

## Trip Preparation

### *Brakes*

The brake regulations specify what amount of brake force the brakes must be able to generate, which then determines the size and type of brakes the vehicle must be equipped with. All brake components (brake controls, lines, connections, adjusters, shoes and drums or rotors and pads, etc.) must be in good working condition. Be sure to check with your company on the specifics of what should be checked on your vehicle's brake system and what the limits are on any of the parts that wear or move (such as the slack adjuster and the brake shoes or pads).

The vehicle must also have a warning system to warn the driver should the system lose pressure. Should this light and/or buzzer ever activate while you are operating the vehicle, stop immediately!

All air-brake vehicles built after March 1, 1998, and all hydraulic-brake vehicles built after March 1, 1999, must be equipped with working ABS and a working ABS malfunction indicator. Air-brake trailers must have an ABS malfunction light on the left rear corner.

Finally, become familiar with how to conduct a "key-on" ABS check. This involves turning the key on, verifying the ABS malfunction light comes on and then goes off. If it does not come on, the diagnostic system is not working or the bulb is burned out. If it comes on and stays on, this generally means there is a problem with the ABS.

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### *Tires and Hubs*

Tires are one of the problem areas in the trucking industry. The sudden loss of air pressure from a low tire (a “blow out”) can cause the vehicle to go out of control. Continuing to operate the vehicle after the blow out could lead to a “tire fire.” Tire fires are very dangerous as they burn hot (which leads to fire spread) and create a large volume of smoke (which is deadly to breathe), and are difficult to extinguish. A tire being critically low on air pressure and not blowing out can also lead to a fire.



To avoid tire fires (and most other tire problems), constantly keep track of your tire inflation. Gauge the tires when they are cold (such as during your pretrip) and verify that they have the proper pressure in them (ask your company how much air pressure should be in the tires), and then “thump” them every time you are stopped during the day to make sure that none of them is going flat.

Excessive hub heat caused by overheated bearings within the hub is another reason for vehicle fires. It is also a reason that hubs separate from the vehicle during operation. The excessive heat is generated when the bearings “run dry.” This results from the hub not having enough oil or grease in it due to leakage (and in rare cases from not being filled after service or repair). Avoiding excessive hub heat involves checking the oil level within the hub (if it has a sight glass that allows checking) and checking for hub oil/grease leaks. If there is a hub oil/grease leak, there will be hub