

# TRUCK TIRE LIMITED WARRANTY & SAFETY MANUAL



# TIRE WARRANTY, MAINTENANCE and SAFETY MANUAL

#### FIRESTONE TRUCK TIRES

Congratulations on your purchase of quality FIRESTONE brand truck tires!

To ensure optimum tire performance and reduce the risk of a tire failure, Bridgestone Americas Tire Operations, LLC ("BRIDGESTONE") strongly recommends you read and follow all maintenance and safety information contained in this manual. In addition, we recommend periodic inspection and maintenance, if necessary, by a qualified tire service professional.

#### LIMITED WARRANTY FIRESTONE BRAND TRUCK TIRES

#### **ELIGIBILITY**

You are covered under the terms of this Limited Warranty if all of the following apply:

- You are the original owner, or original owner's authorized agent, of any new FIRESTONE brand truck tire bearing a Department of Transportation (DOT) tire identification number indicating manufacture after January 1, 2019 (DOT serial 0119 or later).
- The tire was purchased after August 1, 2019 and used primarily in the U.S. For tires covered prior to this time, please refer to the limited warranty that would have been in effect at the time of original sale.
- The tire size, load range, and speed rating are equivalent to or greater than, that specified or recommended for use by the vehicle manufacturer or BRIDGESTONE.
- The new tire was approved for sale in the United States, listed in a U.S. price or data book, and purchased from an authorized FIRESTONE brand truck tire retailer.
- For coverage under the Enhanced Casing Credit Limited Warranty, the eligible tire must have been used only in long haul, regional, pick up and delivery (P&D) highway service for the entire life of the casing and subsequent retread(s) must be inspected and retreaded by an authorized Bandag dealer only.
- Proper tire inflation pressure, as specified by the vehicle manufacturer to operate the vehicle within tire/vehicle load capacity, have been maintained.

- Proper wheel alignment and tire/wheel assembly balance have been maintained.
- The tire has been operated within the speed limitations of the tire.

#### WHAT IS WARRANTED and FOR HOW LONG

Upon examination by BRIDGESTONE, and subject to terms and conditions stated herein, before wearing down to 2/32 inch (1.6 mm) remaining original tread depth (i.e. worn down to the top of the built-in indicators in the original tread grooves) and within 6 years from the date of tire manufacture, any eligible tire that becomes unusable for any reason (see exclusions in the section entitled "What This Limited Warranty Does Not Cover") within the manufacturer's control will either be repaired or replaced at BRIDGESTONE's option with an equivalent new FIRESTONE brand truck tire on the basis set forth in this Limited Warranty.

#### WHAT THIS LIMITED WARRANTY DOES NOT COVER

This Limited Warranty does not cover the following:

### ROAD HAZARDS/MISAPPLICATION/ABUSE Tire damage due to:

- A. **Road hazards,** including, without limitation: puncture, cut, impact break, stone drill, bruise, bulge, snag, etc.
- B. Improper use or operation, including, without limitation: improper inflation pressure, overloading, tire/wheel spinning, curbing, use of an improper rim/wheel, tire chain damage, misuse, misapplication, negligence, tire alteration, or for racing or competition purposes.
- C. Insufficient or improper maintenance, including, without limitation: wheel misalignment, worn suspension components, improper tire mounting or demounting, tire/ wheel assembly imbalance, improper brake adjustment, or other vehicle conditions, defects, or characteristics.
- D. Contamination or degradation by petroleum products or other chemicals, fire or other externally generated heat, water or other material trapped inside the tire during mounting or inflation, or inflating tires with anything other than air or nitrogen.
- E. Improper repair. Improper repair voids this Limited Warranty.

#### RAPID TREAD WEAR/EXCESSIVE TREAD WEAR

- Rapid tread wear, or wear-out is not covered under this warranty.
- B. No mileage warranty is expressed or implied.
- C. Tires rendered unretreadable due to excessive tread wear or improper buffing.

