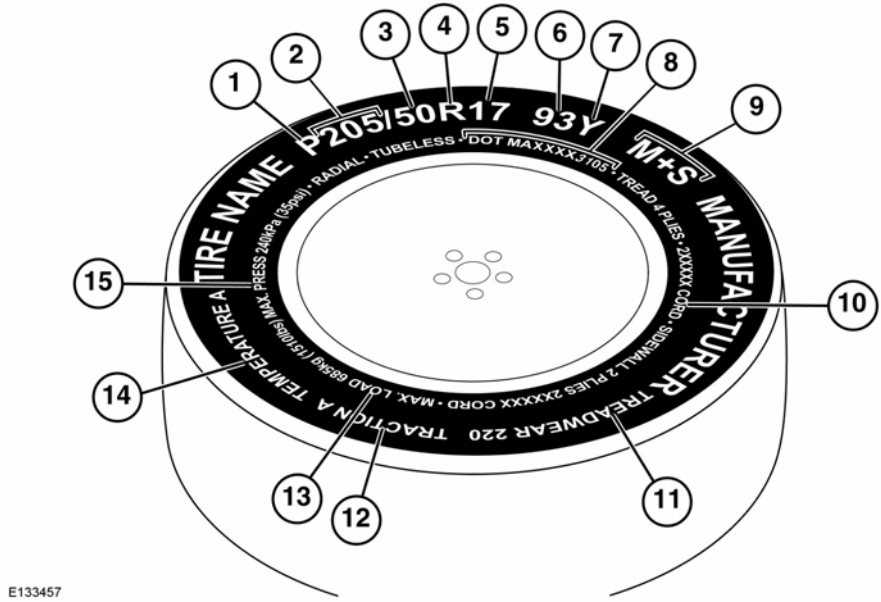
TIRE MARKINGS



1. **P** indicates that the tire is for passenger vehicle use. This index is not always shown.
2. The width of the tire from sidewall edge to sidewall edge in millimeters.
3. The aspect ratio, also known as the profile, gives the sidewall height as a percentage of the tread width. So, if the tread width is 205 mm, and the aspect ratio is 50, the sidewall height will be 102 mm.
4. **R** indicates that the tire is of Radial ply construction.
5. The diameter of the wheel rim given in inches.
6. The load index for the tire. This index is not always shown.

The load index on all replacement tires must be, at least, the same specifications as the Original Equipment (OE). If in doubt consult a Retailer/Authorized Repairer.

7. The speed rating denotes the maximum speed at which the tire should be used for extended periods. See **227, SPEED RATINGS**.

8. US DOT Tire Identification Number (TIN). This begins with the letters DOT and indicates that the tire meets all federal standards. The next 2 numbers or letters are the plant code where the tire was manufactured, the last 4 numbers are the date of manufacture. For example, if the number was 4111, the tire was made in the 41st week of 2011. The other numbers are marketing codes used at the manufacturer's discretion. This information can be used to contact consumers if a tire defect requires a recall.
9. **M+S** or **M/S** indicates that the tire has been designed with some capability for mud and snow.
10. The number of plies in both the tread area, and the sidewall area, indicates how many layers of rubber coated material make up the structure of the tire. Information is also provided on the type of materials used.
11. Wear rate indicator. A tire rated at 400 for example, will last twice as long as a tire rated at 200.
12. The traction rating grades a tire's performance when stopping on a wet road surface. The higher the grade the better the braking performance. The grades from highest to lowest are, **AA**, **A**, **B** and **C**.
13. The maximum load which can be carried by the tire.
14. Heat resistance grading. The tire's resistance to heat is grade **A**, **B** or **C**, with **A** indicating the greatest resistance to heat. This grading is provided for a correctly inflated tire, which is being used within its speed and loading limits.
15. The maximum inflation pressure for the tire. See **230, AVOIDING FLAT SPOTS**.

SPEED RATINGS

Rating	Speed, mph (km/h)
Q	99 (160)
R	106 (170)
S	112 (180)
T	118 (190)
U	124 (200)
H	130 (210)
V	149 (240)
W	168 (270)
Y	186 (300)

TIRE CARE

Do not drive the vehicle if a tire is damaged, excessively worn, or incorrectly inflated. A tire in such a condition may catastrophically fail and cause an accident.

