

## TRUCK TIRE SAFETY PRECAUTIONS

➤ **DRIVING ON ANY TIRE THAT DOES NOT HAVE THE CORRECT INFLATION PRESSURE IS DANGEROUS**

Any under inflated tire builds up excessive heat that may result in sudden tire destruction. For replacement tires, the correct inflation pressure will be provided by your tire retailer. If not, refer to the vehicle placard.

The placard indicates the minimum inflation pressures, which must be maintained. However, do not exceed the maximum inflation pressure for the tire or for the wheel on which it is mounted.

➤ **CHECK THE COLD INFLATION PRESSURES IN ALL YOUR TIRES, INCLUDING THE SPARE, AT LEAST ONCE EACH WEEK**

Failure to maintain correct inflation pressure may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire destruction, loss of vehicle control and serious personal injury. Therefore, inflation pressure should be checked at least once each week and always prior to long distance trips.

Pressures should be checked when tires are cold; in other words, before they have been driven on. The ideal time to check tire pressures is early morning. Driving, even for a short distance, causes tires to heat up and air pressure to increase.

Never bleed air from hot tires. Bleeding air from hot tires could result in under inflation.

Use an accurate tire gauge to check pressure. Never allow children to inflate or deflate tires.

If you pressure check indicates that one of your tires has lost pressure of four pounds or more, look for signs of penetration, valve leakage or wheel damage that may account for the air loss.

Any tire suspected of having been run flat or run at very low air pressure (less than 80% of normal operating pressure) should not be re-inflated without careful inspection of the entire tire. Visit an Truck Tire retailer.

➤ **INSPECT YOUR TIRES DAILY. IF YOU SEE ANY DAMAGE TO YOUR TIRES OR WHEELS, VISIT AN TRUCK TIRE DEALER AT ONCE.**

## Hazards

Driving over potholes, curbs, glass, metal, rocks, wood debris, and the like, can damage a tire and should be safely avoided. Unavoidable contact with such hazards should prompt a thorough tire inspection.

If you see damage to your tire or wheels, replace with a spare and immediately visit any participating Truck Tire retailer for advice.

## Inspection

**Always examine your tires for bulges, cracks, cuts, penetrations and abnormal tire wear, particularly on the edges of the tire tread, which may be caused by misalignment or under inflation. If any such damage is found, the tire must be inspected by any participating Truck Tire retailer at once. Use of a damaged tire could result in sudden tire destruction and rapid air loss. Failure to control a vehicle when one or more tires experience a sudden air loss can lead to an accident.**

All tires will wear out faster when subjected to high speeds as well as hard cornering, rapid starts, sudden stops, frequent driving on surfaces which are in poor condition, and off-road use. Surfaces with holes and rocks or other objects can damage tires and cause vehicle misalignment. When driving on such surfaces, drive carefully and slowly, and before driving again at normal or highway speeds, examine your tires for any damage, such as cuts, bulges, penetrations, unusual wear patterns, etc.

### ➤ WEAR BARS

Truck tires contain "Wear-Bars" in the grooves of the tire tread which show up when only 2/32nds of an inch (1.6mm) of tread is remaining. At this stage, tires must be replaced. Tires worn beyond this stage are dangerous.

(Federal law requires the tires on front axels of a bus, Truck or Truck Tractor to have at least 4/32nds of an inch of tread depth remaining.)

### ➤ HIGH SPEED DRIVING CAN BE DANGEROUS

**Correct inflation pressure is especially important.** However, at high speeds, even with the correct inflation pressure, a road hazard, for example, is more difficult to avoid and if contact is made, has a greater chance of causing tire damage than at a lower speed. Moreover, driving at high speed reduces the reaction time available to avoid accidents and bring you vehicle to a safe stop.

If you see any damage to a tire or wheel, replace it with the spare at once and visit a participating truck tire retailer.