#### OTHER

- A. Uneven or unusual wear patterns, including, without limitation: Shoulder wear, center wear, cupping, or feathering. Irregular wear is not covered under this warranty.
- B. Tires worn more than 1/32 inch (0.8 mm) difference in remaining tread depth between any two major tread grooves across the tire.
- C. Ride disturbance or vibration after tread wear use beyond 10% of the original usable tread depth.
- D. Weather/ozone cracking after 4 years from date of tire manufacture, regardless of date of purchase.
- E. **Weather/ozone cracking** is **not** covered under the Enhanced Casing Limited Warranty.
- F. Tires subjected to severe under-inflation or run-flat conditions.
- G. Tires purchased as used.
- H. Tires purchased and primarily used outside the United States.
- Tire improperly retreaded including, without limitation, improper or inadequate inspection, preparation, equipment, material, repair, etc.
- J. Tires damaged by the use of internally applied additives for balance, sealing, cooling or any other alleged tire performance enhancement.
- K. Improper regrooving.
- L. **The cost** of applicable federal, state, and local taxes.
- M. Failure to follow any of the safety and maintenance recommendations or warnings contained in this manual.

This Limited Warranty is in addition to and/or may be limited by any other applicable written warranty you may have received concerning special tires or situations. Note that additional exclusions, provisions and owner's obligations may be contained in other sections of this manual.

#### **NO-CHARGE REPLACEMENT - NEW TIRE**

Eligible FIRESTONE brand truck tires adjusted under this Limited Warranty will be repaired or replaced at BRIDGESTONE's option free of charge with an equivalent new FIRESTONE brand truck tire (Federal Excise Tax included) up to the first 10% of original usable tread depth or within 12 months from date of purchase (without proof of purchase date, then within 12 months from the date of tire manufacture), whichever occurs first. The cost of mounting and balancing and other service charges, disposal fees, or applicable taxes are payable by you.

#### PRO-RATED REPLACEMENT - WORN ORIGINAL TREAD TIRE

Eligible FIRESTONE brand truck tires adjusted under this Limited Warranty that are worn beyond the first 10% of original usable tread depth, or 12 months from the date of purchase (without proof of purchase date, then 12 months from the date of tire manufacture) has passed, the tire will, at BRIDGESTONE's option, be repaired or replaced with an equivalent new FIRESTONE brand truck tire on a pro-rata basis. To determine the pro-rated replacement price, the percent of used tread wear is multiplied by the dealer's current selling price for the replacement tire(s). The cost of mounting, balancing, full Federal Excise Tax, and other service charges, disposal fees, or applicable taxes are payable by you. The tire must be less than 6 years from the date of purchase (without proof of purchase date, then 6 years from the date of tire manufacture).

#### ENHANCED CASING CREDIT LIMITED WARRANTY

For coverage under the Enhanced Casing Credit Limited Warranty, the eligible tire must have been used only in long haul, regional, or P&D highway service for the entire life of the casing and subsequent retread(s) must have been inspected and retreaded by an authorized Bandag dealer only. Subject to the terms and conditions stated herein, an Enhanced Casing Credit Limited Warranty is available for the tires described below. An eligible pattern, size and load range tire becomes unserviceable within 6.5 years (78 months) from the date of tire manufacture and is no longer eligible under the Enhanced Casing Credit Limited Warranty.

Eligible tires adjusted under the Enhanced Casing Credit Limited Warranty will receive a casing credit as follows:

- Eligible Patterns: All patterns except those within the "Firestone Classic" line (i.e. FS507 Plus, FS 560 Plus, FD690 Plus, FD663 and FT455 Plus)
- Eligible Sizes & Load Ranges: All

Original Tread or Retread Count	Dollar Values (22.5 and 24.5 rim Diameters)	Dollar Values (17.5 and 19.5 rim Diameters)
Original Tread*	\$100	\$60
1st Retread	\$80	\$40
2nd Retread	\$50	\$20

\*Note: Tires with the original remaining tread depth greater than 2/32 inch (1.6 mm) may receive pro-rated replacement values higher than those in this table.

