



WARNING SIGNS TIRES MAY BE WORN OR DAMAGED:

- Visible tread wear
- Rough vehicle ride
- Increased road noise
- Punctures, cuts, snags etc.
- Gradual air loss
- Bent or cracked wheel rim
- Poor handling (especially on wet surfaces)
- Poor traction (in rain or snow)

Tires become unsafe, and should be replaced when there is 3/32" or less of tread depth!

INTERPRETING TREAD WEAR

The majority of tread wear has a simple cause: overinflation or underinflation. In addition, tread wear can be caused by poor wheel alignment and damaged or worn steering components.



TOE WEAR
Thin inner or outer edge wear
Alignment Problem



CAMBER WEAR
Exaggerated inner or outer edge wear
Alignment Problem



CENTRE WEAR
Thin tread in centre of tire
Overinflation



EDGE WEAR
Thin tread wear along tire edges
Underinflation



PATCH WEAR
Patchy tread wear or flat spots
Out of Balance



CUP WEAR
Diagonal tread wear
Bent or worn out suspension components



WHAT CAN BE DONE TO MAXIMIZE TIRE LIFE?

1. Inspecting them regularly for uneven wear or damage.
2. Measuring tread depth regularly.
3. Checking tire pressure - under or overinflation are leading causes of uneven wear.
4. Rotating tires every 8,000 km (approximately three times per year).
5. Keeping wheels aligned and balanced - for a smooth ride and to reduce uneven wear.

Correct inflation pressure is critical for good fuel economy, safety, maximum tire life, as well as proper vehicle handling and performance. Proper tire inflation measurements for a vehicle are listed in the Owner's Manual and usually posted on the driver's door pillar.

PRODUCT KNOWLEDGE TIRES

There's a reason why most consumers take their tire purchases very seriously, including kicking the tires they are considering for their vehicle. Tires connect the vehicle to the road, and can have a huge effect on the performance of the vehicle. Timely tire replacement is critical.

Driving on worn tires reduces vehicle handling in wet and icy weather. When the tread is worn, your tires can't grip the road, and your vehicle can lose traction when accelerating or cornering.

“TIRES PROVIDE TRACTION AND CONTROL”



A WORD ON WINTER TIRES

Many drivers opt to change seasonally between winter tires and their regular set to be better equipped for changing road and weather conditions. You may already know that winter tires are designed to provide enhanced performance in ice and snow. But did you know that winter tires are also designed to help improve performance at temperatures below 7° Celsius? Most drivers could benefit from winter tires, and they don't even know it! Mazda recommends that winter tires must always be installed in sets of four.



KEEPING
THE EMOTION
IN MOTION.



Mazda dealerships offer a wide selection of brand name tires. Mazda Service Advisors are trained to assist customers in choosing the best tires for their needs, taking into account a customer's driving routines (such as types of roads most often driven on, amount of driving done on average per year, etc).

THE IMPORTANCE OF TIRE INSPECTION

For many vehicle owners, tire knowledge is limited to the fact that tires hold air and are round and black. Naturally, there is much more to it than this. Below is some basic information to assist in tire care. Often, uncovering potential tire problems is as simple as giving them a good visual inspection.

HOW TO INSPECT A TIRE

First, visually inspect the tire while it is still mounted on the vehicle for conditions that may be difficult to detect after the tire is deflated and dismantled. Second, when the tire is deflated and dismantled, inspect the interior and bead areas. In many cases, inspecting the inside of the tire can help identify the cause of the problem.

Tire inspection can be divided into four areas:

Tread/shoulder

Inspect for: Signs of punctures, cuts, foreign objects, distortion, uneven or irregular wear patterns. Measure: Tread depth and air pressure.

Lower sidewall

Inspect for: Signs of distortion, cuts, penetrations, snags, rim chafing and curbing.



Upper sidewall

Inspect for: Cuts, penetration, snags, signs of curbing and abrasion marks around the circumference (may be a sign that the tire was run while flat). Check: Valve stem and its core and cap (loose cores can cause underinflation).

