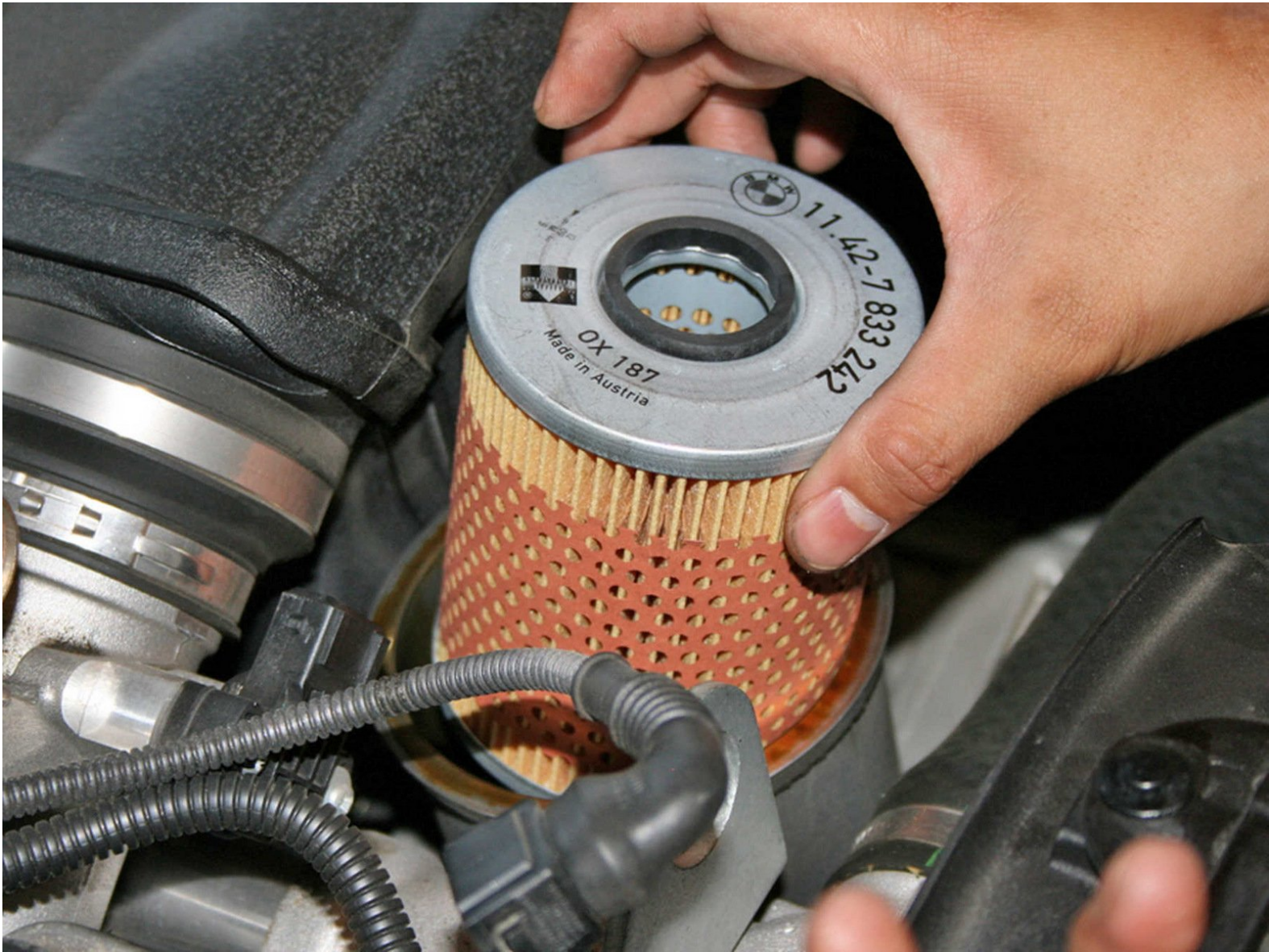




BMW E46 M3 Oil & Filter Change

The following guide covers 2000, 2001, 2002, 2003, 2004, 2005, 2006 BMW M3 models.

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INTRODUCTION

Regular oil and filter changes are important step in for the E46 M3's high-performance S54 engine. One way to tell that it's time for an oil change is when the service indicator on the dash appears. However, many people prefer to change their oil more frequently (ex. 7,500 or 10,000 miles).

Make sure you always use the correct oil.

