Tire Basics Chapter 1

Tire Components

Tire Components- Tread

The tread is the part of the tire with a groove pattern, which comes in contact with the road.

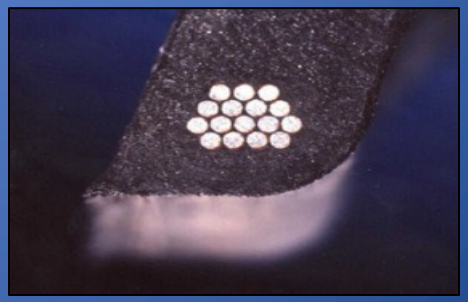
The tread is designed to provide traction for stopping, starting, and cornering.

Tire Components- Bead

The bead is the inner ring of the tire. When the tire is mounted on a rim, the bead is the part of the tire that sits on the rim.

Once the tire is properly inflated, the bead seals the air pressure inside the tire.

The bead is made of a bundle of steel wires, embedded in rubber.



Tire Components-Sidewall

The sidewall is the part of the tire that bridges between the tread and bead. It is made up of rubber but reinforced with fabric and steel cords to improve strength and flexibility.

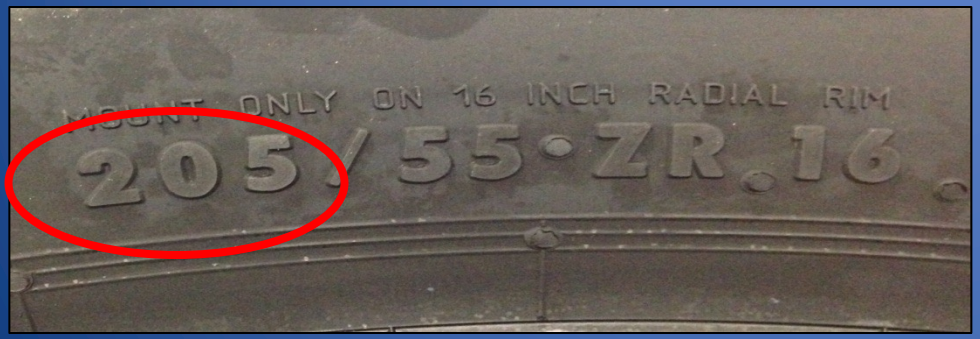
The sidewall of the tire provides stability and also helps to prevent air from escaping the inside of the tire.

Tire Size

- The tire size can be found on the sidewall of every tire.
- The size of the tire consists of 3 sets of numbers that each measure a different part of the tire. For example: 205/55/16

Tire Size: 205/55/16

- 205- The first three numbers of the tire size are a measure (in millimeters) of the tire's width from its inner sidewall to its outer sidewall. This measurement is called the section width.



Section Width

Section width sizes typically range from 175 to 335.

The smaller the number measured as the section width, the more narrow the tire.

205/55/16

- 55- The second set of numbers in the tire size represents the height of the sidewall from the bead to the tread. This number is also known as the sidewall profile or aspect ratio.

Sidewall Profile

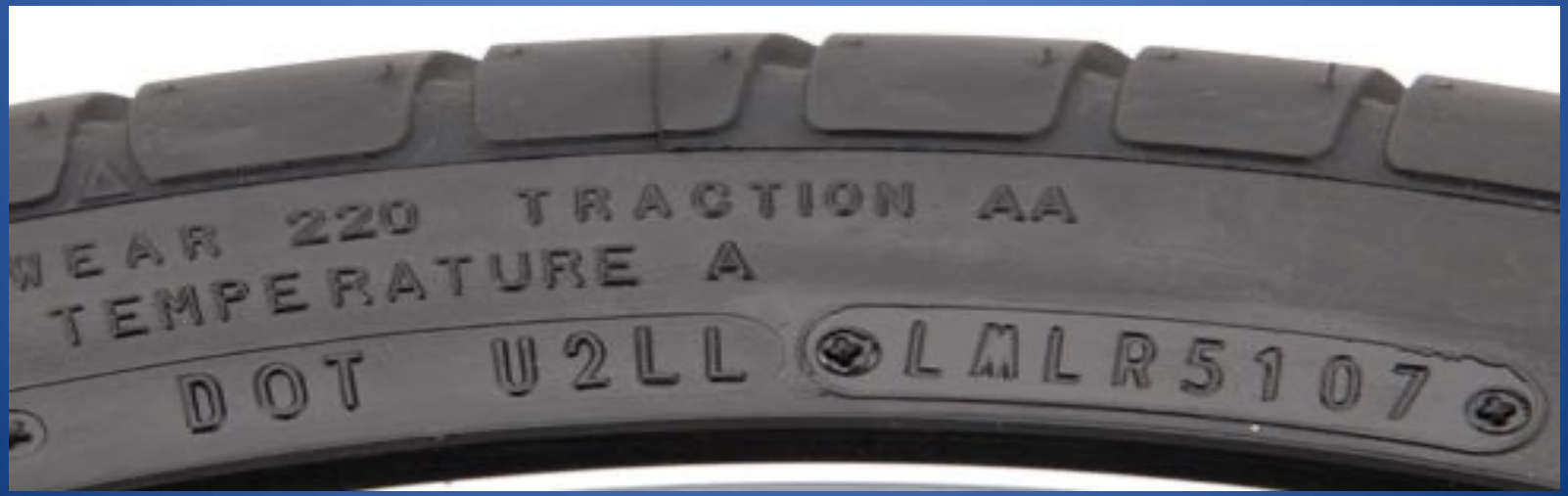
- The sidewall profile is calculated as the percentage of the measurement of the section width. The lower the number, the shorter the sidewall
- The 55 in this example indicates that this tire size's sidewall height (from rim to tread) is 55% of its section width of 205mm.
- 55% of 205mm is 112mm.