#### FIRESTONE CLASSIC:

- Eligible Patterns: Firestone Classic line (i.e. FS507 Plus, FS 560 Plus, FD690 Plus, FD663 and FT455 Plus)
- Eligible Sizes & Load Ranges: All

Original Tread or	Dollar Values	Dollar Values
Retread Count	(22.5 and 24.5 rim Diameters)	(17.5 and 19.5 rim Diameters)
Original Tread*	\$90	\$50
1st Retread	\$70	\$30

\*Note: Tires with the original remaining tread depth greater than 2/32 inch (1.6 mm) may receive pro-rated replacement values higher than those in this table.

## ADDITIONAL EXCLUSIONS FOR THE ENHANCED CASING CREDIT LIMITED WARRANTY

- FIRESTONE brand truck tire casings are warranted only when the tire becomes unserviceable due to conditions within the manufacturer's control.
- The Enhanced Casing Credit Limited Warranty will be valid through the retread period indicated on the appropriate table or 6.5 years from the date of manufacture, whichever comes first.
- Tires used in severe service, mining and/or logging service are not covered.
- Casings which cannot be retreaded due to excessive tread wear are not covered.
- Failures resulting from faulty or incorrect retread processing or materials are not covered.
- Casing credits are issued according to the appropriate table and will not include the costs of retreading services, materials or other costs.
- Tires which have the original DOT tire identification numbers removed or rendered illegible are not covered.

#### REPLACEMENT WARRANTY

If you receive a replacement tire under this Limited Warranty, it will be covered by the manufacturer's warranty, if any, given on that tire at that time.

#### WHERE TO GO

Tire adjustments under this Limited Warranty will only be made at an authorized FIRESTONE brand truck tire retailer in the United States. Consult a phone directory (often listed in the Yellow Pages under "Tire Dealers"), the Internet at <a href="https://commercial.firestone.com">https://commercial.firestone.com</a>, or call 1-800-815-9793 for the location nearest you.

#### **CONSUMER RIGHTS**

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### CONDITIONS and EXCLUSIONS

To the extent permitted by law, BRIDGESTONE disclaims all other warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages, loss of time, loss of vehicle use, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty applies only to consumers actually purchasing and primarily using the tire in the United States.

Obligations under this policy may not be enlarged or altered by anyone.

In accordance with Federal Law, this Limited Warranty has been designated as a "Limited Warranty." Nothing in this Limited Warranty is intended to be a representation that tire failures cannot occur. This Limited Warranty is given in the United States by Bridgestone Americas Tire Operations, LLC, 200 4th Ave. South, Nashville, TN 37201.

#### OWNER'S OBLIGATIONS

It is your obligation to maintain proper tire inflation pressures as specified by the vehicle manufacturer and to operate the vehicle within tire/vehicle load capacity and speed limitations. It is also your obligation to maintain proper wheel alignment and tire/wheel assembly balance.

To request an adjustment, you must present the tire to an authorized FIRESTONE brand truck tire retailer. Your vehicle on which the tire was equipped must also be available for inspection. Complete and sign the customer section of BRIDGESTONE's Limited Warranty Form or an electronic version of the Bridgestone Limited Warranty Form and pay appropriate replacement price, taxes, disposal fees, and service charges, if any. Tires accepted for warranty compensation become the property of BRIDGESTONE.

