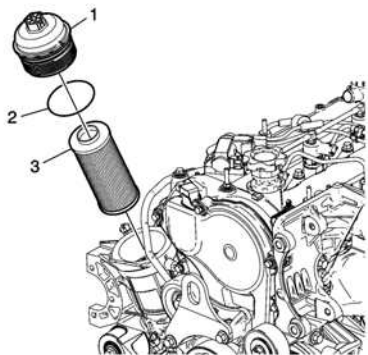
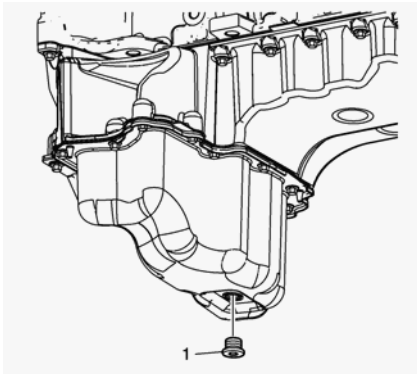


2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



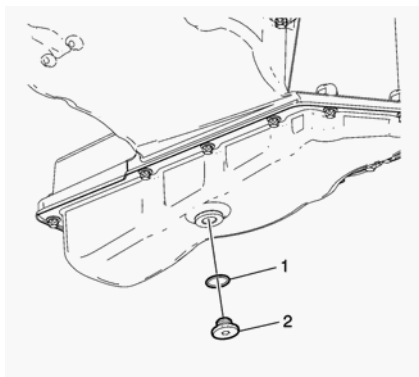
1. Remove the oil filter cap (1) and O-ring seal (2).
2. Remove the oil filter (3) from the cap and discard.



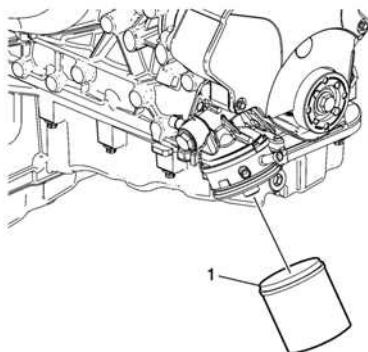
3. Remove the oil pan drain plug (1) and allow the oil to drain out.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



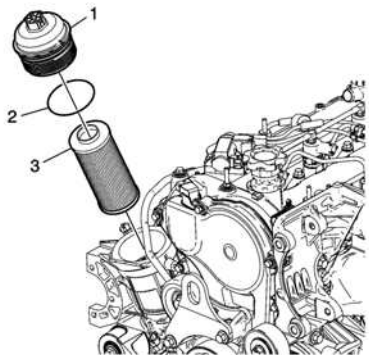
1. Remove the oil pan drain plug (2) and allow the oil to drain out.
2. Remove the oil pan drain plug O-ring seal (1).



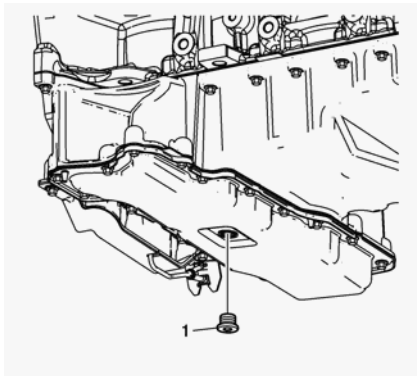
3. Remove the oil filter (1).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



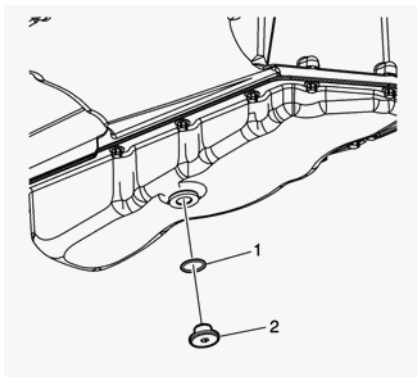
1. Remove the oil filter cap (1) and O-ring seal (2).
2. Remove the oil filter (3) from the cap and discard.



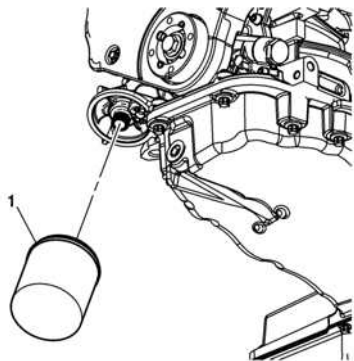
3. Remove the oil pan drain plug (1) and allow the oil to drain out.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the oil pan drain plug (2) and allow the oil to drain out.
2. Remove the oil pan drain plug O-ring seal (1).



3. Remove the oil filter (1).

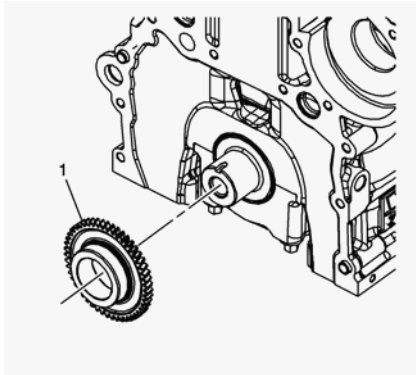
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

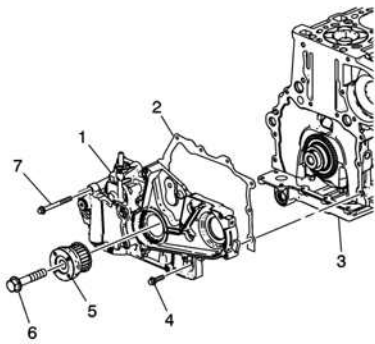
Special Tools

EN-50030 Crankshaft Locking Tool

For equivalent regional tools, refer to Special Tools



1. Install the oil pump gear (1).

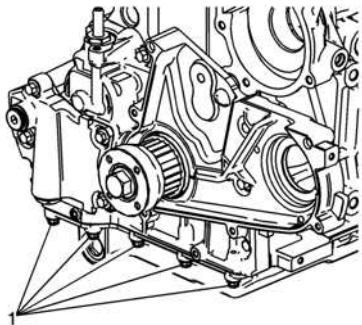


2. Temporarily install the upper oil pan (3) with enough bolts to hold it in place.
3. Install the front cover and oil pump housing gasket (2).
4. Install the front cover and oil pump housing (1) and housing bolts (4 and 7) finger tight.

Caution: This vehicle is equipped with torque-to-yield or single use fasteners. Install a NEW torque-to-yield or single use fastener when installing this component. Failure to replace the torque-to-yield or single use fastener could cause damage to the vehicle or component.

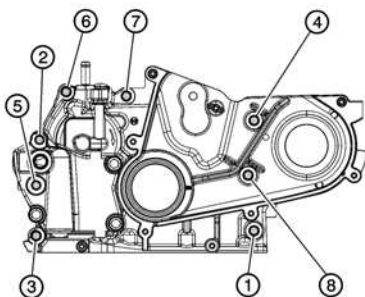
Note: The crankshaft timing pulley bolt is left hand thread. The keyway in the crankshaft should match up with the timing pulley and result in 90° ATDC.

5. Install the crankshaft timing pulley (6) and NEW pulley bolt (5) finger tight.

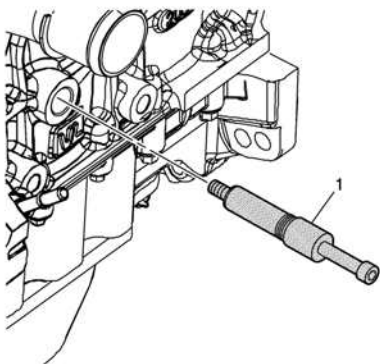


Caution: Refer to Fastener Caution.

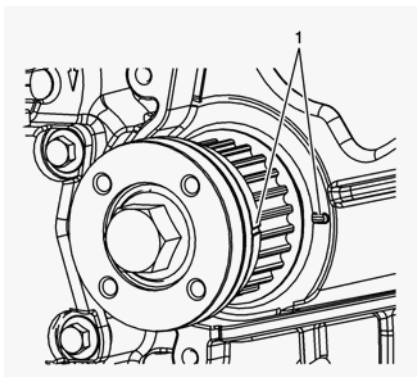
6. Install the upper oil pan to engine front cover bolts (1) and tighten to **15 Y (11 lb ft)**.



7. Tighten the engine front cover bolts in sequence to **32 Y (24 lb ft)**.
8. Remove the upper oil pan.



9. Install the *EN-50030* locking tool (1).



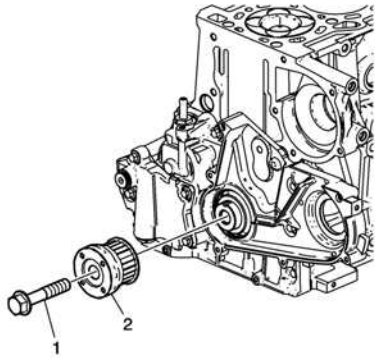
Note: The crankshaft timing pulley bolt is left hand thread. The keyway in the crankshaft should match up with the timing pulley and result in 90° ATDC.

10. Ensure that the timing mark on the crankshaft timing pulley is aligned at 90 degrees ATDC (1).
11. Tighten the NEW crankshaft timing pulley bolt.

1. Tighten the bolt a first pass to **100 Y (74 lb ft)**.
2. Tighten the bolt a final pass to **120 degrees**.

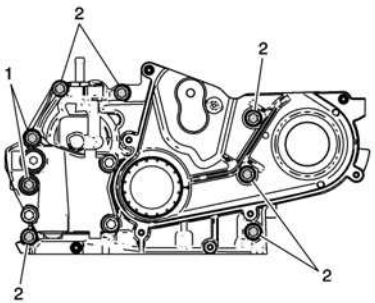
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

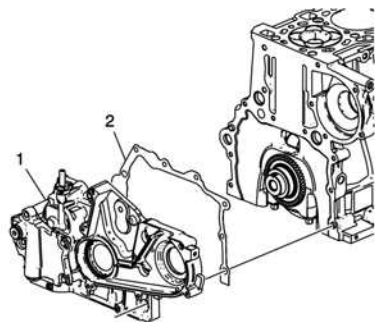


Note: The crankshaft timing pulley bolt (1) has a left hand thread.

1. Remove the crankshaft timing pulley bolt (1) and pulley (2).

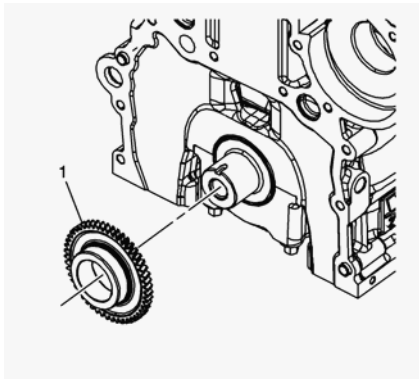


2. Remove the front cover and oil pump housing bolts (1 and 2).



3. Remove the front cover (1) and gasket (2).

Engine Front Cover and Oil Pump Removal



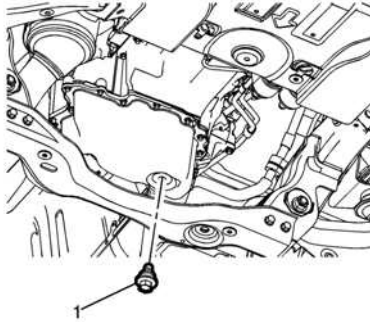
4. Remove the oil pump gear (1).

2013 Chevrolet Colorado

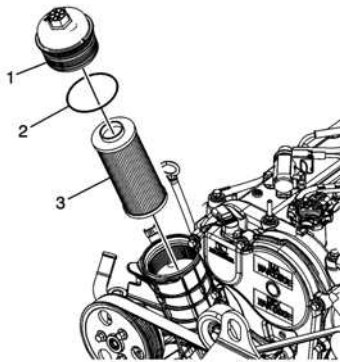
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

1. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.



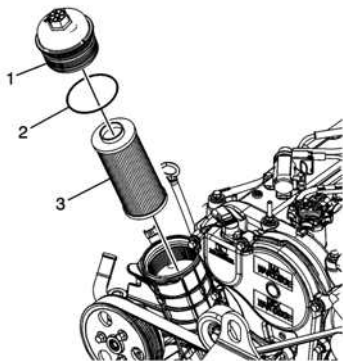
2. Place a drain pan under the oil drain plug.
 3. Remove the oil pan drain plug (1).
 4. Allow the oil to drain completely.
- Caution:** Refer to Fastener Caution.
5. Install the oil pan drain plug and tighten to **25 Y (18 lb ft)**.
 6. Install the engine protection shield. Refer to Engine Protection Shield Replacement.
 7. Lower the vehicle.
 8. Remove the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement.



- Note:** DO NOT use an open end wrench on the hex on top of the oil filter cap.
9. Use an oil filter wrench on the outside diameter of the oil filter cap (1).
 10. Remove the oil filter cap (1), O-ring Seal (2), and filter (3).
 11. Remove the filter from the cap.

[Installation Procedure](#)

Engine Oil and Oil Filter Replacement (High Stance)



1. Install the NEW oil filter (3) to the cap (1).
2. Install NEW O-ring seal (2)
3. Install the oil filter cap and filter.

Caution: Over torquing the oil filter cap may cause damage to the oil filter cap resulting in an oil leak.

Note: DO NOT use an open end wrench on the hex on top of the oil filter cap.

4. Use an oil filter wrench on the outside diameter of the oil filter cap and tighten the oil filter cap to **25 Y (18 lb ft)**.
5. Install the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement.
6. Fill the engine with oil.

Caution: Oil level checks done a few minutes after engine shut off (e.g. at gas station after fuel refill) may lead to a false low oil level reading. Do not top up in this case and follow the right procedure.

Note:

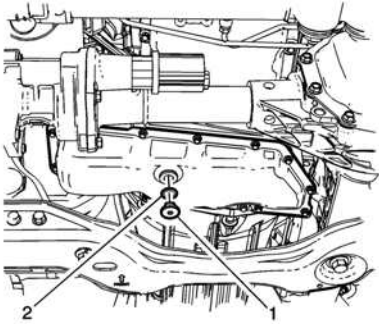
- Before checking the oil level, vehicle has to be on a horizontal surface and the engine needs to be switched off for at least 1 hours
- Remove the oil dipstick and clean the tip with a cloth
- Insert the dipstick back into the original position, ensure it is fully inserted in to the tube
- Remove the dipstick to read the oil level
- The level is read using the grid side of the tip

7. Check the engine oil level

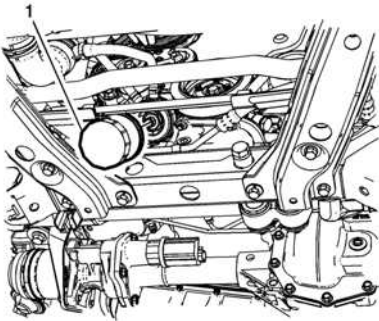
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

1. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.
2. Place a drain pan under the oil drain plug.



3. Remove the oil pan drain plug (1).
4. Allow the oil to drain completely.
5. Clean and inspect the oil pan drain plug, replace if necessary.
6. Clean and inspect the oil pan drain plug sealing surface (2), replace the oil pan drain plug sealing surface if necessary.
7. Reinstall oil pan drain plug (1) and tighten to **12 Y (9 lb ft)**.



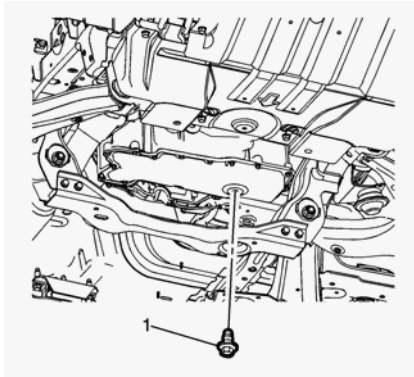
8. Position a suitable drain pan under the oil filter
9. Remove the oil filter (1).
10. Ensure that the oil filter gasket is still on the old oil filter, if not remove the oil filter gasket from the adapter.
11. Reinstall oil filter and tighten to **12 Y (9 lb ft)**
12. Remove the oil drain pan from under the vehicle.
13. Install the engine protection shield. Refer to Engine Protection Shield Replacement.
14. Lower the vehicle.
15. Fill the engine with new engine oil.
16. Start the engine.
17. Inspect for oil leaks after engine start up.
18. Turn off the engine and allow the oil a few minutes to drain back into the oil pan
19. Remove the oil level indicator from the oil level indicator tube
20. Clean off the indicator end of the oil level indicator with a clean paper towel or cloth.
21. Install the oil level indicator into the oil level indicator tube until the oil level indicator handle contacts the top of the oil level indicator tube.
22. Again, remove the oil level indicator from the oil level indicator tube keeping the tip of the oil level indicator down
23. Check the level of the engine oil on the oil level indicator.
24. Check for oil leaks.

2013 Chevrolet Colorado

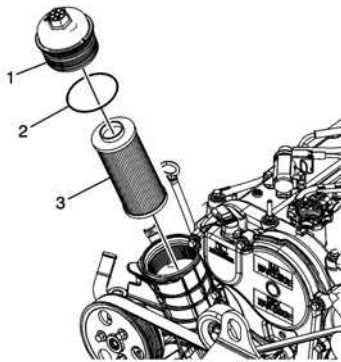
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

1. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.

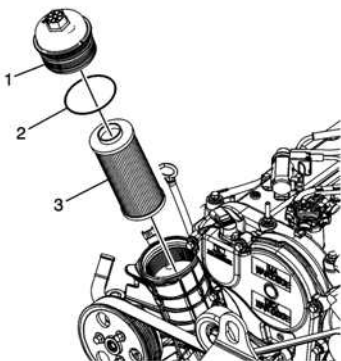


2. Place a drain pan under the oil drain plug.
 3. Remove the oil pan drain plug (1).
 4. Allow the oil to drain completely.
- Caution:** Refer to Fastener Caution.
5. Install the oil pan drain plug and tighten to **25 Y (18 lb ft)**.
 6. Install the engine protection shield. Engine Protection Shield Replacement.
 7. Lower the vehicle.
 8. Remove the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement.



- Note:** DO NOT use an open end wrench on the hex on top of the oil filter cap.
9. Use an oil filter wrench on the outside diameter of the oil filter cap (1).
 10. Remove the oil filter cap (1), O-ring Seal (2), and filter (3).
 11. Remove the filter from the cap.

[Installation Procedure](#)



1. Install the NEW oil filter (3) to the cap (1).
2. Install NEW O-ring seal (2).
3. Install the oil filter cap and filter.

Caution: Over torquing the oil filter cap may cause damage to the oil filter cap resulting in an oil leak.

Note: DO NOT use an open end wrench on the hex on top of the oil filter cap.

4. Use an oil filter wrench on the outside diameter of the oil filter cap and tighten the oil filter cap to **25 Y (18 lb ft)**.
5. Install the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement.
6. Fill the engine with oil.

Caution: Oil level checks done a few minutes after engine shut off (e.g. at gas station after fuel refill) may lead to a false low oil level reading. Do not top up in this case and follow the right procedure.

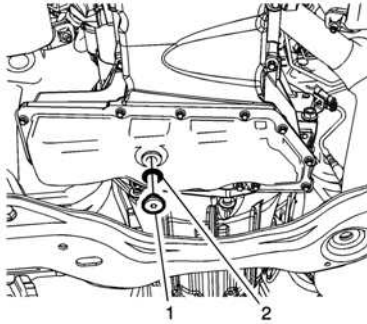
Note:

- Before checking the oil level, vehicle has to be on a horizontal surface and the engine needs to be switched off for at least 1 hours
 - Remove the oil dipstick and clean the tip with a cloth
 - Insert the dipstick back into the original position, ensure it is fully inserted in to the tube
 - Remove the dipstick to read the oil level
 - The level is read using the grid side of the tip
7. Check the engine oil level

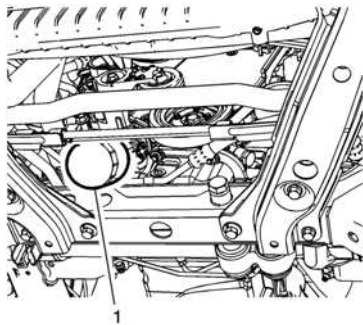
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

1. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.
2. Place a drain pan under the oil drain plug.



3. Remove the oil pan drain plug (1).
4. Allow the oil to drain completely.
5. Clean and inspect the oil pan drain plug, replace if necessary.
6. Clean and inspect the oil pan drain plug sealing surface (2), replace the oil pan drain plug sealing surface if necessary.
7. Reinstall oil pan drain plug (1) and tighten to **12 Y (9 lb ft)**.

