WHAT’S INSIDE A TIRE?

- **INNERLINER** – keeps air inside the tire.
- **BEAD** – assures an airtight fit with the wheel.
- **BEAD FILLER** – reduces flex and aids in deflection.
- **BODY PLIES** – give the tire strength and flexibility.
- **SIDEWALL** – protects the side of the tire from road and curb damage.
- **BELTS** – stabilize and strengthen the tread.
- **BELT EDGE INSULATION** – helps to reduce friction.
- **NYLON CAP PLIES** – help maintain the tire’s structural integrity.
- **TREAD** – provides traction and cornering grip.

Example: Grabber™ HTS
TIRE BASICS

WHAT’S INSIDE A TIRE?

TREAD ELEMENTS

**Lugs** are the sections of rubber that make contact with the terrain.

**Tread blocks** are raised rubber compound segments on the outside visible part of a tire.

**Sipes** are small lateral cuts made in the surface of the tread to improve traction.

**Kerfs** are shallow slits molded into the tire tread for added traction – often used interchangeably with sipes.

**Grooves** are circumferential channels between adjacent tread ribs or tread blocks.

**Shoulder blocks** are raised rubber compound segments on the part of the tire tread nearest the sidewall.

**voids** are the spaces that are located between the lugs.

**Asymmetric Tread**

This tread pattern optimizes each side of the tread for excellent handling and outstanding traction.

*NOTE: Asymmetrical tires ALWAYS indicate on the sidewall which side of the tire should be mounted to the inside or the outside.*
WHAT’S INSIDE A TIRE?

Directional

Arrangement of bars, grooves and ribs in any manner that gives most effective traction when the tire revolves in only one direction. Typically v-shaped.

*NOTE: Directional tires ALWAYS have an arrow on the sidewall indicating the proper rotation direction.

Symmetric or Non-Directional

Arrangement of bars, grooves and ribs in a manner that gives equal performance in the forward or reverse direction.

Self-Cleaning

This tread design allows for the easy release of mud or material from the voids of the tread – for better traction, especially with off-road or all-terrain tires.