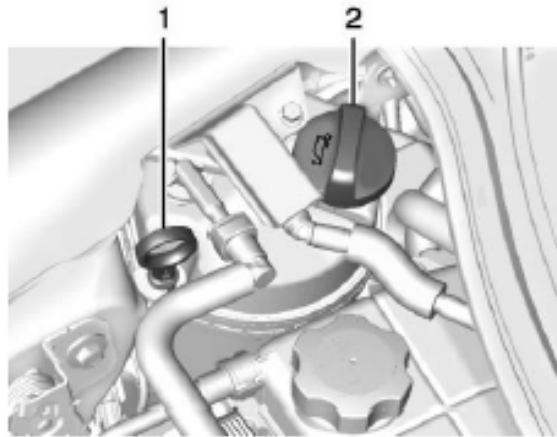


Checking Engine Oil (Z51)



1. Engine Oil Dipstick
2. Engine Oil Fill Cap

It is a good idea to check the engine oil level at each fuel fill. In order to get an accurate reading, the vehicle must be on level ground.


The engine oil dipstick handle is a loop. The dipstick is located on the dry sump engine oil tank. See *Engine Compartment Overview* on page 10-7 for the location of the dry sump engine oil tank.

These vehicles have a racetrack-ready dry sump engine lubrication system. This high performance system operates differently than a standard engine lubrication system and requires a special procedure when checking the engine oil level. Follow this procedure closely.

The engine oil level must be checked when the engine is warm. Cold oil level in the dry sump tank may not indicate the actual amount of oil in the system. With this system, engine oil is contained in an external tank, separate from the engine. Under normal operating conditions, the oil pan under the engine does not store any oil. If the vehicle has been parked for an extended period without the engine being started, some oil will seep back into the oil pan, reducing the amount of oil held in the dry sump tank and there could be no engine oil at all showing on the dipstick.

This is normal since the dipstick is designed to read the engine oil level only after the engine has run long enough to reach normal operating temperature. Do not add engine oil based on cold engine dipstick readings. The engine oil level on the dipstick will also be inaccurate if checked while the engine is running.

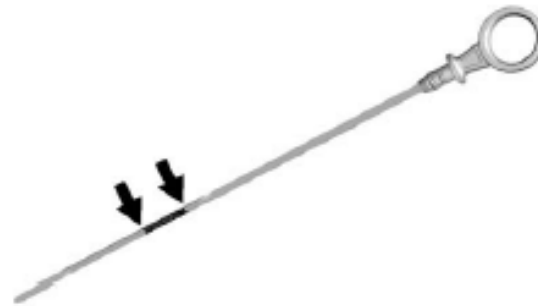
1. To obtain an accurate engine oil level reading, warm up the engine to at least 80°C (175°F). Cold oil will not give a correct oil level reading.
2. Once the engine is warm, turn off the engine. Checking the oil while the engine is running will result in an incorrect oil level reading.
3. Check the oil level between five and 10 minutes after the engine is shut down.

 **Warning**

The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.


4. Remove the dipstick from the external engine oil tank and clean it with a lint-free paper towel or a cloth. Re-insert the dipstick into the external oil tank, pushing it all the way in until it stops.
5. Remove the dipstick from the oil tank and read the level on the cross-hatched area.

When to Add Engine Oil (Z51)



If the oil is below the cross-hatched area at the tip of the dipstick, add 1 L (1 qt) of the recommended oil through the oil fill cap opening in the oil tank and then recheck the level. See "Selecting the Right Engine Oil" for an explanation of what kind of oil to use. For engine oil crankcase capacity, see *Capacities and Specifications on page 12-2*.

See *Track Events and Competitive Driving on page 9-5* for additional information on engine oil.

 **Caution**

Do not add too much oil. Oil levels above or below the acceptable operating range shown on the dipstick are harmful to the engine. If you find that you have an oil level above the operating range, i.e., the engine has so much oil that the oil level gets above the cross-hatched area that shows the proper operating range, the engine could be damaged. You should drain out the excess oil or limit driving of the vehicle and seek a service professional to remove the excess amount of oil.

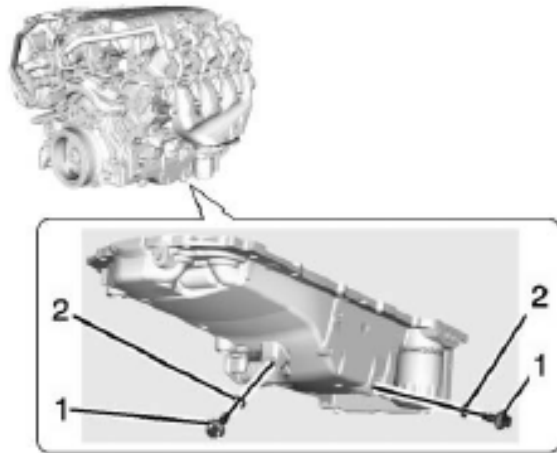
See *Engine Compartment Overview on page 10-7* for the location of the external engine oil tank and fill cap.

Add enough oil to put the level somewhere in the proper operating range. Push the dipstick all the way back into the oil tank when through.

10-14 Vehicle Care

Changing Engine Oil and Filter (Z51)

The vehicle may have a racetrack-ready dry sump engine lubrication system. This high performance system operates differently than a standard engine lubrication system and requires a special procedure when changing the engine oil and filter. Follow this procedure closely when changing the engine oil and filter.



1. Engine Oil Drain Plugs
2. Seals

Steps to follow:

1. Remove the two engine oil drain plugs from the bottom of the engine oil pan. One drain plug drains the external oil tank via the oil transfer supply line. The other drain plug drains residual oil from the crankcase sump. Allow the oil to drain.
2. Once the oil has been drained from the engine, remove the engine oil filter and allow the oil to drain.
3. Reinstall both drain plugs and tighten them to 25 N•m (18 lb ft).
4. Replace the oil filter and tighten it to 30 N•m (22 lb ft). See *Maintenance Replacement Parts on page 11-14* for the correct filter.
5. Oil is filled through the opening in the top of the external engine oil tank. Remove the oil fill cap.
6. Add oil to the oil tank. See *Capacities and Specifications on page 12-2*.

7. Install the oil fill cap and insert the dipstick, if removed.
8. Start the engine and let it run at idle for at least 15 seconds. This will circulate the fresh engine oil through the lubrication system.
9. Shut off the engine and check the oil level as described under "Checking Engine Oil (Z51)."

Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See *Recommended Fluids and Lubricants on page 11-12*.

Specification

Use and ask for licensed engine oils with the dexos1[®] approved certification mark. Engine oils meeting the requirements for the vehicle should have the dexos1 approved certification mark. This certification mark indicates that the oil has been approved to the dexos1 specification. Corvette recommends Mobil 1[®] engine oils that meet the

11-14 Service and Maintenance

Maintenance Replacement Parts

Replacement parts identified below by name, part number, or specification can be obtained from your dealer.

Part	GM Part Number	ACDelco Part Number
Engine Air Cleaner/Filter	22682632	—
Engine Oil Filter	12640445	PF64
Passenger Compartment Air Filter Element	23107355	A3191C
Spark Plug	12622441	41-114
Wiper Blades		
Driver Side — 550 mm (21.7 in)	22756331	—
Passenger Side — 500 mm (19.7 in)	22756330	—