



LEGISLATIVE FACT SHEET

USE OF STUDDED TIRES — CONTACT: ROBIN FREEMAN (503) 986-3444

Background

Oregon experiences inclement weather conditions in many part of the state. During the winter months, snow and ice conditions are prevalent in the mountain passes, and in eastern and central Oregon. In an effort to increase traction in snow zones, ODOT plows snow, and applies sanding material, as well as anti-icing chemicals to reduce the amount of ice. Rates of application of these treatments are based on location and geometry of the road.

Drivers use several methods to provide their vehicles with increased traction in snow and ice conditions. Oregon allows the use of tires with studs between November 1 and April 1 each year as one of those methods. In 1995, a law was enacted that limited the weight of studs in tires, as a way to help reduce the damage caused by studs. In 1997 the weight limit amounts were modified to compensate for larger tires, as the industry indicated the existing limit was inadequate. Also, in 1997 additional types of tires (without studs) were allowed for use in severe snow conditions. The Rubber Tire Manufacturers Association (RMA) adopted a definition for traction tires that meet performance based testing requirements for traction in severe snow conditions. The 1997 law allows use of these tires in conditions where traction tires are required for automobiles. In 2007 the use of retractable studded tires was also allowed.

Issues with Studded Tires.

Studded tires cause damage to the road surface, requiring more frequent preservation (new pavement) than would otherwise be the case. The damage caused is proportional to the amount (in weight) of studs put into tires. It was estimated in 2004 that that ODOT spends approximately \$11 million per year on damage caused by studs. This amount is less than the amount required to keep up with the rate of decline. A research report from December 2000 estimated that studded tires cause \$50 million in damage to Oregon State and local highways each year

As an example of the accelerated wear caused by studded tires, in the Portland metro area an asphalt con-

crete road surface should be resurfaced every seven years due to ruts caused by studded tires ruts vs. 12 to 15 years if studded tires were not used. A new cement concrete roadway should be resurfaced after about 15 years of service because of rutting as compared to 35 to 40 years if studded tires were not used.

Studded Tires vs. Studless Traction Tires

Several states have conducted research into the relative safety of studded tires versus studless traction tires. The most recent study was conducted by the Washington State Department of Transportation in 2002 and concluded that studded tires produce the best traction in a limited window of temperatures very near the freezing mark. At temperatures both above and below that narrow band, studless tires perform better than studded tires.

ODOT issues press releases each fall discussing studded tires and their alternatives. We also respond to many questions regarding the short window for legal use of studded tire dates vs. the lengthy period of potential snow in Oregon.

ODOT use of Studded Tires

Although exempt from the law regarding traction tires, ODOT chooses to not use studded tires on its fleet, but rather uses studless traction tires. All ODOT vehicles carry tire chains for use when conditions warrant.

Conclusion

Oregon allows the use of a variety of traction tires, when traction tires are required. Studded tires are one alternative, allowed between November 1 and April 1 each winter. Motorists using studless traction tires are allowed to use them all year. Studded tires cause accelerated wear to the road surface, requiring that resurfacing and repairs occur more frequently. The state's roads are not keeping up with the rate of decline.

Studded tires provide more traction than the traction tires in only a very narrow band of temperatures. At temperatures both above and below that narrow band, studless tires perform better than studded tires.