Avoid contaminating the tires with vehicle fluids as they may cause damage to the tire and cause a tire failure, which can result in an accident.

Avoid spinning the wheels. The forces released can damage the structure of the tire and cause it to fail.

If wheel spin is unavoidable due to a loss of traction (in deep snow, for example), do not exceed the 30 mph (50 km/h) point on the speedometer. Do not allow anyone to stand near, or directly behind a tire that might spin.

Do not exceed the maximum pressure stated on the sidewall of the tire.

TIRE PRESSURES

All tire pressures including the spare, should be checked regularly using an accurate pressure gauge, when the tires are cold. Failure to properly maintain your tire pressures could increase the risk of tire failure resulting in a loss of vehicle control and potential personal injury.

Pressure checks should only be carried out when the tires are cold, and the vehicle has been stationary for more than 3 hours. A hot tire at or below recommended cold inflation pressure is dangerously under-inflated.

Never drive your vehicle if the tire pressures are incorrect. Under-inflation causes excessive flexing and uneven tire wear. This can lead to sudden tire failure. Over-inflation causes harsh ride, uneven tire wear and poor handling.

Do not drive the vehicle with a leaking tire. Even if the tire appears to be inflated it could be dangerously under-inflated and will continue to deflate. Replace the tire or contact a Repair Center.

Under-inflation also reduces fuel efficiency and tire tread life and may affect the vehicle's handling and stopping ability.

If the vehicle has been parked in strong sunlight, or used in high ambient temperatures do not reduce the tire pressures. Move the vehicle into the shade and allow the tires to cool before rechecking the pressures.

Check the tires, including the spare, for condition and pressure on a weekly basis and before long trips.

If the tire pressures are checked while the vehicle is inside a protected covered area (e.g. a garage) and subsequently driven in lower outdoor temperatures, tire under-inflation could occur.

A slight pressure loss occurs naturally with time. If this exceeds 2 psi (0.14 bar) per week, have the cause investigated and rectified by qualified personnel.

If it is necessary to check tire pressures when the tires are warm, you should expect the pressures to have increased by up to 4 - 6 psi (0.3 - 0.4 bar). Do not reduce the tire pressures to the cold inflation pressure under these circumstances. Allow the tires to cool fully before adjusting the pressures.

The following procedure should be used to check and adjust the tire pressures:

When checking the tire pressure, to avoid damaging the valves do not apply excessive force or side ways force on the gauge/inflator.

To avoid damage to TPMS valves, it is recommended not to use rigid tire inflation wands. This is to avoid the risk of excess leverage and sideways pressure on the valve.

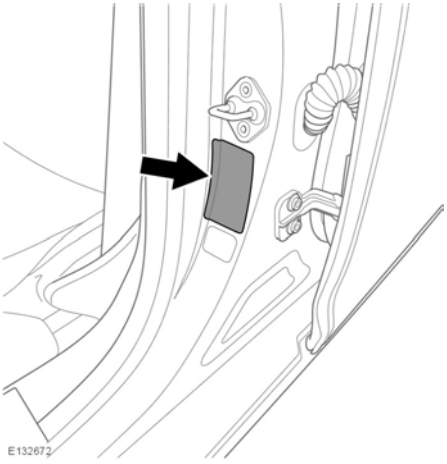
1. Remove the valve cap.
2. Firmly attach a tire pressure gauge/inflator to the valve.
3. Read the tire pressure from the gauge and add air if required.
4. If air is added to the tire, remove the gauge and re-attach it before reading the pressure. Failure to do so may result in an inaccurate reading.
5. If the tire pressure is too high, remove the gauge and allow air out of the tire by pressing the center of the valve. Refit the gauge to the valve and check the pressure.

6. Repeat the process, adding or removing air as required, until the correct tire pressure is reached.
7. Refit the valve cap.