#### ARBITRATION

You and BRIDGESTONE agree that all claims, disputes, and controversies between you and it, including any of its agents, employees, successors, or assigns, arising out of or in connection with this Limited Warranty, or any other warranties, express or implied, including a failure of warranty and the validity of this arbitration clause, but excluding claims for personal injury or property damage, shall be resolved by binding arbitration between you and it, according to the formal dispute resolution procedures of the National Arbitration Forum, under the Code of Procedure then in effect. This arbitration will be conducted as a document hearing. If you request any procedures beyond a document hearing, you will be responsible for all fees, including filing and administrative fees, above and beyond the fees required for document hearings. The arbitration between you and BRIDGESTONE shall not include any other customers, be combined or consolidated in any fashion with arbitrations involving other customers, or proceed in any form of class action in which the claims of numerous customers are considered together. Any award of the arbitrator(s) may be entered as a judgment in any court of competent jurisdiction. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party's actual damages, except as may be required by statute. Information may be obtained and claims may be filed at any office of the National Arbitration Forum or at P.O. Box 50191, Minneapolis, MN 55405.

#### IMPORTANT SAFETY INFORMATION

Any tire, no matter how well constructed, may fail in use as a result of punctures, impact damage, improper inflation pressure, overloading, or other conditions resulting from use or misuse. Tire failure may create a risk of property damage, serious personal injury or death.

#### SAFETY WARNING

Serious personal injury or death may result from a tire failure. Many tire failures are preceded by vibration, bumps, bulges or irregular wear. If a vibration occurs while driving your vehicle or you notice a bump, bulge or irregular wear, have your tires and vehicle evaluated by a qualified tire service professional.

To reduce the risk of tire failure, BRIDGESTONE strongly recommends you read and follow all safety information contained in this manual, tire industry publications such as those published by the U.S. Tire Manufacturers Association (USTMA), and tire mounting procedures published by the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor. In addition, we recommend periodic inspection and maintenance, if necessary, by a qualified tire service professional.

#### TIRE INFLATION PRESSURE

Tires need proper inflation pressure to operate effectively and perform as intended. Tires carry the vehicle, passenger, and cargo loads and transmit the braking, acceleration, and turning forces. The vehicle manufacturer recommends the inflation pressures for the tires mounted on your vehicle.

#### SAFETY WARNING

Driving on tires with improper inflation pressure is dangerous.

- Under-inflation causes excessive tire heat build-up and internal structural damage.
- Over-inflation makes it more likely for tires to be cut, punctured, or broken by sudden impact.

These situations can cause a tire failure, even at a later date, which could lead to serious personal injury or death. Consult the vehicle tire information placard and/or owner's manual for the recommended inflation pressures.

In addition to tire damage, improper inflation pressure may also:

- Adversely affect vehicle ride and handling.
- Reduce tire tread wear.
- Affect fuel economy.

Therefore, follow these important recommendations for tire and vehicle safety, mileage, and economy:

- Always keep the vehicle manufacturer's recommended inflation pressure in all your tires, including inside duals.
- Check their pressure at preventative maintenance intervals and during pre-trip vehicle inspections.

Your vehicle's tire information placard and/or owner's manual will tell you the recommended cold inflation pressure for all your tires. For tractor/trailers, a placard is applied to each. For questions about locating or understanding the tire information placard(s), consult your vehicle owner's manual or ask a qualified tire service professional.

Maximum Pressure Indicated on the Tire Sidewall: This is the maximum permissible inflation pressure for the tire only. The vehicle manufacturer's recommended tire pressures may be lower than, or the same as, the maximum pressure indicated on the tire sidewall. The vehicle manufacturer's specification of tire pressure is limited to your particular vehicle and takes into account your vehicle's load, ride, and handling characteristics, among other criteria. Since there may be several possible vehicle applications for a given tire size, a vehicle manufacturer may choose a different inflation pressure specification for that same size tire on a different vehicle. Therefore, always refer to the inflation pressure specifications on the vehicle tire information placard and/or in your vehicle owner's manual.

**Pressure Loss:** Truck tires can lose 2 psi (14 kPa) per month under normal conditions and can lose 2 psi (14 kPa) for every 10°F (5.6°C) temperature drop. A puncture, leaking valve, or other damage could also cause inflation pressure loss. If a truck tire loses more than 4 psi (28 kPa) per month, have it checked by a qualified tire service professional.