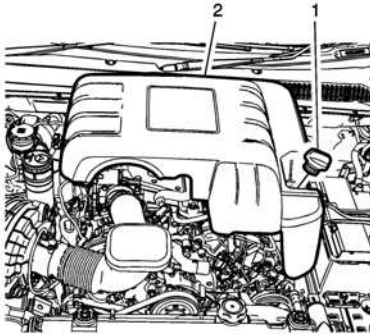


8. Position a suitable drain pan under the oil filter.
9. Remove the oil filter (1).
10. Ensure that the oil filter gasket is still on the old oil filter, if not remove the oil filter gasket from the adapter.
11. Reinstall oil filter and tighten to **12 Y (9 lb ft)**.
12. Remove the oil drain pan from under the vehicle.
13. Install the engine protection shield. Refer to Engine Protection Shield Replacement.
14. Lower the vehicle.
15. Fill the engine with new engine oil.
16. Start the engine.
17. Inspect for oil leaks after engine start up.
18. Turn off the engine and allow the oil a few minutes to drain back into the oil pan.
19. Remove the oil level indicator from the oil level indicator tube.
20. Clean off the indicator end of the oil level indicator with a clean paper towel or cloth.
21. Install the oil level indicator into the oil level indicator tube until the oil level indicator handle contacts the top of the oil level indicator tube.
22. Again, remove the oil level indicator from the oil level indicator tube keeping the tip of the oil level indicator down.
23. Check the level of the engine oil on the oil level indicator.
24. Check for oil leaks.

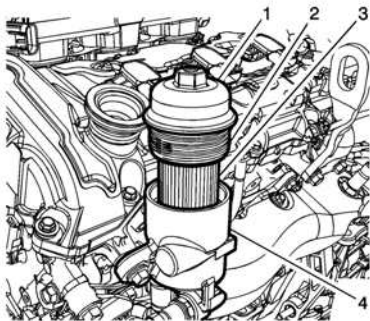
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)



1. Remove the intake manifold cover (2). Refer to Intake Manifold Cover Replacement.

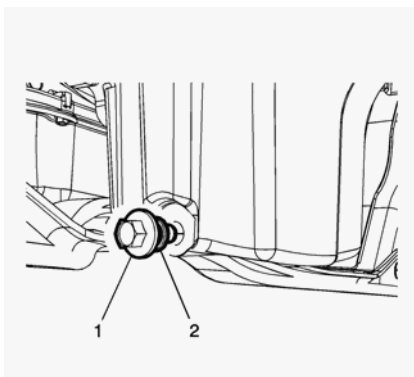


Note: Use a 6-point socket to remove the oil filter cap.

2. Place a suitable drain pan below the oil filter adapter (4).
3. Remove the oil filter cap (1).

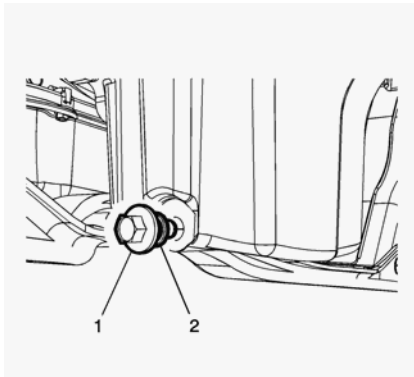
Note: It is normal for oil to drain from the oil filter chamber in the oil filter adapter housing. Do NOT replace the oil filter adapter for this condition.

4. Remove and discard the oil filter cartridge (3).
5. Remove and discard the oil filter cap O-ring (2).
6. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.



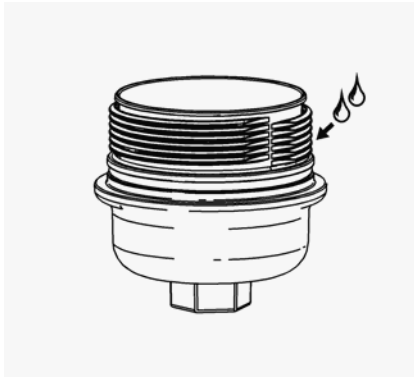
7. Position the drain pan below the oil drain plug (1).
8. Remove the oil pan drain plug (1).
9. Remove and discard the oil drain plug seal (2).
10. Allow the oil to drain completely.

[Installation Procedure](#)



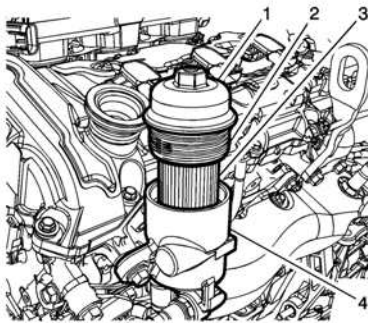
Caution: Refer to Fastener Caution.

1. Install the oil pan drain plug (1) and NEW drain plug seal (2) and tighten to **25 Y (18 lb ft)**.
2. Lower the vehicle.



Caution: Lubrication must be applied to the threads of the oil filter cap prior to installation. Failure to lubricate the oil filter cap threads can hinder later removal and cause possible oil filter cap damage.

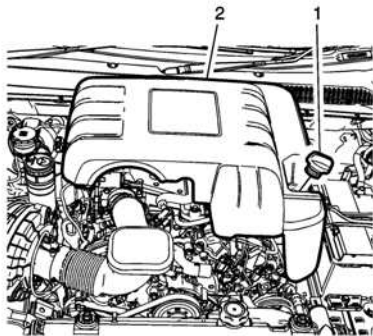
3. Lubricate the oil filter cap threads and NEW O-ring with clean engine oil.



Caution: Proper oil filter cap tightening is mandatory. Failure to tighten the oil filter cap to the proper specification can hinder later removal and cause possible oil filter cap damage.

Note: Use a 6-point socket to install the oil filter cap.

4. Install a NEW oil filter cartridge (3).
5. Install the oil filter cap (1) and tighten to **25 Y (18 lb ft)**.
6. Fill the engine with the appropriate oil type and quantity. Refer to Fluid and Lubricant Recommendations and Approximate Fluid Capacities.

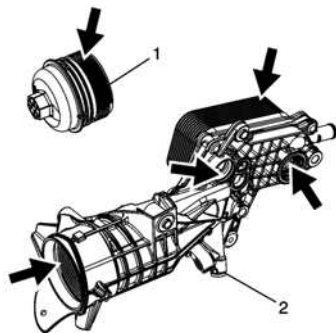


7. Install the intake manifold cover (2). Refer to Intake Manifold Cover Replacement.

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Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



1. Clean and inspect the oil filter with cooler assembly (2).
2. Clean and inspect the oil filter cap assembly (1).
3. Replace the components as necessary.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

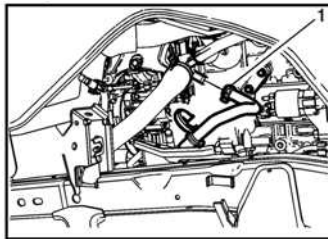
Special Tools

BO-38185 Hose Clamp Pliers

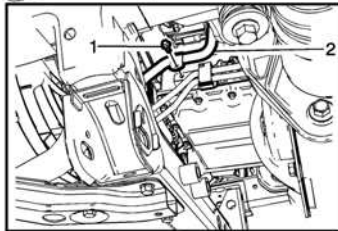
For equivalent regional tools, refer to Special Tools.

Removal Procedure

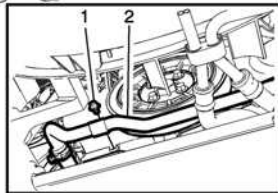
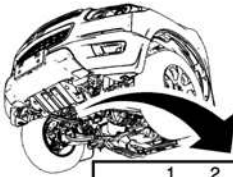
1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Drain the cooling system. Refer to Cooling System Draining and Filling.



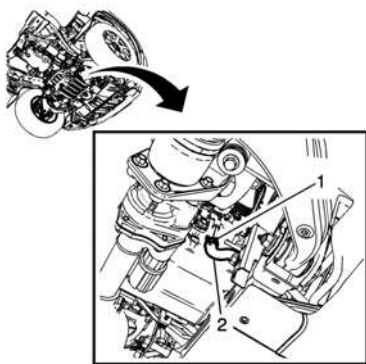
3. Remove the engine oil cooler hose (1) using the BO-38185 pliers from the water pump inlet pipe.



4. Remove the engine oil cooler pipe retainer fastener (1).

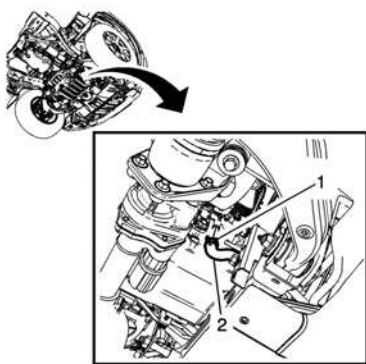


5. Remove the engine oil cooler hose clamp (1) and remove the engine oil cooler pipe (2).

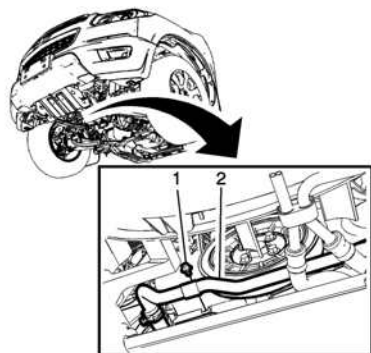


6. Remove the engine oil cooler hose (2) from the engine oil cooler with the hose clamp (1).
7. Remove the engine oil cooler hose and pipe from the front engine compartment.

[Installation Procedure](#)

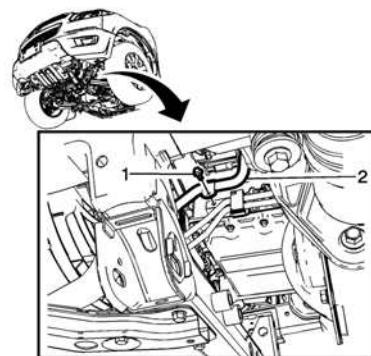


1. Install the engine oil cooler hose (2) to the engine oil cooler with the hose clamp (1).



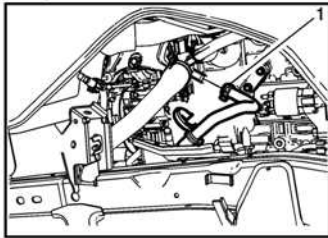
Caution: Refer to Fastener Caution.

2. Install the engine oil cooler pipe (2) to the engine front cover and tighten the fastener (1) to **15 Y (11 lb ft)**.



3. Install the engine oil cooler pipe (2) to the engine block and tighten the fastener (1) to **15 Y (11 lb ft)**.

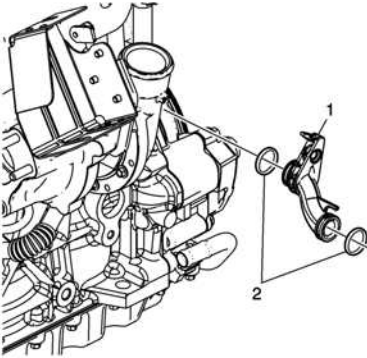
Engine Oil Cooler Hose/Pipe Replacement



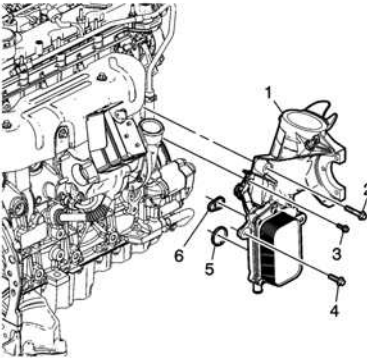
4. Install the engine oil cooler hose to the water pump inlet pipe with the hose clamp (1).
5. Fill the cooling system. Refer to Cooling System Draining and Filling.
6. Start the engine and check for coolant leaks.

2013 Chevrolet Colorado

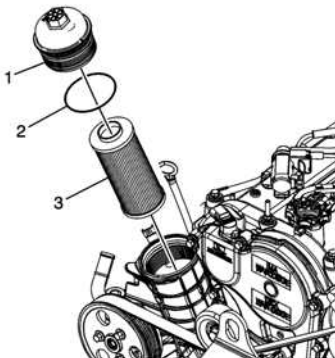
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the NEW oil filter adapter pipe seals (2) and pipe (1).

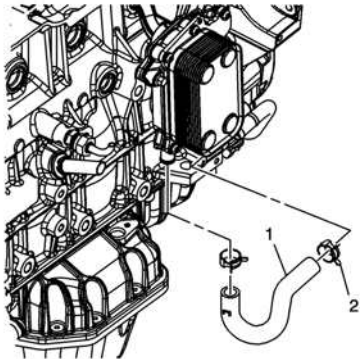


2. Install the oil cooler seals (5-6).
 3. Install the oil cooler (1).
- Caution:** Refer to Fastener Caution.
4. Install the oil cooler mounting bolts (2-4) and tighten to **32 Y (24 lb ft)**.



5. Install a new oil filter (3) and seal (2).
6. Install and tighten the oil filter cap (1) to **25 Y (18 ft lb)**.

Engine Oil Cooler Installation

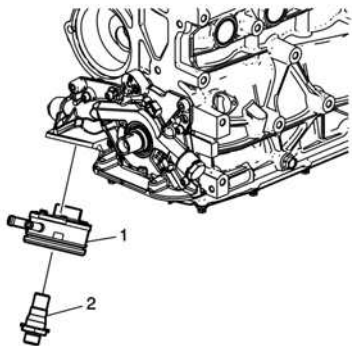


7. Install the oil coolant hose (1) and clamps (2).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



1. Install engine oil cooler (1).
2. Install the engine oil cooler bolt (2).

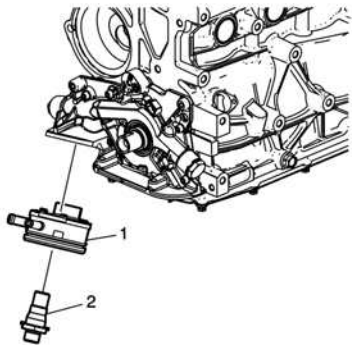
Caution: Refer to Fastener Tightening Specifications.

3. Tighten the engine oil cooler bolt (2) to **78.5Y (58 lb ft)**

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

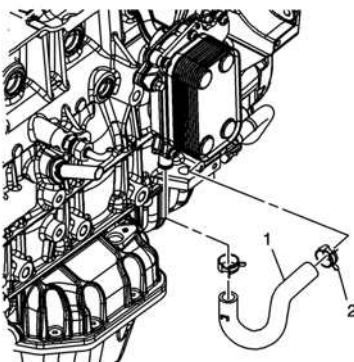
Fuel Delivery: | Fuel:



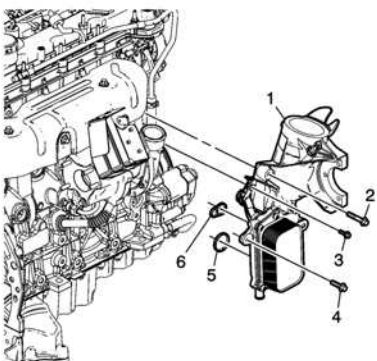
1. Remove the engine oil cooler bolt (2).
2. Remove the engine oil cooler (1).

2013 Chevrolet Colorado

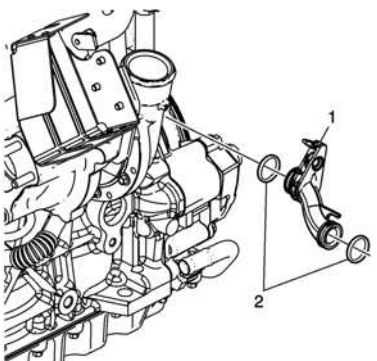
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the oil coolant hose clamps (2) and hose (1).



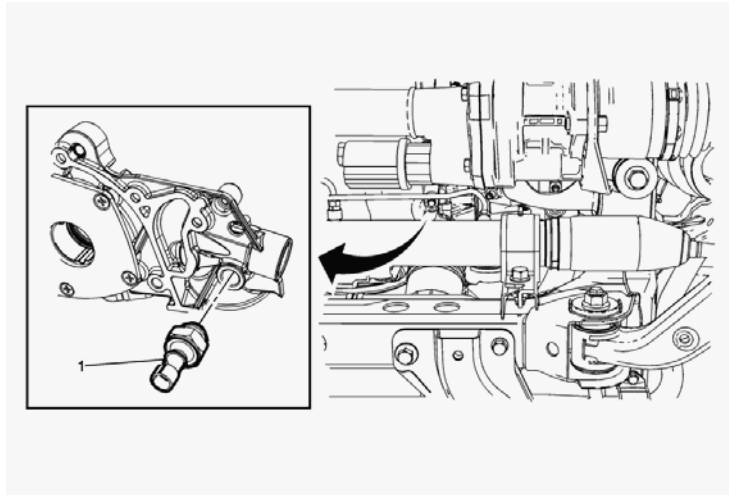
2. Remove the oil cooler mounting bolts (2-4).
3. Remove the oil cooler (1).
4. Remove the oil cooler seals (5-6).



5. Remove the oil filter adapter pipe (1) and seals (2).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Engine Oil Pressure Indicator Switch Replacement

Callout

Component Name

Preliminary Procedure

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.

Note: There were two designs of the engine oil pressure switch for this engine. They are identified by the following:

1. The engine oil pressure switch that has an inscription on the side of the hex portion, need a NEW seal installed every time.
2. The engine oil pressure switch that has an inscription under the hex portion, does not need a NEW seal installed.

Special Tools

CH 35669 Oil Pressure Switch and Remover and Installer.

For equivalent regional tools. Refer to Special Tools.

Engine Oil Pressure Indicator Switch

Caution: Refer to Fastener Caution.

Procedure

1

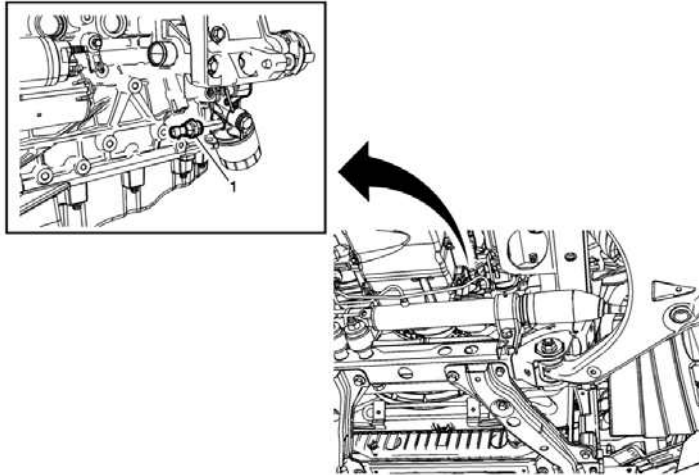
1. Disconnect the engine oil pressure switch electrical connectors.
2. If applicable install a NEW seal whenever a engine oil pressure switch is installed.

Tighten

35 Y (26 lb ft)

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Engine Oil Pressure Indicator Switch Replacement

Callout

Component Name

Note: There were two designs of the engine oil pressure switch for this engine. They are identified by the following:

1. The engine oil pressure switch that has an inscription on the side of the hex portion, need a NEW seal installed every time.
2. The engine oil pressure switch that has an inscription under the hex portion, does not need a NEW seal installed.

Engine Oil Pressure Indicator Switch

Caution: Refer to Component Fastener Tightening Caution.

Procedure

1

1. Disconnect the engine oil pressure switch electrical connectors.
2. If applicable install a NEW seal whenever a engine oil pressure switch is installed.