Recommended tire pressures

Load/Speed index		
Tire size	**Tire pressure up to 140 mph (225 km/h)**	**High speed tire pressure up to 174 mph (280 km/h)**
Front - 245/40R20 99Y	32 psi (2.2 bar, 220 kPa)	39 psi (2.7 bar, 268 kPa)
Rear - 275/35R20 102Y	32 psi (2.2 bar, 220 kPa)	39 psi (2.7 bar, 268 kPa)
Front - 245/40R20 99W M+S	34 psi (2.4 bar, 234 kPa)	-
Rear - 275/35R20 102W M+S	34 psi (2.4 bar, 234 kPa)	-
Front - 245/35R19 102H M+S	32 psi (2.2 bar, 220 kPa)	-
Rear - 275/40R19 105H M+S	32 psi (2.2 bar, 220 kPa)	-
Front - 265/35 ZR20 99Y XL PZERO	34 psi (2.3 bar, 230 kPa)	41 psi (2.8 bar, 283 kPa)
Rear - 295/30 ZR20 101Y XL PZERO	34 psi (2.3 bar, 230 kPa)	41 psi (2.8 bar, 283 kPa)

TIRE PRESSURE LABEL (USA only)



A tire information label is located in the driver's door opening, giving information specific to the original wheel and tire equipment fitted to the vehicle.

These pressures provide optimum ride and handling characteristics for all normal operating conditions.

The label contains the following information:

- The maximum number of occupants, divided between the front and rear of the vehicle.
- The vehicle capacity weight, which includes the weight of the driver, passengers and cargo.
- Cold inflation pressures for the front, rear and spare tire.
- The size of the tires with which the vehicle was originally equipped.

Note: *The label must not be changed, even if different wheels are fitted at a later stage.*

TIRE VALVES

Keep the valve caps screwed down firmly to prevent water or dirt entering the valve. Check the valves for leaks when checking the tire pressures.

REPLACEMENT TIRES

Always fit replacement tires of the same type, and wherever possible, of the same make and tread pattern. If the use of tires not recommended by Jaguar Land Rover Limited is unavoidable, make sure that you read, and fully comply with, the tire manufacturer's instructions.

Failure to fit the same tire type, make and tread pattern may reduce vehicle stability.

If the use of tires not recommended by Jaguar is unavoidable, make sure that you read, and fully comply with, the tire manufacturer's instructions. Failure to do so may lead to tire failure due to incorrect fitment or use.

Ideally, tires should be replaced in sets of 4. If this is not possible, replace the tires in pairs (front or rear). When tires are replaced, the wheels should always be re-balanced and alignment checked.

The correct tire specification for your vehicle can be found on the tire placard label.

AVOIDING FLAT SPOTS

In areas of extended high ambient temperature, vehicle tires can be affected by a softening of the tire sidewall. If the vehicle is stationary for long periods, the effect is to slightly deform the tire at the point where the tire meets the standing surface. This is known as a flat spot.

This is normal tire behavior. However, when the vehicle is subsequently driven, vibration may be experienced from the flat spot. The condition will steadily improve with extra mileage.

In order to minimize flat spotting while the vehicle is stationary for a long period, tire pressures can be increased to the maximum as stated on the tire sidewall. The tires must be returned to the specified running pressures before driving. See **228, TIRE PRESSURES**.

TIRE DEGRADATION

Tires degrade over time due to the effects of ultraviolet light, extreme temperatures, high loads, and environmental conditions. It is recommended that all tires, including the spare, are replaced at least every 6 years, but they may require replacement more frequently.

USING WINTER TIRES

Note: *M+S (mud and snow) tires have a recognized level of winter performance and need not be replaced.*

The M+S marking on the tire sidewall indicates an 'all season' tire designed for use all year round, including cold temperatures, snow and ice.

Note: *Dedicated winter tires often have a lower speed rating than the original equipment tires and the vehicle must therefore be driven within the speed limitation of the winter tire.*

This symbol identifies dedicated winter tires, which can be fitted if optimum winter traction is required, or the vehicle is to be used in more extreme winter conditions.

Winter tires must be fitted to all 4 wheels.

The tire pressures indicated on the tire pressure label are for use in all conditions on the original equipment tires. If a reduced speed rating tire is fitted, the recommended pressures are only suitable for use below 100 mph (160 km/h).

