SPEED RATING & LOAD INDEX

The load index and speed rating correspond to the maximum load-carrying capacity of the tire and its maximum speed capability. Replacement tires should have a load-carrying capacity and speed rating that meets or exceeds that of the original equipment (O.E.) tires.

LOAD INDEX

The load index is a numerical code associated with the maximum load a tire can carry at the speed indicated by its speed symbol under service conditions specified by the tire manufacturer. The load index may not be used independent of speed rating to determine tire acceptability for load capacity. An equal or greater load index does not always correspond to equal or greater capacity at all inflation pressure settings, particularly when comparing P-metric and metric passenger car tires. Please see the Load and Inflation Table Application Guide at toyotires.com for additional information.

EXAMPLES OF TIRE SIZE AND LOAD INDEX VALUE DIFFERENCES

TIRE SIZE	LOAD INDEX	Load Capacity (lbs.) at Various Inflation Pressures			
		26	29	32	35
Load capacity varies for different tire sizes with the same load index					
P205/65R15	**92 (SL)**	1213	1279	1334	1400
P225/55R15	**92 (SL)**	1224	1290	1345	1389
Load capacity varies for some tire sizes with different load index					
P205/55R16	**89 (SL)**	1091	1157	1213	1279
205/55R16	**91 (SL)**	1047	1135	1224	1312
205/55R16	**94 (XL)**	1003	1102	1179	1268

SPEED RATING

A speed rating is designated by a letter that indicates the maximum speed capability of a tire based on standardized laboratory tests under specific, controlled conditions. These ratings do not necessarily relate to actual tire performance on the road, but are instead intended to provide comparative performance measurements of tires with different ratings. Replacement tires should have a speed rating that is equal to or greater than that of the original equipment tires if the speed capability and handling characteristics of the vehicle are to be maintained.

SPEED RATING	SPEED (MPH)	SPEED RATING	SPEED (MPH)	SPEED RATING	SPEED (MPH)
P	93	T	118	W	168
Q	99	U	124	Y	186
R	106	H	130	(Y)	195
S	112	V	149	ZR*	OVER 149 MPH

*Consult tire manufacturer for top speed capability.

TIRE SPEED RATING

All Toyo Tires passenger, light truck and truck tires have a maximum speed rating based on size and type. Tires must never be operated in excess of their rated speed limit! Consult your tire dealer or contact Toyo Tires at (800) 442-8696 (Pacific Time) if you are not sure about the maximum speed rating of your tires.

⚠ WARNING

No tire, regardless of its design or speed rating, has an unlimited capacity for speed. Exceeding the tire's speed capability could cause overheating and sudden tire failure, possibly leading to loss of vehicle control and serious personal injury or death.

SPEED-RATED TIRES

If the vehicle Tire Information Placard and/or the vehicle Owner's Manual specifies speed-rated tires, the replacement tires must have the same or higher speed rating to maintain vehicle speed capability.

- If a replacement tire has a lower speed capability than that specified by the vehicle manufacturer, the vehicle's speed must be restricted to that of the replacement tire. Vehicle handling could also be affected. Consult the vehicle Owner's Manual or tire manufacturer for recommendations.
- If tires with different speed ratings are used, it is recommended that the lower-speed-rated tires always be placed on the front axle. This is to prevent a potential oversteer condition.

FOUR-WHEEL DRIVE (4WD) AND ALL-WHEEL DRIVE (AWD) VEHICLES

If no instructions for tire mixing appear in the vehicle Owner's Manual, follow these guidelines:

- Do not mix tire sizes. All four tires must be marked with the same tire size, unless otherwise specified by the vehicle manufacturer. This also applies to winter/snow tires.
- Do not mix tread pattern types such as all-terrain and all-season.

STUDLESS WINTER/SNOW TIRES

- It is always preferable to apply winter/snow tires to all wheel positions, including dual tires, to maintain vehicle mobility and control.
- If winter/snow tires are applied to the front axle of any vehicle, winter/snow tires must also be installed on the rear axle. DO NOT apply winter/snow tires only to the front axle. This applies to all passenger and light truck vehicles, including front-wheel-drive, 4WD and AWD vehicles.
- If winter/snow tires are installed on the rear axle of any vehicle, it is recommended (but not required) that they also be installed on the front axle.