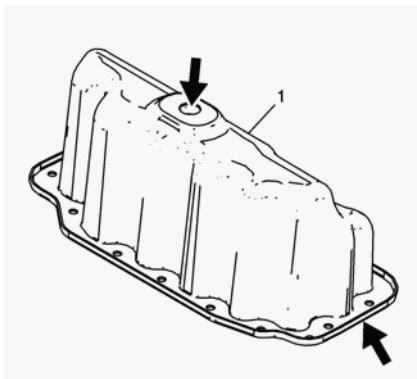
Tighten

35 Y (26 lb ft)

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

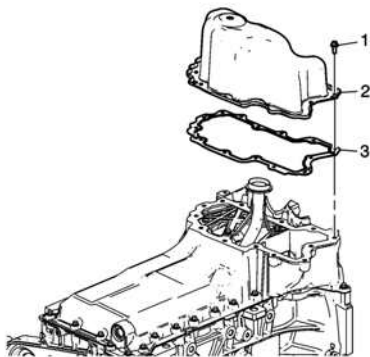
Fuel Delivery: | Fuel:



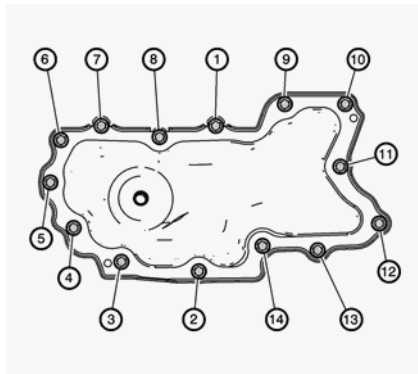
1. Clean the oil pan mating surface.
2. Clean the oil pan (1). Remove all the sludge and the oil deposits.
3. Inspect the threads for the engine oil drain plug.
4. Inspect the oil pan for cracking near the pan rail and the transmission mounting points.
5. Inspect the oil pan baffle and pickup screen.
6. Repair or replace the oil pan as necessary.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the lower oil pan gasket (3), and oil pan (2).
2. Install the NEW lower oil pan bolts (1) and hand tighten.

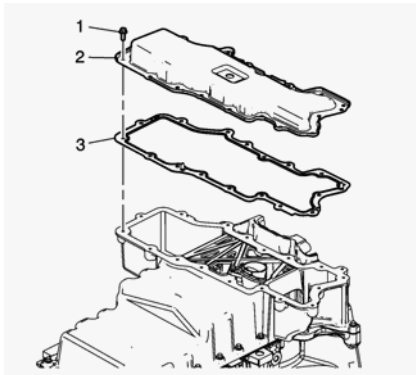


Caution: Refer to Fastener Caution.

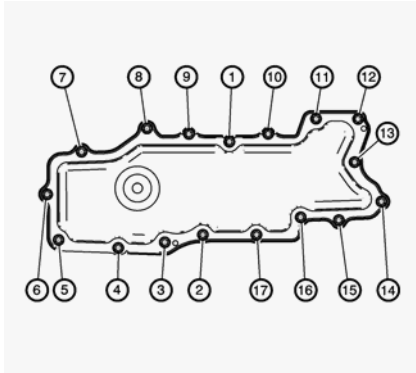
3. Tighten the bolts in sequence to **13 Y (115 lb in)**.
4. Loosen all the bolts by 90 degrees, and re-tighten in sequence to **13 Y (115 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the lower oil pan gasket (3), and oil pan (2).
2. Install the NEW lower oil pan bolts (1) and hand tighten.



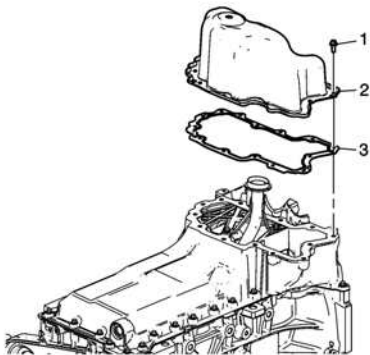
Caution: Refer to Fastener Caution.

3. Tighten the bolts in sequence to **13 Y (115 lb in)**.
4. Loosen all the bolts by 90 degrees, and re-tighten in sequence to **13 Y (115 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

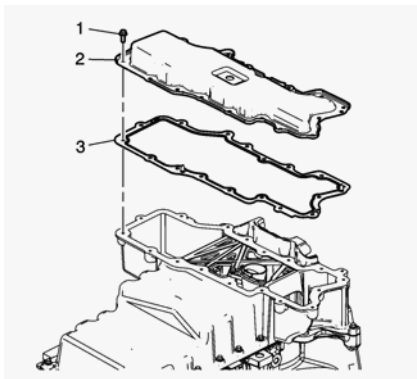
Fuel Delivery: | Fuel:



1. Remove the lower oil pan bolts (1), pan (2), and gasket (3).
2. Discard the lower oil pan bolts.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

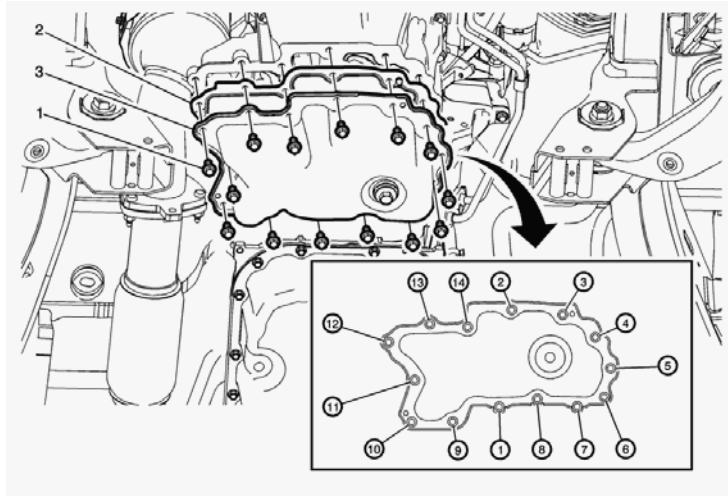


1. Remove the lower oil pan bolts (1), pan (3), and gasket (2).
2. Discard the lower oil pan bolts.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Lower Oil Pan Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the engine oil. Refer to Engine Oil and Oil Filter Replacement.
2. Remove the flywheel and crank shaft position sensor access cover . Crankshaft Position Sensor Replacement.

Oil Pan Fastener (Qty 14)

Caution: Refer to Fastener Caution.

Procedure

1.
 1. A NEW oil pan bolts should be used whenever the oil pan is removed from the engine assembly.
 2. Ensure to follow the tighten sequence.

Tighten

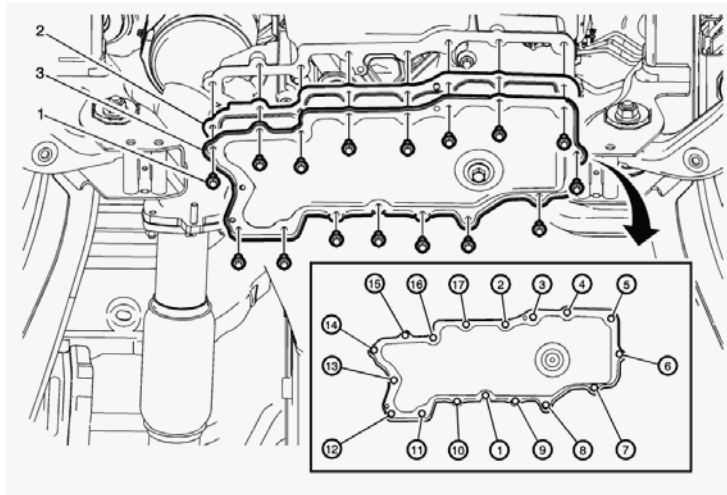
- First pass tighten the bolts in sequence to **13 Y (10 lb ft)**.
- Final pass loosen all the bolts by 90 degrees, and re-tighten in sequence to **13 Y (10 lb ft)**.

2 Oil Pan Gasket

3 Oil Pan

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Lower Oil Pan Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the engine oil. Refer to Engine Oil and Oil Filter Replacement.
2. Remove the flywheel and crankshaft position sensor access cover. Refer to Crankshaft Position Sensor Replacement.

Oil Pan Fastener (Qty 14)

Caution: Refer to Fastener Caution.

Procedure

1. A NEW oil pan bolts should be used whenever the oil pan is removed from the engine assembly
2. Ensure to follow the tighten sequence.

Tighten

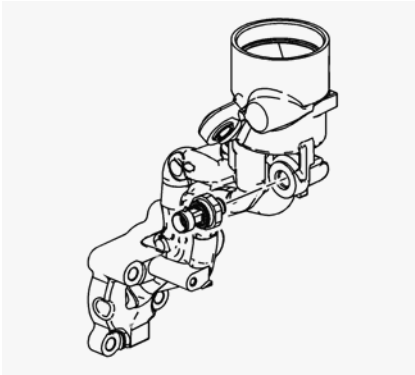
- First pass tighten the bolts in sequence to **13 Y (10 lb ft)**.
- Final pass loosen all the bolts by 90 degrees, and re-tighten in sequence to **13 Y (10 lb ft)**.

2 Oil Pan Gasket

3 Oil Pan

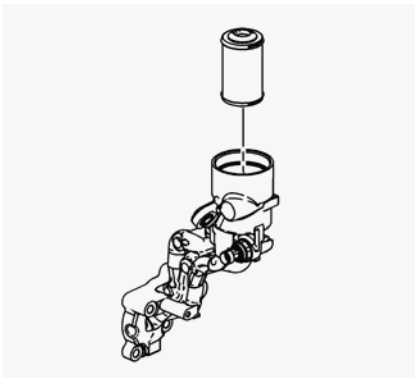
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

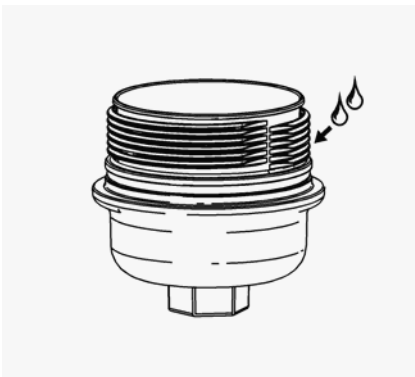


Caution: Refer to Fastener Caution.

1. Install the oil pressure sender and tighten to **20 Y (15 lb ft)**.



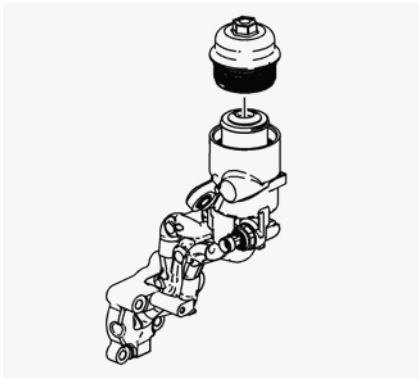
2. Install the NEW oil filter cartridge.
3. If the oil filter cap O-ring is removed, install a NEW O-ring on the oil filter cap.
 1. Ensure the O-ring groove is not damaged. Replace the oil filter cap if the O-ring groove is damaged.
 2. Protect the O-ring from damage during installation by covering the threads of the oil filter cap with tape or plastic wrap.
 3. DO NOT stretch the O-ring during installation.
 4. Roll the O-ring into position over the covered threads.
 5. Remove the tape or plastic wrap from the oil filter cap threads.
 6. Ensure the oil filter cap threads are clean.



Caution: Lubrication must be applied to the threads of the oil filter cap prior to installation. Failure to lubricate the oil filter cap threads can hinder later removal and cause possible oil filter cap damage.

4. Lubricate the oil filter cap threads and O-ring with clean engine oil.

Oil Filter Adapter Assemble



5. Install the oil filter cap and tighten to **25 Y (18 lb ft)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

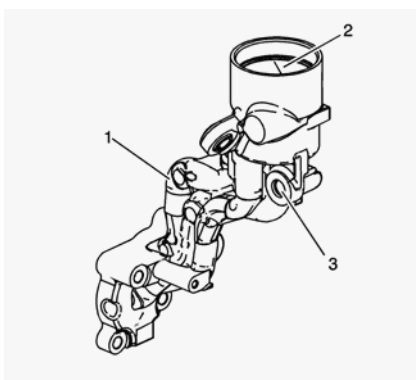
[Cleaning Procedure](#)

1. Clean the oil filter adapter components with non-corrosive solvent.

Warning: Refer to Safety Glasses Warning.

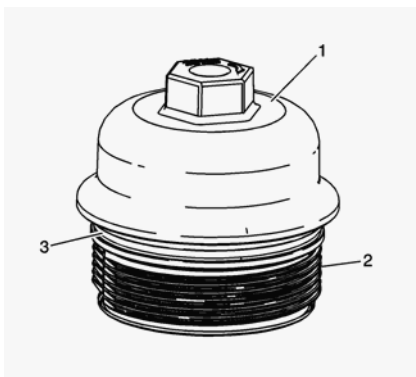
2. Dry the oil filter adapter components with compressed air.

[Inspection Procedure](#)

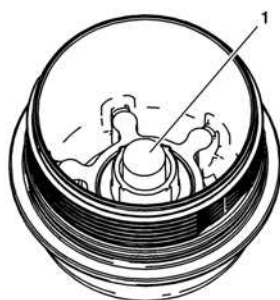


Note: The internal parts of the oil filter adapter are not serviced separately. If wear or damage is noted, replace the entire oil filter adapter assembly.

1. Inspect the oil filter housing for cracks, scoring, casting imperfections (1) and damaged threads (3).
2. Inspect the drain back valve (2) for damage or blockage.



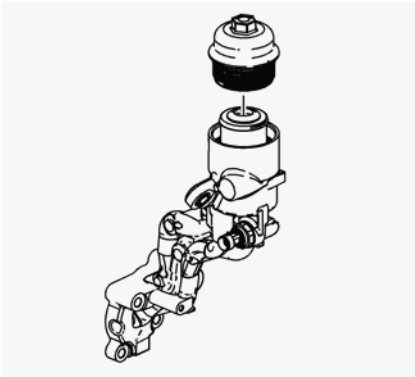
3. Inspect the oil filter cap for cracks, scoring, casting imperfections (1) and damaged threads (2). Replace as necessary.
4. Inspect the oil filter cap O-ring (3) for damage. Replace as necessary.
5. If the O-ring is damaged, carefully remove the O-ring using a tool that will not damage the oil filter cap O-ring groove. If the oil filter cap O-ring groove is damaged the oil filter cap must be replaced.



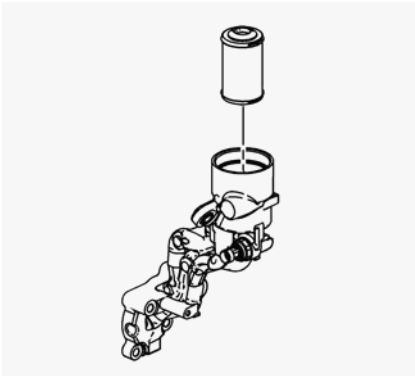
6. Inspect the bypass valve (1) for damage or blockage.

2013 Chevrolet Colorado

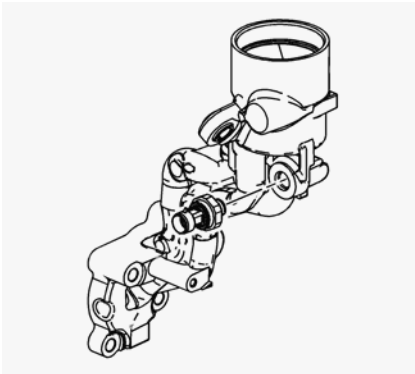
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the oil filter cap.



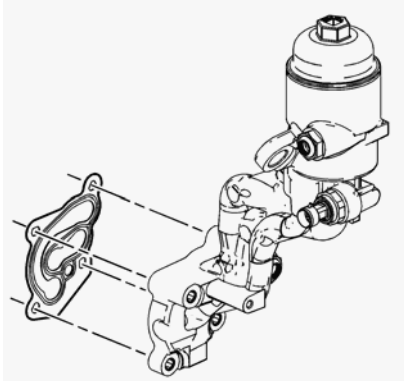
2. Remove the oil filter cartridge and discard.



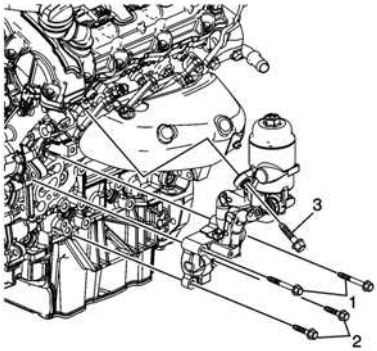
3. Remove the oil pressure sender.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



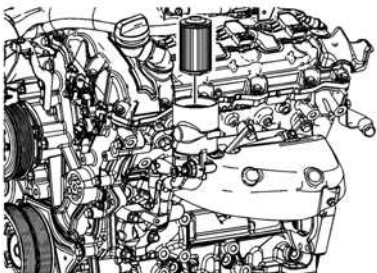
1. Position a NEW oil filter adapter gasket onto the oil filter adapter.



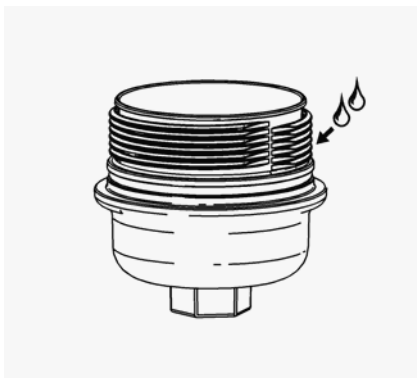
2. Install the oil filter adapter bolts (1, 2) into the oil filter adapter.
3. Loosely tighten the oil filter adapter bolts (1, 2).
4. Install and loosely tighten the oil filter adapter bolt (3) into the oil filter adapter.

Caution: Refer to Fastener Caution.

5. Tighten the oil filter adapter bolts (1, 2) to **25 Y (18 lb ft)**.
6. Tighten the oil filter adapter bolt (3) to **58 Y (43 lb ft)**.

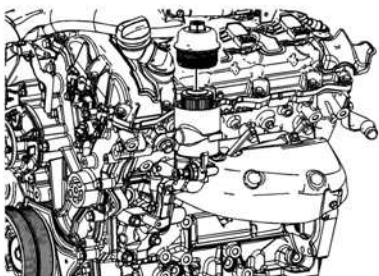


7. Install a NEW oil filter cartridge.



Caution: Lubrication must be applied to the threads of the oil filter cap prior to installation. Failure to lubricate the oil filter cap threads can hinder later removal and cause possible oil filter cap damage.

8. Lubricate the oil filter cap threads with clean engine oil.

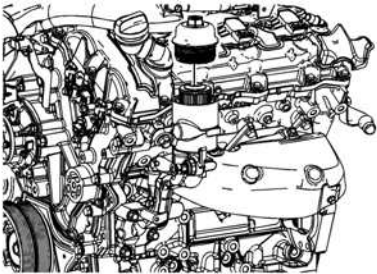


Caution: Proper oil filter cap tightening is mandatory. Failure to tighten the oil filter cap to the proper specification can hinder later removal and cause possible oil filter cap damage.

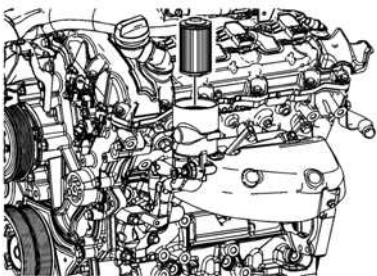
9. Install the oil filter cap and tighten to **25 Y (18 lb ft)**.

2013 Chevrolet Colorado

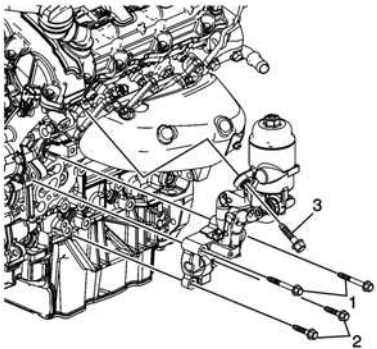
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the oil filter cap.

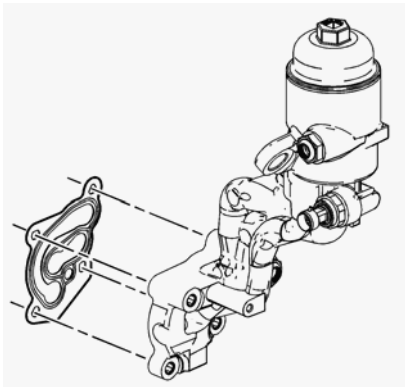


2. Remove and properly dispose of the oil filter cartridge.
3. Re-install the oil filter cap.



4. Remove the oil filter adapter bolts (1-3) from the engine block.
5. Remove the oil filter adapter.

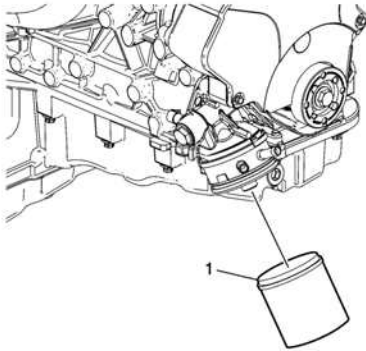
Oil Filter Adapter Removal



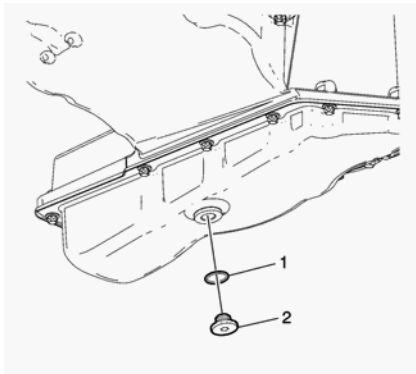
6. Remove and discard the oil filter adapter gasket.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Apply clean engine oil to the NEW oil filter gasket.
2. Install the NEW oil filter (1).
3. Tighten the NEW filter to 3/4 to 1 full turn after the oil filter gasket contacts the adapter.

