



## How to Change the Oil in Your Gearbox

It is difficult to change the gear oil in a Lotus Elise for the same reason it is difficult to change the engine oil. The engine compartment is covered by a shear panel that provides strength to the chassis. The panel must be removed to gain access to the gear change plugs.

Please do not attempt this if you do not have the proper equipment and if you are not confident of your abilities I can accept no responsibility of you damage your car or hurt yourself.

### Basic Steps:

1. raise one side of the car
2. remove the access panel
3. place car on jack stands
4. drain gear oil
5. replace gear oil plug
6. remove fill plug
7. pump gear oil into the gearbox
8. replace fill plug
9. remove jack stands
10. replace panel
11. lower car

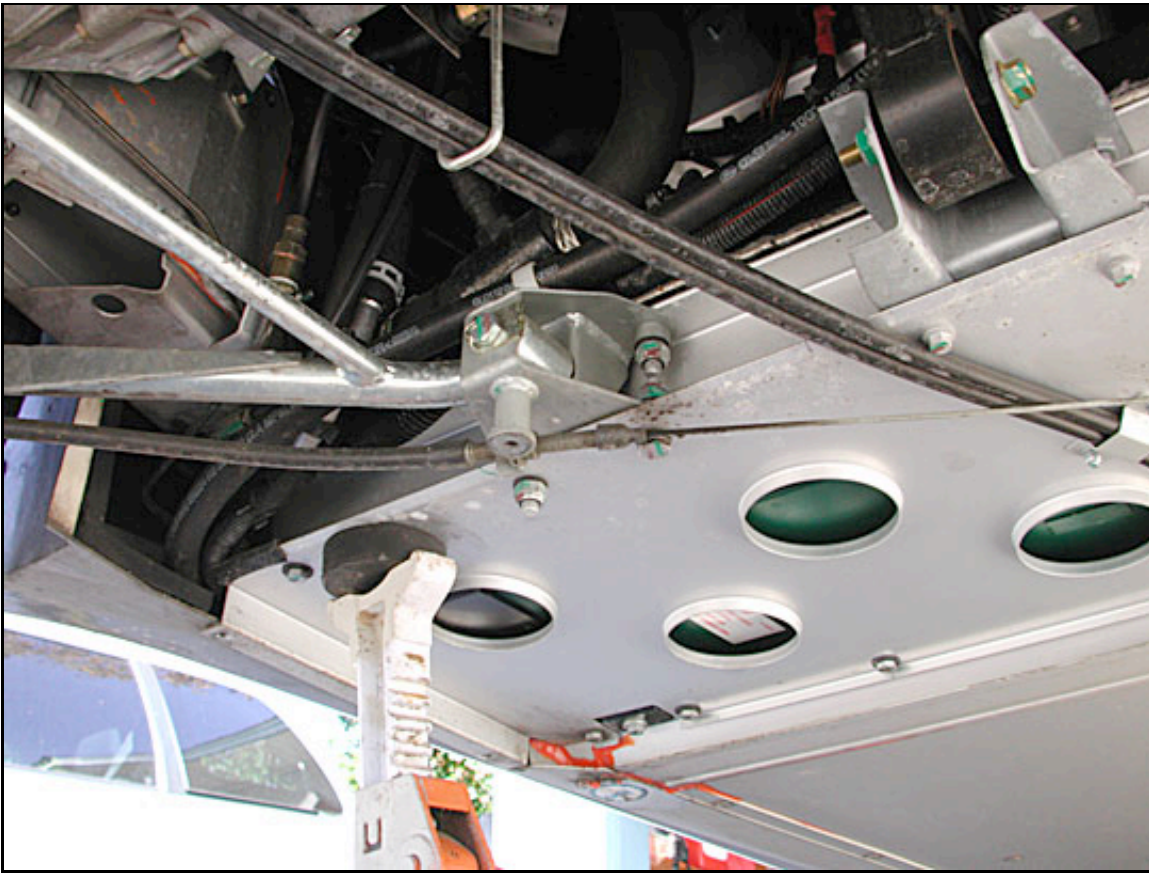
### Tools and Materials

- 2.4 quarts gear oil (Lotus recommends SAE 75W/90, similar is OK)
- Allen head wrench (remove access panel)
- 10mm hex head socket (remove access panel)
- wheel blocks (any wood pieces)
- automobile jack
- two jack stands (not essential but recommended)
- torque wrench (not essential but recommended)
- drain pan
- gear oil pump
- 17mm and 24mm sockets and handle