⚠ WARNING

Unless winter/snow tires on the rear axle have comparable traction qualities to the tires on the front axle, the vehicle may experience adverse handling characteristics. This may result in loss of vehicle control, which can lead to serious personal injury or death.

STUDDED WINTER/SNOW TIRES

- Studded winter/snow tires have higher traction qualities under most winter weather conditions.
- If studded winter/snow tires are installed on the front axle of any vehicle, studded winter/snow tires must also be installed on the rear axle. DO NOT apply studded winter/snow tires only to the front axle.
- If studded winter/snow tires are installed on the rear axle of any vehicle, it is strongly recommended that they should also be installed on the front axle. Only if studded winter/snow tires are installed on all wheel positions of a vehicle will optimum handling characteristics be achieved

SPEED RATING & LOAD INDEX

⚠ WARNING

Installing only two studded winter/snow tires on the front axle of any vehicle (including front-wheel-drive vehicles) without studded winter/snow tires on the rear axle can cause adverse vehicle handling characteristics. This can result in a loss of vehicle control, which could cause serious personal injury or death.

WINTER (SNOW TIRES)

Winter driving presents special challenges for vehicle handling. The use of winter tires, studs and chains, while improving traction performance in snow and ice, requires additional caution and care with regard to braking, cornering, and speed. It is important to drive with care not only on snow and ice, but on dry and wet roads as well.

⚠ WARNING

Studded tires may require longer braking distances on dry or wet paved surfaces. Failure to allow for adequate braking distance could result in serious personal injury or death.

- Traction is considerably reduced as snow tires approach 50% tread wear, and replacement should be considered in order to maintain effectiveness in heavy snow conditions.
- Tire speed rating – When lower-speed-rated winter tires replace higher-speed-rated touring and high performance all-season radial tires, do not exceed the lower-rated speed.
- Follow recommendations in the vehicle Owner's Manual for winter tires, studs and chains.
- Consult your tire dealer, the U.S. Tire Manufacturers Association (www.ustires.org), or your state's Department of Transportation (DOT) for information regarding regulatory and seasonal restrictions for stud usage.
- Also see the "Tire Mixing" section in this manual for more details.
- Toyo Tires recommends that snow tires be installed in matched sets of four.

PROPER SELECTION OF TIRES

When tires need to be replaced, don't guess what tire is right for your vehicle. First look at the vehicle Owner's Manual or the Tire Information Placard. They tell you the size of the tires that were on the vehicle as original equipment.

Replacement tires for any vehicle must be of a size, load range and load capacity (by inflation) that are capable of supporting the same load as the vehicle's originally installed (OE) tires. Avoid installing used tires on a vehicle. There is no way to determine what road hazards or abuse a previously owned tire may have incurred.

Based on consumer contact information, Toyo has noted an increasing trend on the part of some tire installers to disregard fundamental safety practices when replacing original tires on cars and light trucks.

The 'Golden Rule' for installing replacement tires on autos and light trucks:

"Replacement tires must be of a size, load range and load capacities (by inflation) that are capable of supporting the load of the vehicle's originally installed (O.E.) tires."

⚠ WARNING

Failure to install tires with adequate load capacity will result in tire fatigue and sudden tire failure. This could lead to loss of vehicle control, possibly resulting in personal injury or death.

Certain vehicle performance parameters, including ride comfort and handling, may be affected bysubstitute tire sizes. In some cases, particularly for SUVs and light trucks, a failure to follow the vehicle manufacturer's recommendations for tire replacement could adversely affect the safe handling of the vehicle, possibly resulting in a loss of vehicle control leading, to personal injury or death.

TIRE AND WHEEL MATCHING AND MOUNTING

Any attempt to mount a tire on a wheel with a different diameter will result in an explosion of the tire/wheel assembly that could cause severe personal injury or death. Prior to mounting any tire, always check the wheel identification stamp to verify the correct wheel diameter. Always check the tire size molded onto the sidewall. Never exceed 40 psi when seating the tire beads onto the wheel. Always stand well clear of any tire mounting operation. This is especially important when the service operator inflates the tire. If the tire has been improperly mounted, it could burst with explosive force causing serious personal injury or death. A new valve stem must be installed on the wheel each time a worn out passenger or light truck tire is replaced. Removing and replacing tires on wheels can be dangerous. Attempting to mount tires with improper tools or procedures could result in a tire explosion, causing serious personal injury or death. This is a job for your authorized Toyo Tires dealer or other qualified tire service location only.