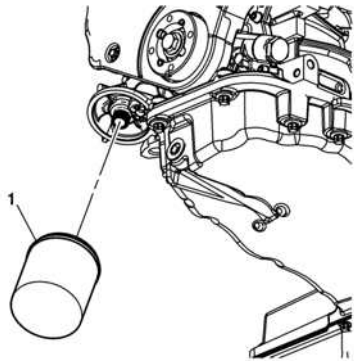


Caution: Refer to Fastener Caution.

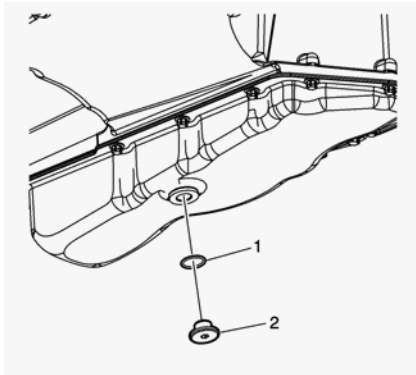
4. Install the oil pan drain plug (2) and NEW seal (1). Tighten to **12 Y (9 lb ft)**.
5. Fill the engine with the appropriate oil type and quantity. Refer to Fluid and Lubricant Recommendations and Approximate Fluid Capacities.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Apply clean engine oil to the NEW oil filter gasket.
2. Install the NEW oil filter (1).
3. Tighten the NEW filter to 3/4 to 1 full turn after the oil filter gasket contacts the adapter.



Caution: Refer to Fastener Caution.

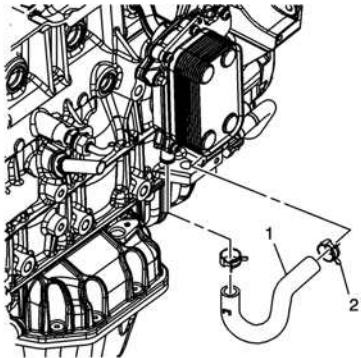
4. Install the oil pan drain plug (2) and NEW seal (1). Tighten to **12 Y (9 lb ft)**.
5. Fill the engine with the appropriate oil type and quantity. Refer to Fluid and Lubricant Recommendations and Approximate Fluid Capacities.

2013 Chevrolet Colorado

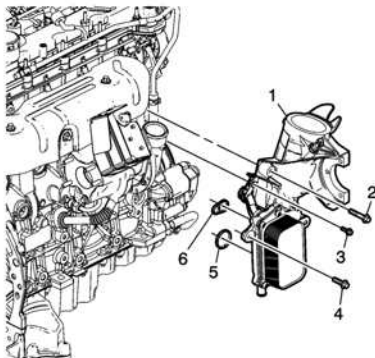
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

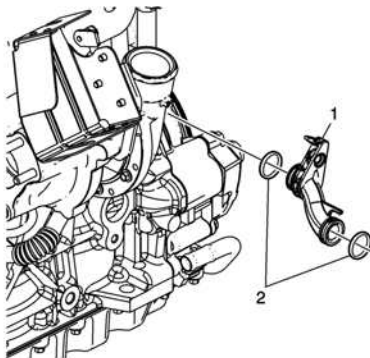
1. Remove and DISCARD the oil filter. Refer to Engine Oil and Oil Filter Replacement.
2. Remove the heater bracket. Refer to Heater Bracket Replacement.
3. Remove the power steering pump. Refer to Power Steering Pump Replacement.



4. Remove the oil coolant hose clamps (2) and hose (1).

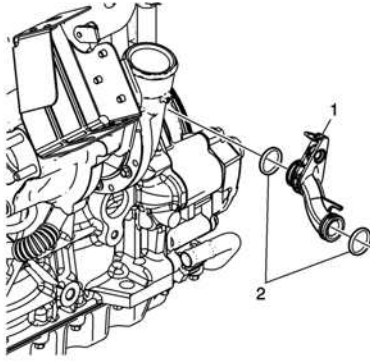


5. Remove the oil cooler mounting bolts (2-4).
6. Remove the oil cooler (1).
7. Remove the oil cooler seals (5-6).

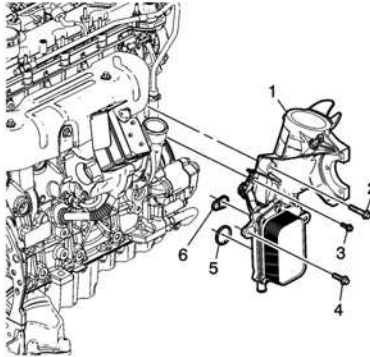


8. Remove the oil filter adapter pipe (1) and seals (2).
9. Disconnect the electrical connectors as necessary.

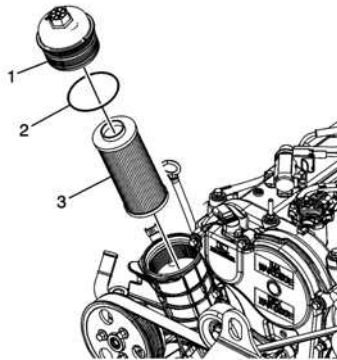
[Installation Procedure](#)



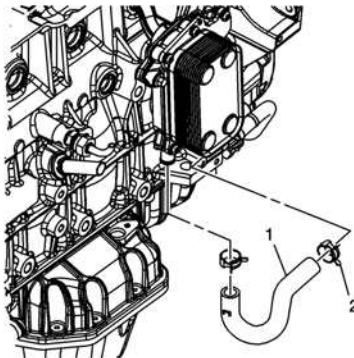
1. Install the NEW oil filter adapter pipe seals (2) and pipe (1).



2. Install the oil cooler seals (5-6).
 3. Install the oil cooler (1).
- Caution:** Refer to Fastener Caution.
4. Install the oil cooler mounting bolts (2-4) and tighten to **32 Y (24 lb ft)**.



5. Install a new oil filter (3) and seal (2).
6. Install and tighten the oil filter cap (1) to **25 Y (18 ft lb)**.



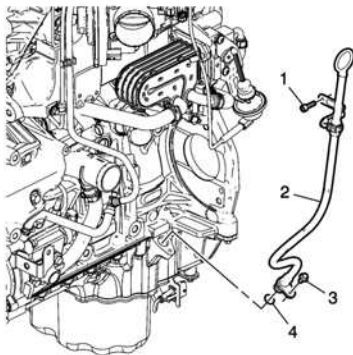
7. Install the oil coolant hose (1) and clamps (2).
8. Install the power steering pump. Refer to Power Steering Pump Replacement.
9. Install the heater bracket. Refer to Heater Bracket Replacement.
10. Install a NEW oil filter. Refer to Engine Oil and Oil Filter Replacement.

Oil Filter Assembly Replacement

11. Connect the electrical connectors as necessary.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



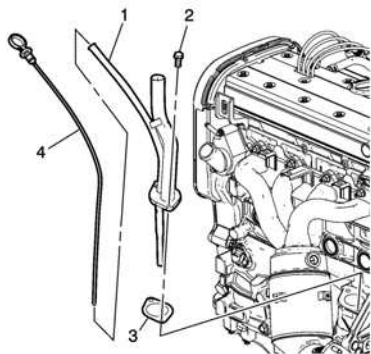
1. Install the oil level indicator tube seal (4) and tube (2).

Caution: Refer to Fastener Caution.

2. Install the oil level indicator tube bolts (1 and 3) and tighten to **11 Y (97 lb in)**.

2013 Chevrolet Colorado

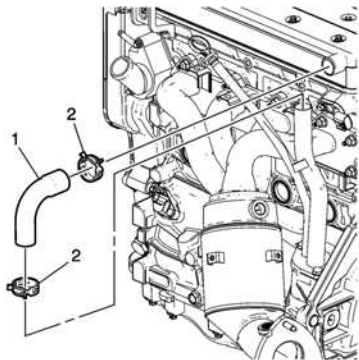
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



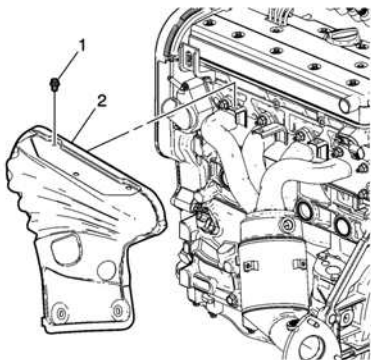
1. Install the oil level indicator tube (1) with NEW gasket (3).

Caution: Refer to Fastener Caution.

2. Install the oil level indicator tube bolts (2) and tighten to **15 Y (11 lb ft)**.
3. Install the oil level indicator (4) into the tube (1).

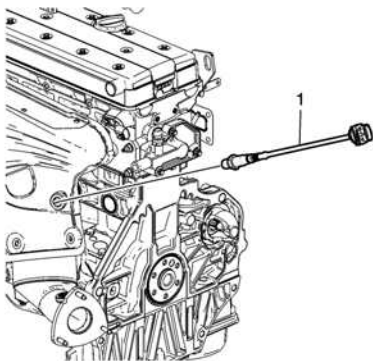


4. Install Positive Crankcase Ventilation tube (1) and NEW clamps (2).



5. Install the exhaust manifold heat shield (2) and bolts (1).
6. Tighten bolts (1) to **8 Y (71 lb in)**.

Oil Level Indicator and Tube Installation (LE6)



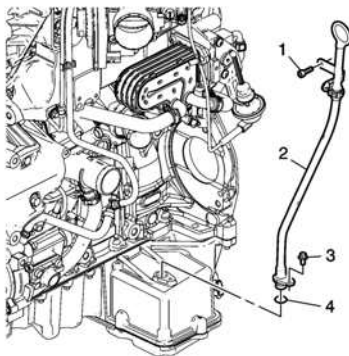
7. Install the heated oxygen sensor (1).

Note: A special anti-seize compound is used in the HO2S threads. The compound consists of liquid graphic and glass beads. The graphic tends to burn away, but the glass beads remain, making the sensor easier to remove. New, or service replacement sensors already have the compound applied to the threads. If the sensor is removed from an exhaust component and if for any reason the sensor is to be reinstalled, the threads must have anti-seize compound applied before reinstallation.

8. Tighten bolts (1) to **42 Y (31 lb ft)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



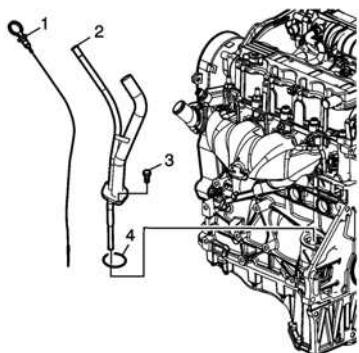
1. Install the oil level indicator tube seal (4) and tube (2).

Caution: Refer to Fastener Caution.

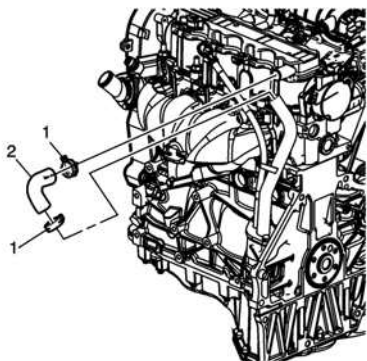
2. Install the oil level indicator tube bolts (1 and 3) and tighten to **11 Y (97 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



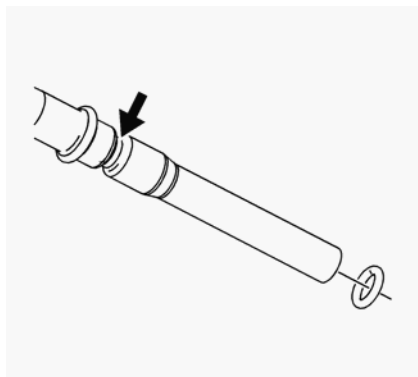
1. Install the oil level indicator tube (2) with NEW gasket (4).
2. Install the oil level indicator tube bolts (3) and tighten to **8Y(71 lb in)**.
3. Install the oil level indicator (1) into the tube (2).



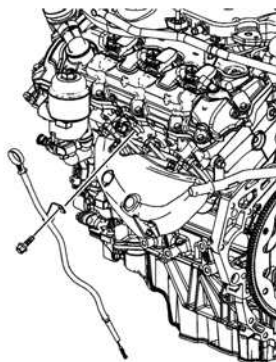
4. Install Positive Crankcase Ventilation tube (2) and NEW clamps (1).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install a NEW O-ring on the oil level indicator tube.



2. Install the oil level indicator and tube by sliding the tube down through the lower crankcase hole.

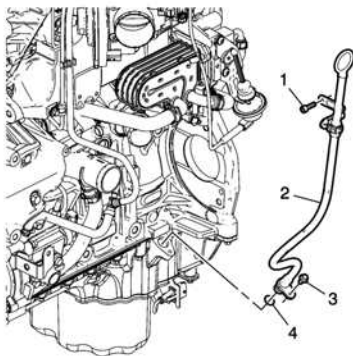
Caution: Refer to Fastener Caution.

3. Install the oil level indicator tube bracket bolt and tighten to **10 Y (89 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

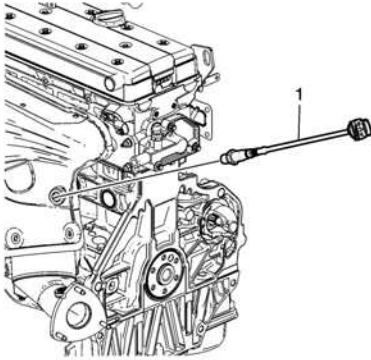
Fuel Delivery: | Fuel:



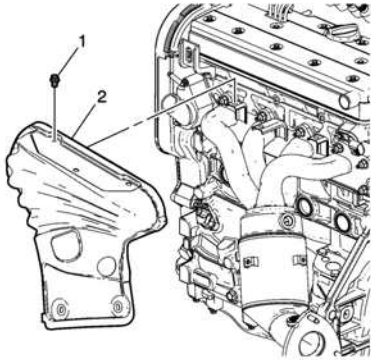
1. Remove the oil level indicator tube bolts (1 and 3).
2. Remove the oil level indicator and the oil level indicator tube (2) from the oil pan.
3. Remove the O-ring (4) from the oil level indicator tube.

2013 Chevrolet Colorado

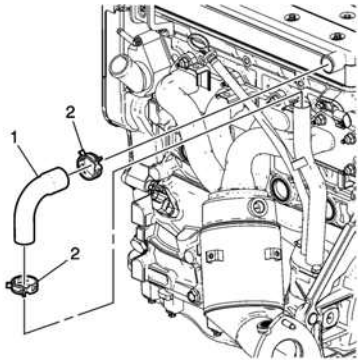
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the heated oxygen sensor (1).

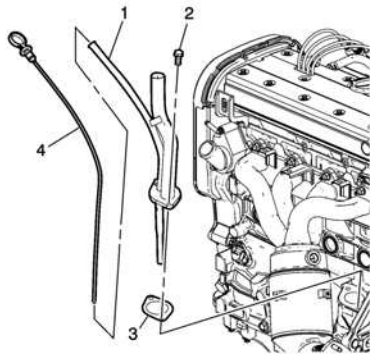


2. Remove the exhaust manifold heat shield bolts (1) and the exhaust manifold heat shield (2).



3. Remove the Positive Crankcase Ventilation (PCV) tube clamps (2) and the PCV tube (1).

Oil Level Indicator and Tube Removal (LE6)

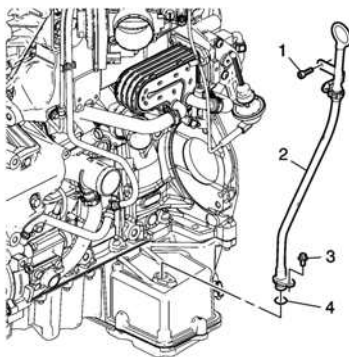


4. Remove the oil level indicator tube bolts (2).
5. Remove the oil level indicator (4) and Oil Level Indicator Tube (1)
6. Remove the oil level indicator tube gasket (3).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

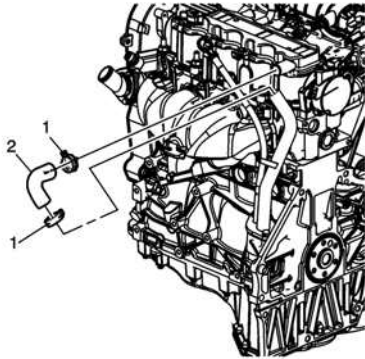
Fuel Delivery: | Fuel:



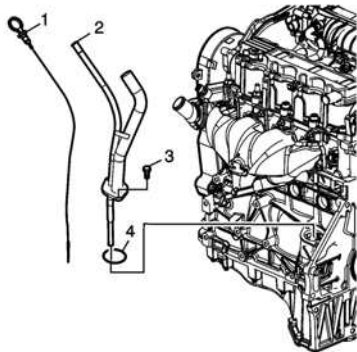
1. Remove the oil level indicator tube bolts (1 and 3).
2. Remove the oil level indicator and the oil level indicator tube (2) from the oil pan.
3. Remove the O-ring (4) from the oil level indicator tube.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



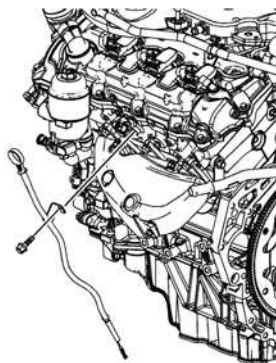
1. Remove the Positive Crankcase Ventilation (PCV) tube clamps (1) and the PCV tube (2).



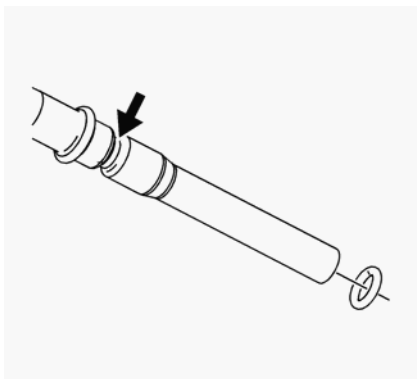
2. Remove the oil level indicator tube bolts (3).
3. Remove the Oil Level Indicator (1) and Oil Level Indicator Tube (2)
4. Remove the Oil Level Indicator Tube Gasket (4).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



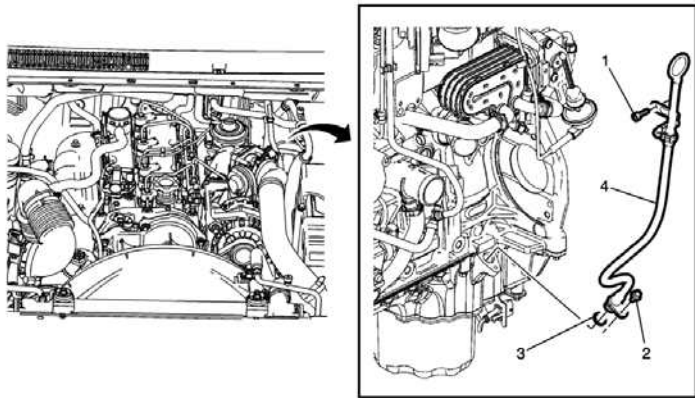
1. Remove the oil level indicator tube bracket bolt.
2. Remove the oil level indicator and tube by sliding the tube out from the lower crankcase hole.



3. Remove and discard the O-ring from the oil level indicator tube if damaged.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Oil Level Indicator Tube Replacement

Callout	Component Name
Preliminary Procedure	

1. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
2. If equipped, remove the engine rear protection shield. Refer to Engine Protection Shield Replacement.