BMW recommends Castrol TWS 10W-60. You can purchase oil online or at your local BMW dealer.

Photos for this guide are used with the kind permission of contributor JeST at EuroAddiction.net.



TOOLS:

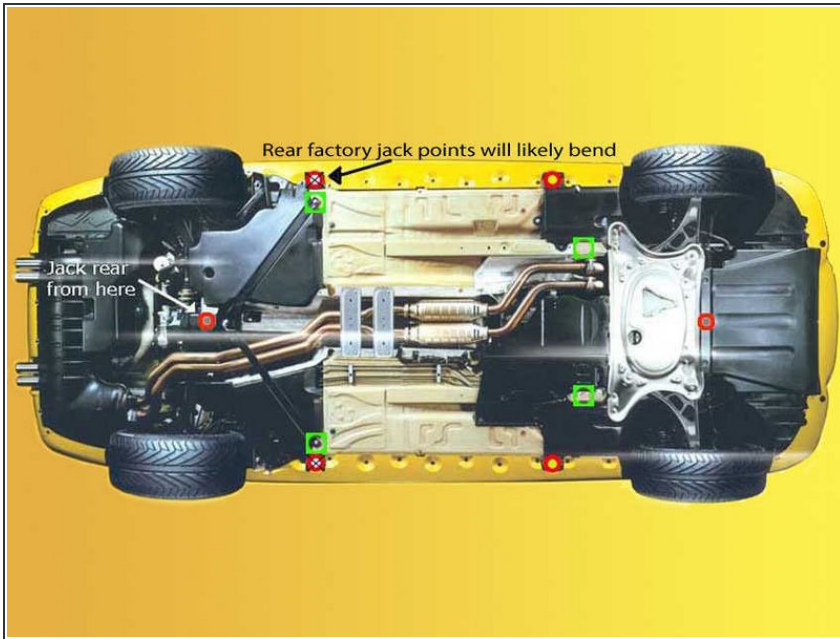
- [3/8" Torque Wrench](#) (1)
- [13mm Socket](#) (1)
- [6mm Allen Head Socket](#) (1)
- [Low Profile Oil Drain Pan](#) (1)
- [Oil Funnel](#) (1)
- [Nitrile Disposable Gloves](#) (1)



PARTS:

- [MAHLE Original OX 187D Oil Filter Kit](#) (1)
Includes O-Rings and Crush Washers
- [Castrol EDGE Gold 10W-60 Synthetic Motor Oil](#) (6)

Step 1 — 2000-2006 BMW M3 Oil & Filter Change



- Raise and support your vehicle using ramps or jack stands. (**Caution:** Avoid working under a vehicle supported only by a jack,)
- The E46 M3 has four factory jack points (two per side), but you can also jack up the car using these two center points (one in front and one in the rear). Then you can easily place jack stands under the lift pads on the sideskirts/rocker panels.
- The photo of the vehicle on this page is a Euro-spec M3 with cats in section I, whereas US-spec M3s have cats in the headers. (See the image reference. Note: Your configuration may appear different.

Step 2 — Open Hood to the Engine Bay



- Notice the oil filler cap and the oil filter housing. The filter cap is the large black plastic cap on the left. The metal cylinder is the one with the star pattern top on the lower right.

