TIRE WARRANTY

STANDARD LIMITED WARRANTY

PASSENGER CAR TIRES

HIGH-PERFORMANCE TIRES

LIGHT TRUCK TIRES

TEMPORARY SPARE TIRES

TRUCK & BUS TIRES



STANDARD LIMITED WARRANTY FOR REPLACEMENT PASSENGER CAR, LIGHT TRUCK AND TEMPORARY SPARE TIRES

This limited warranty/adjustment policy provides for tire replacement under specified conditions. This policy applies to tires used in normal highway service (commercial applications excluded) displaying warrantable conditions. Tires that become unserviceable or wear out because of neglect or mistreatment are excluded from Yokohama warranty coverage.

WARRANTY ELIGIBILITY

This warranty applies to every Yokohama replacement passenger car, light truck, and temporary spare tire bearing the Yokohama brand name and complete D.O.T. serial identification number and operated during normal highway use (commercial applications excluded) in the United States. These tires are covered by this warranty for the life of the original usable tread depth [the original tread depth down to the level of treadwear indicator bars molded at 2/32" (1.6 mm) or for 60 months from the date of purchase (proof of purchase required) or 72 months from the date of manufacture (if no proof of purchase available), whichever comes first]. This warranty applies only to the original tire purchaser, and is not transferable to any other party. This time period does not represent the expected service life for tires covered by this warranty.

WHAT IS <u>NOT</u> WARRANTED

Tires that have become unserviceable for the following reasons:

- Road hazard injuries or damages caused by obstacles or debris, such as cuts, punctures (whether repairable or not), snags, bruises, tears, abrasions, or impact breaks.
- Improper repairs or repairs that have failed.
- Improper inflation or other maintenance abuses.
- Improper application of tire size and/or specification.
- Improper mounting/dismounting procedures or tire/wheel assembly imbalance.
- Mechanical irregularities in the vehicle or wheel, such as bent wheel assemblies, misalignment, worn or faulty components.
- Weather checking/cracking or failures resulting from these conditions on tires purchased more than four years (48 months) prior to a warranty claim. If proof of purchase is not provided, the D.O.T. serial number is used.
- Accident, corrosion, vandalism, fire, or damages caused by nature.

ADDITIONAL EXCLUSIONS

 Tires that have had material added after leaving a Yokohama manufacturing plant, such as fillers, sealants, balancing substances or materials of any kind. Additionally, tires that have had external tire treatments which include but are not limited to: tread siping, shaving, carving, regrooving, white sidewall inlay, or applying materials or treatments to the tread surface. If the material or treatment is the cause of a failure, vibration, or ride disturbance the tire will not be accepted for warranty, or mileage warranty credit.

- Tires submitted for ride disturbance complaints with more than 1/32" (0.8 mm) treadwear or 12 months from date of purchase, whichever occurs first.
- Tires on vehicles registered or operated outside of the United States.
- Tires not sold in the United States by the Yokohama Tire Corporation.
- Tires branded by Yokohama to note special classification at time of purchase, such as "NA" (non-adjustable), or tires altered by notching or buffing.
- Tires used on vehicles in racing or special applications.
- Improper storage.

WHAT IS WARRANTED

Tires that have become unserviceable for reasons other than stated above will be replaced in accordance with this warranty.

ADJUSTMENT POLICY

PASSENGER CAR AND LIGHT TRUCK TIRES (OTHER THAN TEMPORARY SPARE TIRES)

When the original usable tread is worn 2/32" (1.6 mm) or less and a warrantable condition is found, the tire will be replaced with a comparable new Yokohama tire free of charge. During this period, tires will be mounted and balanced without charge. Other service charges such as tire rotation, alignment or applicable taxes are payable by the customer.

When a tire has worn past the above specified period for free replacement and a warrantable condition is found, the customer must pay for the cost of a new comparable Yokohama passenger or light truck tire on a prorated basis. The dealer shall determine this cost by multiplying the percentage of usable tread worn by the dealer's current retail selling price of that tire at the time of warranty replacement. The cost of mounting, balancing, and any other service charges or applicable taxes are payable by the customer.

PASSENGER CAR TIRES MOUNTED ON LIGHT TRUCKS

Yokohama Tire Corporation's warranty policy provides coverage for all tires installed on light trucks, minivans, or like designs that have or had passenger tires installed as original equipment by the vehicle manufacturer, when the Yokohama replacement tire is equal to or greater in load index and speed rating (if applicable) of the originally installed tire. Operation other than described above will be denied coverage under all terms of the Yokohama Standard Limited Warranty for Passenger Car and Light Truck Tires.

