edge on one side and a sharp edge on the other. By running your hand over the tire, you can usually feel the sharper edges before you’ll be able to see them. The most common cause of feathering is incorrect toe-in setting, which can be cured by having it set correctly.

**One Side Wear**

When an inner or outer rib wears faster than the rest of the tire, the need for wheel alignment is indicated. There is excessive camber in the axle, causing the wheel to lean too much to the inside or outside and putting too much load on one side of the tire. The trailer may simply need the wheels aligned, but misalignment could be due to sagging springs, overloaded trailer or an unbalanced load on multi axle trailers. Because load has a great affect on alignment, be sure the trailer is loaded to balance the weight on the axle or axles. Trailer should be towed level, this is particularly important with independent suspension trailers using torsion axles.

**Cupping**

Cups or scalloped dips appearing around the edge of the tread on one side or the other, almost always indicate worn (sometimes bent) suspension parts. Adjustment of wheel alignment alone will seldom cure the problem. Any worn component that connects the wheel to the trailer (wheel bearings, springs, bushings, etc.) can cause this condition. Worn components should be adjusted or replaced with new ones. The worn tire should be balanced and possibly moved to a different location on the trailer. Occasionally, wheels that are out of balance will wear like this, but wheel imbalance usually shows up as bald spots between the outside edges and center of the tread.

**Second-rib Wear**

Second-rib wear is normally found only in radial tires, and appears where the steel belts end in relation to the tread. Normally, it can be kept to a minimum by paying careful attention to tire pressure and frequently rotating the tires. Some tire manufacturers consider a slight amount of wear at the second rib of a radial tire normal, but that excessive amounts of wear indicate that the tires are too wide for the wheels. Be careful when having oversize tires installed on narrow wheels.