Interior of tire and bead areas

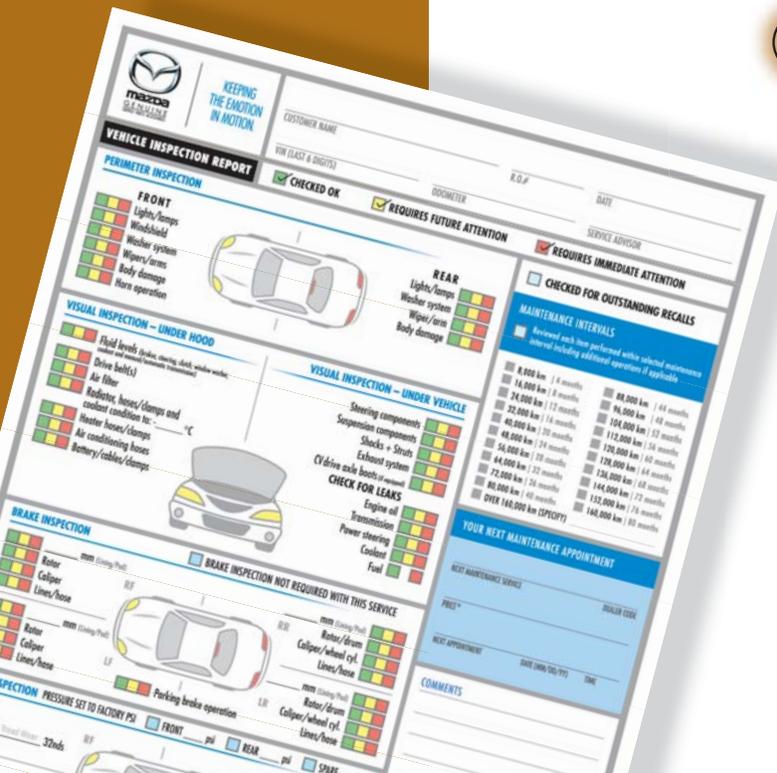
Inspect for: Exposed bead wire, cuts, bead damage, distortion, signs of rim cut, punctures, puncture repairs and abrasions on the circumference (a sign that the tire was run while flat) on the inner sidewalls under the tread.



CHECK IT ON THE VEHICLE INSPECTION REPORT

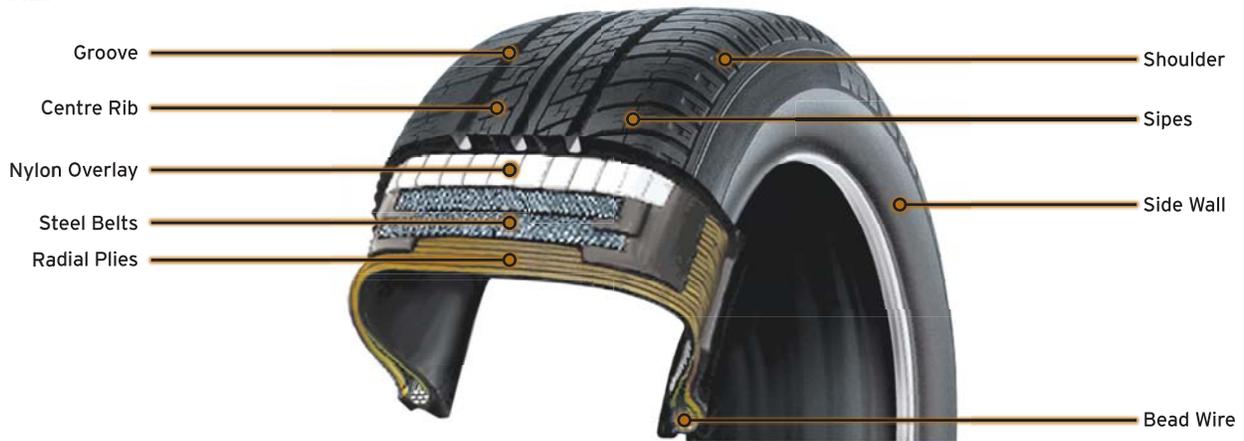
Mazda Technicians will perform a multi-point inspection at every service visit. They will:

- > Ensure tread depth and tire pressure is noted on the Vehicle Inspection Report for each tire.
- > Check if tires show signs of irregular wear, and ensure customer knows the cause.
- > Record a green, yellow or red result on the Vehicle Inspection Report indicating if tires are fine, in need of future replacement, or in need of immediate replacement.