TEMPORARY SPARE TIRES

When the original tread of a Yokohama temporary spare tire used in temporary highway service on the vehicle on which it was originally installed is worn less than 1/32" (0.8 mm), the tire will be replaced with a new Yokohama temporary spare tire free of charge, without charge for mounting and balancing the new tire. Additional service charges are payable by the customer.

Temporary spare tires worn in excess of 1/32" (0.8 mm), but less than 2/32" (1.6 mm), will be replaced and the customer charged 50% of the dealer's current retail selling price of the tire. The cost of mounting, balancing, and any other service charges are payable by the customer.

LIMITED MILEAGE WARRANTY FOR STEEL-BELTED PASSENGER CAR RADIALS AND LIGHT TRUCK TIRES

In addition to the Standard Limited Warranty coverage, some Yokohama steel-belted radial tires purchased in the continental United States as replacement tires only are warranted for treadwear during a limit of five years (60 months) from the installation date. This warranty excludes Yokohama snow tires, passenger tires mounted on vans, pickup trucks or any other utility vehicle used in commercial applications, except as provided by specific warranties. Passenger tires installed as original equipment are not covered by this warranty.

ADJUSTMENT POLICY

If within 60 months from the date of mounting, the tire wears down to the treadwear indicator bars 2/32" (1.6 mm) and the tire has not delivered the warranted miles of normal passenger car highway use (commercial applications excluded), Yokohama will provide credit for unused service toward the replacement of a new comparable Yokohama steel-belted radial tire. The customer will be charged a percentage of the warranted miles received, multiplied by the dealer's current retail selling price of the tire at the time of adjustment. Other charges for taxes and dealer services of mounting, balancing, rotation and any others are payable by the customer. This time period does not represent the expected service life for tires covered by this warranty.

WARRANTY ELIGIBILITY

For mileage warranties by product line, please visit <u>www.yokohamatire.com</u>. Eligible tires must be on the vehicle on which they were originally installed, in conformance with the vehicle manufacturer's recommendations. Note: For staggered fitment applications (different tire sizes on front and rear axles), which cannot be rotated, the mileage warranty for the rear tires will be half of the warranty specified in Yokohama literature. This mileage warranty applies to all replacement tires listed, bearing the Yokohama brand name and complete D.O.T. serial number and operated in the United States.

REPLACEMENT PRODUCT ONLY

25,000 Mile Warranty:

ADVAN Apex® V601

45,000 Mile Warranty: GEOLANDAR X-AT*

50,000 Mile Warranty:

GEOLANDAR® A/T G015 (LT-metric and High Flotation sizes) GEOLANDAR® H/T G056 (LT-metric and High Flotation sizes) GEOLANDAR X-CV®

55,000 Mile Warranty:

ADVAN Sport® A/S+

60,000 Mile Warranty:

GEOLANDAR® A/T G015 (P-metric and Euro-metric sizes) YK740 GTX®

YK-CTX®

65,000 Mile Warranty:

AVID Ascend GT* AVID Touring-S* GEOLANDAR CV* G058 GEOLANDAR* G055

70,000 Mile Warranty:

GEOLANDAR® H/T G056 (P-metric and Euro-metric sizes)

75,000 Mile Warranty:

Tornante® (H- and V-speed rated sizes)

85,000 Mile Warranty:

AVID Ascend LX[®] Tornante[®] (T-speed rated sizes)

YOKOHAMA'S OBLIGATION

Replacements qualifying under the warranty must be made by an authorized Yokohama dealer.

DEALER'S OBLIGATIONS

To process mileage proration adjustment(s) for the customer, the tire dealer must validate the mileage received on the claim tire(s), versus the mileage warranted and certify this information on the claim form to Yokohama and attach proof of rotation documents to the claim form.

CUSTOMER'S OBLIGATIONS

The customer must present the claim tire to an authorized Yokohama retail tire dealer in the United States. To obtain mileage prorated adjustments, the customer needs to provide proof of original purchase for the claim tire(s) that states the vehicle mileage at the time of the original installation. Additionally, the customer must provide proof that the tires have been rotated every 5,000 miles.

LIMITATIONS AND EXCLUSIONS

All implied warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. All obligations or liabilities for loss of time, inconvenience, loss of vehicle use or any other incidental or consequential damages are hereby excluded. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply.

This warranty gives the customer specific legal rights. The customer may also have other rights which may vary from state to state. The customer is advised to determine those rights for their local area and exercise them as required or deemed appropriate.

STANDARD LIMITED WARRANTY FOR TRUCK/BUS AND LIGHT TRUCK COMMERCIAL TIRES

This limited warranty/adjustment policy provides for tire replacement under certain specified conditions. This policy applies to tires used in normal highway service displaying warrantable conditions. Tires that become unserviceable or wear out because of neglect or mistreatment are excluded from Yokohama warranty coverage.