#### TIPS FOR SAFE TIRE INFLATION

#### SAFETY WARNING

Inflating an unsecured tire is dangerous. If it bursts, it could be hurled into the air with explosive force resulting in serious personal injury or death. Never adjust the inflation pressure of a truck tire unless it is placed in a safety cage or is secured to the vehicle or a tire mounting machine. Never stand or lean over the tire or in front of the valve when inflating.

#### SAFETY WARNING

Never re-inflate a truck tire that has been run at very low inflation pressure (i.e. 80% or less of normal operating pressure) without a complete inspection of the entire tire. Immediately have the tire demounted and inspected by a qualified tire service professional.

- The U.S. Department of Transportation requires a pretrip vehicle inspection. Pre-trip vehicle inspections and preventative maintenance should include cold-tire inflation pressure checks. Don't forget to check the inflation pressure of inside duals.
- The only correct method for checking inflation pressure is to use an accurate tire inflation pressure gauge. Kicking or thumping a tire will only tell you when a tire is totally flat.
- Check inflation pressure when the tires are "cold." Tires are considered "cold" when the vehicle has been parked for three hours or more, or if the vehicle has been driven less than a mile at moderate speed.
- Never release pressure from a hot tire in order to reach the recommended cold tire inflation pressure. Normal driving causes tires to run hotter and inflation pressure to increase. If you reduce inflation pressure when your tires are hot, you may dangerously under inflate your tires.
- If it is necessary to adjust inflation pressure when your tires are "hot," set their inflation pressure to 10 psi (69 kPa) above the recommended cold inflation pressure. Recheck the inflation pressure when the tires are cold.
- If your tires lose more than 4 psi (28 kPa) per month, the tire, tube (if applicable), valve, or rim/wheel may be damaged.
   Consult a qualified tire service professional for an inspection.
- A difference of 5 psi (35 kPa) or more between duals is not recommended.
- Use valve caps to keep the valves clear of debris and to help guard against inflation pressure loss.

#### TIPS FOR SAFE LOADING

#### SAFETY WARNING

Driving your vehicle in an overloaded condition is dangerous. Overloading causes excessive tire heat build-up and internal structural damage. This can cause a tire failure, even at a later date, which could lead to serious personal injury or death. Consult the vehicle tire information placard, certification label, and owner's manual for the recommended vehicle load limits and loading recommendations.

- Always keep the vehicle manufacturer's recommended inflation pressure in all your tires, including inside duals.
   Check their pressure at preventative maintenance intervals and during pre-trip vehicle inspections.
- Never exceed the maximum load rating stamped on the sidewall of your tire.
- Never exceed the gross vehicle weight rating (GVWR) or gross axle weight ratings (GAWR) of your vehicle.
- Never exceed the maximum load or inflation pressure capacity of the rim/wheel.
- Consult your vehicle owner's manual for load recommendations and special instructions (such as for carrying unusually heavy loads).

#### TIRE DAMAGE AND INSPECTION

Evaluation and maintenance of your tires is important to their performance and the service they provide to you. Over time and/or through use, the condition of a tire can change from exposure to everyday road conditions, the environment, damaging events such as punctures, and other external factors.

#### SAFETY WARNING

Driving on damaged tires is dangerous. A damaged tire can suddenly fail causing serious personal injury or death. Have your tires regularly inspected by a qualified tire service professional.