For optimum traction, tires should be run in for at least 100 miles (160 kilometers) on dry roads prior to driving on snow or ice.

Use of dedicated winter tires may require a change of wheel size, depending on the original choice of wheel. All 4 wheels must be changed.

If fitted with standard rubber valves, the Tire Pressure Monitoring System (TPMS) warning lamp will flash for 75 seconds and then remain illuminated. The Message center will also display **TIRE PRESSURE MONITORING SYSTEM FAULT**.

When the original wheels and tires are refitted, the vehicle will need to travel a short distance to reset the TPMS and extinguish the warning lamp.

Approved winter tires

Front:

245/45R19 102V Pirelli Sottozero Series II.

245/45R20 99V Pirelli Sottozero Series II.

245/45R19 102V Dunlop Winter Sport 3D.

245/45R20 99V Dunlop Winter Sport 3D.

Rear:

275/40R19 105V Pirelli Sottozero Series II.

275/35R20 102V Pirelli Sottozero Series II.

275/40R19 105V Dunlop Winter Sport 3D.

275/35R20 102V Dunlop Winter Sport 3D.

Tire pressures

Up to 100 mph (160 km/h)	
Front	32 psi (2.2 bar, 220 kPa)
Rear	32 psi (2.2 bar, 220 kPa)

USING SNOW CHAINS

Use traction devices only in heavy snow conditions, on hard road surfaces.

Never exceed 30 mph (50 km/h) when traction devices are fitted.

Never fit traction devices to a temporary use spare wheel.

It is essential that only snow chains of the recommended type are fitted.

Jaguar approved traction devices may be used to improve traction on compacted snow in heavy snow conditions.

If it becomes necessary to fit traction devices, the following points must be observed:

- Only Jaguar approved traction devices should be used on the vehicle. Only Jaguar approved traction devices have been tested to make sure that they do not cause damage to the vehicle. Contact a Jaguar Retailer/ Authorized Repairer for information.
- The wheels and tires fitted must conform to the specifications of the original equipment.
- Single sided traction devices or snow chains can be fitted to the rear wheels. They should not be used on temporary spare wheels.
- Fit traction devices in pairs on the same axle.

- Always read, understand and follow the traction device manufacturer's instructions. Pay particular attention to the maximum speed and fitting instructions.
- Avoid tire/vehicle damage, by removing the traction devices as soon as the conditions allow.

Note: *When using snow chains, select JaguarDrive Control Winter mode* ***and*** *switch DSC off. DSC would reduce the deep snow traction capability as it would limit wheel spin to a level below that which is required to generate maximum traction.*

ULTRA HIGH PERFORMANCE (UHP) TIRES

This vehicle may be equipped with UHP tire and wheel combinations designed to provide maximum dry road performance with consideration for hydroplaning resistance. These low profile high speed rated tires may be more susceptible to damage from road hazards. UHP tires have performance enhancing soft rubber tread compounds, which when driven aggressively experience rapid tread wear and shorter life than less performance oriented tires.

These tires are not recommended for driving on snow or ice, and should be replaced with winter tires when weather conditions dictate.

UNITED STATES DEPARTMENT OF TRANSPORTATION

The following information relates to the tire grading system developed by the National Highway Traffic Safety Administration which will grade tires by tread wear, traction and temperature performance.

Note: *Tires that have deep tread and winter tires, are exempt from these markings requirements.*

UNIFORM TIRE QUALITY GRADING

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example: **Treadwear 200 Traction AA Temperature A.**

In addition to the marking requirements, passenger car tires must conform to Federal Safety Requirements.

TREADWEAR

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

When the tread has worn down to approximately 2 mm, wear indicators start to appear at the surface of the tread pattern. This produces a continuous band of rubber across the tread as a visual indicator.

Note: *Local legislation may determine a greater tread depth to that shown by the tire wear indicators. It remains the driver's responsibility to make sure the tread depth meets the local legal requirements. Do not rely on the tread wear indicators alone.*

Wear indicators show the minimum tread depth recommended by the manufacturers. Tires which have worn to this point will have reduced grip and poor water displacement characteristics. This can lead to accidents causing serious injury or death.

