

# STATEMENT OF RUBBER MANUFACTURERS ASSOCIATION

## **Tire Service Life for Passenger Car and Light Truck Tires**

Tires are designed and built to provide many thousands of miles of excellent service but must be maintained properly. As explained below, the service life of a tire is affected by many factors that are independent of the chronological age of the tire alone.

### **Service Life is Not Determined by Chronological Age**

Tires are composed of various materials, including rubber, having performance properties essential to the proper functioning of the tire. These component properties evolve over a combination of time, service and storage conditions. For each individual tire, this change is affected by many elements such as temperature, storage conditions, and conditions of use (e.g., load, speed, inflation pressure, impacts and road hazard injury) to which a tire is subjected throughout its life. Since service and storage conditions vary widely, accurately predicting the actual serviceable life of any specific tire based on simple calendar age is not possible. RMA is not aware of reliable and accurate scientific or technical data that establishes a specific minimum or maximum service life for passenger and light truck tires. However, in some cases a tire or vehicle manufacturer may make a specific tire replacement recommendation regarding its products. If so, the consumer should consult the manufacturer with any questions with regard to following the recommendation. Further, any such recommendation should not be considered a **minimum** serviceable life for the tire.

### **The Consumer Plays a Primary Role in Tire Maintenance**

The tire industry has long emphasized the consumers' role in the regular care and maintenance of their tires. (Tire care and service manuals are available from RMA on its website, [www.rma.org](http://www.rma.org).) Tires should be removed from service for several reasons, including tread worn down to minimum depth, signs of damage (cuts, cracks, bulges, vibration, etc.) or signs of abuse (under inflation, overloading, etc.). That is why it is recommended to have tires, including spares, inspected regularly. A monthly maintenance inspection, for which the consumer must be primarily responsible, should focus on proper inflation pressure, tread wear and tire damage. This monthly inspection should be supplemented by recurring rotation, balancing and alignment services. This inspection should occur whether or not the vehicle is equipped with a tire pressure monitoring system. Additionally, the condition of a tire should be assessed regularly to determine if there are any tactile or visual signs of damage that make replacement necessary.

## **Storage, Rotation, and Other Conditions That May Affect Tire Service Life**

Tires should always be stored in a clean, dry, cool, well-ventilated place. Avoid storing tires in areas that are dirty, wet, poorly ventilated, contain petroleum-based products (such as gasoline or oil) as well as other volatile or corrosive solvents/substances, extremely hot or cold temperatures, direct sunlight, and/or in same area as electric motors, battery chargers, generators, welding equipment, or other ozone-generating sources. If outdoors, do not store tires in contact with black asphalt or other heat absorbent or reflective surfaces. Also, do not store tires in exposed outdoor areas.

If a vehicle is fitted with a matching full-size spare tire (same size and type as other in-service tires) the consumer should follow the vehicle manufacturer's recommendation for rotating the spare tire. When any spare tire is installed in a wheel position on a vehicle, its inflation pressure must be checked immediately.

Consumers are strongly encouraged to be aware not only of their tires' visual condition but also of any change in dynamic performance such as increased air loss, noise or vibration. Such a change in performance could be an indication of an internal condition that might dictate removing the tires from service immediately to prevent a tire failure. In these cases, RMA recommends that consumers consult a tire service professional.

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