### PAGE 4

(Continued from page 2)

driven less than one mile. Once a vehicle has been driven, tires warm up and experience an increase in air pressure, resulting in an inaccurate reading. A hot tire can take up to four hours to cool down after a vehicle is parked.

While this information is basic for many fleet managers and operators, it is good to review the basics of proper tire care and use to ensure the maximum benefit for minimum cost from any vehicle.

For additional information, please contact the Tire Retread Information Bureau (TRIB) toll free at (888) 473-8732 or by e-mail at info@retread.org. You can also visit TRIB on-line at www.retread.org. This site contains valuable information and resources about retreading, as well as tire maintenance and repair.

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### **ARKANSAS ROADS & STREETS**

### T<sup>2</sup> ADVISORY COMMITTEE

### **Danny Moore**

Program Manager, Technology Transfer Center Phone (501) 569-2380 Fax (501) 569-2070 In State 1-800-344-1285 Mobile (501) 749-9178 E-mail: danny.moore@arkansashighways.com

Gary DalPorto, P.E. Federal Highway Administration

Norman Dennis, Ph.D., P.E. University of Arkansas, Fayetteville

**David Morris** Association of Arkansas Counties

Ken Wasson Assistant Director, Arkansas Municipal League

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David Mayo, P.E. AHTD, State Aid Engineer

Ed Hoppe, P.E. AHTD, Engineer of Programs and Contracts

Arkansas State Highway and Transportation Department Planning and Research Division Technology Transfer Program P.O. Box 2261 Little Rock, AR 72203-2261

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Sunset at Tompkins Bend Campsite on Lake Quachita



# **Fleet Safety: Backing Accidents**

Roughly one out of every four accidents (25%) involves backing. Considering that the average driver operates in reverse less than a mile every year, this statistic is even more alarming.

The following tips will help you avoid collisions while backing:

- Avoid backing whenever possible. Drivers should plan ahead to reduce backing operations in the first place.
- Try to position the vehicle to avoid backing.
- If backing cannot be avoided, it is better to back in upon arrival than to back out later while departing.
- Conduct a visual walk-around of the vehicle to identify potential hazards.
- Whenever available, use a passenger to guide you during backing operations.
- Always back slowly while continuously looking and listening for signs of trouble.
- Continuously check all mirrors while backing.

All backing accidents are preventable. The key is to plan ahead to avoid backing in the first place. You should only back up your vehicle as a last resort.

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### Following are key collision failures related to backing operations:

• Failure to look before backing • Failure to check blind spots • Failure to conduct a walk-around • Backing at an unsafe speed • Failure to check mirrors often

### New technology aids in backing safety:

There are two types of vehicle backup devices available: rear-view cameras and backup sensor systems. While backup sensors are handy as parking assists, testing has shown that they are not reliable as safety systems. Rear-view video cameras, on the other hand, give the driver a wide-angle view of the area behind the vehicle, which can help prevent backing accidents.

**October 2006, Consumer Reports** 



### **ARKANSAS ROADS & STREETS**

### **PROPER TIRE MAINTENANCE REDUCES VEHICLE OPERATING COSTS**

### EXCERPT FROM TIRE RETREAD INFORMATION BUREAU (TRIB) WEB SITE: WWW.RETREAD.ORG

s the costs associated with owning and operating trucks and equipment continue to rise, more and more fleet managers are looking for ways to control expenses.

"One simple and immediate way to save money is to properly maintain their tires, a key element of which is maintaining the proper inflation pressure for a given tire size and load," says Harvey Brodsky, Managing Director of the Retread Information Bureau (TRIB). "This is critical for getting the most life out of tires and for better fuel economy."

It is not the tire, but the air inside the tire that carries the weight of a vehicle, absorbs shock and keeps the tire in its proper shape so it can perform as designed. Over and above



affecting rolling resistance and fuel economy, inflation pressures also influence handling, traction, braking, and load carrying capability.

Tires flex when they roll, which bends the rubber and steel (used within the rubber to provide additional operating characteristics). This flexing generates heat - a tire's worst enemy.

"A tire that is improperly inflated doesn't roll as smoothly or as easily as it was designed to," explains Brodsky. "Improperly inflated tires have an uneven, irregular tire footprint--that portion that contacts the road surface. This inconsistent shape leads to increased wear, reduced traction and performance, and handling and ride problems."

"And it doesn't take long for this wear to occur," he says. At 55 miles per hour, a truck tire turns approximately 450 revolutions per minute.

When under inflated, a tire flexes more as it

rolls, building up internal heat and increasing rolling resistance, which increases fuel consumption. There is a direct correlation between how much a tire is under inflated and how much faster it wears.

Wear is the result of friction created between the road's surface and the tread as the tire rolls along.

When over inflated, excessive wear occurs at the center of the tread because it will bear the majority of the vehicle's weight. Along with making for a harsher ride, over inflated tires tend to not absorb hazards like debris in the road and potholes as well, increasing the risk of sustaining a puncture or impact damage.

Because improper inflation shortens tread life, tires will have to be changed more often. Besides the expense of purchasing replacement tires, there is the additional cost for tire service and vehicle

downtime. "Industry studies have shown that cost-per-mile almost doubles when tires (whether original or retreaded) are pulled early because of uneven or rapid tread wear," he notes.

In comparison, air is cheap, and checking inflation pressures does not require a big investment in time. On average, it takes only about 20 minutes to check and adjust tire inflation pressure on an 18-wheel tractor-trailer. "An investment in time well worth making," says Brodsky.

Brodsky advises checking tire pressure when a tire is cold--before a vehicle has been driven, or

A long with rising oil prices, the cost of bituminous asphalt and the maintenance of your paved roads also rises. Municipalities with tight budgets are always searching for economical ways to address their paved roadways. To do this you have to develop a strategy that includes different methods of road treatment. Keeping your good roads good and rebuilding your bad roads is the first concept to keep in mind. With this concept tax dollars are not wasted and the future of your paved roads are kept on solid ground. Remember in preventative maintenance to place the right treatment on the right road at the right time.

To start with:

- Have your road surface surveyed for pavement condition,
- Know the importance of the road,
- Know the ADT, and
- Know what the road is made of from the base up.

Strive for safety and customer satisfaction.

This "Tool Box" approach will provide you with all types of alternative treatments such as:

- Traditional asphalt overlay,
- Crack filling,
- Chip sealing,
- Micro surfacing, and
- Nova chip

A pavement maintenance program goal is to:

- Lower the preservation cost,
- Improve the level of service,
- Extend the life cycle,
- Improve the pavement condition, and
- Make the roadway safer.

At the Arkansas LTAP Center we have many resources on the topic of pavement maintenance and pavement preservation. If you would like some information sent to you, please give us a call.



# **PAVEMENT MAINTENANCE**