Serious personal injury or death can result from:

- Failure to select the proper tire and wheel. The tire must match the width and diameter requirements of the wheel. When mounting truck type radial tires use only wheels approved for radial tires.
- Failure to inspect both the tire and wheel. The wheel must be free of cracks, dents, chips, and rust. The tire must be free of bead damage, cuts, and punctures.
- Failure to follow proper procedures. For proper mounting procedures, consult the U.S. Tire Manufacturers Association's publication, "Care and Service of Passenger and Light Truck Tires" (ref.: www.ustires.org).
- Exceeding the maximum bead seating pressure of 40 psi. Be absolutely certain beads are fully seated before adjusting the inflation pressure to the level recommended for vehicle operation.

Never put flammable substances in the tire/wheel assemblies at any time. Never put any flammable substance into a tire/wheel assembly and attempt to ignite it in order to seat the beads.

NOTICE

In some cases, the vehicle manufacturer may specifically advise against replacing fewer than all four tires. Always check and follow the recommendations in the vehicle Owner's Manual. For 4WD and AWD vehicles, even small differences in outside diameter may cause drivetrain damage or mechanical malfunction.

REPLACEMENT TIRES FOR LIGHT TRUCKS – P-METRIC VS. LT-TRUCK

Tire installers should exercise extreme caution when replacing tires on light trucks. The maximum load capacity stamped on the sidewall of a P-metric tire is reduced by a factor of 1.1 when used on a light truck, a sport utility vehicle or a trailer.

⚠ WARNING

P-metric and LT-metric tires are not necessarily interchangeable. P-metric and LT-metric tires follow completely different Load/Inflation tables and are designed to carry different loads at different pressures. LT-metric tires carry their load at higher inflation pressures and do not always have adequate load capacity to replace P-metric tires of the same size. After reducing a P-metric tire's load rating by dividing by 1.1 for fitment on a Light Truck, the P-metric tire may not offer sufficient load capacity to replace an LT-metric tire of the same size. Contact your Toyo Tires dealer or Toyo Tires Technical Service for help determining how to choose a proper replacement size. Driving with underinflated or overloaded tires may result in immediate tire failure, which can cause an accident and could lead to serious personal injury or death. When a P-metric or metric tire is installed on a light truck (SUV, pickup, minivan), the load rating is reduced by dividing by 1.1.

(This load reduction factor is prescribed by Federal Motor Vehicle Safety Standards (FMVSS) and is based on the expectation that passenger-type tires may experience more severe loading and usage conditions when applied to light trucks.) For example, 305/50R20 has a maximum load capacity of 3086 lbs. If this tire is fitted to a light truck, the actual allowable load for the tire is 2805 lbs. (3086 lbs. divided by 1.1). Consult the load and inflation charts that can be found at www.toyotires.com. Contact Toyo Tires Technical Service with any tire replacement questions: (800) 442-8696 (Pacific Time)

IF REPLACING FEWER THAN FOUR (4) TIRES

IMPORTANT!

In some cases, the vehicle manufacturer may specifically advise against replacing fewer than all four tires. Always check and follow the recommendations in the vehicle owner's manual. For 4WD and AWD vehicles, even small differences in outside diameter may cause drivetrain damage or mechanical malfunction.

When replacing tires on a vehicle, it is recommended and preferred that all four tires be replaced at the same time for continued optimal vehicle performance. However, for those cases where this is not feasible, below are some general guidelines to consider when replacing fewer than four tires for a light vehicle, whether it is one or two tires. If the vehicle manufacturer has alternate recommendations, always follow their recommendations.

REPLACING TWO (2) TIRES — When a pair of replacement tires is selected in the same size and construction as those on the vehicle, the two newer tires must be installed on the rear axle. All tires must be the same speed rating and must be of equal or higher speed rating than the tire that came as original equipment on the vehicle. New tires with deeper tread will provide better grip and evacuate water more effectively, which is important as a driver approaches (wet) hydroplaning situations. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability and control.

REPLACING ONE (1) TIRE — Replacing a single tire on a vehicle can have an adverse effect on suspension systems, gear ratios, transmission and tire treadwear. If single-tire replacement is unavoidable, it is recommended that the single new tire be paired with the tire that has the deepest tread depth and both be placed on the rear axle. Placing greater traction on the rear axle on wet surfaces is necessary to prevent a possible oversteer condition and loss of vehicle stability and control.