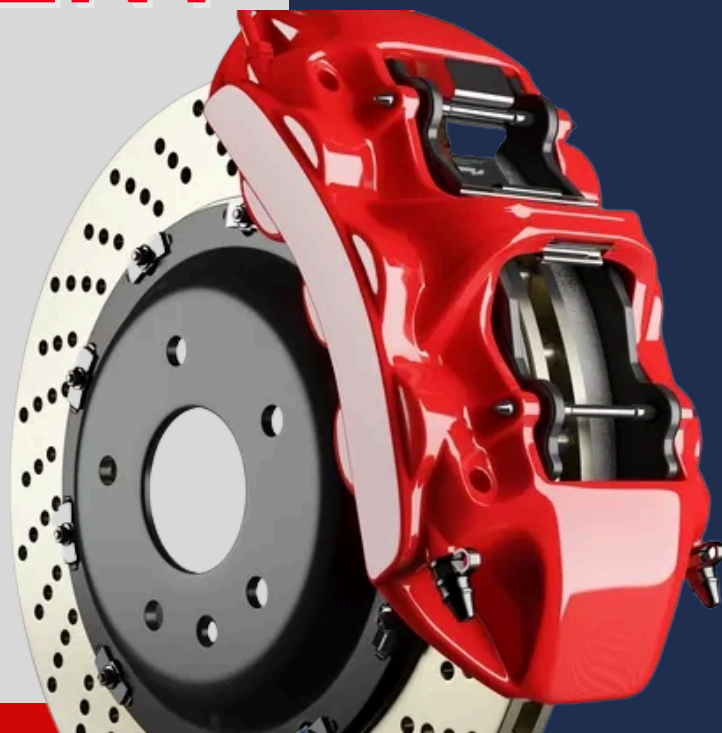




BRAKE SYSTEM GUIDE: INSPECTION, REPLACEMENT & CARE



PUBLISHED BY:
BEELINESAUTOMOTIVE.COM



1. Introduction

Brakes are the most important safety part in a car. If they fail, the rest of the system does not matter. This guide covers how to check your brakes, when to replace parts, and what to do to keep them working right. Nothing in here is theory. It's just what works and what needs to be done in real-world use.

2. Brake System Overview

The standard brake system includes:

- Pads
- Rotors (or drums, if rear drum brakes are used)
- Calipers
- Master cylinder
- Brake fluid
- Brake lines

These parts go together. When you step on the pedal, fluid is squeezed through the brake lines by the calipers to compress and the pads press against the rotors. That's what gets in the way of the car. Any part failure in that system, and you lose or more often completely lose braking power.



3. How to Inspect Your Brake System

Start with the basics. Look, feel, and listen.

Pads – Look through the wheel spokes or remove the wheel. Pad material should be at least 4mm thick. If it's lower, replace them.

Rotors – Check for grooves, rust rings, or discoloration. If you feel vibration when braking, they might be warped. Measure thickness of the rotors with a micrometer. Compare to spec marked on rotor.



Fluid – Check level in reservoir. If it's low, inspect for leaks. Fluid should be clear to light yellow. If it's brown or black, it's old. Replace it.

Brake Lines – Check rubber hoses for cracks or bulges. Metal lines should have no rust or wet spots. Any leak is a serious issue.

Master Cylinder – Look under the reservoir for signs of wetness. That may mean a seal is leaking.

Calipers – Look for uneven pad wear or stuck movement. A dragging brake or one wheel heating up more than others usually points to a caliper issue.

4. When and How to Replace Brake Parts

Brake Pads – Replace if worn down near backing plate or under 4mm. Most people need to replace them every 25,000 to 45,000 miles. It depends on driving style. City stop-and-go wears faster.

Rotors – Replace if cracked, warped, or too thin. Resurfacing is possible but not always worth it. If the surface is too rough or the thickness is close to the limit, replace.

Fluid – Flush the fluid every 2 years or 30,000 miles. Use the correct type (usually DOT 3 or DOT 4 – it says on the cap). Air in the lines means you need to bleed the brakes.

Calipers – Replace if sticking, leaking, or not sliding evenly. You can rebuild some calipers, but replacement is usually quicker and more reliable.

Brake Lines – Replace if any line is wet or rusted. Rubber lines dry out over time. Cracks or bubbles mean it's time to change them.

5. Brake Care Tips

- Don't ride the brakes.
- Use engine braking on hills if possible.
- Keep brake fluid sealed and clean.
- Wash road salt off in winter to avoid rust on rotors and lines.



- After installing new parts, break them in properly. Avoid hard stops for the first 200 miles.
- If the car sits for weeks, take it for a short drive to prevent rust on the rotors.