KEEPING THE EMOTION IN MOTION.

READING A TIRE TREAD



TIRE COMPONENTS

Tire tread/exterior

Tire tread is the rubber component that makes contact with the road. The design of the tread depends on the type of tire.

Component	Description	Effect on Performance
Ribs	Tread sections that run around the circumference of the tire, separated by the tread grooves.	Centre rib solid = responsive highway handling No centre rib = higher traction
Circumferential Grooves	Space between two adjacent tread ribs.	Wide and clear = improved high speed water dispersion Zigzag = improved off road and snow traction
Lateral Grooves	Run between circumferential grooves or to the shoulder.	Open = improved mud and snow traction Closed = quieter ride and improved handling
Sipes	Small slits within a tread that open as the tire rolls onto the road surface, then as the tire continues to roll, evacuates water from the tread surface, increasing wet traction.	More sipes = higher wet traction Fewer sipes (solid blocks) = better tear resistance
Shoulder	The area of a tire where the tread and sidewall meet.	Rounded shoulders = control Squared shoulders = quieter ride and better cornering
Sidewall	Abrasion resistant rubber to protect the beads and sidewall areas from cutting and other damage.	

Under the tread

Under the rubber tread are the materials that are designed to give the tire structure, strength and durability.

Component	Description
Bead wire	A round hoop of steel wires, wrapped or reinforced by ply cords, which is shaped to fit the rim. Purpose is to anchor the tire to the rim. Designed to prevent the tire from rocking or slipping.
Nylon overlay	The rubber-coated ply (layer) of nylon running circumferentially around the tire under the tread. Designed to reinforce lower layers to hold the tread flat on the road.
Belts	Commonly made of steel, belts provide impact protection and improve traction and handling by holding the tread firm.
Plies	Rubber-coated fabric that forms the bottom structure of the tire. Plies absorb the impact and bruising caused by everyday driving.

TYPES OF TIRES

Choosing the best tire requires an analysis of driving habits, price preferences and performance needs. There are a lot of tire types (and brands) to choose from. The major categories include:



All season passenger tires

Most common type of tire. Features can include long tread life, quiet and smooth ride. Although labeled "all season", winter tires are still optimal for tougher winter conditions.



Performance tires

Designed for enhanced handling under demanding circumstances – generally have high speed ratings and low aspect ratio for improved control. Not designed for winter conditions.



Light truck tires

Designed for vans, light trucks and SUVs. Feature higher load index to carry heavier loads.



Performance/touring tires

Combines characteristics of All Season and Performance tires. These tires are becoming increasingly common on newer vehicles. Not designed for winter conditions.



Winter tires

Provide enhanced stopping and traction performance in weather temperatures of 7° Celsius and below. Rubber compounds designed to withstand cold temperatures.



Did you know?

Tires marked with this symbol meet specific traction performance requirements for use in severe snow conditions.

? WHAT DO THOSE NUMBERS MEAN? TIRE RATINGS AND SPECIFICATIONS

Example: P 185/70R13 82T

P	Type of tire	P = Passenger Tire, LT = Light Truck Tire
185	Section width	Measurement of the tire from sidewall to sidewall in millimetres
70	Aspect ratio	Low aspect ratio = improved handling and control High aspect ratio = softer ride, generally heavier loads
R	Tire construction	Radial Ply vs Bias Ply
13	Rim diameter	Measurement of wheel rim in inches
82	Load index	Higher number = tire can support a heavier load
T	Speed rating	Higher letter = higher speed rating (except letter "H")

Note: Tires with the same measurements (section width, aspect ratio and rim diameter), but with different load indexes or speed ratings should not be mixed.