WARRANTY ELIGIBILITY

This warranty applies to every Yokohama truck/bus and light truck commercial (LTC) tire bearing the Yokohama brand name and complete D.O.T. serial identification number and operated in normal highway use in the United States. Eligible tires must be on the vehicle on which they were originally installed, in conformance with the vehicle manufacturer's recommendations. This warranty applies only to the original tire purchaser and is not transferable to any other party. Tires are covered by this warranty for the life of the original usable tread down to the tread depth indicators molded at 2/32" (1.6 mm), not to exceed 5 years (60 months) from date of purchase or date of manufacture if proof of purchase is not made available.

WHAT IS <u>NOT</u> WARRANTED

Tires that have become unserviceable for the following reasons:

- Road hazard injuries or damage caused to the tire by obstacles and debris, such as cuts, punctures (whether repairable or not), snags, bruises, tears, or impact breaks.
- Improper repairs or repairs that have failed.
- Improper inflation or other maintenance abuses.
- Improper application of tire size and/or specification.
- Improper mounting/dismounting procedures or tire/wheel assembly balance.
- Mechanical irregularities in the vehicle or wheel, such as bent wheel assemblies, misalignment, worn or faulty components.
- Weather checking/cracking or failures resulting from these conditions on tires purchased more than four years (48 months) prior to a warranty claim. If proof of purchase is not provided, the D.O.T. serial number is used.
- Accident, corrosion, vandalism, fire, or damages caused by nature.

ADDITIONAL EXCLUSIONS

- Tires that have had material added after leaving a Yokohama manufacturing plant, such as fillers, sealants, balancing substances or materials of any kind. Additionally, tires that have had external tire treatments which include but are not limited to: tread siping, shaving, carving, regrooving, white sidewall inlay, or applying materials or treatments to the tread surface. If the material or treatment is the cause of a failure, vibration, or ride disturbance the tire will not be accepted for warranty or mileage warranty credit.
- Tires submitted for ride disturbance complaints after 2/32" (1.6 mm) of treadwear or 12 months from date of purchase.
- Tires on vehicles registered or operated outside of the United States (refer to applicable Yokohama warranty policies for country of operation).
- Tires not sold in the United States by Yokohama Tire Corporation.
- Tires branded by Yokohama to note special classification at time of purchase, such as "NA" (non-adjustable) or tires altered by notching or buffing.
- Improper storage.

WHAT IS WARRANTED

Tires that have become unserviceable for reasons other than stated above will be replaced in accordance with this warranty.

ADJUSTMENT POLICY

NO CHARGE ADJUSTMENT

A Yokohama tire accepted for warranty credit during the first 2/32" (1.6 mm) of treadwear or 12 months from date of purchase, whichever occurs first, will be replaced on a no-charge basis. During this wear period, tires will be mounted and balanced free of charge. Federal Excise Tax (FET) will not be collected on a no-charge adjustment. Other service charges, such as tire rotation and wheel alignment are payable by the customer.

PRO-RATED ADJUSTMENT

For all other warrantable conditions, a Yokohama tire will be replaced on a pro-rated basis. The customer will receive credit toward the purchase of the new tire by multiplying the percentage of the tread depth remaining by the dealer's current selling price of the new comparable Yokohama tire at the time of replacement service, but never less than the casing credit listed in the Special Casing Warranty. The customer pays full Federal Excise Tax (FET) applicable to the comparable new Yokohama tire plus all mounting, balancing and other service charges.

YOKOHAMA'S OBLIGATION

Replacements qualifying under the warranty must be made by an authorized Yokohama dealer.

CUSTOMER'S OBLIGATIONS

The customer must present the claim tire to an authorized Yokohama dealer in the United States.

Tires receiving warranty credit become property of Yokohama Tire Corporation.

LIMITATIONS AND EXCLUSIONS

All implied warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty.

All obligations or liabilities for loss of time, inconvenience, loss of vehicle use, or any other incidental or consequential damages are hereby excluded. Some states do not allow limitations on how long an implied warranty lasts, or the exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives the customer legal rights that may vary from state to state. The customer is advised to determine those rights for his/her local area and exercise them as required or deemed appropriate.

YOKOHAMA SAFETY INFORMATION FOR CONSUMER TIRES (For Replacement and OE Passenger, Light Truck, Temporary Spare, and High Performance Tires)

PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH MAY RESULT FROM:

- Tire failure due to underinflation, overinflation, or overloading – Always follow owner's manual or tire placard in vehicle.
- Explosion of the tire/rim assembly due to improper mounting — Only specially trained persons should mount tires.
- Failure to mount tires on approved rims of exactly the same diameter.
- Tire failure due to impact damage/improper inflation Inspect tires frequently for signs of damage, irregular wear, and air loss.
- Tire failure due to improper repairs See U.S. Tire Manufacturers Association (USTMA) established repair procedures at <u>www.ustires.org</u>.
- Tire failure due to excessive tire spinning.