If tread wear is uneven across the tire, or a tire wears excessively, the vehicle should be checked by your Retailer/ Authorized Repairer as soon as possible.

TRACTION

The traction grades, from highest to lowest, are **AA**, **A**, **B**, and **C**. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked **C** may have poor traction performance.

The traction grade assigned to this tire is based on straight-ahead braking traction tests and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

TEMPERATURE

The temperature grades are **A** (the highest), **B**, and **C**, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure.

The grade **C** corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109.

Grades **B** and **A** represent higher levels of performance on the laboratory test wheel than the minimum required by law.

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure.

TIRE GLOSSARY

Accessory weight: The combined weight (in excess of those items replaced) of items available as factory installed equipment.

Bead: The inner edge of a tire that is shaped to fit to the rim and form an air tight seal. The bead is constructed of steel wires which are wrapped, or reinforced, by the ply cords.

Cold tire pressure: The air pressure in a tire which has been standing in excess of 3 hours, or driven for less than 1 mile.

Curb weight: The weight of a standard vehicle, including a full tank of fuel, any optional equipment fitted, and with the correct coolant and oil levels.

Gross vehicle weight: The maximum permissible weight of a vehicle with driver, passengers, load, luggage and equipment.

kPa: Kilo Pascal, a metric unit of measure for pressure.

lbf/in² or psi: Pounds per square inch, an imperial unit of measure for pressure.

Maximum inflation pressure: The maximum pressure to which the tire should be inflated. This pressure is given on the tire side wall in lbf/in2 (psi) and kPa.

Note: *This pressure is the maximum allowed by the tire manufacturer. It is not the pressure recommended for use.*

Maximum loaded vehicle weight: The sum of curb weight, accessory weight, vehicle capacity weight, plus any production option weights.

Production options weight: The combined weight of options installed which weigh in excess of 3 lb (1.4 kg) more than the standard items that they replaced, and are not already considered in curb or accessory weights. Items such as heavy duty brakes, high capacity battery, special trim etc.

Rim: The metal support for a tire, or tire and tube, upon which the tire beads are seated.

Vehicle capacity weight: The number of seats multiplied by 150 lb (68 kg) plus the rated amount of load/luggage.

PRODUCTION OPTION WEIGHTS

(USA only)

Do not exceed the weight limits specified on the TIRE LOADING INFORMATION label.

When you specify or add options to your vehicle, request from your Retailer/Authorized Repairer a current list of Production Option Weights. This will help you to calculate the curb weight of your vehicle.

To calculate the weight, add the weight of all production options fitted to your vehicle, including optional alloy wheels and spare wheel, to the basic curb weight for your vehicle.

Note: *The weights listed in Production Option Weights give the increase (or decrease) in weight, over the standard vehicle. Option weights for wheels and tires give the increase (or decrease) in weight for a set of 4 wheels.*

STEPS FOR DETERMINING CORRECT LOAD LIMIT

1. Locate the statement “The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs” on your vehicle’s placard. See **229, TIRE PRESSURE LABEL (USA only)**.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lb.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the “XXX” amount equals 1400 lb. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs.
   (1400 - 750 (5 x 150) = 650 lb).
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

   Note: *This vehicle is not designed to be used as a towing vehicle.*

The number and weight of passengers will affect the cargo and luggage capacity. In the example above, the cargo and luggage load capacity is 650 lb. However, if fewer passengers ride in the vehicle, the luggage load capacity will increase. If this vehicle carries three 150 lb passengers, the cargo and luggage load capacity will increase to 950 lb:

(3 x 150 = 450 lb, and 1400 - 450 = 950 lb).

If the passengers weigh more, the cargo and luggage load capacity will decrease.

The weight of accessories must also be subtracted from the cargo and luggage load capacity. If you are unsure of the weight of any accessories fitted to your vehicle, contact your Retailer/Authorized Repairer. See 234, PRODUCTION OPTION WEIGHTS.

Overloading the vehicle will have an adverse effect on braking and handling characteristics, which could compromise your safety. Overloading a vehicle may also cause tire damage or failure. Never overload your vehicle.