205/55/16

- 16- This number indicates the diameter of the wheel, in inches, on which the tire should be mounted.

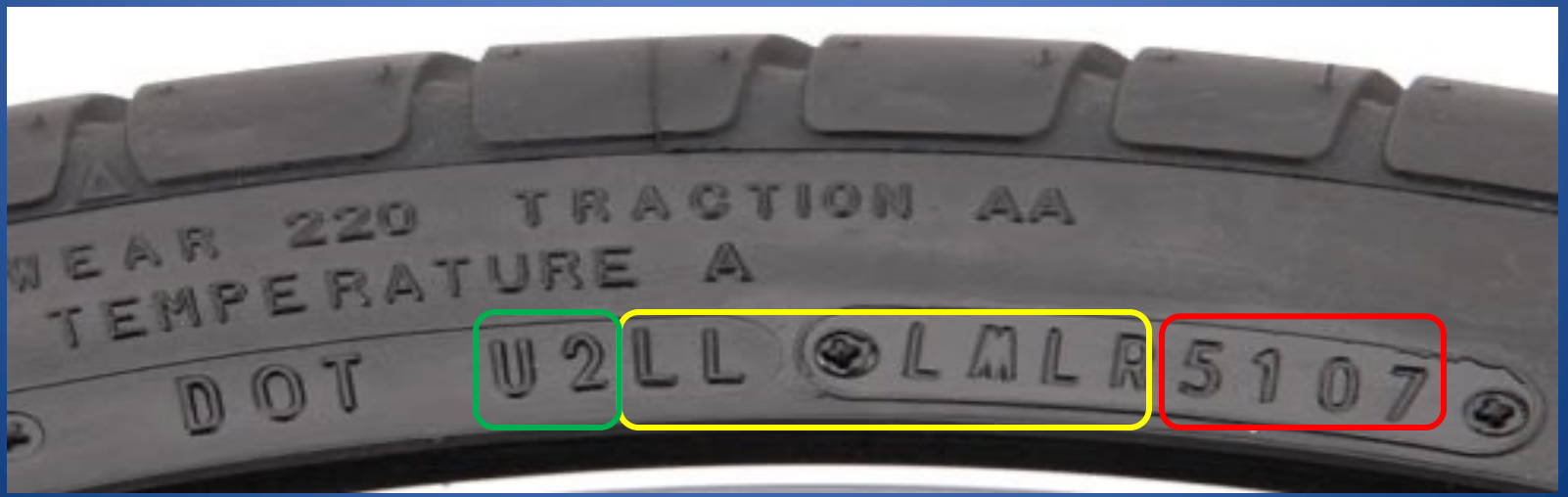
DOT Identification Code

- Tire manufacturers are required by law to permanently brand tire identification numbers on the sidewalls of all tires sold in the U.S.
- The 10-12 character code contains information that can identify the production location, tire size and specs, and the week and year the tire was produced.
- Tire Rack records the DOT identification code for all retail purchases. The information is used to register the exact tire that each customer purchases and could be used for warranty issues and manufacturer recalls.



DOT Identification Code

- The first two characters of the code (U2) identify the plant in which the tire was manufactured.
- The next set of characters (LL LMLR) identify the size, brand, model, and unique specifications of the tire.
- The last four characters will always be a set of four numbers that identify the week and year the tire was produced. 5107 means that the tire was made in the 51st week of the year 2007.



Tire Brands

Avon	BFGoodrich	Bridgestone	Continental
Dick Cepek	Dunlop	Firestone	Fuzion
General Tire	Goodyear	Hankook	Hoosier
Kumho	Michelin	Pirelli	Power King
Sumitomo	Toyo	Uniroyal	Yokohama