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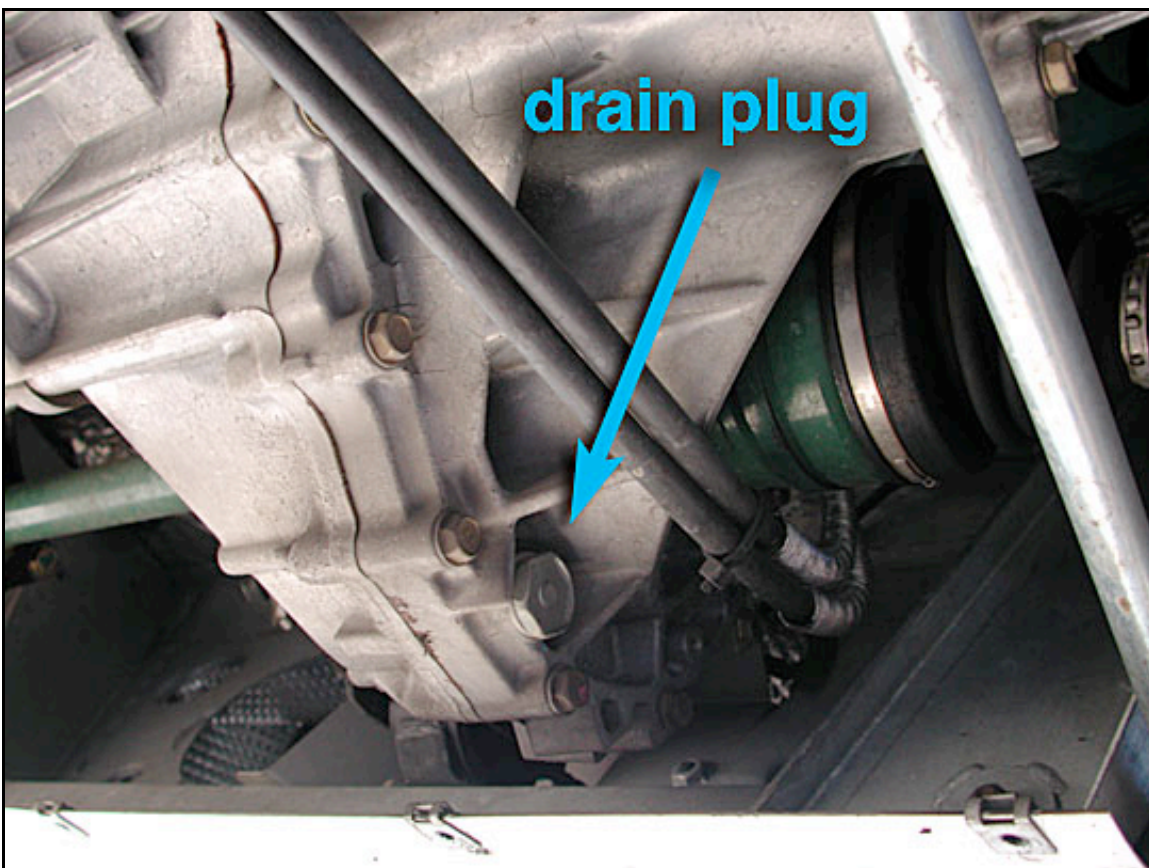
### Start as if doing an oil change

Follow the directions for jacking the car and removing the engine access panel as described in the [oil change instructions](#).



This shows the view looking forward, with the rear support point just under the cross member that encloses the fuel tank. The gear box is barely visible in the top left of the picture.