The maximum speed at which truck tires can be operated is indicated in the Truck Tire Product Guide. This speed varies for each type of tire and depends on the type of Application. Consult an truck tire dealer for assistance in determining the maximum speed for your application. **Exceeding this maximum speed will cause the tire to build up excessive heat, which can cause tire damage that could result in sudden air loss and rapid tire destruction. Failure to control a vehicle when one or more tires experience a sudden air loss can lead to an accident, property damage, and personal injury.**

**In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.**

➤ **WHEEL ALIGNMENT, TRACKING, AND BALANCING ARE IMPORTANT FOR SAFETY AND MAXIMUM MILEAGE FROM YOUR TIRES**

**CHECK HOW YOUR TIRES ARE WEARING AT LEAST ONCE EACH MONTH**

If your tires are wearing unevenly, such as the inside shoulder of the tire wearing faster than the rest of the tread; your vehicle may be out of alignment. This condition not only shortens the life of your tires but also adversely affects the handling characteristics of your vehicle, which could be dangerous. If you detect irregular wear, have the alignment of the wheels and the parallelism of the axles checked immediately. Also check to see that your tires are properly inflated. Tires which have been run under inflated will show more wear on the shoulders than in the center of the tread. Tires which have been run over inflated will show more wear in the center of the tread than on the shoulders. For optimum tire life and performance, the front-end alignment on trucks equipped with truck tires should be accordance with the recommendations of the vehicle manufacturer. It is recommended that you have your tires and wheels dynamically balanced. Tires and wheels which are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

➤ **DO NOT OVERLOAD – DRIVING ON ANY OVERLOADED TIRE IS DANGEROUS**

The maximum load rating marked on the tire sidewall of any truck tire is based on a specific maximum speed of operation. Consult a Truck Tire Data Book for complete information on allowable loads for the tires in your application. Tires, which are loaded beyond their maximum allowable loads for the particular application, will build up excessive heat that may cause sudden tire destruction, property damage, and personal injury.

Do not exceed the gross axle weight rating for any axle on your vehicle. For detailed information about gross axle weight ratings, please consult your vehicle manufacturer's owner's manual.

➤ **TIRE MIXING**

**FOUR WHEEL TRUCKS:** For best performance it is recommended that the same size and type of tire be used on all four-wheel positions. If only two radial truck tires are mounted with two non-radial tires, the radial tires should be mounted on the rear axle.

Before mixing different types of tires in any configuration on any vehicle, be sure to check the vehicle manufacturer's owner's manual for its recommendations.

It is especially important to check the vehicle manufacturer's owner's manual when mixing, matching or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

**TRUCKS WITH MORE THAN FOUR WHEEL POSITIONS:**

For best performance, it is strongly recommended that radial and non-radial tires not be mixed in a dual fitment.

➤ **TIRE ALTERATIONS**

Do not make or allow to be made any alteration to your tires. Alterations may prevent proper performance, leading to tire damage, which can result in an accident. Tires which become unserviceable due to alterations such as, but not limited to, truing, whitewall inlays, addition of balancing or sealant liquids or the use of tire dressings containing petroleum distillates, are excluded from warranty coverage.

➤ **IMPROPERLY RETREADED AND/OR REPAIRED TIRES ARE DANGEROUS AND CAN CAUSE TIRE DESTRUCTION, PROPERTY DAMAGE, AND PERSONAL INJURY.**

Retreading and repairing of Truck Tires should be performed only by qualified personnel with proper equipment.

If any tire sustains a puncture, have the tire demounted and thoroughly inspected by a participating tire retailer for possible damage that may have occurred.

Plug-only repairs done on-the-wheel are considered improper and are therefore, not recommended. Such repairs are not reliable and may cause further damage to the tire and may result in tire failure.

## ➤ STORAGE

Tires contain waxes and emollients to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, the waxes and emollients continually migrate to the surface, replenishing this protection throughout the normal use of the tire. Consequently, when tires sit outdoors, unused for long periods of time (a month or more) their surfaces become dry and more susceptible to ozone and weather checking, and the casing becomes susceptible to flat spotting. Serious problems occur with tube type tires when mounted with water trapped between the tire and the tube. Due to pressurization, the liquid can pass through the inner liner and into the casing plies. **For these reasons, tires should always be stored in a cool, dry, clean indoor environment. If storage is for one month or more, eliminate the weight from the tires by raising the vehicle or by removing the tires from the vehicle. Failure to store tires in accordance with these instructions could result in premature aging of the tires and sudden tire failure.**