6. Signs You Need to Service the Brakes

- Soft or spongy pedal
- Car pulls to one side when braking
- Grinding or metal sound
- Brake warning light stays on



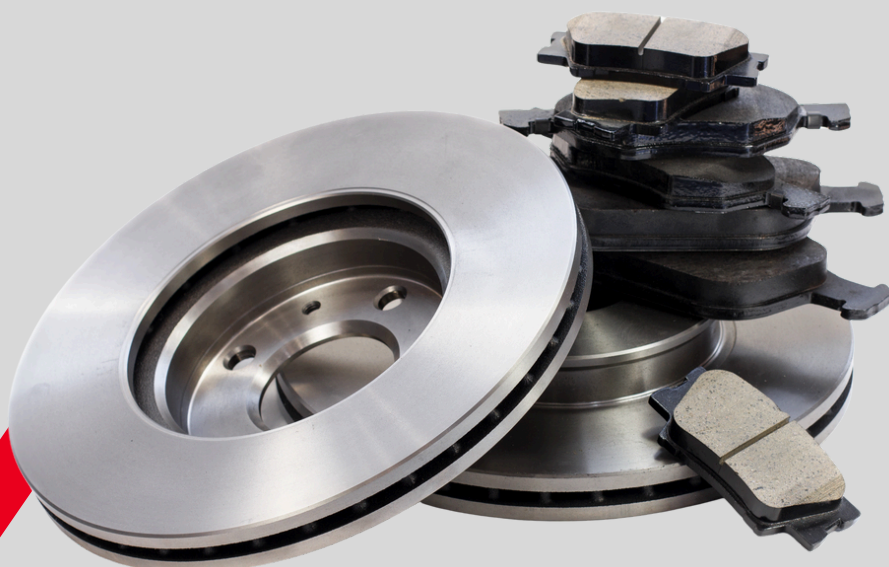
- Fluid leak under car near wheels
- Pedal slowly sinks at a stop
- Squealing or screeching during normal braking
- Any one of these means you need to stop driving and inspect. Don't delay with brake problems.



7. Basic Torque Specs

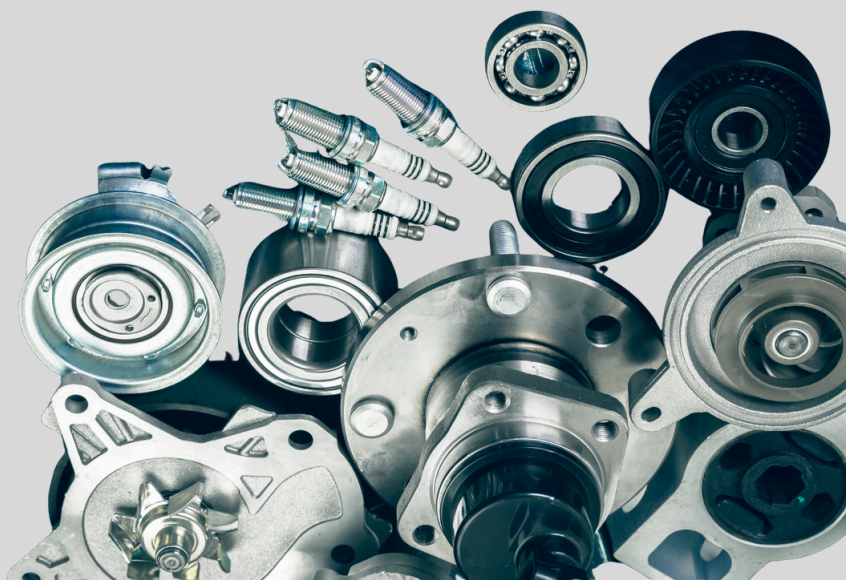
(Always check your vehicle's manual for exact numbers)

- Caliper Bracket Bolts: 75–90 ft-lbs
- Caliper Slide Pins: 20–25 ft-lbs
- Lug Nuts: 80–100 ft-lbs
- Use a torque wrench. Don't guess. Over-tightening can damage threads or warp rotors.



8. Tools You'll Need

- Jack and stands
- Lug wrench
- C-clamp or piston tool
- Wrenches (standard and line wrench)
- Brake cleaner
- Torque wrench
- Micrometer or caliper gauge
- Catch bottle for fluid
- Shop towels



9. Final Notes

Not all parts of the brakes are alike. When purchasing used or aftermarket be sure to get ones that match your vehicles trim and year along with your brakes system. Interchange of parts without ensuring fitment results in time wasted and put off safety.

When you are touching any brake part, test the system at low speed and in an open area and then drive as usual. Step on the brake pedal a few times and create the pressure.



Ask someone who has done this before, in case you are not exactly sure. Guessing is not to be done with brakes.

You can inquire of beelinesautomotive.com, to get reliable used brake parts which fit in nicely. Each of the parts is listed with specifications such as donor miles, and condition and we do have customer support to carry out part verification.



Thank You



Call Now

1-888-752-4286



info@beelinesautomotive.com



Scan the QR code to
visit our website

