



# Replacing front bearings on a Opel Meriva 1.4

The Opel Meriva is a popular, compact MPV. The generation 1 went on sale in May 2003 and continued until 2010, when the Meriva generation 2 was launched. In this article we are replacing the left front wheel bearing on a generation 1 Meriva, so we can give some handy hints and tips to aid independent garages with such repairs. With a book time of 1.1 hours, anything to help save time is an advantage.

The type of bearing used is a conventional generation 1 bearing with no ABS encoding rotor built in, so the bearing can be installed in either way. The bearing has to be pressed into the hub, where damage can occur if carried out incorrectly.

For this repair, the workshop equipment we used was a two post ramp, hydraulic press with mandrels. Other special tools used are large internal circlip pliers, and a die grinder with a cutting disc. If the vehicle is fitted with locking wheel bolts, it is advisable to locate the key before starting the repair.

Place the vehicle on the ramp and before raising the vehicle, slacken the wheel bolts, but more importantly slacken the hub nut. On this particular car, we removed the wheel trim and then removed the hub nut split pin to slacken the castellated hub nut.

Raise the vehicle to waist height and remove the wheel, the hub nut can then be fully removed with its washer. Remove the brake caliper and tie it to the suspension strut or spring to stow safely and not strain the flexible rubber brake pipe, remove the brake pads, the brake caliper carrier and the front brake disc retained with a small Torx screw. Carefully remove the ABS sensor and stow safely out of the way. You are now in a position to unbolt and remove the hub assembly.

Remove the track rod end retaining nut, disconnect from the hub (a ball joint splitter may be required for this) and remove the bottom ball joint bolt. The bottom arm can

then be levered down to disconnect the bottom ball joint, pull the hub assembly outwards and remove the outer CV joint from the hub. Remove the two lower strut bolts that hold the hub assembly to the strut (ensure this has no camber adjustment, if so mark the position and carry out a wheel alignment after the repair), and remove the hub assembly.

You are now in a position to remove the bearing. Firstly, we need to press out the drive flange, so support the body of the hub assembly on the press, giving clearance for the drive flange to be pressed out, and now use a correct size mandrel to press on the drive flange ensuring it will pass through the inner race of the bearing (figure 1) and press the flange out of the bearing.

There is a high chance that one half of the inner race will stay attached to the flange, and if so, there are many ways to remove this but a tried and tested method is to securely hold the flange in a vice, cut a groove in the bearing race with a cutting disc in a die grinder to weaken the race, being careful not to mark the drive flange, once a groove has been cut, a chisel or air chisel can be used to crack the bearing race and remove.

Now remove the internal circlip from the hub assembly using the correct size circlip pliers (figure 2), and the bearing can be pressed out. Support the hub assembly, ensuring clearance for the bearing to be pressed out, using the inner race to press on, press out the bearing. Once the bearing has

been removed, take time to check that the hub profile is perfectly round and not damaged. The outer race of a bearing will always take the shape of the hub it's being pressed into, so if the hub has been damaged or not perfectly round, it could cause the bearing to fail prematurely.

Ensure the circlip groove is clean, using a wire brush if required, and place the hub assembly on the press. Press the new bearing on the outer race, not on the inner race, this will ensure that the pressing force is not being transmitted through the balls or rollers in the bearing, but only through the outer race. Press the bearing up to the shoulder and now the new circlip can be installed, then support the underside of the bearing inner race and press the flange into the new bearing (figure 3).

The hub assembly is now ready to be fitted back on the vehicle. Re-fit in reverse order ensuring all bolts are torqued to the manufacturer's specification and replaced if required. When the wheel has been fitted, the car can be lowered to the floor and the hub nut torqued and the split pin fitted to the castellated nut. Always remember to press the brake pedal a couple of times to ensure the correct adjustment of the brake caliper.

**Check out the full workshop instructions and online support at**

**[www.repxpert.co.uk](http://www.repxpert.co.uk) or**

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**+44 1432 264264.**