When tires are stored, be sure they are placed away from sources of heat and ozone, such as hot pipes and electric generators. Be sure the surfaces on which tires are stored are clean and free from grease, petroleum products or other substances, which could deteriorate the rubber. **(Tires exposed to these materials during storage or driving could be subject to sudden failure.)**

## ➤ FOLLOW THESE MOUNTING RECOMMENDATIONS TO PREVENT TIRE DESTRUCTION, PROPERTY DAMAGE AND PERSONAL INJURY

Regulations and recommendations published by the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA) deal in detail with mounting and demounting of tires for trucks. You should ensure that you are always in compliance with these regulations and recommendations. In addition, We urges you to bear in mind the following considerations:

Tire changing can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the Rubber Manufacturers Association (RMA).

Tire should be mounted on wheels of the correct size and type which are in good, clean condition. Bent, chipped or rusted wheels, rims or rim components may cause tire damage and can also malfunction causing an accident.

All rim components (i.e. flanges, lock rings, rim base, etc.) must match. Be sure to check rim/wheel manufacturer's specifications.

When changing any tire, always deflate the tire before loosening any wheel or rim lugs. Always install new valve cores with new mountings.

**TUBES:** Always fit a new tube of the proper size in a new mounting. A tube through normal use will experience growth; therefore, if an old tube is re-used, there is a probability of creasing it with subsequent chafing and eventual failure of the tube causing tire damage. Tubes are made of butyl rubber. Because of the extreme flexibility of the tire, it is essential to use an approved tube. The use of improper tubes, not designed for radial truck tires could result in tube failure causing tire damage.

**FLAPS:** Always install a new Flap when you install a new tire. A flap through extended use becomes hard and brittle. After a limited time it will develop a set to match the tire and rim in which it is fitted; therefore, it will not exactly match a new tire/rim combination.

**LUBRICANT:** Always use a proper lubricant when mounting tires. Use only an approved tire mounting lubricant. Never use anti-freeze, silicones or petroleum-based lubricants. Do not allow excess lubricant to run down and collect inside the tire.

**SAFETY CAGE:** Always use a safety cage when inflating a truck tire. Never stand over the tire or in front of the valve when inflating. Use an inline gauge and stand to the side. Before final inflation, check the assembly carefully for signs of weakness or irregularities.

**VALVE CAPS:** It is essential that all valves be fitted with pressure-sealing metal valve caps, which are the PRIMARY seal of the valve, to avoid leaks. After mounting, check the assemblies for leaks. When wheel assemblies are mounted on a vehicle, be sure that the valves do not touch the brake drums or any mechanical part of the vehicle.

**DUAL MOUNTING:** Tires mounted in duals must be matched so that the maximum difference between the diameters of the tires does not exceed  $\frac{1}{4}$  inch. Failure to properly match dual tires will result in the tire with the larger diameter carrying a disproportionate share of the load, which can cause sudden tire destruction, property damage, and personal injury.

Proper dual spacing must be provided to prevent the tires from rubbing together and to allow for the flow of cooling air. Consult the Truck Tire Data Book or visit an Truck Tire retailer for information on the minimum dual spacing required for a particular tire/wheel fitment.

➤ **PREPARATION OF WHEELS AND RIMS**

Prior to fitment, wheel assemblies should be thoroughly inspected for cracks, warpage, deformation of flanges, side rings, lock rings, etc. The condition of the stud holes on wheels should also be checked. If any of these conditions are discovered, the rim/wheel should be discarded. All burrs, welds, hammer dents, etc., that are present on the tire side of the rim must be made smooth with a file and/or emery cloth. Remove rust with a wire brush and apply a rust inhibiting paint.

**FAILURE TO OBSERVE ANY OF THE RECOMMENDED PRECAUTIONS CONTAINED IN THIS OWNER'S MANUAL CAN LEAD TO ERRATIC VEHICLE BEHAVIOR AND/OR TIRE DAMAGE POSSIBLY RESULTING IN AN ACCIDENT.**