Step 3 — Disconnect the Throttle Position Sensor



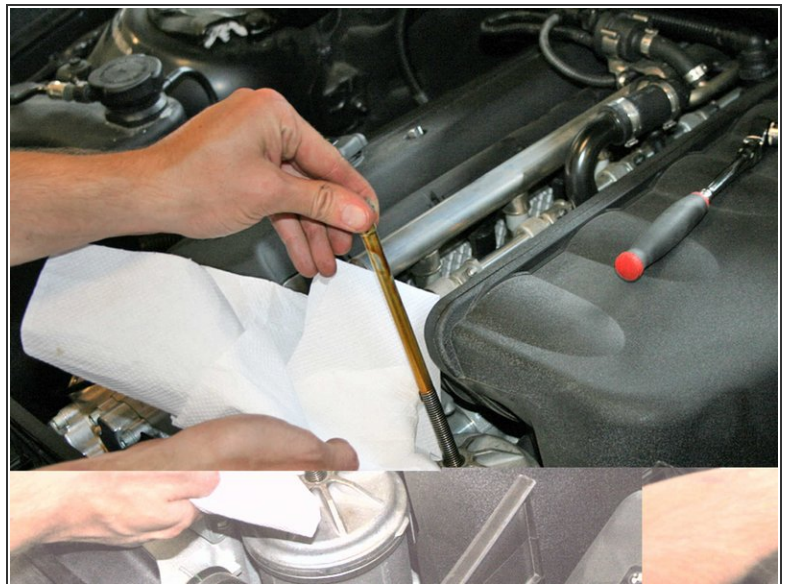
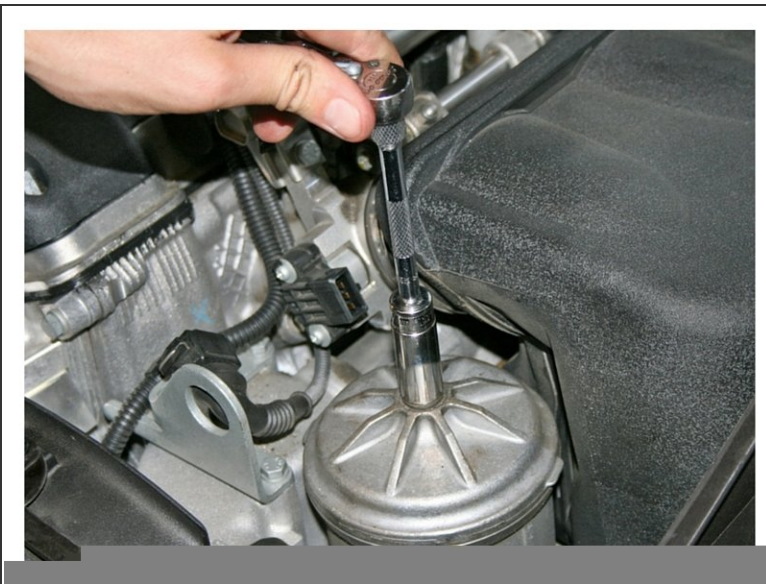
- Disconnect the throttle position sensor (simply pinch the clip and pull).

Step 4 — Remove the Oil Filter Cap



- Remove the oil filler cap by unscrewing it counter-clockwise.

Step 5 — Loosen Oil Filter Housing Bolt



- Loosen the oil filter housing bolt with a 13 mm socket. Take off the bolt and put it aside. Have a towel or shop rag close by because some oil will drip.

Step 6 — Remove the Small Round Plastic Cover



- Remove the small round plastic cover that hides the oil drain plug, under the car. You'll find this located in the middle of the aluminum under panel, close to the front center jack point.
- Loosen the oil drain bolt with a 6 mm hex/Allen socket (not completely).
- Place the oil drain pan underneath the bolt so it will catch the used oil as it pours out.
- Take off the bolt and let the oil to drain.

Step 7 — Reinstall the Drain Plug & Plastic Cover Hiding the Drain Plug



- Note: The oil filter kit includes a sealing ring (replacement washer) for the drain bolt.
- With the bolt removed, get rid of the old washer and replace it with the new one.
- ❗ Reinstall the drain plug and torque it to 18 ft lbs.
- Reinstall the plastic cover hiding the drain plug.

Step 8 — Change the Washer & Replace the Rubber O-Ring on the Oil Filter Housing Cap



- Change the washer at the top of the oil filter housing bolt. Change the rubber O-ring on the oil filter housing cap. Provide the new O-ring a light coating of fresh oil.

Step 9 — Replace the Washer



- Change the washer at the top of the oil filter housing bolt.
- Change the small rubber O-ring at the tip of the oil filter housing bolt.
- Note: You may need to use a pry tool to take off the old O-ring.

Step 10 — Replace the Oil Filter



- Change the oil filter.
- Place the cap back on the oil filter housing, and torque the bolt down to 24 ft lbs.

Step 11 — Pour 5.75 liters of Fresh Oil into the Oil Fill Hole



- The engine calls for 5.5 Liters (5.8 Quarts), and then adding to the full line if necessary.
- Check the oil level and top it up. Make sure the vehicle is level to the ground for a precise reading.
- Close the oil filler cap.
- Plug in the throttle position sensor.
- Make sure you close the hood and lower the car. Double check the oil level after a short drive and top up as needed.
- **Caution:** Get rid of the old oil, filter, and any contaminated rags responsibly by taking them to a household hazardous waste facility. Several auto parts stores will accept your used oil for disposal.