- | | |
|---|--|
| | Oil Level Indicator Fastener |
| | Caution: Refer to Fastener Caution. |
| 1 | Tighten |
| | 11 Y (97 lb in). |

- | | |
|---|------------------------------|
| | Oil Level Indicator Fastener |
| 2 | Tighten |
| | 11 Y (97 lb in). |

- | | |
|---|--------------------------|
| 3 | Oil Level Indicator Seal |
|---|--------------------------|

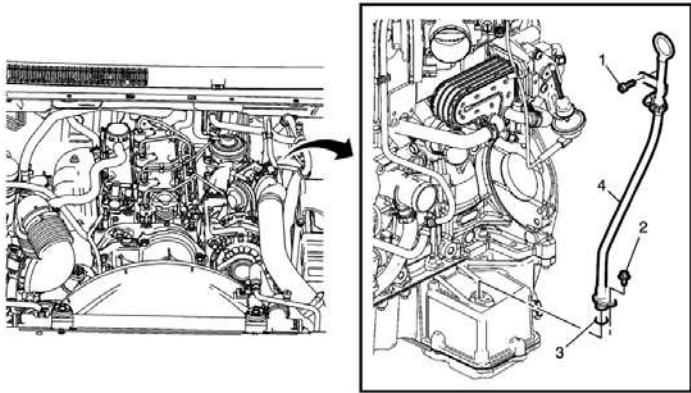
- | | |
|--|--------------------------|
| | Oil Level Indicator Tube |
|--|--------------------------|

Procedure

- | | |
|---|---|
| 4 | <ol style="list-style-type: none">1. If the oil level tube is damaged and needs to be replaced, use pliers with side to side motion to remove from the engine assembly.2. Ensure the oil level indicator has NEW seals installed.3. Transfer parts as needed. |
|---|---|

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



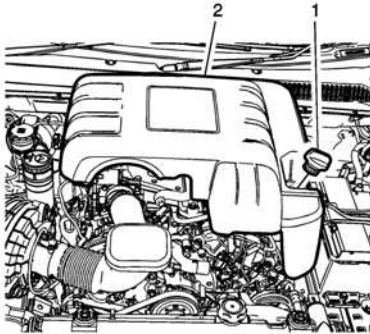
Oil Level Indicator Tube Replacement

Callout	Component Name
Preliminary Procedure	
1. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.	
2. If equipped, remove the engine rear protection shield. Refer to Engine Protection Shield Replacement.	
Oil Level Indicator Fastener	
1	Caution: Refer to Fastener Caution.
	Tighten
	11 Y (97 lb in).
Oil Level Indicator Fastener	
2	Tighten
	15 Y (97 lb in).
3	Oil Level Indicator Seal
	Oil Level Indicator Tube
Procedure	
4	1. If the oil level tube is damaged and needs to be replaced, use pliers with side to side motion to remove from the engine assembly.
	2. Ensure the oil level indicator has NEW seals installed.
	3. Transfer parts as needed.

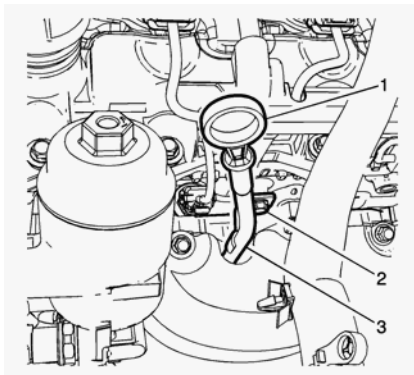
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)



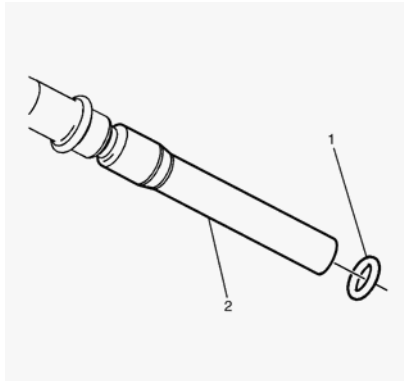
1. Remove the intake manifold cover (2). Refer to Intake Manifold Cover Replacement.



2. Remove the oil level indicator (1) from the oil level indicator tube (3).
3. Remove the oil level indicator tube to cylinder head retaining bolt (2).

Note: Apply suitable upward pressure to remove the oil level indicator tube from the engine.

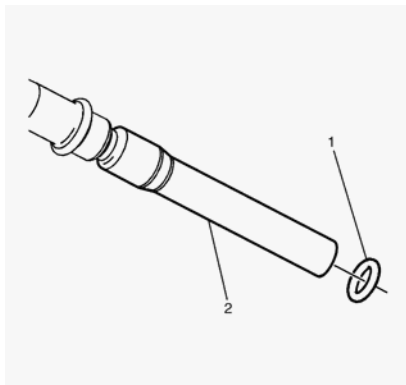
4. Remove the oil level indicator tube (3) from the engine.



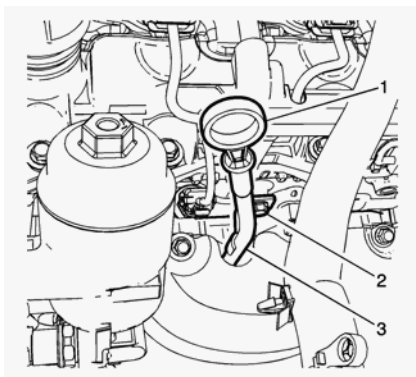
Note: The oil level indicator tube seal is a single use item.

5. Remove the O-ring (1) from the oil level indicator tube (2) and discard.

[Installation Procedure](#)



1. Install the O-ring (1) on the oil level indicator tube (2).

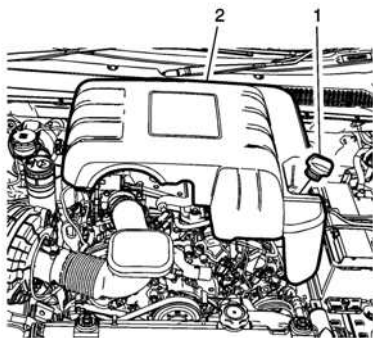


Note: Apply suitable downward pressure to install the oil level indicator tube to the engine.

2. Install the oil level indicator tube (3) to the engine.

Caution: Refer to Fastener Caution.

3. Install the oil level indicator tube to cylinder head retaining bolt (2) and tighten to **9 Y (80 lb in)**.
4. Install the oil level indicator (1) to the oil level indicator tube (3).



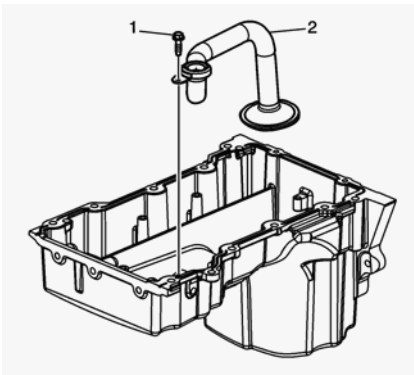
5. Install the intake manifold cover (2). Refer to Intake Manifold Cover Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



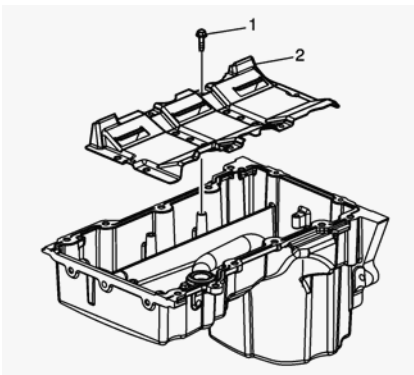
1. Install a NEW oil suction tube seal onto the oil suction tube. DO NOT reuse the old oil suction tube seal (1).



2. Install the oil suction pipe (2).

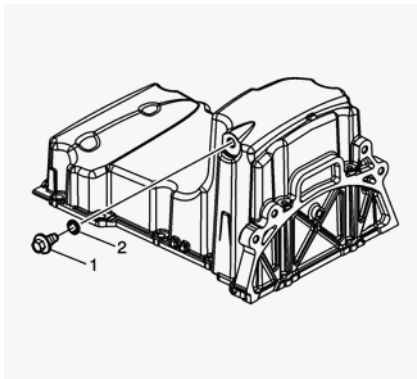
Caution: Refer to Fastener Caution.

3. Install the oil suction pipe bolt (1) and tighten to **10 Y (89 lb in)**.



4. Install the oil pan scraper (2).
5. Install the oil pan scraper bolts (1) and tighten to **10 Y (89 lb in)**.

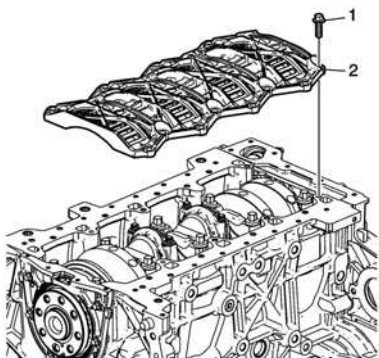
Oil Pan Assemble



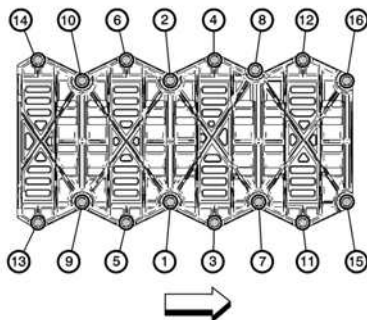
6. Install the oil pan drain plug (1) and NEW O-ring seal (2) and tighten to **25 Y (18 lb ft)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the oil pan baffle (2).
2. Install the oil pan baffle bolts (1) and hand tighten.

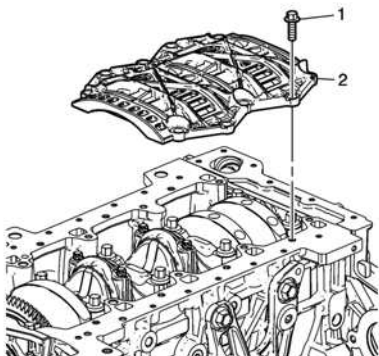


Caution: Refer to Fastener Caution.

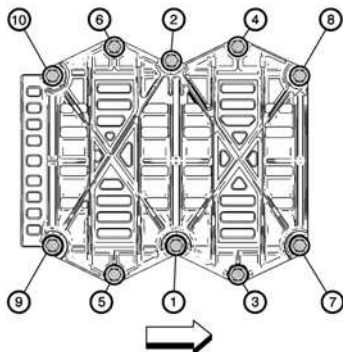
3. Tighten the bolts in sequence to **32 Y (24 lb ft)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the oil pan baffle (2).
2. Install the oil pan baffle bolts (1) and hand tighten.



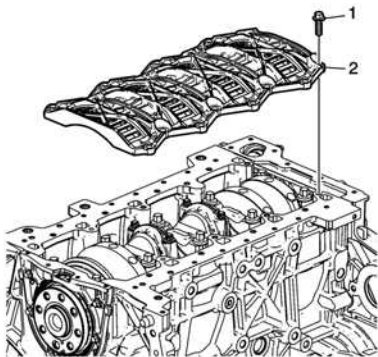
Caution: Refer to Fastener Caution.

3. Tighten the bolts in sequence to **32 Y (24 lb ft)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

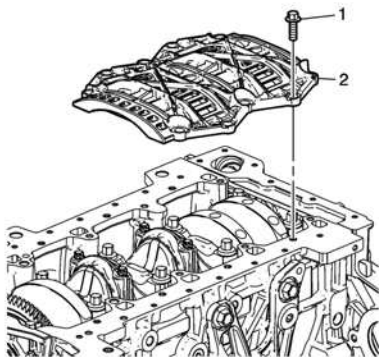


1. Remove the oil pan baffle bolts (1).
2. Remove the oil pan baffle (2).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

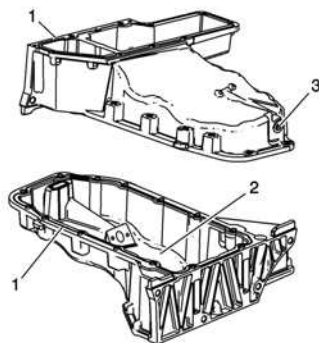
Fuel Delivery: | Fuel:



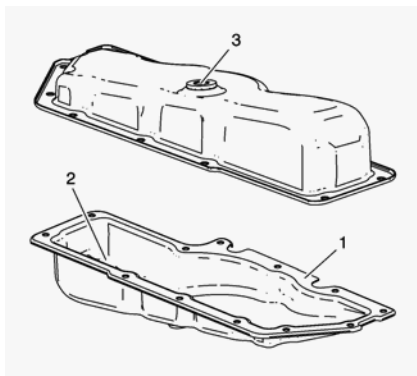
1. Remove the oil pan baffle bolts (1).
2. Remove the oil pan baffle (2).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Clean the upper oil pan mating surfaces (1).
2. Clean the upper oil pan (2). Remove all the sludge and the oil deposits.
3. Inspect the threads for the engine oil drain plug (3).
4. Inspect the upper oil pan for cracking resulting from impact or flying road debris.
5. Repair or replace the upper oil pan as necessary.



6. Clean the lower oil pan mating surface (1).
7. Clean the lower oil pan (2). Remove all the sludge and the oil deposits.
8. Inspect the threads for the engine oil drain plug (3).
9. Inspect the lower oil pan for cracking resulting from impact or flying road debris.
10. Repair or replace the lower oil pan as necessary.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Special Tools

EN 28410 Gasket Remover

For equivalent regional tools, refer to Special Tools.

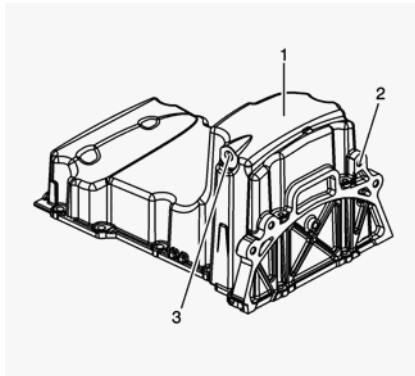
Cleaning Procedure

1. Remove any old thread sealant, gasket material, or sealant using *EN 28410* remover .
2. Clean the oil pan and oil pan components in solvent.
3. Clean out debris from the bolt holes.

Warning: Refer to Safety Glasses Warning.

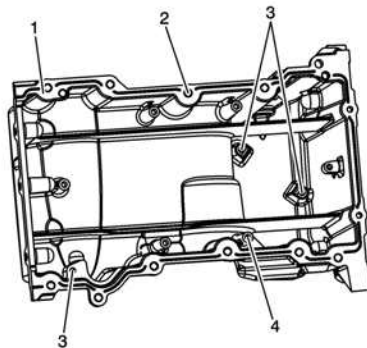
4. Dry the oil pan and oil pan components with compressed air.

Inspection Procedure



1. Inspect the exterior of the oil pan for the following conditions:

- Dents or damage to the exterior (1)
- Damage to the transmission mounting bosses (2)
- Damage to the drain plug or drain plug hole (3)



- Inspect the interior of the oil pan for the following conditions:

- Gouges or damage to the oil pan sealing surfaces (1)
- Damage to the bolt holes (2)
- Damage to the oil suction tube mounting bosses (3)
- Damage to the oil pan scraper mounting bosses (4)

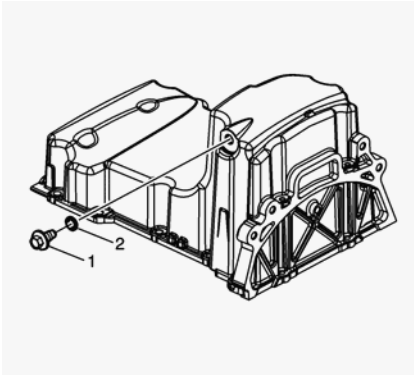
Oil Pan Cleaning and Inspection



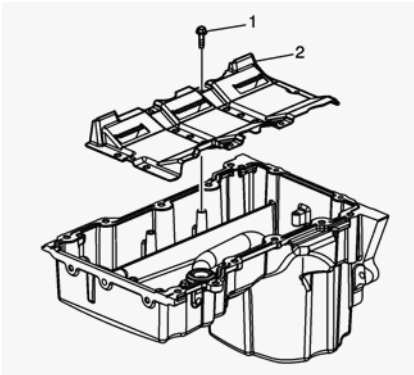
- Inspect the oil pan scraper for damage.
- Repair or replace the oil pan and/or oil pan components as necessary.

2013 Chevrolet Colorado

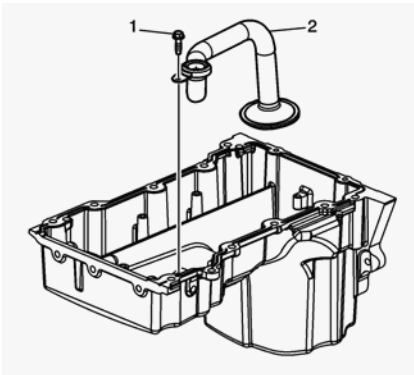
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the oil pan drain plug (1) and O-ring seal (2). Discard the O-ring seal.



2. Remove the oil pan scraper bolts (1).
3. Remove the oil pan scraper (2).



4. Remove the oil suction pipe bolt (1).
5. Remove the oil suction pipe (2).

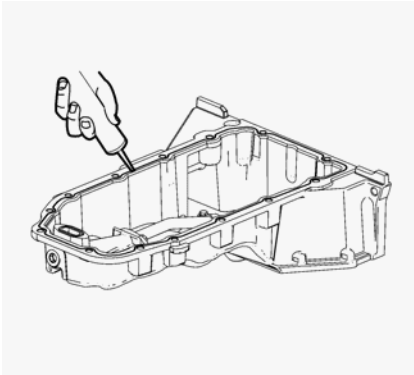
Oil Pan Disassemble



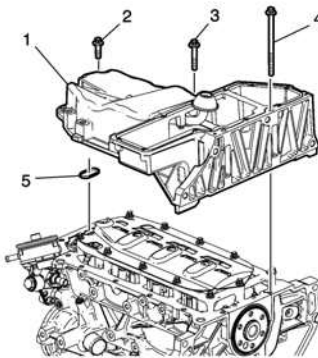
6. Remove the oil suction tube seal from the oil suction tube. Discard the oil suction tube seal (1).

2013 Chevrolet Colorado

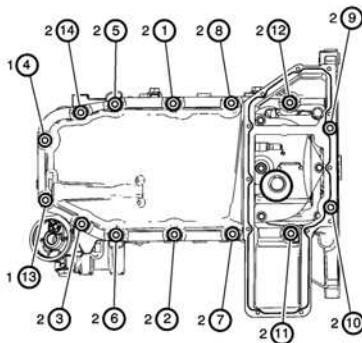
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Apply a 3–4 mm bead of sealant to the oil pan, refer to Adhesives, Fluids, Lubricants, and Sealers.



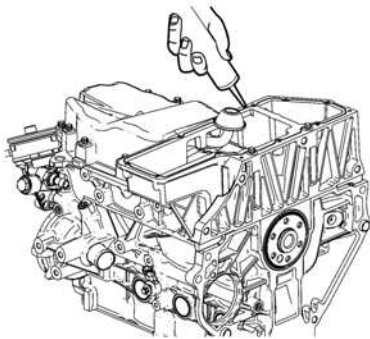
2. Install the upper oil pan (1).
3. Install the upper oil pan bolts (2, 3, and 4) and hand tighten.



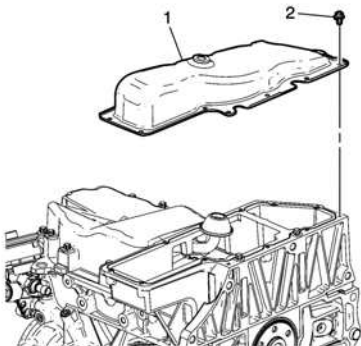
Caution: Refer to Fastener Caution.

4. Tighten the upper oil pan bolts in sequence to:

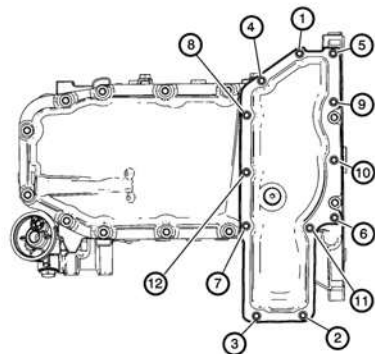
- Oil pan to oil pump (1) **20 Y (15 lb ft)** plus an additional 45°.
- Oil pan to block (2) **20 Y (15 lb ft)** plus an additional 45°.



- Apply a 3–4 mm bead of sealant to the bottom of the upper oil pan, refer to Adhesives, Fluids, Lubricants, and Sealers



- Install the lower oil pan (1).
- Install the lower oil pan bolts (2) and hand tighten.



Caution: Refer to Fastener Caution.

