Consumer Advisory

TOYO TIRES driven to perform

TSD-15-024

Tire Service Life and Replacement Guidelines for Passenger and Light Truck Tires

Toyo passenger and light truck tires are designed and constructed to provide thousands of miles of excellent service. Like all tires, however, their safe and effective service depends on a variety of factors and conditions that can impact the time when they should be taken out of service and replaced. Toyo provides these recommendations to assist its customers and tire service personnel in maximizing tire service life and assessing the continuing serviceability of tires.

The Consumer's Role in Tire Maintenance

The primary reasons tires fail or become unfit for service relate to damage or wear and tear sustained while they are in use. Consumers should regularly inspect the physical condition of their tires and check the air pressure with a gauge. While inspection procedures are covered in more detail in the last section of this bulletin, one should generally be on the lookout for tire damage, significant treadwear, uneven treadwear, or signs of underinflation or overloading. Consumers should also be alert for any change in tire performance such as increased air loss, noise or vibration. Such changes could be an indicator that one or more of the tires should be immediately removed from service to prevent a tire disablement. All tires, including spares, must be inspected at least once a month. Regular inspection becomes particularly important the longer a tire is kept in service. If tire damage is found or suspected, the consumer should have the tire inspected by a tire service professional.

Service Life is Not Determined by Chronological Age

The end of the service life of a tire is affected by many factors that are independent of the chronological age of the tire. Instead, the useful life of a tire is generally determined by factors such as temperature, storage conditions, and the circumstances of its use (*e.g.*, load, speed, inflation pressure, impacts and road hazard damage) under which it is used. Since service and storage conditions vary widely, it is not possible to accurately predict the actual service life of any specific tire based on calendar age. Moreover, Toyo is not aware of any reliable and accurate scientific or technical data that would determine a specific chronological age limit for the service life of passenger and light truck tires.

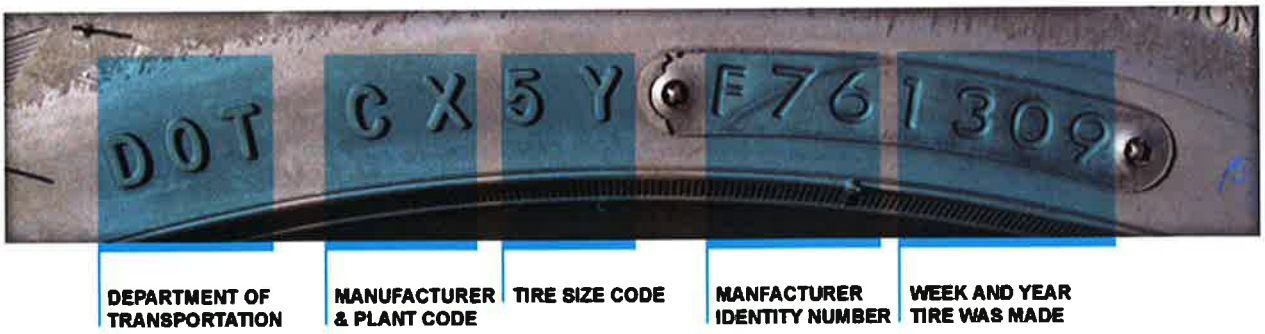
Tire Service Life Recommendation

Despite the varying conditions under which tires are used and the absence of technical data justifying any particular age limit, it is certainly the case that the longer a tire is in service the more opportunity it has to accumulate service-related damage that will require it to be replaced.

While most tires will need replacement before they are 10 years old, Toyo recommends that any tires in service 10 years or more from the date of manufacture, including spare tires, be replaced with new tires even if such tires appear serviceable and even if they have not reached the legal wear limit. Some vehicle manufacturers have specific recommendations for tire replacement, which may be found in the owner's manual for the particular vehicle, the vehicle tire information placard, or on the vehicle manufacturer's website. To the extent those recommendations differ from those of Toyo, the owner should follow the vehicle manufacturer's recommendation for tire replacement. Further, no tire service life recommendation should be considered to establish a minimum period during which the tire is appropriate for service. Even a relatively new tire can sustain damage that will require its replacement.

Tire Manufacture Date

The tire manufacture date is determined by the last 3 or 4 digits of the DOT serial number imprinted on the tire sidewall, which identify the week the tire was made in a particular year. Thus a DOT number ending in 1309 indicates the 13th week of 2009. For the 1990-2000 decade some tires were marked with a triangle pointing to the last digit of the DOT serial number.



Prior to 2000, the year code of the manufacture date was represented by 1 digit instead of 2 (*i.e.*, 517 would represent the 51st week of 1997). In the absence of the decade triangle, this tire would have been made during the 51st week of 1987.

Recommended Maintenance Practices to Maximize Tire Service Life

Good maintenance practices include the following:

- Consumers should check tire pressure regularly (at least monthly, and before all long trips) and re-inflate tires to the pressure specified on the vehicle's placard or manual. Pressure should be checked when tires are "cold"; in other words, before they have been driven. Driving, even for a short distance, causes tires to heat up and air pressure to increase. If the consumer notes regular loss of tire pressure, the consumer should have the tire(s) immediately inspected by a tire service professional. Routine tire pressure checks and re-inflation of tires to placard pressure must be made even if the vehicle is equipped with a tire pressure monitoring system.
- Consumers should inspect their tires for cuts, cracks, splits, irregular wear, vibrations, or bulges in the tread and sidewall areas. These conditions may indicate a separation within the tire body. If any of these abnormal conditions are observed or suspected, the consumer should have the tire immediately inspected by a tire service professional. It may be necessary to remove the tire from the wheel for a complete inspection. The consumer should arrange for such an inspection whenever the tires are scheduled to be rotated.
- After striking or impacting any unusual condition or object in the roadway, a tire service professional should demount the tire from the wheel and conduct an inspection of the tire for damage. This is necessary because a tire may not have visible signs of damage on its outer surface.

- Tires should be inspected for adequate tread depth. When the tire is worn to the level of the built-in indicators at 2/32nd inch (1.6 millimeters); or, if at any location on the tire the tread groove depth is less than 2/32nd inch; or, if the tire cord, steel or fabric is exposed, the tire is dangerously worn and must be replaced immediately.
- Tires should be inspected for uneven wear. Wear on one side of the tread or flat spots in the tread can indicate a problem with the tire or vehicle. Consult with a tire service professional.
- Rims, valves, valve stems, valve caps and lug nuts should also be inspected regularly. Bent or cracked valve stems or rims, or missing lug nuts or valve caps must be replaced.
- The spare tire should be maintained and inspected in the same manner and with the same frequency as all other tires on the vehicle.

Tire Storage and Rotation

Tires should always be stored in a dry, cool, well-ventilated place. Avoid storing tires in areas that are exposed to extreme temperatures, wetness, petroleum-based products, direct sunlight, and/or other sources of ozone, such as electric motors. Storage areas should also be clean and free of grease, gasoline or any chemicals which can deteriorate rubber.

If a vehicle is fitted with a matching full-size spare tire the consumer should follow the vehicle manufacturer's recommendation for rotating the spare tire. In the absence of a manufacturer's recommendation, Toyo recommends a five tire rotation, in which the spare tire is rotated into service on the vehicle. When any spare tire is installed in wheel position on a vehicle, its inflation pressure must be checked and adjusted to the recommended placard pressure.

For more information, please contact Toyo Tire U.S.A. Corp.'s Consumer Relations Department at (800) 442-8696.

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