You should visually inspect your tires during pre-trip vehicle inspections and inflation pressure checks. In addition, have your tires periodically evaluated by a qualified tire service professional when your vehicle is serviced such as routine maintenance intervals, oil changes, and tire rotations. In particular, note the following tips for spotting tire damage:

- After striking anything unusual in the roadway, have a
  qualified tire service professional demount the tire and
  inspect it for damage. A tire may not have visible signs of
  damage on the tire surface. Yet, the tire may suddenly fail
  without warning, a day, a week, or even months later.
- Inspect your tires for cuts, cracks, splits or bruises in the tread and sidewall areas. Bumps or bulges may indicate a separation within the tire body. Have your tire inspected by a qualified tire service professional. It may be necessary to have it removed from the rim/wheel for a complete inspection. Do not delay performing any necessary repair(s).
- Inspect your tires for adequate tread depth. When the
  tire is worn to the built-in indicators at 2/32 inch (1.6
  mm) or less tread groove depth, or the tire cord or fabric
  is exposed, the tire is dangerously worn and must be
  replaced immediately. Tires used in the steer position are
  considered as worn at 4/32 inch (3.2 mm) as noted below.
- Federal regulations require steer axle tires to have 4/32 inch (3.2 mm) or greater tread depth on vehicles over 10,000 lbs (4536 kg) GVWR.
- Inspect your tires for uneven wear. Wear on one side
  of the tread or flat spots in the tread may indicate a
  problem with the tire or vehicle. Consult a qualified tire
  service professional.
- Inspect your rims/wheels also. If you have a bent, chipped, or cracked rim/wheel, it must be replaced.

#### TIRE MANUFACTURE DATE

The tire manufacture date is determined by examining the DOT tire identification number, also known as the DOT serial number or code, which can be found on at least one sidewall

near the rim/wheel. It may be necessary to look on both sides of the tire to find the entire serial code.

**Tires Produced Since 2000:** The last four (4) digits of the serial code identify the week and year of production. For example, a tire with a serial code ending in "2406" would have been produced in the 24th week of 2006.

Tires Produced Prior to 2000: The last three (3) digits of the serial code identify the week and year of production. For example, a tire with a code ending in "329" would likely have been produced in the 32nd week of 1999, but possibly produced in 1989. If in doubt, consult a qualified tire service professional.

#### TIRE REPAIRS

#### SAFETY WARNING

Driving on an improperly repaired tire is dangerous. An improper repair can be unreliable or permit further damage to the tire. The tire may suddenly fail, causing serious personal injury or death. A complete inspection and repair of your tire in accordance with U.S. Tire Manufacturers Association (USTMA) procedures should be conducted by a qualified tire service professional.

The comprehensive procedures and recommendations for truck tire repair are beyond the scope of this manual; however, note the following:

- The tire must be demounted from the rim/wheel for a complete inspection, inside and out. Some damage to the tire may only be evident on the interior of the tire. Any tire repair done without removing the tire from the rim/ wheel is improper.
- A patch must be applied to the interior of the tire and the puncture hole filled with suitable plug/stem filler.
   This helps ensure that the interior of the tire is adequately sealed to prevent inflation pressure loss and prevents contamination of the steel belts and other plies from the elements (such as water) in the outside world. Using only a plug/stem, or using only a patch, is not a safe or proper repair.
- The truck/bus tire puncture repair injury limit to the tread area is 3/8 inch (10 mm). Larger injuries, or damage in areas outside the tread, should be evaluated and repaired, if possible, by qualified tire service professionals at a full-service repair facility using USTMAapproved procedures.
- Never substitute a tube for a proper repair or to remedy an improper repair.
- Not all punctured or damaged tires can be properly repaired; consequently, they must be replaced.

- Repair and retread, if possible, tires having a tread depth of 2/32 inch (1.6 mm) or less remaining in any tread groove.
- Tubes, like tires, should only be repaired by a qualified tire service professional.
- Any Improper repair voids the tire Limited Warranty.
   See "Limited Warranty" in this manual.

#### REMOVING TIRE/WHEEL ASSEMBLY FROM VEHICLE

#### SAFETY WARNING

Always follow the manufacturer's recommend procedure for securing and raising your vehicle prior to attempting to remove a tire.