IMPORTANT SAFETY INFORMATION

Any tire, no matter how well constructed, may fail due to improper maintenance or service factors. Tire failure may create a risk of property damage and serious or fatal injury. For your safety, please follow the instructions below.

TIRE INSPECTION

- Monthly inspections by owner. At least once a month, inspect your tires, including your spare tire, consisting of an inflation check, tread depth check, and a visual search for damage from road hazards, such as scrapes, bulges, cuts, nails, irregular wear, etc.
 Inspect your tires immediately after any known or suspected contact with an object in the road, a pothole, road irregularity, or after severe braking. Refer these conditions to a reputable tire service center for repair or replacement. Never drive on a damaged tire.
- Annual inspections by a qualified tire service professional. At least once a year, have your tires inspected by a qualified tire service professional to determine whether your tires can continue in service.

TIRE TREAD

Tires must be replaced when the depth of the tread reaches 2/32" (1.6 mm). Yokohama tires are manufactured with tread wear indicators molded into the tire grooves which indicate tread wear out. As tires wear down to 2/32 " (1.6 mm), and tread depth is reduced, tire traction is reduced during rainfall and winter road conditions. While the minimum allowable tread depth is 2/32", tires may lose sufficient wet and snow traction before reaching 2/32" (1.6 mm). The vehicle owner must determine if tires should be replaced prior to reaching 2/32" tread depth based on the conditions under which the vehicle is operating. A visual tire inspection, therefore, becomes more crucial as the tires wear out.

If you detect irregular tire wear or vibration, your vehicle may be out of alignment or your tire/wheel assembly may be out of balance. These conditions shorten the life of your tires and may adversely affect the handling characteristics of your vehicle, which could be dangerous. Tires which have been run underinflated will show more wear on the shoulders than in the center of the tread. If you have any unusual tire wear, performance or ride quality, take your vehicle to a qualified tire service professional.

TIRE REPLACEMENT

Yokohama recommends tire replacement in full sets of the same size, tread design, construction, load index, and speed rating. If the decision is made to only apply two new tires, the new tires should be installed on the rear position. To maintain vehicle dynamics and load carrying capacity, replacement tires must always have a load index and speed rating that equals or exceeds that of the original equipment tires of the vehicle. Driving your vehicle with an improper mix of tire sizes, constructions, and speed ratings can be dangerous: your vehicle's handling characteristics can be adversely affected. Before replacing tires, always consult and follow the vehicle owner's manual or an authorized Yokohama dealer for proper tire replacement. Tire changing can be dangerous and should be done using proper tools and procedures. Always use approved tire/rim combinations for rim diameter, width, and contour. Always replace a tire on a rim with another tire of exactly the same rim diameter designation.

When changing between P-metric, Euro-metric, LT-metric, and flotation sizes, both inflation pressure and load carrying capacity adjustments may be required. Consult your tire service professional.

PROPER INFLATION

Proper inflation is necessary for tire safety, performance, maximum tread life, and best fuel economy. Always keep tires inflated at the pressure specified by the vehicle manufacturer. Tire pressures must be checked at least once a month and before long trips when tires are cold (before operation, cool to the touch). Use an accurate tire gauge to check pressure since it is not possible to tell an underinflated tire just by looking at it. Do not reduce pressure when a tire is hot and do not inflate a cold tire higher than limits molded on the tire's sidewall. Do not overlook spare tire inflation pressure. If your vehicle is equipped with a tire pressure monitoring system (TPMS), it does not replace your manual monthly inflation checks.

- Inflation Pressure for Off-Road Use: Inflation pressures for tires used in most off-road situations should be the same as those for highway driving. Off-road driving, especially at low inflation pressure, increases the risk of damaging the structure of the tires due to impacts. Reducing inflation pressure to increase off-road traction can result in over deflection, excessive heat buildup and ultimately tire failure. If a lower inflation pressure is used to gain additional flotation/ traction at low speeds, the tires must be re-inflated before resuming driving on the highway or at higher speeds, whether on-or off-road.
- Inflation Pressure for LT Tires on Heavy-Duty Vehicles: Vehicle manufactures utilize load range D and E LT tires to achieve the high load capacities of which heavy duty vehicles are capable. Reducing inflation pressure from that specified by the manufacturer reduces load capacity and changes handling characteristics which can be dangerous. Yokohama always recommends for drivers to follow the placard pressures. If a driver reduces tire inflation pressure, they are solely responsible to ensure that the load capacity of the tires is not exceeded and the vehicle is capable of operating safely.