- Tighten the lower oil pan bolts in sequence to **8 Y (71 lb in)** plus an additional 30°, plus an additional 15°.

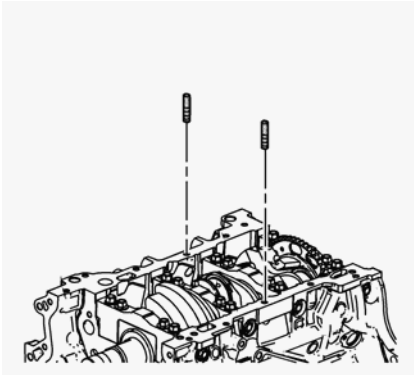
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

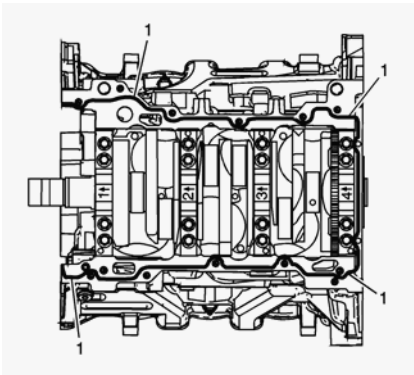
Special Tools

EN 46109 Guide Pin Set

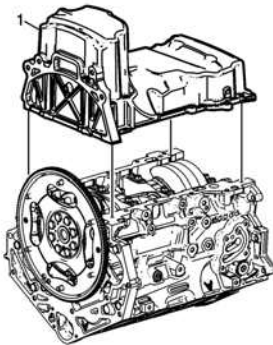
For equivalent regional tools, refer to Special Tools.



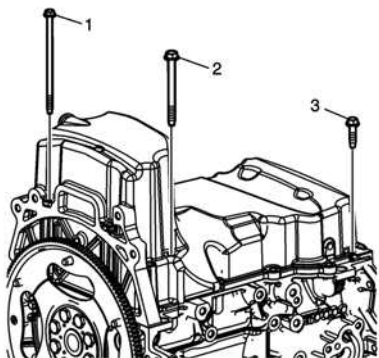
1. Install the 8 mm (0.315 in) guides from the *EN 46109* set into the center oil pan rail bolt hole on each side of the engine block.



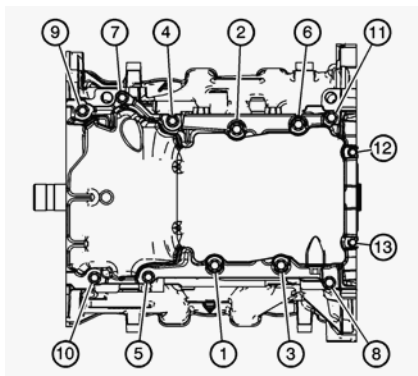
2. Place a 3 mm (0.118 in) bead of RTV sealant, GM P/N 12378521 (Canadian P/N 88901148) or equivalent, on the block pan rail and the crankshaft rear oil seal housing (1).



3. Position the oil pan (1) onto the block.
4. Remove the *EN 46109* set 8 mm (0.315 in) guides from the engine block.



5. Loosely install the oil pan bolts (1, 2, 3).

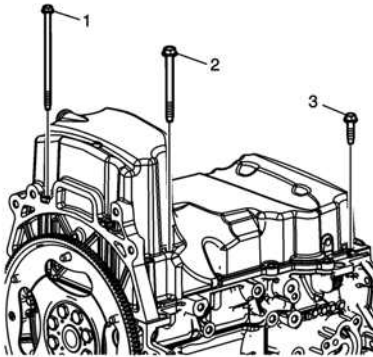


Caution: Refer to Fastener Caution.

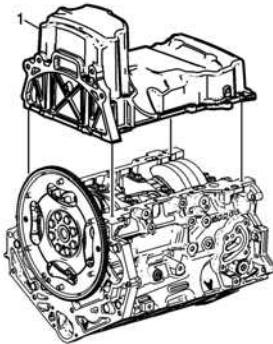
6. Tighten the oil pan bolts in sequence shown.
1. Tighten the 8 mm bolts (1–11) to **25 Y (18 lb ft)**.
 2. Tighten the 6 mm bolts (12, 13) to **10 Y (89 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



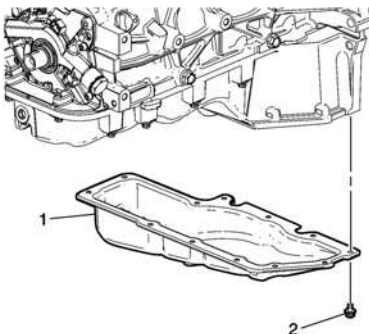
1. Remove the oil pan bolts (1, 2 ,3).
2. Using the pry points located at the edge of the oil pan separate the RTV sealant.



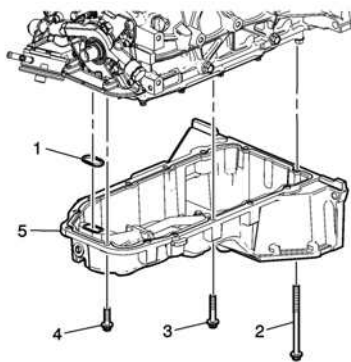
3. Remove the oil pan from the block (1).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Remove the lower oil pan bolts (2).
2. Remove the lower oil pan (1).



3. Remove the upper oil pan bolts (2, 3, and 4).

Caution: Do not damage the oil pan contact surface of the lower cylinder block when removing the oil pan.

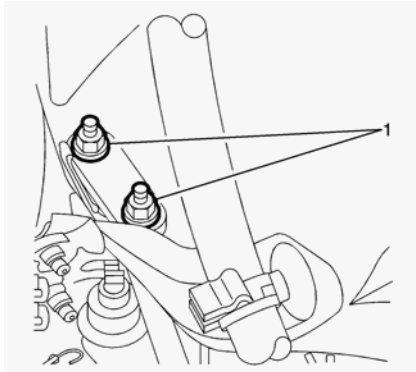
4. Using suitable tools remove the upper oil pan (5) and seal (1).

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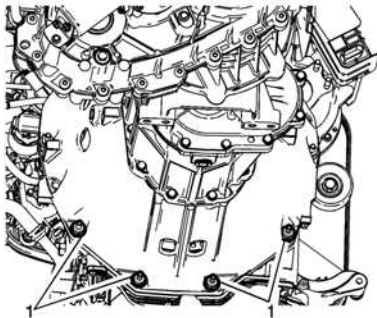
Submodel: | Engine Type: | Liters:
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[Removal Procedure](#)

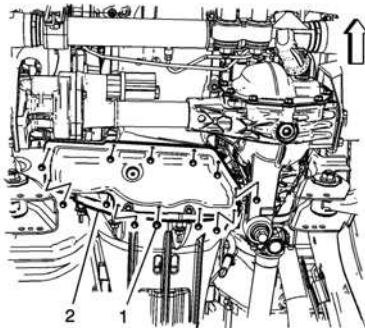
1. If equipped with 4WD, remove the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.
2. Lower the steering gear to gain space to remove the upper oil pan. Refer to Steering Gear Replacement.
3. Remove the drivetrain and front suspension frame front crossmember. Refer to Drivetrain and Front Suspension Frame Front Crossmember Replacement.



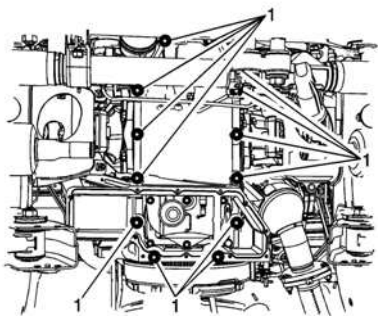
4. Remove air conditioning drain hose bracket nuts (1).



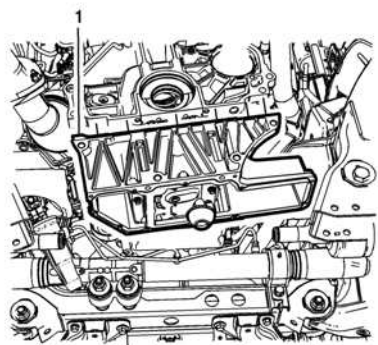
5. Remove the 4 lower fasteners (1) securing the transmission to the engine.



6. Remove the lower oil pan fastener (1).
7. Remove the lower oil pan (2).



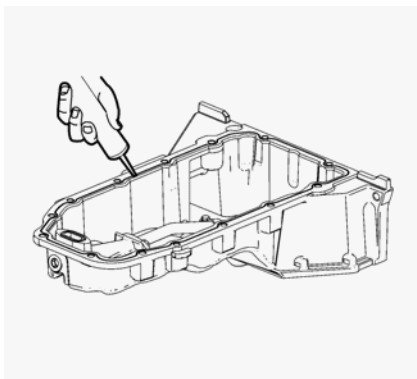
8. Remove the upper oil pan fastener (1).



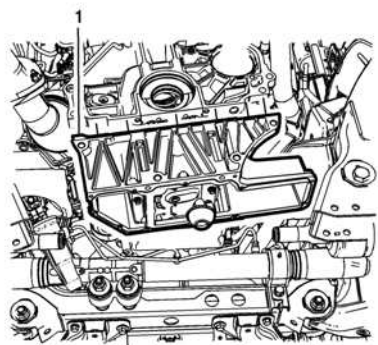
Caution: Do not damage the oil pan contact surface of the lower cylinder block when removing the oil pan.

9. Remove the upper oil pan (1).
10. For oil pan clean and inspection. Refer to Oil Pan Cleaning and Inspection.

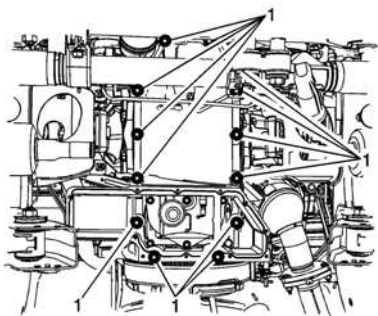
[Installation Procedure](#)



1. Apply a 3-4 mm bead of sealant to the oil pan, refer to Adhesives, Fluids, Lubricants, and Sealers.

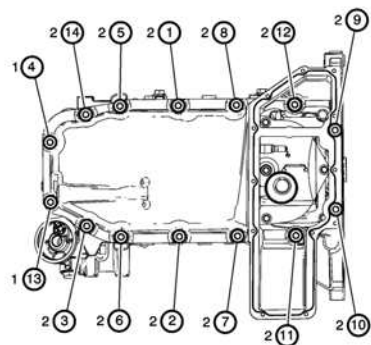


2. Install upper oil pan (1).



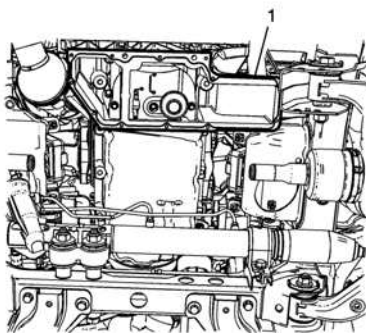
Caution: Refer to Fastener Caution.

3. Install the upper oil pan fasteners (1) and hand tighten.

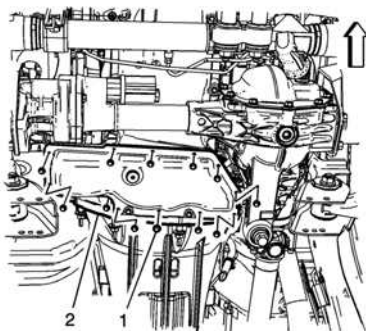


4. Tighten the upper oil pan bolts in sequence to:

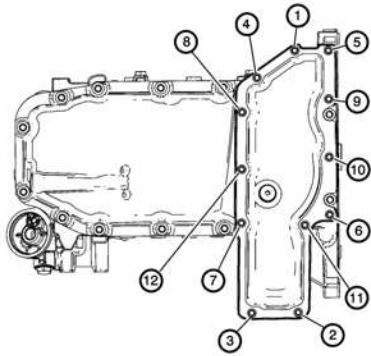
- Oil pan pump (1) **20 Y (15 lb ft)**.
- Oil pan to block (2) **20 Y (15 lb ft)**.



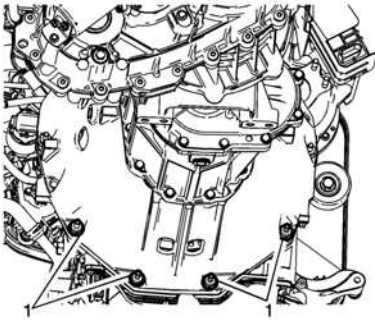
- Apply a 3-4 mm bead of sealant to the bottom of the upper oil pan. Refer to Adhesives, Fluids, Lubricants, and Sealers.



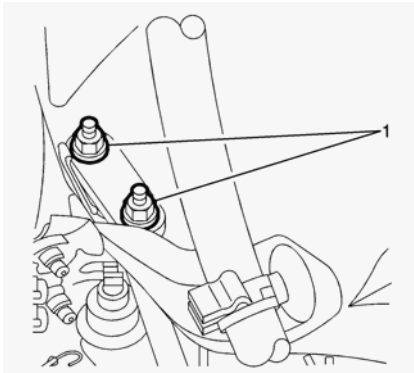
- Install the lower oil pan (2).
- Install the lower oil pan fastener (1) and hand tighten.



- Tighten the lower oil pan bolts in sequence to **8 Y (71 lb in)** plus an additional 30°, plus an additional 15°.



- Install the 4 lower bolts (1) securing the transmission to the engine and tighten **50 Y (37 lb ft)**.



- Install air conditioning drain hose bracket nuts (1).
- Install the drivetrain and front suspension frame front crossmember. Refer to Drivetrain and Front Suspension Frame Front Crossmember Replacement.
- Install the steering gear to gain space to remove the upper oil pan. Refer to Steering Gear Replacement.
- If equipped with 4WD, install the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.

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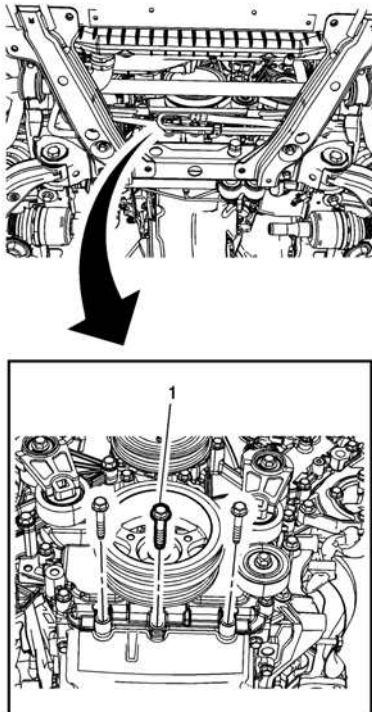
Special Tools

EN-46109 Guide Pin Set

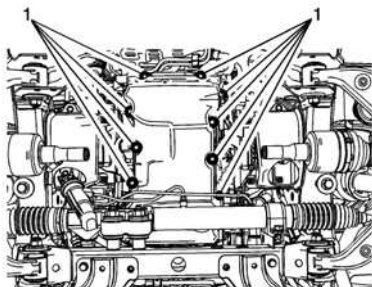
For equivalent regional tools, refer to Special Tools.

[Removal Procedure](#)

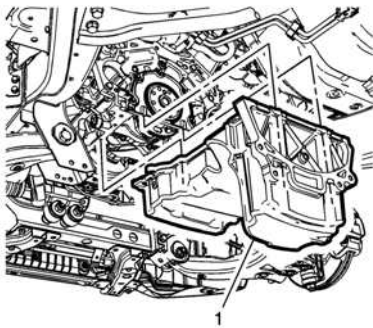
1. Drain the engine oil. Refer to Engine Oil and Oil Filter Replacement.
2. If equipped with 4WD, remove the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.
3. Remove the steering gear. Refer to Steering Gear Replacement.
4. If equipped with automatic transmission, remove the automatic transmission flex plate bolts from the torque converter. Refer to Transmission Replacement.
5. If equipped with manual transmission, remove the engine flywheel. Refer to Engine Flywheel Replacement.



6. Remove the front oil pan fastener (1).



7. Remove the oil pan fastener (1).

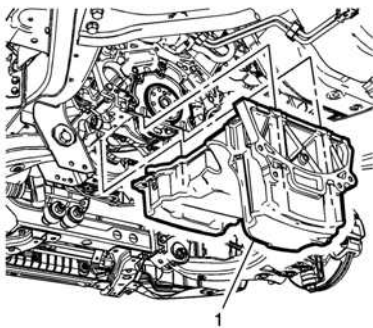


Note:

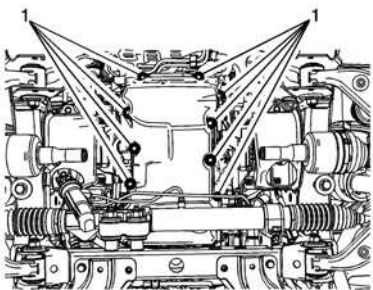
- Using the pry points located at the edge of the oil pan separate the RTV sealant.
 - In order to remove the oil pan, slid the oil pan backwards to remove.
8. Remove the oil pan (1).
 9. Clean and inspect the oil pan as necessary. Refer to Oil Pan Cleaning and Inspection.
 10. If necessary, disassemble the oil pan. Refer to Oil Pan Disassemble.

Installation Procedure

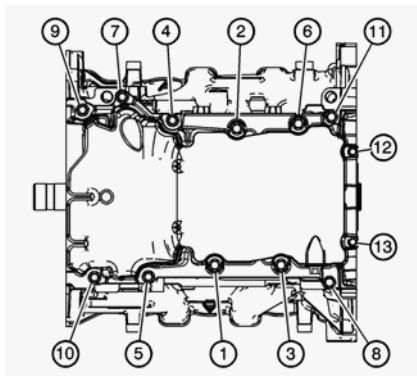
1. If disassembled, assemble the oil pan. Refer to Oil Pan Assemble.
2. Install the 8 mm (0.315 in) guides from the *EN-46109* set into the center oil pan rail bolt hole on each side of the engine block.
3. Place a 3 mm (0.118 in) bead of RTV sealant on the block pan rail and the crankshaft rear oil seal housing (1).



4. Position the oil pan (1) onto the block.
5. Remove the *EN-46109* set 8 mm (0.315 in) guides from the engine block.



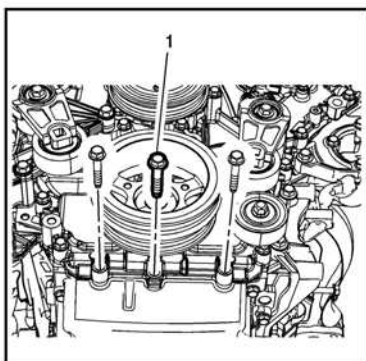
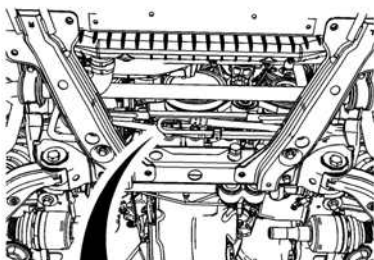
6. Loosely install the oil pan fasteners (1).



Caution: Refer to Fastener Caution.

7. Tighten the oil pan bolts in sequence shown.

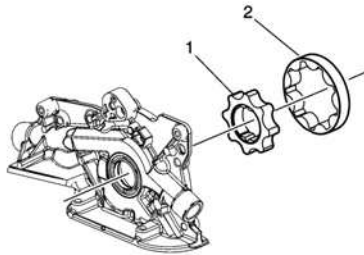
- Tighten the 8 mm bolts (1-11) to **23 Y (17 lb ft)**.
- Tighten the 6 mm bolts (12, 13) to **10 Y (89 lb ft)**.



- Install the front cover fasteners (1).
- For front cover tighten specifications. Refer to Engine Front Cover Installation.
- Install the steering gear. Refer to Steering Gear Replacement.
- If equipped with manual transmission, install the engine flywheel. Refer to Engine Flywheel Replacement.
- If equipped with automatic transmission, remove the automatic transmission flex plate bolts from the torque converter. Refer to Transmission Replacement.
- If equipped with 4WD, install the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.
- Fill the engine oil. Refer to Engine Oil and Oil Filter Replacement.