#### SAFETY WARNING

If the tire has internal damage, it may burst with explosive force, causing serious personal injury or death. Always deflate a tire and wheel assembly completely before loosening any lug nut when removing a tire from a vehicle for service or demounting. On dual wheel assemblies, both tires should be deflated and removed before any work is started.

#### TIRE MOUNTING AND OTHER SERVICING

#### SAFETY WARNING

Removing and replacing tires on wheels can be dangerous. Attempting to mount tires with improper tools or procedures may result in a tire explosion causing serious personal injury or death. This is only a job for a qualified tire service professional. Never perform tire service procedures without proper training, tools, and equipment.

This manual is not intended to provide proper training or service procedures for tire mounting, demounting, balancing, rotation, or repair. Please leave these tasks to qualified tire service professionals.

Only specially trained persons should mount tires. For proper mounting procedures, consult the requirements of the Occupational Safety and Health Administration (OSHA) of the U S Department of Labor and procedures published by the U.S. Tire Manufacturers Association, 1400 K Street, NW Washington, D. C. 20005 (www.ustires.org).

#### SAFETY WARNING

Inflating an unsecured tire is dangerous. If it bursts, it could be hurled into the air with explosive force resulting in serious personal injury or death.

Always stand well clear of any tire mounting operation. This
is especially important when the service operator inflates
the tire.

- When inflating a tire after mounting on a rim/wheel, always use a safety cage and an extension hose with pressure gauge and clip-on chuck.
- Never adjust the inflation pressure of a truck tire unless it is placed in a safety cage or is secured to the vehicle or a tire mounting machine.
- Never stand or lean over the tire or in front of the valve when inflating.

#### SAFETY WARNING

Never pour or spray any flammable substance into or onto a tire or rim/wheel for any purpose whatsoever. The residue left by the substance could result in a fire or explosion which may cause severe injury or death.

#### SAFETY WARNING

Never put flammable substances such as gasoline or ethyl ether into a tire and light with a match/flame so that the resulting explosion seats the beads of a tubeless tire. This practice is extremely dangerous and may result in a severe explosion or undetected damage to the tire or rim/wheel which may cause a failure resulting in severe injury or death.

- Tires must match the width and diameter requirements of the wheels. For example, 22.5 inch diameter tires must only be mounted to 22.5 inch diameter rims/wheels. Radial tires must only be mounted to wheels approved for radial tires.
- Inspect the tire and rim/wheel. Rims/wheels must be free of cracks, dents, chips, and rust. Tires must be free of bead damage, cuts, punctures, foreign material, and moisture.
- For a tubeless truck tire, always install a new valve, or new valve core and cap, each time a new or retreaded tire is installed.
- For a tube-type truck tire, always use a new, proper size tube and flap each time a new or re-treaded tire is installed.
- Use only vegetable oil-based lubricants in mounting or demounting.
- Always ensure rim components fit properly before inflating.
  - Never tap component parts with a tool/hammer/mallet while tire is inflated.
  - Never attempt to disassemble multi-piece rims while inflated.
- Never inflate a tire beyond 40 psi (275 kPa) to seat the beads. Be absolutely certain beads are fully seated before adjusting inflation pressure to the level recommended for vehicle operation.
- Use valve caps to keep the valves clear of debris and to help guard against inflation pressure loss.
- Always stand well away from the work area when tires are being spin-balanced either on or off the vehicle.

#### **TIRE MIXING**

#### SAFETY WARNING

Driving your vehicle with an improper mix of tires is dangerous. Your vehicle's handling characteristics can be seriously affected. You could have an accident resulting in serious personal injury or death. Consult your vehicle owner's manual and a qualified tire service professional for proper tire replacement.

#### DUAL MATCHING

Tires paired in a dual assembly should be matched in tire construction and dimension. Improperly matched tires may result in irregular wear, rapid wear, and premature tire failure. Failure to match tires in a dual assembly may result in sudden tire destruction.

