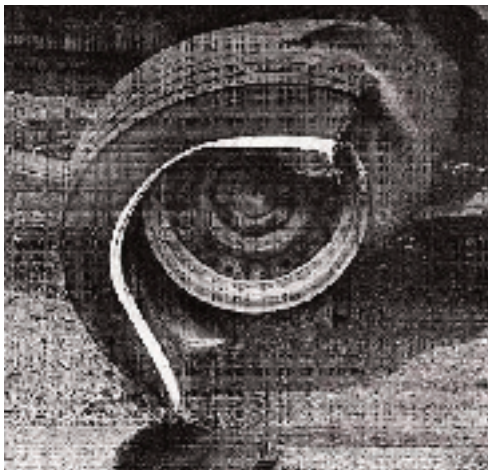
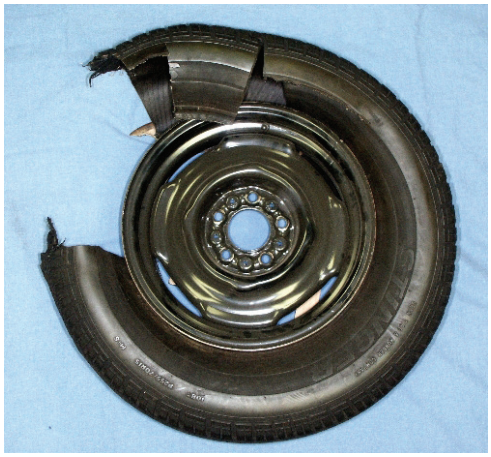
TIRE INFORMATION SERVICE BULLETIN

TIRE EXPLOSIONS CAUSED BY TIRE SPINNING





The centrifugal forces created by a rapidly spinning tire can cause an explosion by literally tearing the tire apart. These forces act on the complete tire structure and can be of such magnitude as to break the beads, in addition to, rupturing the tire. Some vehicles are able to bring a tire to its centrifugal force failing point in just seconds.

Many vehicles (both front and rear-wheel drive) contain gearing to the drive wheels that allows one drive-wheel position to spin at twice the speed indicated on the speedometer, if the other drive-wheel position remains stationary. Some truck tractors with tandem axle drive tires are manufactured with an interaxle differential, or power divider. On these trucks, a free-spinning wheel position will spin at four times the speed indicated on the speedometer if the other three drive wheel positions remain stationary.

- When stuck on ice, snow, mud, sand, or wet grass, the vehicle should be rocked gently (alternately using forward and reverse gears) with the least amount of wheel spinning.
- Never exceed 35 mph (56 km/h) indicated speed on the speedometer.
- Never allow anyone to stand near, directly ahead of, or behind the spinning tire, whether the vehicle is stuck, or suspended/jacked up for servicing, such that the tire is not in contact with the road.

⚠ WARNING

Excessive speed in a free-spinning tire can cause the tire to explode from extreme centrifugal force. The energy released by such an explosion is sufficient to cause serious physical injury or death.

Never spin a tire above a speedometer reading of 35 mph (56 km/h).

Never stand near a spinning tire.

If you are stuck, best results are obtained by gently rocking the vehicle back and forth. Repeatedly shift the gear lever from drive to reverse on automatic transmissions or reverse to second on manual transmissions, while applying gentle pressure to the accelerator. Vehicles with ABS need to follow the instructions in their owner's manual.

Compressed air in a tire represents tremendous potential energy. If improperly treated, a tire can literally explode; suddenly releasing this stored-up energy with possible disastrous results. Such explosions can be caused by tire spinning.

SOME OTHER REASONS FOR TIRE EXPLOSIONS

Other causes for tire assembly explosions include:

- Tire is damaged during mounting
- Tire is mounted on wrong size rim
- Improper mounting procedures/techniques
- Excessive overinflation
- Flammable liquids or vapors introduced into a tire
- Welding, heating or brazing an inflated tire/wheel assembly
- Improper tube fitment and pinching during inflation
- Re-inflating a tire which has been run in an uninflated condition
- Tire damaged in service or improperly repaired and reinflated
- Rim maximum pressure limitation is exceeded
- Brake overheating

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