Underinflation and/or overloading of a tire causes excessive heat build-up and internal structural damage. Overinflation makes it more likely for tires to be cut, punctured, or broken by sudden impact. These conditions may cause a tire failure, including a tread/belt separation, even at a later date, which can lead to an accident and serious personal injury or death.

TIRE LOADING

Never exceed the maximum vehicle load limit listed on the vehicle placard or in the owner's manual. Never exceed the load carrying limits molded into the tire's sidewall. Maximum load can only be carried at the maximum cold inflation pressure indicated on the tire's sidewall. Overloading can cause excessive heat buildup, internal structural damage and may cause tire failure.

SPEED

Regardless of the speed capability of your tires, never exceed lawful speeds or speeds dictated by driving conditions. Exceeding a tire's speed capability could cause overheating and sudden tire failure.

ROAD HAZARDS

Objects on the road that could damage your tires should be safely avoided. These objects include: potholes, glass, metal, rocks, wood debris, curbs, and the like. Damage from impact can occur to the inner portions of your tire without being visible to the outside and can result in tire failure. If you suspect a tire has been damaged, immediately replace it with a properly inflated spare tire and have the damaged tire removed from the rim and inspected both inside and out by a qualified tire technician.

Safely avoid road hazards, including, potholes, curbs, and objects on the road. This may cause a tire failure, including a tread/belt separation, even at a later date, which can lead to an accident and serious personal injury or death.

TIRE SPINNING

Do not allow the reading on the speedometer to exceed 35 mph if tires are spinning because the vehicle becomes stuck in mud, snow, ice, etc. When only one tire on an axle is spinning, its speed can be double what is indicated on the speedometer and can quickly exceed the capability of the tire.

Never allow anyone to stand behind a spinning tire while attempting to push a vehicle. Speed and force can cause a tire to disintegrate and explode and may cause property damage, serious personal injury, or death to you or a bystander.

RECOMMENDED TIRE ROTATION

Front and rear tires perform differently and, consequently, Yokohama recommends tire rotation to ensure even wear and lengthen tread life. Rotate your tires according to the vehicle manufacturer's recommendation in your owner's manual. In the absence of the vehicle manufacturer's instruction, Yokohama recommends that its tires be rotated every 5,000 miles for normal applications. If your vehicle has a matching full-size spare tire, it is recommended that it be included in the tire rotation. After the tires are rotated make sure they are inflated to the pressure specified by the vehicle manufacturer.

TIRE SERVICE LIFE

Follow your vehicle manufacturer's recommendations for tire service life. For a tire in use for five or more years, including your spare tire, Yokohama recommends an inspection by a qualified tire service professional at least once a year to determine whether the tire can continue in service. In the absence of instructions from your vehicle manufacturer regarding tire service life, Yokohama recommends the replacement and disposal of all passenger and light truck tires whose D.O.T. production date is 10 or more years old, even if the tire appears to be undamaged and has not reached its tread wear limits. To locate the D.O.T. number, refer to the tire sidewall where the D.O.T. number will appear. D.O.T. numbers are coded as follows:

D.O.T. CCFCXYZ1915

Production Date (represents week & year tire was made): 1915 = Tire was made 19th week of 2015

More information can be found at: <u>www.yokohamatire.com/tires-101/how-to-read-a-sidewall-1/dot-marking</u>

REPAIR AND MAINTENANCE

All passenger and light truck tires require regular maintenance to assure safe operation and maximum service lifetime. Tire repairs should only be completed by a qualified tire service professional. Improper repairs are dangerous and may cause a tire to fail. Yokohama endorses all service guidelines defined by the U.S. Tire Manufacturers Association. Visit <u>www.ustires.org</u> or call 202-682-4800 for their service publications. Yokohama does not allow repair of injury to temporary spare tires and Yokohama ZPS runflat tires.

VIBRATION/RIDE DISTURBANCE

Many tire failures are preceded by vibrations, bumps, bulges, or irregular wear. If while driving your vehicle you experience any unusual vibration, pull, ride disturbance, or noise, DO NOT continue to drive. Pull over as soon as possible and inspect your tires. A tire failure may lead to loss of control, which may create a risk of serious personal injury or death.

If the vehicle experiences a sudden vibration, ride disturbance, or tire failure and/or there is a possibility the tires and/or vehicle have been damaged, gradually reduce speed. DO NOT ABRUPTLY BRAKE OR TURN. Drive with caution until you can safely pull off the road. Stop and inspect the tire. If the tire is underinflated or damaged, deflate and replace it with a good spare tire. If a cause cannot be detected, the vehicle should be towed to the nearest vehicle or tire dealer for an inspection.

