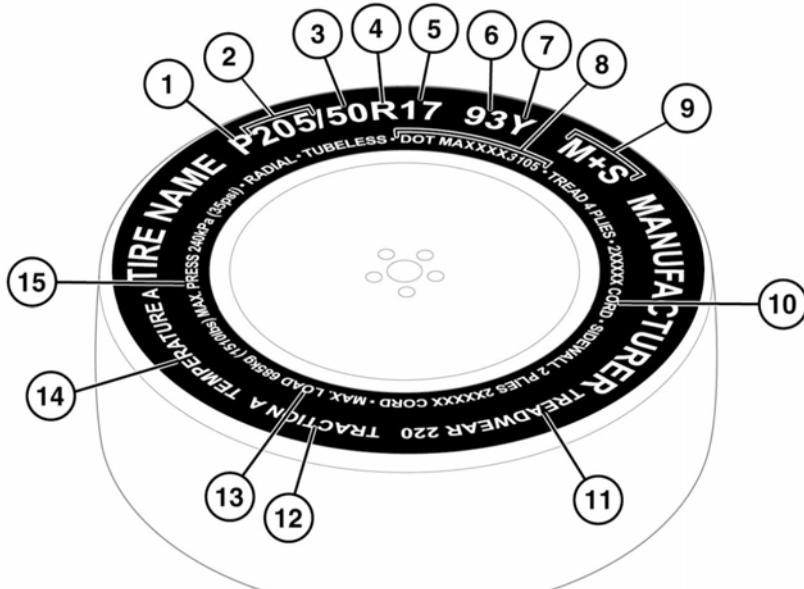


## TYRE MARKINGS



E135318

1. **P** indicates that the tyre is for passenger vehicle use. This index is not always shown.
2. The width of the tyre 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 tyre is of Radial ply construction.
5. The diameter of the wheel rim given (in inches).
6. The load index for the tyre. This index is not always shown.



**The load index and speed rating on all replacement tyres must be, at least, the same specification as the Original Equipment (OE). If in doubt consult your Land Rover Dealer/Authorised Repairer.**

7. The speed rating denotes the maximum speed at which the tyre should be used for extended periods. See **234, SPEED RATING**.
8. Tyre manufacturing standard information, which can be used for tyre recalls and other checking processes. Most of this information relates to the manufacturer, place of manufacture etc. The last four numbers are the date of manufacture. For example, if the number was 5111, the tyre was made in the 51st week of 2011.

9. **M+S** or **M/S** indicates that the tyre 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 tyre. Information is also provided on the type of materials used.
11. Wear rate indicator. A tyre rated at 400 for example, will last longer than a tyre rated at 200.
12. The traction rating grades a tyres 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 tyre.
14. Heat resistance grading. The tyre 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 tyre, which is being used within its speed and loading limits.
15. The maximum inflation pressure for the tyre. This pressure should not be used for normal driving. See **237, AVOIDING FLAT SPOTS**.

## SPEED RATING

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

## TYRE CARE

-  **Do not drive the vehicle if a tyre is damaged, excessively worn, or incorrectly inflated.**
-  **Avoid contaminating the tyres with vehicle fluids as they may cause damage to the tyre.**
-  **Avoid spinning the wheels. The forces released can damage the structure of the tyre, 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 50 km/h (30 mph) point on the speedometer.**
-  **Do not exceed the maximum pressure stated on the sidewall of the tyre.**

**Note:** Tyre condition should be checked after the vehicle has been used off-road. As soon as the vehicle returns to a normal, hard, road surface, stop and check for damage to the tyres.

All of the vehicle's tyres (including the spare) should be checked regularly for damage, wear and distortion. If you are in any doubt about the condition of a tyre, have it checked immediately by a tyre repair centre or a Land Rover Dealer/Authorised Repairer.

## TYRE PRESSURES

**⚠ All tyre pressures, including the spare, should be checked regularly using an accurate pressure gauge, when the tyres are cold.**

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

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

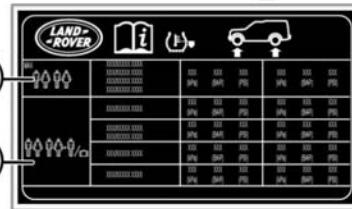
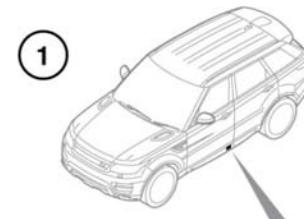
**⚠ Do not drive the vehicle with a leaking tyre. Even if the tyre appears to be inflated it could be dangerously under-inflated and will continue to deflate. Replace or contact an approved repairer.**

**⚠ Under-inflation also reduces fuel efficiency and tyre 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 tyre pressures. Move the vehicle into the shade and allow the tyres to cool before rechecking the pressures.**

The recommended tyre pressures for light and heavy loads are listed on a label located at the base of the driver's door opening.

