

BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual

6 Engine oil and filter change (every 7500 miles or 6 months)

05:00

Caution:

This video is for familiarization purposes only. Read below for specific information on your vehicle.

- 1 Frequent oil changes are the most important preventive maintenance procedures that can be done by the home mechanic. As engine oil ages, it becomes diluted and contaminated, which leads to premature engine wear.
- 2 Make sure that you have all the necessary tools before you begin this procedure (see illustration). You should also have plenty of rags or newspapers handy for mopping up oil spills.

6.2 These tools are required when changing the engine oil and filter

- 1 Drain pan It should be fairly shallow in depth, but wide to prevent spills
- 2 Rubber gloves When removing the drain plug and filter, you will get oil on your hands (the gloves will prevent burns)
- 3 Breaker bar Sometimes the oil drain plug is tight, and a long breaker bar is needed to loosen it
- 4 Socket To be used with the breaker bar or a ratchet (must be the correct size to fit the drain plug six-point preferred)
- 5 Filter wrench This is a metal band-type wrench, which requires clearance around the filter to be effective
- 6 Filter wrench This type fits on the bottom of the filter and can be turned with a ratchet or breaker bar (different-size wrenches are available for different types of filters)



- 3 Access to the oil drain plug and filter will be improved if the vehicle can be lifted on a hoist, driven onto ramps or supported by jackstands. Warning: Do not work under a vehicle supported only by a jack always use jackstands!
- 4 If you haven't changed the oil on this vehicle before, get under it and locate the oil drain plug. The exhaust components will be warm as you work, so note how they are routed to avoid touching them when you are under the vehicle.
- 5 Start the engine and allow it to reach normal operating temperature oil and sludge will flow out more easily when warm. If new oil, a filter or tools are needed, use the vehicle to go get them and warm up the engine/oil at the same time. Park on a level surface and shut off the engine when it's warmed up. Remove the oil filler cap from the valve cover.
- 6 Raise the vehicle and support it on jackstands. Make sure it is safely supported! Access to the <u>oil pan</u> drain plug is via a removable flap in the splash shield (see illustration).

6.6 Rotate the fastener and open the flap to access the oil drain plug



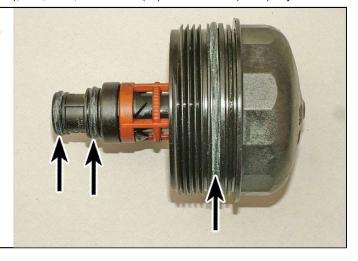
- 7 Working in the engine compartment, locate the oil filter housing on the left-hand side of the engine, in front of the <u>intake manifold</u>.
- 8 Place a rag around the bottom of the housing to absorb any spilled oil.
- 9 Using a special oil filter removal tool or socket, unscrew and remove the cover complete with the filter cartridge (see illustration). The oil will drain from the housing back into the oil pan as the cover is removed

6.9 Unscrew the oil filter cover with a filter removal tool



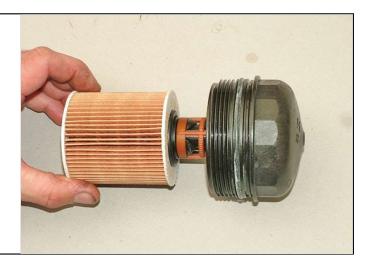
- 10 Pull the old filter element from the cover, and remove the O-rings from the cover.
- 11 Using a clean rag, wipe the mating faces of the housing and cover.
- 12 Install new O-rings on the cover (see illustration). New O-rings are normally supplied with the new filter check with your parts supplier.

6.12 Replace the filter cover O-rings – 3.0L engine shown, 2.0L engine similar



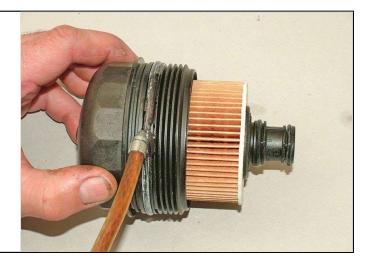
13 Install the new filter cartridge in the cover (see illustration) .

6.13 Slide the new filter element past the O-rings into the filter cover



14 Smear a little clean engine oil on the O-rings, install the cover and tighten it to 18 ft-lbs (25 Nm) if using the special filter removal tool, or securely if using a strap wrench (see illustration).

6.14 Lubricate the O-rings with a little clean engine oil and reinstall the cover in the filter housing



15 Working under the vehicle, loosen the oil drain plug about half a turn (see illustration). Position the draining container under the drain plug, then remove the plug completely. If possible, try to keep the plug pressed into the sump while unscrewing it by hand the last couple of turns. Warning: Wear eye protection and gloves while removing the plug the final few turns to avoid being scalded by hot oil.

6.15 Rotate the fastener to open the access flap and remove the oil pan drain plug



16 Discard the drain plug gasket.

17 Allow some time for the old oil to drain, noting that it may be necessary to reposition the container as the oil flow slows to a trickle.

18 After all the oil has drained, wipe off the drain plug with a clean rag. Install a new gasket (normally supplied with the new filter) on the drain plug. Clean the area around the drain plug opening, then install and tighten the plug (see illustrations).

6.18a Install a new washer or O-ring on the oil pan drain plug



6.18b Reinstall the plug and tighten it to Specifications



19 Remove the old oil and all tools from under the vehicle, then lower the vehicle to the ground (if applicable).

20 Add a little less than the correct amount of oil to the engine through the oil filler cap orifice, using the correct grade and type of oil (see <u>this Chapter's Specifications</u>).

21 Start the engine and run it for 3 minutes; check for leaks around the oil filter seal and the drain plug. Note that there may be a delay of a few seconds before the oil pressure warning light goes out when the engine is first started, as the oil circulates through the engine oil galleries and the new oil filter before the pressure builds up.

22 Check the oil level (see Section 4, Steps 2 through 7), then reset the CBS display.

23 The old oil drained from the engine cannot be reused in its present state and should be disposed of. Check with your local auto parts store, disposal facility or environmental agency to see if they will accept the oil for recycling. After the oil has cooled it can be drained into a container (capped plastic jugs, topped bottles, milk cartons, etc.) for transport to one of these disposal sites. Don't dispose of the oil by pouring it on the ground or down a drain!

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