PROPER STORAGE

Tires should be stored indoors in a cool dry place where water cannot collect inside the tires. Do not store in areas that are wet, humid, oily, greasy, or in direct sunlight. Do not store in the same area as an electric motor or other ozone-generating source. If tires are not stored properly, not only will there be a deterioration in their appearance, there may be a loss in performance and compound integrity that can lead to tire failure.

TEMPORARY SPARE

- The Yokohama high pressure spare tire is designed for temporary use only.
- Speed must not exceed 50 mph (80 km/h) for non-speed-rated temporary spare tires.
- Check the tire's cold inflation pressure monthly and maintain at 60 psi (4.2 kg/cm2) even when not in use. Do not inflate over 60 psi.
- A tread life of up to 3,000 miles (4,800 km) can be expected depending on road conditions and your driving habits. To conserve tire tread life, the spare should be returned to the trunk as soon as the standard tire can be repaired or replaced.
- Because the Yokohama high pressure spare tire was specifically designed for your car it should not be used on any other vehicle.
- Do not use snow chains on your Yokohama high pressure spare. This could cause damage to your vehicle.
- When the tread wear indicator appears on the tire replace it only with the same type spare tire.
- The Yokohama high pressure spare tire should not be used with any other rim nor should standard tires, wheel covers, or trim rings be used on the Yokohama high pressure spare tire rim on which the Yokohama high pressure spare tire was originally installed.

WINTER/SNOW TIRES

Winter tires should always be installed on every wheel position. Winter tires on only one axle can lead to unpredictable handling. Many Yokohama winter tires have a snow wear tread indicator at 50% of the total tread depth. This bar is intended as a reminder that deep snow performance may diminish at that level of wear. Never reduce tire pressures in an attempt to increase traction on snow or ice. Slow down and drive carefully in adverse winter driving conditions.

ZPS (ZERO PRESSURE SYSTEM) RUNFLAT TIRES

Yokohama ZPS runflat tires include special technology to allow the tire to operate at reduced speeds and distances with zero inflation pressure when your vehicle is equipped with a Tire Pressure Monitoring System (TPMS). When the TPMS alerts the driver that a tire has lost air pressure, Yokohama recommends the slowest safe speed and the shortest distance to a service facility. In no case should the driver exceed 50 mph or 50 miles. Yokohama ZPS runflat tires are not to be repaired following a puncture or other tire disablement. Never mix ZPS runflat tires with tires that do not have runflat technology. Never mix runflat tires of different brands or technology.

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. Fill out and return the Yokohama registration card provided by your dealer, or register your tires at <u>eco.yokohamatire.com/TireRegistration</u>.

CLOSING

Failure to follow any of the recommended precautions can lead to erratic vehicle behavior, tire damage and/or tire failure, including tread/belt separation, and may create a risk of property damage and serious or fatal injury.

If you suspect any damage to your tires or wheels, contact your local Yokohama tire retailer or contact Yokohama.

YOKOHAMA SAFETY INFORMATION FOR COMMERCIAL TIRES (For USA Replacement and Original Equipment Truck/Bus Tires)

PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH MAY RESULT FROM:

- Tire failure due to underinflation, overinflation, or overloading – Always follow vehicle owner's manual, vehicle tire placard or certification label.
- Explosion of the tire/rim assembly due to improper mounting – Only specially trained persons should mount tires. See OSHA Demounting & Mounting Procedures at <u>www.osha.gov</u>.
- Failure to mount tires on approved rims of exactly the same diameter.
- Failure to deflate single or dual assemblies completely before demounting.
- Tire failure due to impact damage/improper inflation Inspect tires frequently for signs of damage, irregular wear, and air loss.
- Tire failure due to improper repairs See U.S. Tire Manufacturers Association (USTMA) established repair procedures at <u>www.ustires.org</u>.
- Tire failure due to excessive tire spinning.
- See USTMA's Care and Service of Commercial Truck & Bus Tires at <u>www.ustires.org</u>.

IMPORTANT SAFETY INFORMATION

Any tire, no matter how well constructed, may fail due to improper maintenance or service factors. Tire failure may create a risk of property damage and serious or fatal injury. For your safety, please follow the instructions below.

PROPER INFLATION

The inflation pressure in all tires, including the spare tire and inside duals, should be checked with an accurate tire gauge when the tires are cold on a frequent basis, such as daily during continual service as required by the Department of Transportation. This includes vehicles with a Tire Pressure Monitoring System (TPMS). Do not reduce pressure when tires are hot from driving. Any tire that continually requires reinflation is a serious safety risk. Use metal valve caps on each tire to ensure a complete air seal during operation and to keep out dirt and moisture.

