

How to break in engines



Oil circuit priming:

Make sure that your car battery is well charged.

Before you start, your engine must be pre-lubricated; to achieve this, the oil circuit must be primed. Remove the plugs or spark plugs. Give a few squirt of engine oil in the cylinder trough the spark plug bore. Disconnect the positive wire from the coil.

(When you have the STP thermostatically controlled oil cooling system, remove the hollow bolt and the thermostat sandwich plate).

Fill the engine with a minimum of 2 litres of engine oil or break-in oil, remove the oil filter, and fill it with oil (approx. 0,5 Lt.).

Let the starter drive your engine up to the moment oil come out of the oil filter bracket. Then stop and rebolt your filled oil filter.

Continue to turn your engine with the starter up to the moment the oil pressure light (idiot light) is off. Turn ignition key back and soon on to see what do the oil pressure light. When it come on after just 1 or 2 second, repeat the procedure so often as necessary up to the moment that after switching off the starter the light come on after 5 or more seconds .

Your engine oil circuit is now primed and no air (or a little) is present in the oil circuit.

Bolt in your sparks, start your engine and let it run for 15 minutes at 3.500 RPM. This way your cam and followers are break in to 80 %. The last 20 % are done by moving your engine in daily driving.

For customers having the STP thermostatically controlled oil cooling system:

Remove your oil filter, bolt on the thermostat sandwich plate with his hollow bolt, rebolt the oil filter and start your engine and let it run at idle or with 1.500 to 2.000 RPM for a few minutes. This will purge your oil lines and oil cooler. Stop the engine and fill oil to maximum level.

Now your must break in your engine on a road or highway:

This can easily be done following this procedure.

Look for a road that allow you to do the following: For fast and safe break in of pistons, rings and cylinder we recommend to accelerate your car with floored accelerator from 40 Km/hr in the greatest gear (Fourth or fifth gear) to maximum speed the engine will reach. Never force the engine to rev up more than it´s willing to do ! Reaching the speed of around 90/100 Km/H remove your foot and let the car (without disengaging the gear or clutch) decelerate and slow down to approx. 40 Km/hr. Then reaccelerate with flooring your accelerator to repeat this. Do that 15 times and drive 50 Km “normally”.

When accomplished your engine is really break in to 80%. The last 20% of engine break in is done during daily driving but don´t force your engine to RPM levels that it will not reach or too high RPM or to high load with a long gear during hills climbing!

Don't forget to change your oil filter and engine oil after 50 Km!

When above is done, drive your engine daily normally for the next 3 to 5000 Km.
Follow the manufacturer recommendations for breaking in.

Don't forget oil and filter change after 1.000 Km and check your valve lash.
After this second oil change, drive your engine as usual.
Next oil and filter change after 3.000 Km, then all 5.000 Km.

<http://www.citroentuning.de>