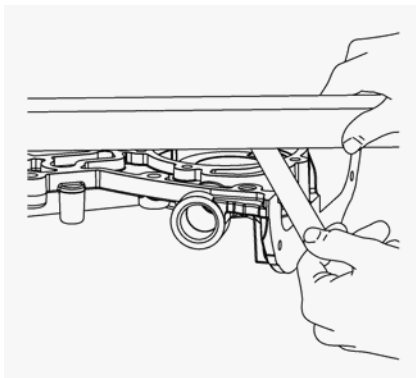
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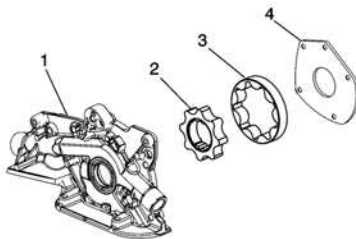


1. Lubricate all oil pump parts with engine oil.
2. Install the drive gear (1) into the driven gear (2).

Note: If the gears are improperly installed in the oil pump, the cover will not bolt on.

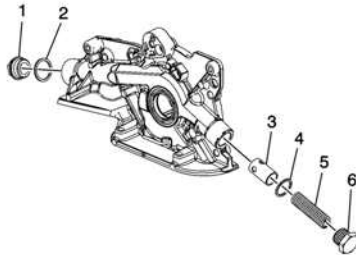


3. Using a straight edge and a feeler gauge measure the distance from the bottom of the straight edge to the top of pump gears. The measurement must be between **0.03–0.10 mm (0.001–0.003 in)**.
4. Replace the oil pump or oil pump gears if the measurement is not within the specification.

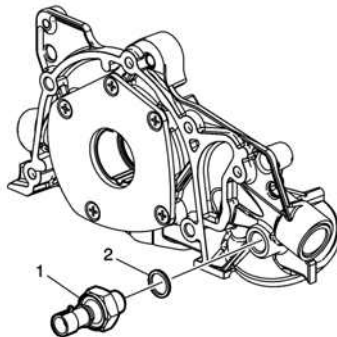


Caution: Refer to Fastener Caution.

5. Install the oil pump cover (1) and bolts (2) and tighten to **7 Y (62 lb in)**.



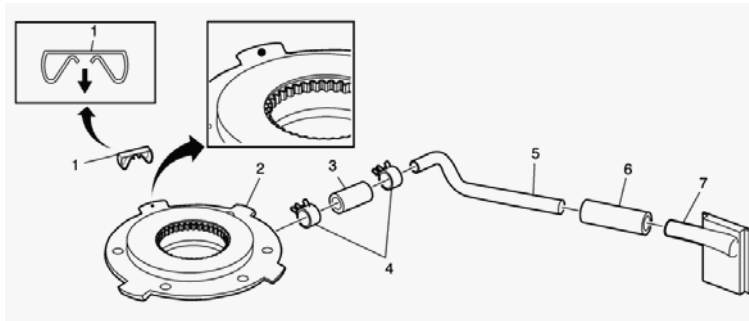
6. Install the NEW oil pump housing seal (2).
7. Install the oil pump housing plug (1) and tighten to **37 Y (27.3 lb ft)**.
8. Install the oil pressure relief valve (3).
9. Install the oil pressure relief valve spring (5).
10. Install the NEW oil pressure relief valve bore plug gasket (4).
11. Install the oil pressure relief valve bore plug (6) and tighten to **30 Y (22 lb ft)**.



12. Install the NEW oil pressure indicator switch seal (2).
13. Install the oil pressure indicator switch (1).
14. Tighten the oil pressure indicator switch to **35 Y (25 lb ft)**.

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Oil Pump Cleaning and Inspection

Callout

Component Name

Preliminary Procedure

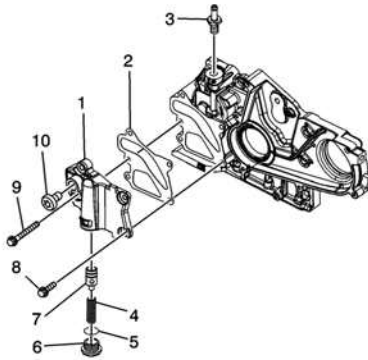
- Inspect the oil pump assembly.
- Clean all components in cleaning solvent and air dry.

- | | |
|---|---|
| 1 | <p>Oil Pump Position Retainer</p> <p>Note: Install the retainer onto the flange that has a dimple on the face. The raised area of the retainer is to locate into the recess of the flange.</p> |
| 2 | <p>Oil Pump Assembly</p> <p>Note: Replace the oil pump assembly if there is any sign of binding. Do not disassemble the oil pump. The oil pump is serviced as an assembly.</p> |
| 3 | <p>Oil Pump Suction Hose</p> |
| 4 | <p>Oil Pump Suction Hose Clamp</p> |
| 5 | <p>Oil Pump Suction Tube</p> |
| 6 | <p>Oil Pump Suction Hose</p> |
| 7 | <p>Oil Pump Pickup Hose Screen</p> <p>Note: Replace the oil pump pickup hose screen if the screen cannot be cleaned and is embedded with debris.</p> |

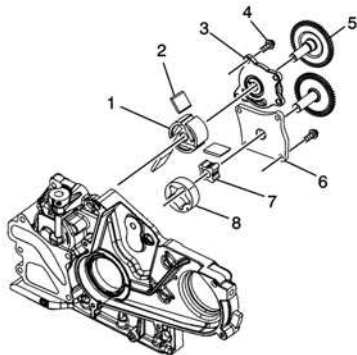
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[Disassemble](#)



1. Disassemble the pressure relief valve (4–7).
2. Remove the oil pump housing plug (10).
3. Remove the vacuum pump hose connector (3).
4. Remove the oil pressure relief valve housing bolts (8–9), housing (1), and gasket (2).

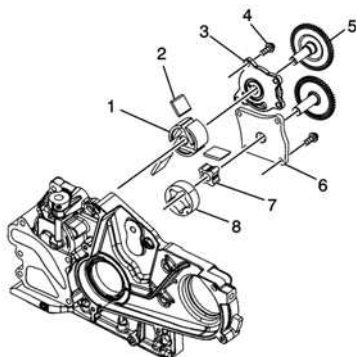


5. Remove the oil pump gear (5).
6. Remove the oil pump gerotor bolts and cover (6).
7. Remove the inner rotor (7) and outer rotor (8).
8. Remove the vacuum pump bolts (4) and cover (3).
9. Remove the vacuum pump rotor (1) and vanes (2).

Warning: Refer to Safety Glasses Warning.

10. Clean all of the parts in cleaning solvent. Remove varnish, sludge and dirt.
11. Inspect the oil pump for wear and scoring. Insure that all components are within specifications. Refer to Engine Mechanical Specifications.
12. Replace the front cover and oil pump assembly if it is out of specification or damaged.

[Assemble](#)



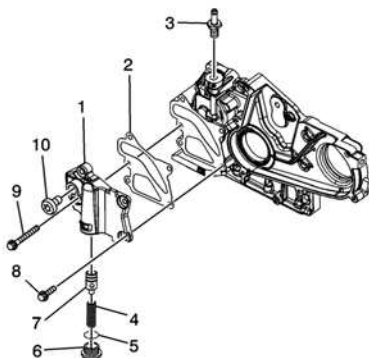
1. Lubricate all oil pump parts with engine oil.
2. Install the vacuum rotor (1) and vanes (2).
3. Install the inner gear (7) into the outer gear (8).

Note: If gears are improperly installed in the front cover, the gerotor cover will not bolt on.

4. Install the gears together into the front cover with the hub of the center gear facing the front cover.

Caution: Refer to Fastener Caution.

5. Install the oil pump gerotor cover (6) and bolts. Tighten the bolts to **6 Y (53 lb in)**.
6. Install the vacuum pump cover (3) and bolts (4). Tighten the bolts to **6 Y (53 lb in)**.



7. Install the oil pressure relief valve housing gasket (2), housing (1), and bolts (8–9). Tighten the bolts to **15 Y (11 lb ft)**.
8. Install the vacuum pump hose connector (3). Tighten the connector to **13 Y (115 lb in)**.
9. Install the oil pump housing plug (10). Tighten the plug to **35 Y (26 lb ft)**.
10. Assemble the pressure relief valve (4–7). Tighten the pressure relief valve plug (6) to **40 Y (30 lb ft)**.

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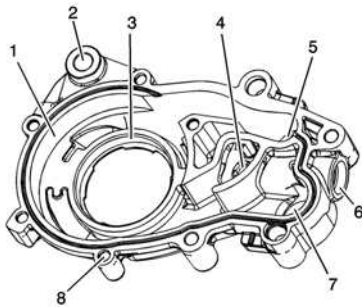
[Cleaning Procedure](#)

1. Clean the oil pump components with non-corrosive solvent.

Warning: Refer to Safety Glasses Warning.

2. Dry the oil pump components with compressed air.

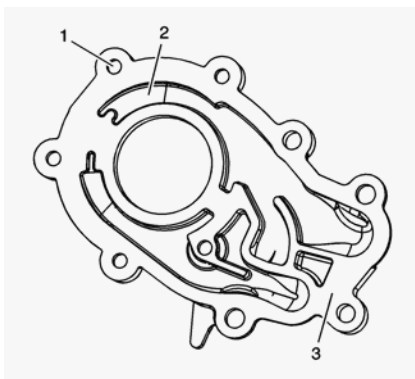
[Inspection Procedure](#)



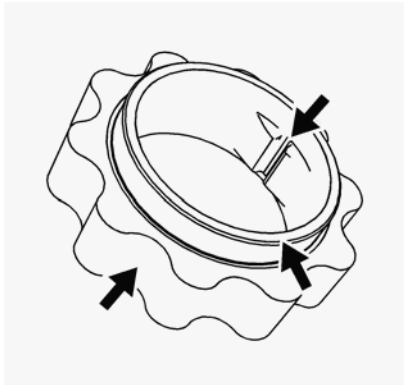
Note: There are no serviceable components within the oil pump. Disassemble the pump only to diagnose an oiling concern. A disassembled oil pump must not be reused. A disassembled oil pump must be replaced.

1. Inspect the oil pump housing for the following:

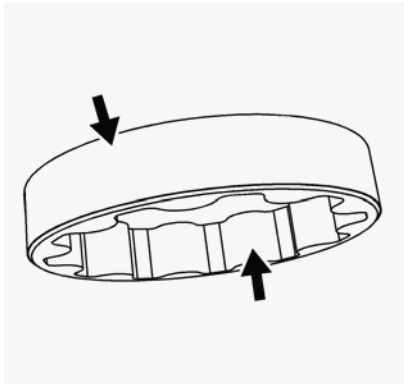
- Damage, scoring, or debris on the housing surface for the driven gear (1)
- Damage to the oil pump mounting bosses (2)
- Damage, scoring, or debris on the housing surface for the drive gear (3)
- Damage, scoring, or debris in the oil pump relief valve port (4)
- Damage, scoring, or debris in the oil pump intake port (5)
- Damage, scoring, or debris in the oil pump relief valve bore (6)
- Damage, scoring, or debris in the oil pump output port (7)
- Damage to the threads in the oil pump housing for the oil pump cover bolts (8)



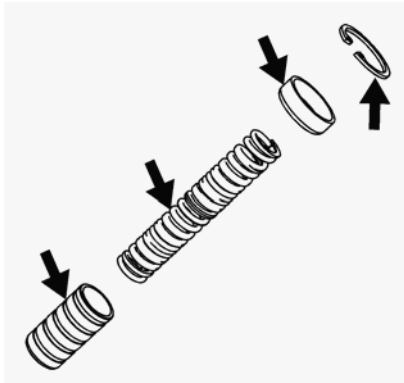
- Inspect the oil pump cover for the following conditions:
 - Damage to the oil pump cover mounting bosses (1)
 - Damage, scoring, or debris in the oil pump cover oil passages (2)
 - Damage to the sealing surface between the oil pump cover and the oil pump housing (3)



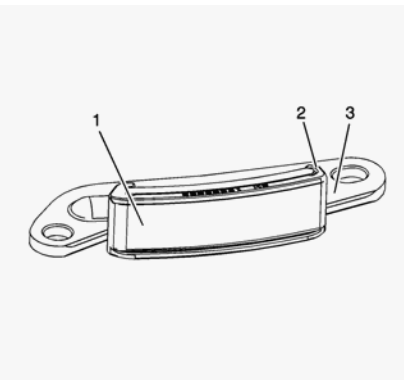
- Inspect the inner drive gear for damage. If inner diameter damage is found, ensure the crankshaft is also inspected.



- Inspect the outer driven gear for damage.



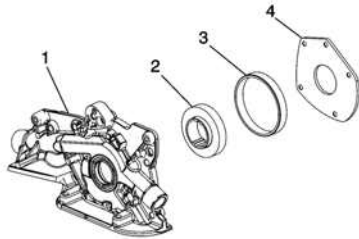
- Inspect the oil pump relief valve components for debris or damage.



- Inspect the primary camshaft drive chain lower guide for damage (1–3).
- If debris or damage is present within the oil pump, further inspection of all of the engine components is necessary.

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1. Clean the oil pump and components with solvent.

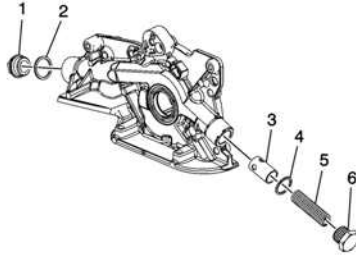
Warning: Refer to Safety Glasses Warning.

2. Inspect the oil pump (1) for the following conditions:

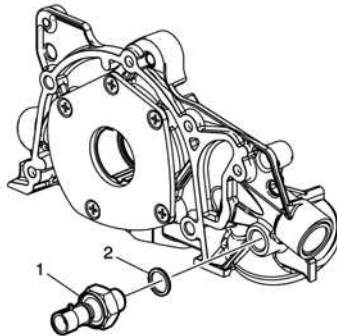
- Damaged bolt hole threads
 - Scoring, damage, or casting imperfections
 - Damage to the oil pressure relief valve bore
-
- Inspect the oil pump drive gear (2) and driven gear (3) for scoring or wear.
 - Inspect the oil pump cover (4) for scoring or damage.
 - Replace components as necessary.

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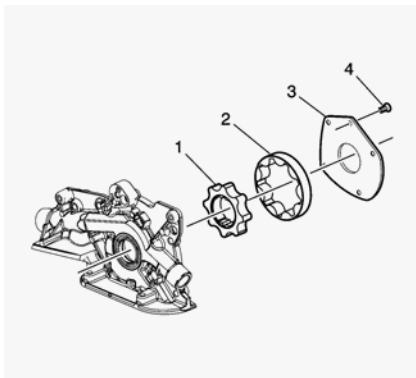
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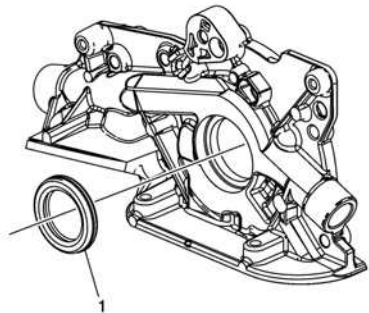
1. Remove the oil pump housing plug (1).
2. Remove and discard the oil pump housing plug seal (2).
3. Remove the oil pressure relief valve bore plug (6).
4. Remove and discard the oil pressure relief valve bore plug gasket (4).
5. Remove the oil pressure relief valve spring (5).
6. Remove the oil pressure relief valve (3).



7. Remove the oil pressure indicator switch (1).
8. Remove the discard the oil pressure indicator switch seal (2).



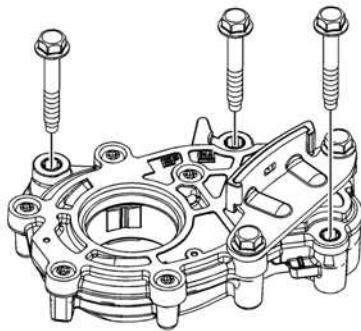
9. Remove the oil pump cover bolts (4) and cover (3).
10. Remove the oil pump drive gear (1) and driven gear (2)



11. Remove the crankshaft front oil seal (1).

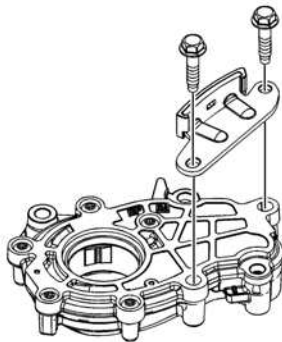
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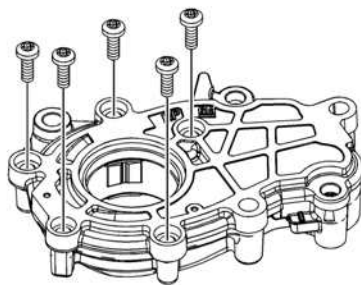


Important: There are no serviceable components within the oil pump. Disassemble the pump only to diagnose an oiling concern. A disassembled oil pump must not be reused. A disassembled oil pump must be replaced.

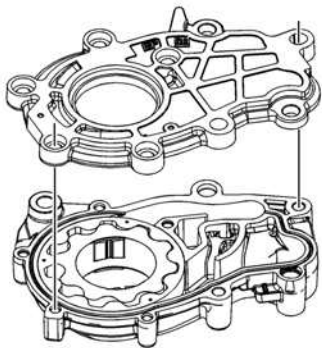
1. Remove the oil pump mounting bolts.



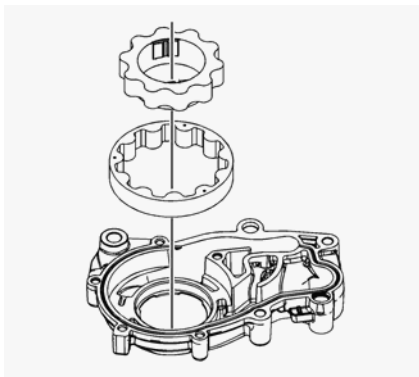
2. Remove the primary camshaft drive chain lower guide bolts.
3. Remove the primary camshaft drive chain lower guide.



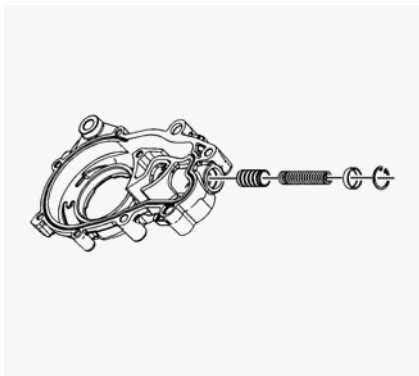
4. Remove the bolts holding the oil pump cover to the oil pump housing.



5. Remove the oil pump cover from the oil pump housing.



6. Remove the inner oil pump drive gear.
7. Remove the outer oil pump driven gear.

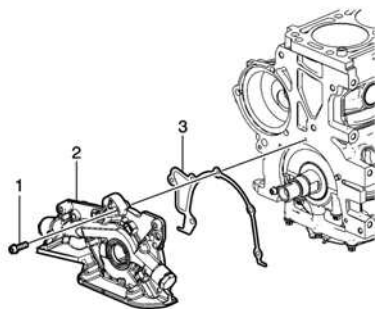


8. Remove the clip, holding the cap, for the oil relief valve components.
9. Remove the cap, spring, and plunger from the oil pump housing.

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1. Install a NEW oil pump gasket (3).

Note: If a new pump is required ensure that it has a front oil seal installed. If reusing the oil pump ensure a NEW oil seal is installed. Refer to Crankshaft Front Oil Seal Installation.

2. Install the oil pump (2) and bolts (1) finger tight.

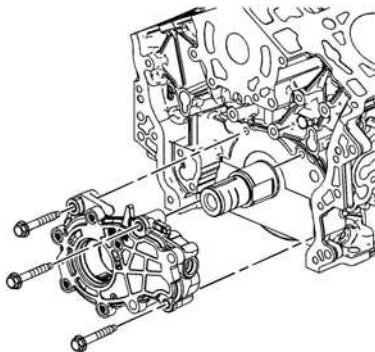
Caution: Refer to Fastener Caution.

3. Tighten the bolts to **5Y(44 lb in)** plus an additional 60°, plus additional 15°.

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1. Align the oil pump drive gear with the crankshaft flats and install the oil pump to the engine block.
2. Align the pump body with the mounting holes in the cylinder block.

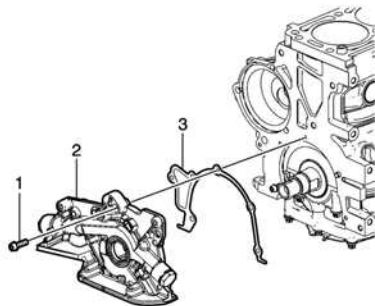
Caution: Refer to Fastener Caution.