Do not exceed the inflation pressure on the tire sidewall. Manufacturers of trucks and buses identify tire inflation pressure for each axle on the vehicle tire placard, certification label, or in the service manual. This pressure is always sufficient to carry the maximum axle load but may not deliver optimal tire performance.

Tires perform best when inflated to match vehicle and axle loads. Steer tires often require maximum inflation pressure to carry the steer axle load while drive and trailer axle tires should be set at pressure corresponding to actual tire loading. Refer to the Yokohama Tire Pressure Inflation Calculator at yokohamatruck.com/tire-tools/inflation-pressure-calculator.

DRIVING ON TIRES WITH IMPROPER INFLATION IS DANGEROUS.

- Underinflation causes excessive heat buildup and internal structural damage.
- Overinflation makes it more likely for tires to be cut, punctured or broken by sudden impact.

These situations can cause a tire failure, including a tread/belt separation, even at a later date, which can lead to an accident and serious personal injury or death. Any truck tire known or suspected to have run at 80% or less of normal operating inflation pressure could possibly have permanent structural damage and should be considered a flat tire.

REGULAR TIRE INSPECTION

In addition to maintaining proper inflation, regularly inspect the tire tread and sidewalls for irregular tread wear, adequate tread depth, cracking, scrapes, bulges, cuts, snags, foreign objects, or other damage resulting from use. It is recommended that tires, including the spare, be periodically inspected by a tire service professional during routine preventative maintenance intervals.

Driving on damaged tires is dangerous. Impact can damage the inner portions of your tire without being visible on the outside. If you suspect that possible impact damage may have occurred, have a qualified tire service professional inspect the inner surface of your tire immediately to avoid possible sudden failure. Tires with excessive cracking on the tread or sidewall(s) should be removed from service. This is typically caused by underinflation, overloading, improper storage and/or improper long-term parking. If you detect irregular tire wear or vibration, your vehicle may be out of alignment or your tire/wheel assembly may be out of balance. These conditions shorten the life of your tires and may adversely affect the handling characteristics of your vehicle, which could be dangerous. Tires which have been run underinflated will show more wear on the shoulders than in the center of the tread (refer to ATA TMC's Radial Tire Conditions Analysis Guide, Radial Tire & Disc Wheel Service Manual and User Guide to Wheels and Rims).

INFLATING AN UNSECURED TIRE IS DANGEROUS, AS IT COULD BURST 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 a vehicle or a tire mounting machine.
- Never stand or lean over the tire or in front of the valve when inflating.
- Never reinflate 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 by a qualified tire service professional, including interior and exterior.

See OSHA Demounting and Mounting Procedures at www.osha.gov/publications.

TIRE LOADING

To avoid overloading tires, maintain the proper inflation pressure and never exceed the vehicle's load capacity, Gross Axle Weight Rating (GAWR) or the Gross Vehicle Weight Rating (GVWR) of your vehicle. The vehicle must also be distributed so that no individual axle, tire, or dual assembly is overloaded. Never exceed the maximum load rating stamped on the sidewall of your tire and never exceed the maximum load or inflation pressure capacity of the rim or wheel assembly. Consult the vehicle tire information placard, certification label, and owner's manual for the recommended vehicle load limits and loading requirements.

DRIVING YOUR VEHICLE IN AN OVERLOADED CONDITION IS DANGEROUS.

 Overloading causes excessive heat build-up and internal structural damage. This may cause a tire failure, including a tread/belt separation, even at a later date, which can lead to an accident and serious personal injury or death.

ZIPPER RUPTURES IN STEEL CORD RADIAL TRUCK & BUS TIRES.

- Any steel cord radial truck & bus tire operating underinflated and/or overloaded must be approached with caution.
 Permanent damage due to operating the tire underinflated and/or overloaded cannot always be detected, although the tire could have permanent sidewall structural damage (steel cord fatigue).
- Ply cords weakened by underinflation and/or overloading may break one after another until a rupture occurs in the upper sidewall with accompanying instantaneous air loss and explosive force. This can result in serious injury or death.
- For inspection procedures, see USTMA's TISB, Vol. 33 No. 5; <u>www.ustires.org</u>.

TIRE REPLACEMENT

For vehicles with GVWR in excess of 10,000 lbs. (4,536 kg), federal regulations require that tires on the front axle should be removed when worn to 4/32" (3.2 mm) tread depth. For non-steer tires, replace tires when worn to 2/32" (1.6 mm) tread depth remaining anywhere on the tread face. Replacement tires should be the same as the OE size designation, or approved options, as recommended by the vehicle manufacturer.

