Those of you who read my December 21, 2004, Web-site current feature may recognize these photographs. These are two views of the tire and rim from one side of the rear axle of a late-model pickup truck which was involved in a collision in 2004. Because this is an active case, I am not at liberty to divulge many details. What happened in this case is that the driver of the pickup truck on which this tire and rim were mounted lost control in heavy rain and entered the opposing lane of travel on a two-way highway; the collision was fatal to the driver and sole occupant of the pickup.

This was a late-model, half-ton pickup truck in generally excellent mechanical condition. All four tires on this vehicle were the same brand/type/size. These tires were several sizes wider than the factory option tires, but the service history of this truck is unknown to me. The four tires on this truck were essentially identical, except that the two tires on the front axle had adequate and relatively uniform depth of tread, while the two tires on the rear axle had greatly accelerated wear of the inner ribs of the tread, leaving depths of 2/32 to 3/32 inch for the inner two grooves of one of the rear tires and depths of 2/32 inch or less for the inner two grooves of the tire shown in this photograph. This wear pattern indicates that these tires were operated in an overinflated condition for a prolonged period of vehicle service. It also appeared likely that this truck's tires had not been rotated with any regularity.

For any given tire, the proper inflation pressure depends primarily upon the load it is carrying. A pickup truck is designed to carry stuff (cargo, tools, whatever), but many persons use a pickup truck as a primary means of transportation without cargo. When the truck is not carrying any cargo, the rear tires have a substantially lower load than the front tires; for many pickup trucks, using the same inflation pressure in the rear tires as in the front tires will result in overinflation of the rear tires. If those tires aren't rotated, they will look like the tire shown in these photographs in approximately the same mileage that it takes the front tires to wear half of the useable tread. On a dry road, there is very little difference in the traction capabilities of a tire with normal tread and one which is essentially worn out ("bald"), but, on a rain-wetted road, the traction capabilities of a worn tire are greatly compromised. When a tire travels on a wet road, the leading edge forms a wedge of water. The grooves of the tread provide an escape path for this water, allowing the rear of the contact patch to make intimate contact with the pavement; traction is slightly reduced from that which is available on a dry road, but that reduction is generally not substantial. When a bald tire is driven on a wet road, however, there is no escape path for the wedge of water, and the tire "floats" atop the wedge, resulting in a major reduction in traction capabilities. On a pickup truck, the rear tires are also providing the driving torque. When a bald, driven tire hits water on the pavement, loss of traction is virtually guaranteed. That loss of traction does not always result in loss of control, but, when it does, there can be very serious consequences.

Since the driver of this truck was killed, we will never know whether or not he was aware of the condition of his rear tires. But I have often heard people make comments about tires indicating their belief or understanding that the "good" tires should always be on the steering axle. For virtually all

If you would like more information on this topic, please write your name plus your telephone number or email address: ____________________

Or, you may contact me directly with your questions, by the method of your choosing.

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If you have any comments, questions, or suggestions regarding content of this or future newsletters, I welcome them. You may use this form to comment by filling in the lines and mailing it, or, as always, you are welcome to contact me by any method of your convenience: ____________________