For radial tires, properly paired dimension tolerances are as follows:

- Diameter: within 1/4 inch (6.4 mm) of each other
- Circumference: within 3/4 inch (19 mm) of each other

#### HIGH SPEED DRIVING

#### SAFETY WARNING

Driving at high speed is dangerous and can cause a vehicle accident, including serious personal injury or death.

- Regardless of the speed and handling capabilities of your vehicle and its tires, a loss of vehicle control can result from exceeding the maximum speed allowed by law or warranted by traffic, weather, vehicle, or road conditions.
- High-speed driving should be left to trained professionals operating under controlled conditions.
- No tire, regardless of its design or speed rating, has unlimited capacity for speed, and a sudden tire failure can occur if its limits are exceeded. See "Tire Speed Restrictions," the next section in this manual.

Refer to your vehicle owner's manual for any tire pressure recommendations for high speed driving.

#### TIRE SPEED RESTRICTIONS

Firestone brand truck tires have maximum recommended speeds. When replacing your tires, check your vehicle owner's manual and tire information placard and consult with a Firestone brand truck tire retailer for recommendations and information about tire speed capability.

The speed capabilities of truck tires are based on standardized laboratory tests under specific, controlled conditions. While these tests may relate to performance on the road, real-world

driving is rarely identical to any test conditions. Your tire's actual speed capability may be less since it is affected by factors such as inflation pressure, load, tire condition (including damage), wear, vehicle condition (including alignment), driving conditions, and duration at which the speed is sustained.

#### TIRE SPINNING

#### SAFETY WARNING

Spinning a tire to remove a vehicle stuck in mud, ice, snow, or wet grass can be dangerous. A tire spinning at a speedometer reading above 35 mph (55 km/h) can in a matter of seconds reach a speed capable of disintegrating a tire with explosive force. Under some conditions, a tire may be spinning at a speed twice that shown on the speedometer. This could cause serious personal injury or death to a bystander or passenger. Never spin a tire above a speedometer reading of 35 mph (55 km/h).

#### TIRE STORAGE

Tires should be stored indoors in a cool, dry place where water cannot collect inside them. Tires should be placed away from electric generators/motors and sources of heat such as hot pipes. Storage surfaces should be clean and free of grease, gasoline, diesel fuel, or other substances which can deteriorate the rubber.

#### SAFETY WARNING

Improper storage can damage your tires in ways that may not be visible and can lead to a failure resulting in serious personal injury or death.

The spare tire in your vehicle is intended to be used as a spare when needed. The spare tire carrier is not intended to be used for long term storage.

#### TIRE SERVICE CUSTOMER SATISFACTION

Normal tire maintenance and Limited Warranty services are available at locations across the U.S.A. Visit us at <a href="https://commercial.firestone.com">https://commercial.firestone.com</a>, or call 1-800-815-9793 to find an authorized Bridgestone brand truck tire retailer nearest you.

Additional information on the care and service of truck tires is available from the following organizations:

U.S. Tire Manufacturers Association 1400 K Street, N.W. Washington, DC 20005-2403 www.ustires.org Tire and Rubber Association of Canada A19-260 Holiday Inn Drive Cambridge, ON, N3C 4E8 www.tracanada.ca

#### TIRE REGISTRATION

Registration of your tires is an important safety precaution since it enables the manufacturer to notify you in the event of a recall. When you purchase replacement tires, the retailer will provide a registration card on which the tire identification numbers have been recorded; fill in your name and address on the card and mail it promptly. Some retailers may submit the registration for you. You do not need to register original equipment tires on new vehicles as the vehicle manufacturer handles that for you.

#### For Assistance or Information

- First contact the nearest Firestone truck tire dealer by consulting the yellow pages of your local telephone book.
- If additional assistance is required, call or write the nearest Bridgestone Technical Service Center listed below.

#### BRIDGESTONE TOLL FREE NUMBER 1-800-847-3272

Bridgestone Americas Tire Operations, LLC 200 4th Ave. South, Nashville, TN 37201