Tires And Wheels
Chapter 21

ACROSS
1. _________ is the distance between the back rim edge and the wheel center section mounting pad.
4. _______ _______ tires reduce roll.
9. On four-lug axles and wheels, the ______ ______ measurement is simply taken from center to center on opposite studs or holes.
12. ______ refers to the part of the tire that contacts the ground.
15. The ______ is the part of the tire between the tread and the wheel.
16. Tire _______ can occur during the construction of any radial or belted tire when the parts of the tire are badly positioned, causing the tire to be smaller in diameter on one side.
17. When tread depth is down to the legal limit of 2/32 in., bald strips called ______ appear across the tread.
18. The point where the majority of these overlaps occur is called the ______ ______, which represents the stiffest part of the tire.
19. The ______ ______ requirements include resistance to tire damage that could be caused by curbs, chuckholes, and other common occurrences for a tire used on public roads.
20. _______ is when trapped water causes the tires to ride up on a layer of water and lose contact with the ground.
22. _______ is another term that describes a slight pulling force on a vehicle due to tire construction.
23. ______ is a very important variable in wheel design.
24. ______ ______ are designed to operate without any air for a limited distance.

DOWN
2. The _________ is the soft rubber lining on the inside of the tire that protects the body plies and helps provide for self-sealing of small punctures.
3. _______ are used to hold a wheel to the brake disc, brake drum, or wheel bearing assembly.
5. The wheel and tire are ______ ______ because they are not supported by the vehicle’s springs.
6. The ______ is another name for the center section of a wheel.
7. The US DOT and the NHTSA developed a system of tire grading, the ______, to help customers better judge the relative performance of tires.
8. ______ ______ for light trucks are designed to give improved off-road performance on sand, mud, and soft soil and still provide acceptable hard-road surface performance.
9. The ______ is the foundation of the tire and is located where the tire grips the inside of the wheel rim.
10. The ______ ______ is an abbreviated method to indicate the load-carrying capabilities of a tire.
11. After the tire has been assembled by the tire builder, it is called a ________.
13. The _________, designed for use on electric or hybrid vehicles, operates at higher inflation pressures, reduced load percentages, and lower rolling resistance.
14. All tires use a tire valve, called a ______ ______, to hold air in the tire.
21. A tire ______ is two or more layers of material applied over the body plies and under the tread only, to stabilize the tread and increase tread life and handling.