

Brake overhaul

Pads and discs

Ensure your safety by changing the brake discs and pads on your classic.

IN ASSOCIATION WITH

DRAPER

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Draper stockist, telephone

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G clamp

Malleable cast iron frame, chrome-plated thread, 200mm capacity. Item number 36196. Price £17.25.

The bottom line

Changing worn discs and pads is a quick and a relatively cheap way of ensuring that your classic's safe. The car used here is an E30 BMW, but the main principles apply to most cars.

Tools required:

- Rubber gloves
- Jack
- Axle stands
- Ratchet drive
- Sockets including hex keys
- G clamp
- Hammer
- Stiff wire
- Rag

SKILL

Pads – beginner

Discs – confident DIYer

TIME 45 minutes per wheel

COST Depends on car – BMW 320i:

Discs £42 pair

Pads £26 for two wheels



The specialists

GSF Car Parts
www.gsfcarparts.com
0208 917 3888



1 Loosen the road wheel, then jack up the car and remove the wheel.

Securely support the car with axle stands. Never work under a car supported only by a jack.

Work on one brake assembly at a time – you can then use the other for reference.

WARNING

Brake fluid is bad for you and your car – it's poisonous and an irritant. It also makes a very effective paint stripper, so wear gloves and keep a rag to hand!

"Never work under a car supported only by a jack"



2 Take the top off the brake fluid reservoir and wrap a rag around the neck so



none spills when the calipers are pushed back later on. Unplug the disc wear indicator.



3 Undo and remove the four caliper mounting bolts, which are behind the disc.



4 Unplug the electrical connectors from the brake caliper.



5 Lift away the caliper and inner brake pad, then slide out the outer pad. The



caliper might need some gentle persuasion if it's been there a while. Tap gently, taking care



not to chip the pad. Support caliper by hanging it from suspension with bent wire



WORDS AND PICS: MATT RICHARDSON

WARNING

Changing brake parts affects the stopping power of that wheel, so always renew discs and/or pads in pairs across the same axle at the same time.



6 Remove the two bolts holding the caliper hanger and lift it away.

7 Remove the disc retaining screw using an Allen key. A ratchet drive with a hex

key might be required at this stage because they often corrode into place.



8 Lift away the old disc and discard it. Our friend the hammer might be needed to persuade the scrap disc to part company from the hub. If you want to re-use it, it'll make a great clock or paperweight!

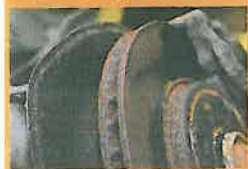
9 Prepare the new brake disc. They come coated in grease to prevent

corrosion so use brake cleaner or degreaser liberally and wipe the whole thing clean.

10 Fit the new brake disc and tighten the retaining screw. A new screw should have come with the disc.

DISC WEAR

Disc wear is normal and nothing to worry about. It's most commonly apparent as a ridge builds around the edge as it wears down, but if the pads are left too long after wearing out, the metal backing plate leaves deep scoring on the disc surface. In either case, braking power is reduced and steering can be affected. Severe steering wheel wobble is often a symptom.



11 Next, you need to refit the caliper hanger. Inspect the

mounting bolts and if you're in any doubt about their condition, renew them.



12 This car uses a single piston in the caliper, so this will only need to be done once per corner. Push the piston back

into the caliper. I used a small G clamp, taking care not to damage the piston seal. Check the level of the reservoir in case it overflows.



13 Slide the outer pad into the caliper retainer. Attach the pad wear cable to the inner disc.

You now need to feed the wear wire through the hole in the caliper before you can finally slide the pad in.



14 Slide the caliper assembly over the disc and outer pad, then push into place.

Q&A

Is it true that brakes have got some asbestos in them?

Until only a few years ago brake pads used asbestos, which is VERY bad for your health. Never use compressed air to blow dust from brakes, and do not breathe it in. If in doubt, wear a mask.

"Never use compressed air to blow dust from brakes, and do not breathe it in – wear a mask"



15 It's a tight fit, so tighten the lower mounting bolt first, then push the top so that you can screw it in (see Top Tip).



TOP TIP

Pushing the caliper and pad assembly can be difficult, especially when working alone, because the pads are spring loaded. If you have a small scissor jack to hand, you can use it to push for you and hold the assembly steady while you tighten the bolts. Use a block of wood to spread the load, then brace the jack against the inner wing and wind it out.



16 Refit the electrical connector to the caliper. Refit the road wheel and job done! Now repeat on the other side.