### **Drain the Transmission Gear Oil**



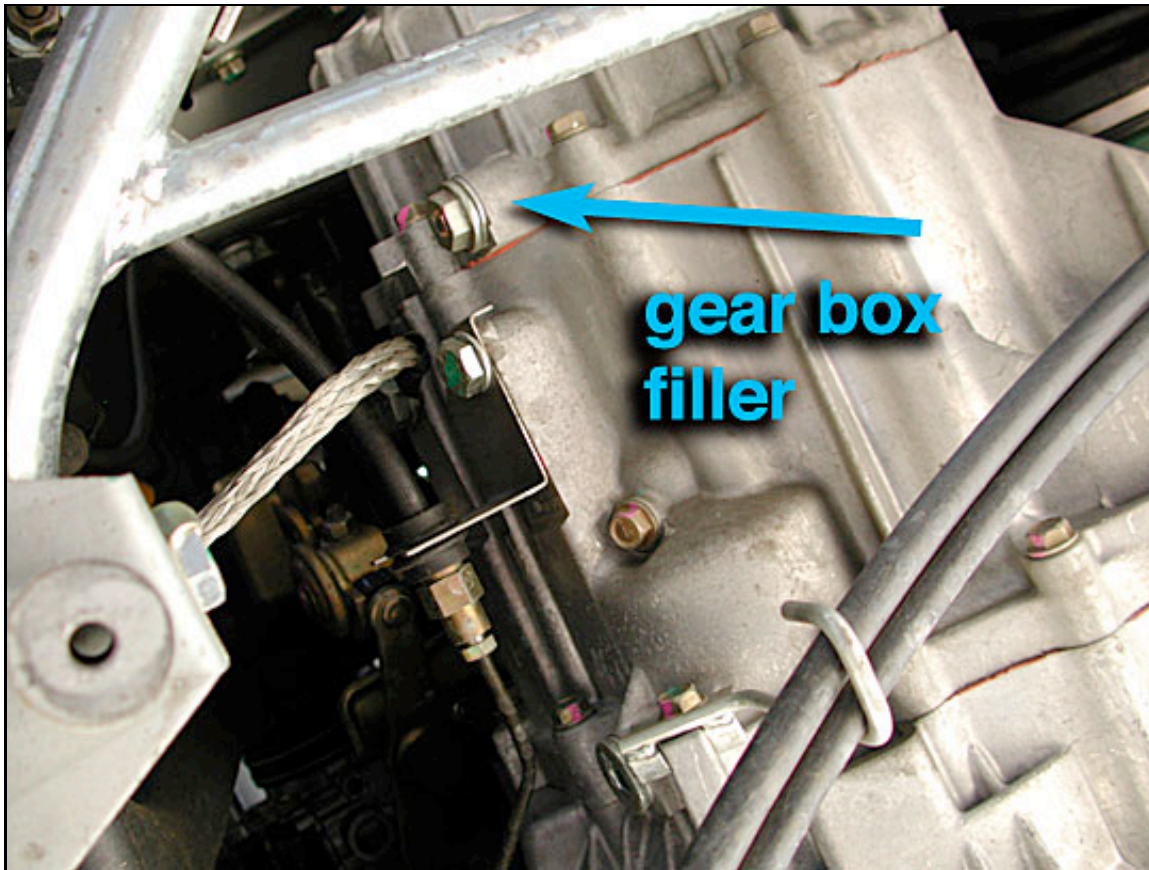
Locate the drain plug. It is a large hex headed bolt, 24mm, that is at the lowest point on the transmission casing. You

can see the two half shafts that drive the rear wheels as well as the twin cables that run to the shift mechanism.

Loosen and remove the **fill plug**, 17mm (see location below). This will allow air into the casing as the oil drains out the bottom.

Loosen and remove the drain plug, indicated above. Be prepared to catch the rush of oil as it comes out.

(I loosened the fill plug thinking it will let enough air in during the draining process. Do not make the mistake of removing the fill plug while draining. The oil will suddenly come out in a rush. Ask me how I know! What a mess!)



Replace the drain plug and torque to 29 ft-lbs. It is the one with the big head. The filler and the drain are threaded the same. Do not mix them up when replacing them.

Carefully note the position of the filler. It is not the bolt holding the bracket on. It is horizontal and is near the split in the casing.

The filler and the drain are threaded the same. Do not mix them up when replacing them.



Please take a better picture and send it to me.  
The pump is not visible enough.

Fill the gearbox with new fluid. This is easily done using a cheap oil pump specifically for this task. Continue to pump the new fluid into the hole until you have pumped about two quarts. Then proceed slowly until the fluid reaches the level of the hole. A small amount will drip out at which time you should replace the fill bolt.

Replace the fill bolt and torque to 29 ft-lbs.

You can now replace the access panel and lower the car back onto its wheels as described in the oil change instructions.

Please dispose of your used oil responsibly.

Thanks to EliseTalk id "OppositeLock" for help with the above.

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