When should you replace rotors and brake pads?



Why is tire rotation so important?



he ability to accelerate and steer freely is vital to vehicle performance. Equally crucial is being able to stop the car to avoid collisions and obstacles. Brake pads and rotors are vital components of braking mechanisms that need to be maintained and serviced.

Drivers may wonder how frequently they have to replace brake parts. Car and Driver magazine states brake pads are among the most crucial braking components. Brake pads create the friction that helps stop a car when they are pressed against the brake rotor, also known as the brake disc. It's in drivers' best interests to ensure that brake pads, as well as rotors, always function properly and are replaced before their effectiveness is compromised.

Replacing brake pads

Brake pads are made from different materials, but all will wear down over time, losing a portion of material every time the brakes are used. Eventually brake pads will not be able to generate enough friction to stop the vehicle quickly. Industry experts generally recommend brakes be replaced every 20,000 to 60,000 miles. Since that is a wide mileage range, drivers can listen for squealing noises or grinding sounds or feel for vibrations when deploying the brakes. Each of those signs may indicate brakes need to be replaced.

Replacing rotors

Like brake pads, rotors also will wear out over time. Brake rotors must meet a certain thickness to be considered safe. If they are below that thickness, then they must be fully replaced. Some drivers opt to have their rotors resurfaced. This means removing any grooves, hotspots or anomalies on the rotors that can cause uneven wear of the brake pads. However, if the rotors are too thin, they cannot be resurfaced, as this removes some additional rotor material. Rotors can only be resurfaced once before replacement. Some vehicles have rotors that cannot be resurfaced at all.

Rotors can go thousands of miles before they need to be replaced, but vibrations while braking and squeaking noises are usually indicative that rotors need to be checked and/or replaced. Even though brake pads and rotors may wear out at different intervals, many automotive professionals advise replacing rotors when brake pads are changed for optimal performance and safety.

Brakes are an essential safety component. Work with a qualified mechanic to have brake pads and rotors serviced before wear and tear adversely affects driver safety and vehicle performance.

Pehicle owners need to keep maintenance on the mind to ensure their cars and trucks are operating at peak capacity. Various components should be checked and serviced at key intervals. Oil changes and fluid top-offs are part of routine maintenance, but it can be easy to forget about other important parts of the vehicle, including tires.

Rotating tires is vital to their upkeep. Bridgestone Tires advises that tire rotation involves routinely repositioning a vehicle's tires in specific patterns from front to back and side to side. According to Big O Tires, the front tires tend to wear on the outside edges because the tire leans over when a driver turns a corner. The rear tires just follow the front ones, so they usually wear more evenly. By leaving tires in place, the outside edges on the front tires will wear down much faster than the rest and those tires will need to be replaced sooner. Rotation may be required by tire warranties. Rotation also keeps the tires working properly.

Experts generally advise tire rotation every 6,000 to 8,000 miles, even if they do not show any signs of wear. It is challenging to determine if weather treads are uneven or how much wear has been sustained just by looking at them. Rotating tires can prolong the life of tires and decrease how frequently they need to be replaced.

Rotating tires keeps the tread depth uniform and helps maintain traction and consistent handling across all four tires. Bridgestone

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says the tire rotation pattern that is best for a particular vehicle depends on the type of tire being used. Patterns are recommended by the standardizing body of the tire industry, called The Tire and Rim Association, Inc. Individuals can consult with professional mechanics about the proper way to rotate tires. Many tire manufacturers or automotive stores that have sold customers tires also will do tire rotations — some free of charge.

In addition to proper traction, minimizing uneven tire treads causes the vehicle to be more balanced, advises Wrench, a mobile auto repair and maintenance company. This enables the driver to have more control even when roads are slippery. Many auto service centers will then align and balance tires after they have been rotated. At this time the mechanic will likely check brakes as well, since it is easy to see and reach them when the tires are off.

Tire rotation is an important component of vehicle maintenance. Check with a qualified automotive professional to see if it's time to have your vehicle's tires rotated.