Always use approved tire/rim combinations for rim diameter, width, and contour. Always replace a tire on a rim with another tire of exactly the same rim diameter designation a Gross Vehicle Weight Rating (GVWR) over 10,000 pounds.

Tire mounting and tire and wheel servicing can be dangerous and must be done only by trained personnel using proper tools and procedures, as specified by the U.S. Tire Manufacturers Association at <u>www.ustires.org</u> and OSHA Demounting & Mounting Procedures at <u>www.osha.gov</u>. Failure to comply with these procedures may result in faulty positioning of the tire and/or rim parts and cause the assembly to burst with explosive force sufficient to cause serious personal injury or death.

TIRE MIXING

Driving your vehicle with an improper mix of tires can be dangerous. Never mix different tire sizes or construction types on the same axle. Your vehicle's handling characteristics can be seriously affected. Consult your vehicle's owner's manual and a qualified service professional for proper tire replacement.

PROPER MATCHING AND SPACING OF DUALS

Paired tires should be of the same size designation, same construction and tread design, and as close as possible to the same outside diameter. Mismatching duals forces the larger diameter tire to carry an overload, causing it to overdeflect and overheat. The smaller diameter tire, lacking proper road contact, wears faster and irregularly. Tire damage, such as tread or ply separation, tire body breaks and blowouts, can develop from mismatched duals. Proper spacing precludes tire rubbing and excessive heat generation.

RETREADED, REGROOVED, OR REINFORCEMENT-REPAIRED TIRES ON STEER AXLES

- Comply with the Federal Motor Carrier Safety Administration (FMCSA) and National Highway Traffic Safety Administration (NHTSA) regulations restricting the use of reinforcement-repaired tires and regrooved tires on steer axles of commercial vehicles.
- Comply with FMCSA regulations prohibiting the use of retreaded or regrooved tires on steer axles of buses.
- Yokohama recommends that original tread tires be used on steer axles of buses and highway trucks with a Gross Vehicle Weight Rating (GVWR) over 10,000 pounds.

REPAIR AND MAINTENANCE

All commercial truck and bus tires require regular maintenance to assure safe operation and maximum service lifetime. Tire repairs should only be completed by a qualified tire service professional. Improperly repaired and/or retreaded tires are dangerous and can cause tire failure, property damage, and serious personal injury. Yokohama endorses all service guidelines defined by the U.S. Tire Manufacturers Association, Care & Service of Commercial Truck & Bus Tires. Visit <u>www.ustires.org</u> for more information.

SPEED

Regardless of the speed capability of your tires, never exceed lawful speeds or speeds dictated by driving conditions. Exceeding a tire's speed capacity could cause overheating and sudden tire failure.

TIRE SPINNING

- Do not allow the reading on the speedometer to exceed 35 mph if tires are spinning because the vehicle becomes stuck in mud, snow, ice, etc. When only one tire on an axle is spinning its speed can be up to four times what is indicated on the speedometer and can quickly exceed the capability of the tire.
- Never allow anyone to stand near a spinning tire. Speed and force can cause a tire to rupture and explode and may cause property damage, serious personal injury, or death to you or a bystander.

TIRE SERVICE LIFE FOR COMMERCIAL TRUCK & BUS TIRES

It is important to have tires in good operating condition, thus tires may need to be replaced because of service conditions long before the tread is worn out. To determine if tires, including the spare, should remain in service, it is recommended that they be periodically inspected by a tire service professional during routine preventative maintenance intervals. Follow the vehicle manufacturers' specific recommendations, if any, regarding tire service life and replacement. Refer to USTMA's Care & Service of Commercial Truck & Bus Tires at <u>www.ustires.org</u>.

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. Fill out and return the Yokohama registration card provided by your dealer, or register your tires at <u>eco.yokohamatire.com/TireRegistration</u>.

PROPER STORAGE

- Store tires indoors in a cool dry place where water cannot collect inside the tires.
- Store tires raised off a storage area's floor surface to minimize exposure to moisture or damage.
- Avoid contact with petroleum-based products and/or other volatile solvents or substances.
- Store tires away from electric motors, battery chargers, generators, welding equipment or other ozone-generating sources.
- If tires are not stored properly, not only will there be a deterioration in their appearance, there may be a loss in performance and compound integrity that can lead to tire failure.
- If outdoor storage is necessary, follow the USTMA guidelines

CLOSING

Failure to follow any of the recommended precautions can lead to erratic vehicle behavior, tire damage and/or tire failure, including tread/belt separation, and may create a risk of property damage and serious or fatal injury.

If you suspect any damage to your tires or wheels, contact your local Yokohama tire retailer or contact Yokohama.

Yokohama Tire Corporation Consumer Affairs Assistance 800.722.9888 www.YokohamaTire.com

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