

FACTS ABOUT

Low Rolling Resistance Tire Information

Tractor-Trailer Greenhouse Gas Regulation

The California Air Resources Board (ARB) approved the Tractor-Trailer Greenhouse Gas regulation to significantly reduce greenhouse gas emissions produced by certain heavy-duty tractor-trailers. The regulation requires the use of U.S. EPA SmartWay verified aerodynamic technologies and low rolling resistance (LRR) tires on vehicles operating on California highways.

What are low rolling resistance tires?

Low rolling resistance tires are defined in this regulation as tires designed to improve the fuel efficiency of tractor-trailers by minimizing their rolling resistance. As tires roll under the vehicle's weight, they deflect and dissipate energy into heat. The rolling resistance of a tire is the energy lost per unit distance traveled as the tire rolls under load. A tire with less rolling resistance is more fuel efficient than one with greater rolling resistance. Requiring SmartWay verified tires on tractors and trailers should reduce greenhouse gas emissions by reducing fuel consumption by at least three percent from both the tractor and trailer.

Who is affected by the regulation?

This regulation applies to all 53-foot or longer box-type trailers, including both dry-van and refrigerated- van trailers operating in California, and the heavy-duty tractors that pull them.

What are the tire requirements of this regulation?

This regulation requires affected tractors and trailers to use U.S. EPA SmartWay verified low rolling resistance tires when traveling in California. Most major truck tire manufacturers offer SmartWay verified low rolling resistance tires. SmartWay verified tire models are available in various sizes for all wheel positions. To qualify tire models as SmartWay verified, manufacturers submit test data to U.S. EPA to show that they meet the performance requirements of the SmartWay program. Information about which tires are SmartWay verified, including retreads, can be found on the U.S. EPA SmartWay Transport Partnership website at: www.epa.gov/smartway/technology/tires.htm. The SmartWay program updates the list periodically.

In addition, ARB has posted a list of archived SmartWay verified tire models that were once included on U.S. EPA's list but have since been removed. These archived tire models can still be used to meet the requirements of the regulation if they were manufactured prior to the date specified on the list. The archived tire list can be found on the ARB website at: www.arb.ca.gov/cc/hdghg/tires.php.

The following table identifies which affected tractors and trailers must comply with the tire requirements by the deadlines, and which vehicles may be exempted:

Tractors	LRR Tires Required	Compliance Deadline	Exempt from LRR Tire Requirement
2011 MY and newer tractors (sleeper & day cab)	Yes	1/1/2010 ¹	Registered short-haul tractor
2010 or older MY tractors	Yes	1/1/2013 ²	Registered short-haul tractor
Trailers			
2011 model year and newer trailers	Yes	1/1/2010 ¹	Registered storage trailer, or any trailer pulled by exempt short-haul tractor
2010 or older MY trailers	Yes	1/1/2017	Registered storage trailer, or any trailer pulled by exempt short-haul tractor

¹ Any retreaded tire with a SmartWay casing that was manufactured before 1/1/2013 (indicated by the DOT date on the tire) may continue to be used for the remainder of its current tread life until 1/1/2015 for the tractor and 1/1/2017 for the trailer. See Regulatory Advisory, Mail-Out #MSC 12-26 for further details.

² Any non-SmartWay verified tire manufactured before 1/1/2013 (indicated by the DOT date on the tire) may continue to be used for the remainder of its current tread life or until 1/1/2015, whichever comes first. See Regulatory Advisory, Mail-Out #MSC 12-19 for further details.

Are there any other exemptions from the low rolling resistance tire requirements?

The regulation allows for a limited term exemption from using SmartWay verified low rolling resistance tires for tractors that must use open shoulder drive tires. This exemption allows the use of two or more non-SmartWay verified open shoulder drive tires (for the drive position only) until January 1, 2015, for non-retreaded tires with a "5312" or earlier DOT manufacture date stamp, and until January 1, 2016, for retreads with a "5213" or earlier DOT retread date stamp. Tractors equipped with only one open shoulder drive tire or tractors equipped with closed shoulder tires do not qualify for the limited term exemption and must use SmartWay verified tires according to the deadlines shown in the previous table. Further information about these requirements is available in regulatory advisories, Mail-Out #MSC 12-19 and Mail-Out #MSC 12-26.

Other short term exemptions from the low rolling resistance tire requirements are also available for limited purposes such as relocation of a storage trailer, transfer of ownership of a trailer, and moving a non-compliant tractor. These short term exemptions (typically for a maximum of five days) require applying to ARB for a temporary "pass."

Does this regulation require that I use wide base single low rolling resistance tires?

Either new generation wide base single tires or conventional dual tires can be used, as long as the tires are SmartWay verified.

Will I be able to use retreaded tires and still comply with the regulation?

Retreaded tires can be used to comply with this regulation. The SmartWay program has established specifications for SmartWay verified retreaded tires and lists verified models on their website. To comply, fleets will be required to use either SmartWay verified retreads or SmartWay verified new tires. As shown in the table above, fleets will have until January 1, 2017 before their 2010 and older model year trailers will need to meet the tire requirements. Until then, fleets may continue to use non-SmartWay tires or retreads on their trailers, although we encourage fleets to begin getting the benefits of low rolling resistance tires before the deadline.

Will it cost me more to replace my current tires with low rolling resistance tires than conventional tires?

The price differential to upgrade to SmartWay verified tires is minimal. In addition, SmartWay verified tires offer fuel savings compared to other tires. The average cost to replace radial tires with low rolling resistance tires ranges between \$0 to \$50 per tire, a difference that will easily be recouped through the fuel savings earned from using the more fuel efficient low rolling resistance tires.

Where can I find more information about the regulation?

Fact sheets, compliance tools, and regulatory documents are available at arb.ca.gov/msprog/truckstop/truckstop.htm or www.arb.ca.gov/cc/hdghg/hdghg.htm or by calling ARB's diesel hotline at (866) 6DIESEL (634-3735).

To obtain this document in an alternative format or language please contact the ARB's Helpline at (800) 242-4450 or at helpline@arb.ca.gov. TTY/TDD/ Speech to Speech users may dial 711 for the California Relay Service.