**⚠ The loading of the vehicle should always be considered when checking and adjusting tyre pressures.**



E151913

1. Tyre information label location (drivers side).
2. Light load information.
3. Heavy load information.

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

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

A slight pressure loss occurs naturally with time. If this exceeds 14 kPa / 1.4bar / 2 psi per week, have the cause investigated and rectified by qualified personnel.

If it is necessary to check tyre pressures when the tyres are warm, you should expect the pressures to have increased by up to 30 - 40 kPa / 0.3 - 0.4 bar/ 4 - 6 psi. Do not reduce the tyre pressures to the cold inflation pressure under these circumstances. Allow the tyres to cool fully before adjusting the pressures. For standard tyre pressures see **263, WHEEL AND TYRE SIZES**.

 **If the tyres are deflated to the comfort setting or inflated to the heavy load setting, then the TPMS will have to be adjusted to suit the vehicle load and tyre pressures. See 240, VEHICLE LOADING.**

The following procedure should be used to check and adjust the tyres pressures.

 To avoid damaging the valves do not apply excessive force or side ways force on the gauge/inflator.

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

## TYRE VALVES

Keep the valve caps screwed down firmly to prevent water or dirt entering the valve. Check the valves for leaks when checking the tyre pressures. For TPMS tyre valves, see **239, TYRE PRESSURE MONITORING SYSTEM**.

## REPLACEMENT TYRES

 **Always fit replacement tyres of the same type, and wherever possible, of the same make and tread pattern.**

 **The load and speed index ratings on all replacement tyres must be, at least, the same specification as the Original Equipment (OE) see **263, WHEEL AND TYRE SIZES**. If in doubt consult your Land Rover Dealer/Authorised Repairer.**

 **Do not rotate tyres around the vehicle.**

 **If the use of tyres not recommended by Land Rover is unavoidable, make sure you read, and fully comply with, the tyre manufacturer's instructions.**

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 reminder.

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

For the correct tyre specification and pressures see **235, TYRE PRESSURES**

## AVOIDING FLAT SPOTS

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

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

In order to minimise flat spotting, the tyre pressures can be increased to the maximum as stated on the tyre sidewall. Tyres must be returned to the specified running pressures before driving (see **235, TYRE PRESSURES**).

## TYRE DEGRADATION

Tyres degrade over time due to the effects of ultraviolet light, extreme temperatures, high loads, and environmental conditions. It is recommended that tyres are replaced at least every six years from the date of manufacture, but they may require replacement more frequently.

## USING WINTER TYRES

In many countries legislation exists that requires the use of winter tyres during specified periods of the year.

M+S (mud and snow) tyres have a recognised level of winter performance and need not be replaced. The **M+S** marking on the tyre sidewall indicates an 'all season' tyre designed for use all year round, including cold temperatures, snow and ice.



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

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

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

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

Land Rover approved winter tyre sizes	
19 inch wheels	235/65 R19
20 inch wheels	255/55 R20 265/50 R20*
21 inch wheels	265/45 R21 275/45 R21 *
22 inch wheels	275/40 R22

**Note:** \*Studded and non-studded tyres available. Studded tyres are market dependant. Consult a Dealer/Authorised Repairer.

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

If fitted with standard rubber valves, the Tyre pressure monitoring system (TPMS) warning lamp will flash for 75 seconds and then remain illuminated. The message centre will also display **TYRE PRESSURE MONITORING SYSTEM FAULT**.

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

For more information on winter tires, contact your Dealer/Authorised Repairer.

## USING SNOW CHAINS

-  **Only use traction devices in heavy snow conditions, on compacted snow.**
-  **Never exceed 50 km/h (30 mph) when traction devices are fitted.**
-  **Never fit traction devices to a temporary use spare wheel.**

Land Rover approved traction devices may be used to improve traction on compacted snow in heavy snow conditions. They should not be used in off-road conditions where there is no compacted snow.

If it becomes necessary to fit traction devices where there is no compacted snow, the following points must be observed:

- Only Land Rover approved traction devices should be used on the vehicle. Only Land Rover approved traction devices have been tested to make sure they do not cause damage to the vehicle. Contact your Dealer/Authorised Repairer for information.
- The wheels and tyres fitted must conform to the specifications of the original equipment.
- Full chain traction devices can be fitted to the rear wheels of vehicles fitted with 19 and 20 inch diameter wheels.
- Half chain traction devices can be fitted to the rear wheels of vehicles fitted with 21 and 22 inch diameter 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 tyre/vehicle damage, by removing the traction devices as soon as the conditions allow.

## TYRE DECLARATION (India only)

All imported tyres meet the requirements of Bureau of India Standards (BIS) and comply with the requirements under Central Motor Vehicle Rules (CMVR) 1989. The tyres are the same as those tyres supplied as Original Equipment (OE) for Land Rover models which are fully Type Approved for the Indian market.