3. Install the oil pump bolts and tighten to **25 Y (18 lb ft)**.

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Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

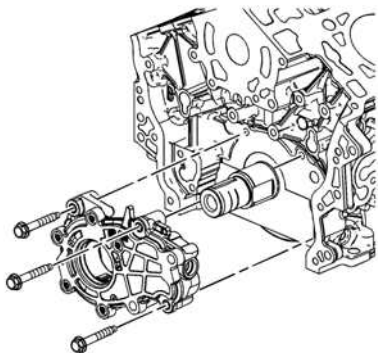


1. Remove the oil pump bolts (1).
2. Remove the oil pump (2) and gasket (3).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



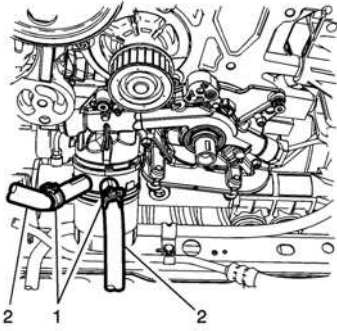
1. Remove the oil pump bolts.
2. Remove the oil pump.

2013 Chevrolet Colorado

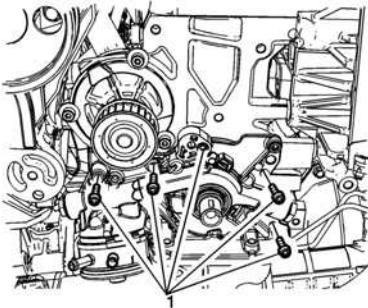
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

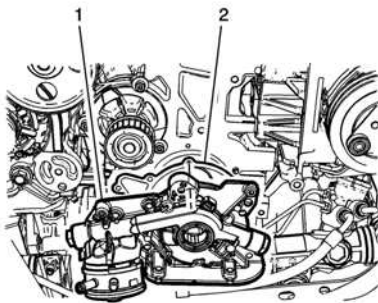
1. Remove the rear timing belt cover. Refer to Timing Belt Rear Cover Replacement.



2. Place an appropriate drain tub under the vehicle prior to oil cooler hose removal.
3. Remove the oil cool hose clamp (1).
4. Remove the oil cooler hose (2).
5. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.
6. Drain the engine oil. Refer to Engine Oil and Oil Filter Replacement.
7. Remove the oil pan. Refer to Oil Pan Replacement.
8. Lower the vehicle.



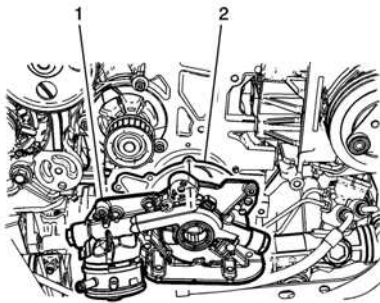
9. Remove the oil pump fastener (1).



10. Remove the oil pump (1).
11. Remove the oil pump gasket (2).
12. For oil pump cleaning and inspection. Refer to Oil Pump Cleaning and Inspection.
13. For oil pump disassemble. Refer to Oil Pump Disassemble.

[Installation Procedure](#)

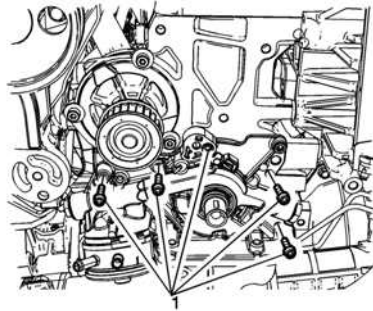
1. For oil pump assemble. Refer to Oil Pump Assemble.



2. Install a NEW oil pump gasket (2).

Note: If a new pump is required ensure that it has a front oil seal installed. If reusing the oil pump ensure a NEW oil seal is installed. Refer to Crankshaft Front Oil Seal Replacement.

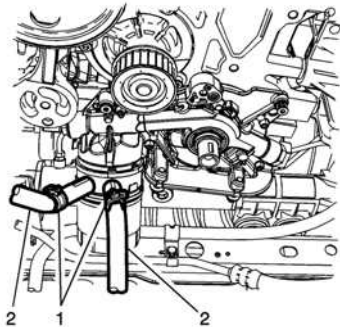
3. Install the oil pump (1).



4. Install the oil pump fastener (1) finger tight.

Caution: Refer to Fastener Caution.

5. Tighten the bolts to **5 Y (44 lb in)** plus an additional 60°, plus additional 15°.
6. Raise the vehicle.
7. Install the oil pan. Refer to Oil Pan Replacement.



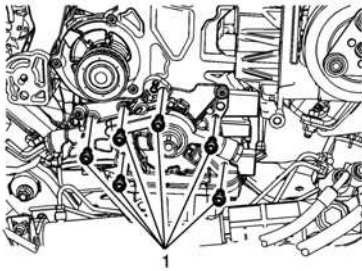
8. Lower the vehicle.
9. Install oil cooler hoses (2).
10. Install oil cooler hoses clamps (1) back in position.
11. Install the rear timing belt cover. Refer to Timing Belt Rear Cover Replacement.
12. Fill the engine oil. Refer to Engine Oil and Oil Filter Replacement.

2013 Chevrolet Colorado

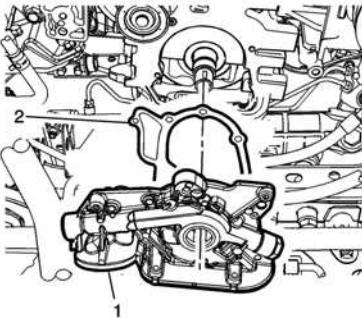
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

1. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.
2. Drain the engine oil. Refer to Engine Oil and Oil Filter Replacement.
3. Remove the oil pan. Refer to Oil Pan Replacement.
4. Remove the rear timing belt cover. Refer to Timing Belt Rear Cover Replacement.



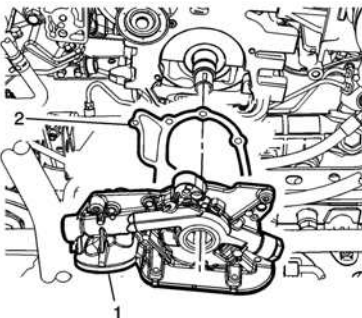
5. Remove the oil pump fastener (1).



6. Remove the oil pump (1).
7. Remove the oil pump gasket (2).
8. For oil pump cleaning and inspection. Refer to Oil Pump Cleaning and Inspection.
9. For oil pump disassembly. Refer to Oil Pump Disassemble.

[Installation Procedure](#)

1. For oil pump assembly. Refer to Oil Pump Assemble.



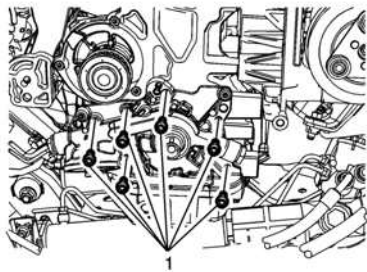
2. Install a NEW oil pump gasket (2).

Note: If a new pump is required ensure that it has a front oil seal installed. If reusing the oil pump ensure a NEW oil seal is installed. Refer to Crankshaft

Oil Pump Replacement (LP8)

Front Oil Seal Replacement.

3. Install the oil pump (1).



4. Install the oil pump fastener (1) finger tight.

Caution: Refer to Fastener Caution.

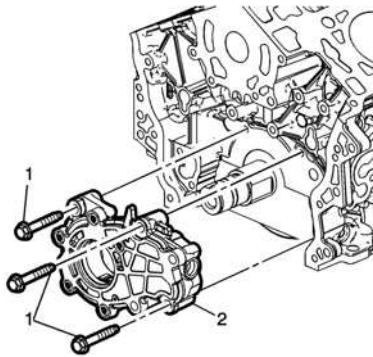
5. Tighten the bolts to **5 Y (44 lb in)** plus an additional 60°, plus additional 15°.
6. Install the rear timing belt cover. Refer to Timing Belt Rear Cover Replacement.
7. Install the oil pan. Refer to Oil Pan Replacement
8. Fill the engine oil. Refer to Engine Oil and Oil Filter Replacement.
9. Install the engine protection shield. Refer to Engine Protection Shield Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

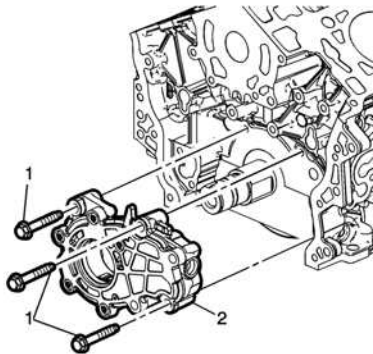
[Removal Procedure](#)



Note: Do not remove the left bank idler sprocket.

1. Remove the primary timing chain. Refer to Primary Camshaft Drive Chain and Sprockets Replacement.
2. Remove the crankshaft sprocket. Refer to Crankshaft Sprocket Removal.
3. Remove the oil pump bolts (1) and the oil pump (2).

[Installation Procedure](#)



1. Align the oil pump drive gear with the crankshaft flats and install the oil pump (2) to the engine block.
2. Align the pump body with the mounting holes in the cylinder block.

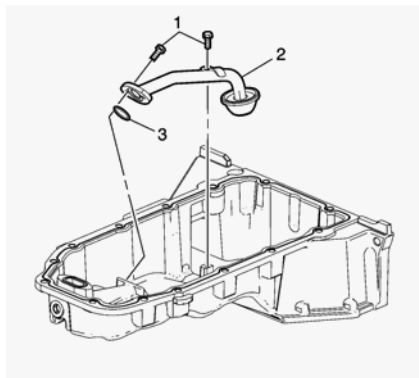
Caution: Refer to Fastener Caution.

3. Install the oil pump bolts and tighten to **25 Y (18 lb ft)**.
4. Install the primary timing chain. Refer to Primary Camshaft Drive Chain and Sprockets Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



1. Install a NEW oil pump suction pipe seal (3).
2. Install the oil pump suction pipe and screen (2).

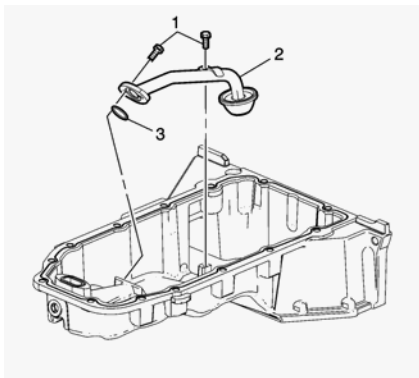
Caution: Refer to Fastener Caution.

3. Install the oil pump suction pipe bolts (1) and tighten to **6.0 Y (53 lb in)**.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



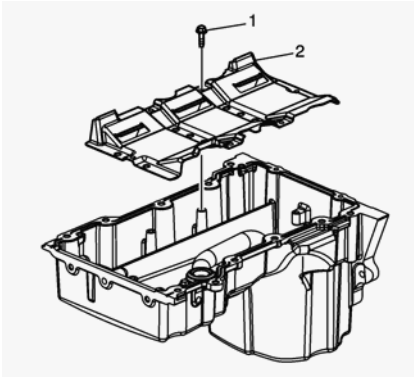
1. Remove the oil pump suction pipe and screen assembly bolts (1).
2. Remove the oil pump suction pipe and screen assembly (2) and seal (3).

2013 Chevrolet Colorado

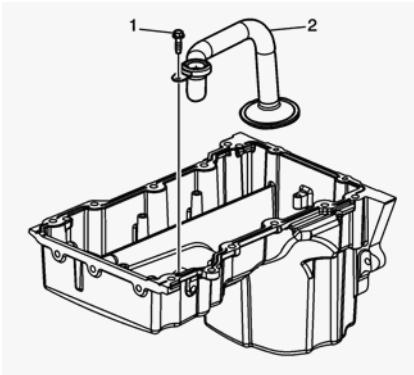
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

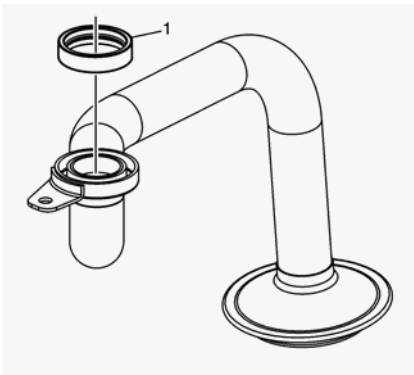
1. Remove the oil pan. Refer to Oil Pan Replacement.



2. Remove the oil pan scraper bolts (1).
3. Remove the oil pan scraper (2).



4. Remove the oil suction pipe bolt (1).
5. Remove the oil suction pipe (2).



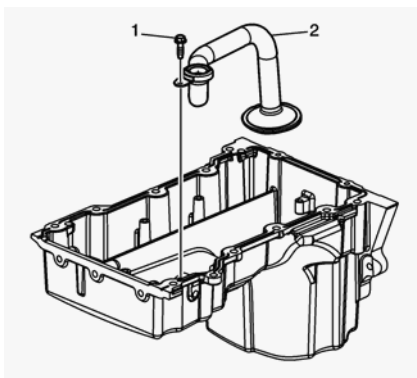
6. Remove the oil suction tube seal (1) from the oil suction tube. Discard the oil suction tube seal.

[Installation Procedure](#)

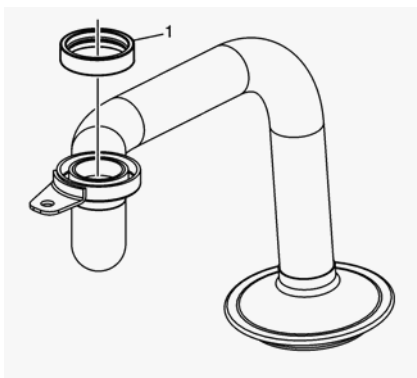
Oil Pump Suction Pipe and Screen Assembly Replacement



1. Install a NEW oil suction tube seal (1) onto the oil suction tube. DO NOT reuse the old oil suction tube seal.



2. Install the oil suction pipe (2).
- Caution:** Refer to Fastener Caution.
3. Install the oil suction pipe bolt (1) and tighten to **10 Y (89 lb in)**.



4. Install the oil pan scraper (2).
5. Install the oil pan scraper bolts (1) and tighten to **10 Y (89 lb in)**.
6. Install the oil pan. Refer to Oil Pan Replacement.

2013 Chevrolet Colorado

Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

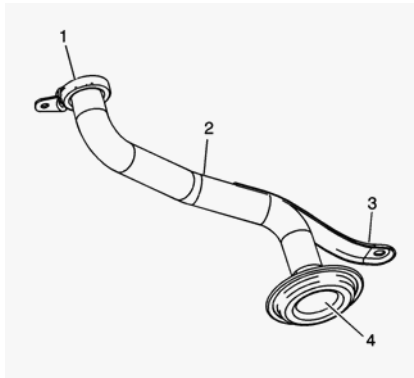
[Cleaning Procedure](#)

1. Clean the oil pump pipe and screen with solvent.

Warning: Refer to Safety Glasses Warning.

2. Dry the oil pump pipe and screen with compressed air.

[Inspection Procedure](#)



1. Inspect the mounting surface (1) for possible leakage paths.
2. Inspect the oil pump pipe tube (2) for cracks, imperfections and/or damage.
3. Inspect the oil pump pipe support bracket (3) for cracks or damage.
4. Inspect the oil pump screen (4) for blockage, foreign material, tears, cracks and/or damage.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

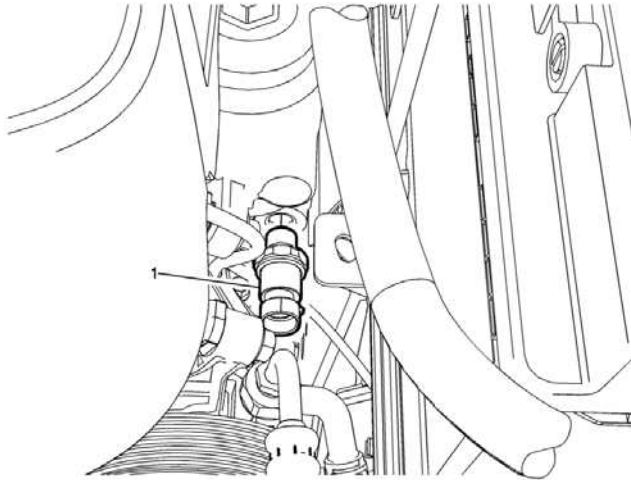
Special Tools

EN 41712 Oil Pressure Switch Socket

For equivalent regional tools, refer to Special Tools

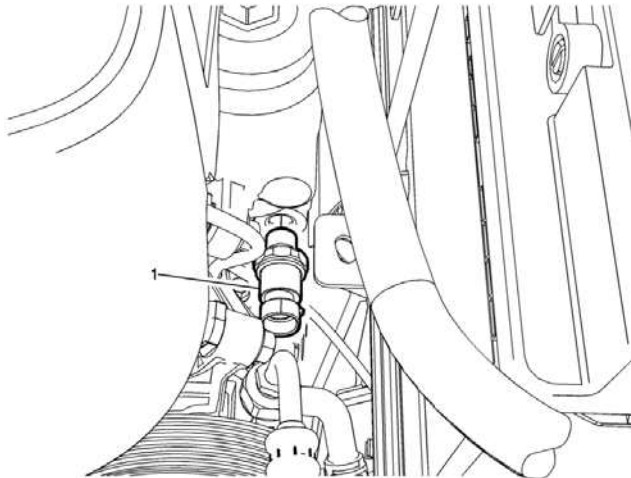
[Removal Procedure](#)

1. Remove the power steering pump. Refer to Power Steering Pump Replacement.



2. Disconnect the oil pressure sensor electrical connector.
3. Using EN 41712 Oil Pressure Switch Socket remove the oil pressure sensor (1).

[Installation Procedure](#)

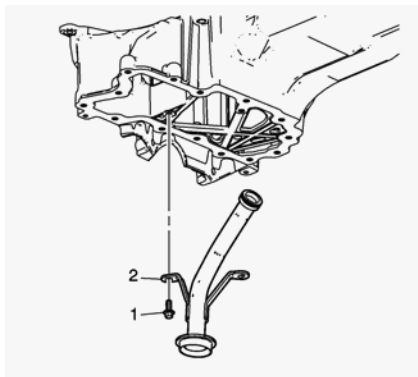


Caution: Refer to Component Fastener Tightening Caution.

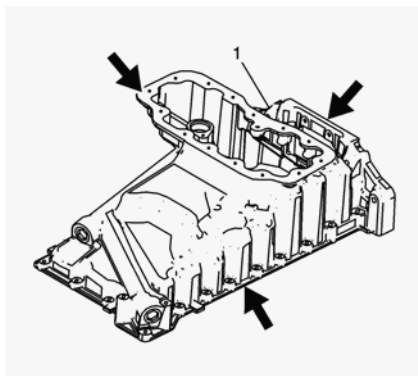
1. Install the oil pressure sensor (1) using EN 41712 Oil Pressure Switch Socket and tighten to **20 Y (15 lb ft)**.
2. Connect the oil pressure sensor electrical connector.
3. Install the power steering pump. Refer to Power Steering Pump Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



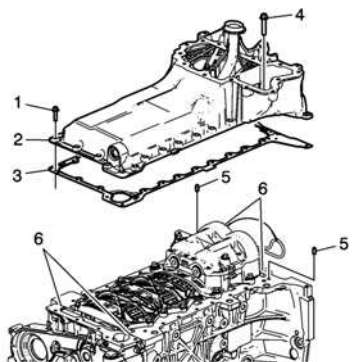
1. Remove the oil pump suction pipe bolts (1).
2. Remove the oil pump suction pipe (2).



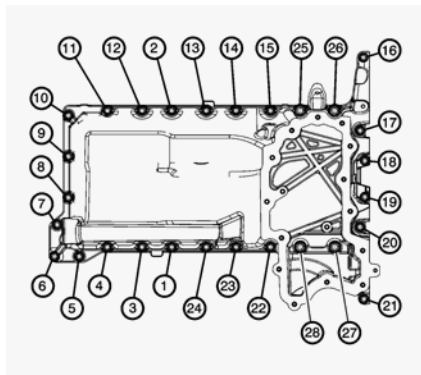
3. Clean the sealing material from the gasket mating surfaces on the upper oil pan (1).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



1. Install the case to pan alignment dowel pins (5).
2. Install a thin bead of sealant at the upper oil pan to front and rear cover joints (6). Refer to Adhesives, Fluids, Lubricants, and Sealers for the recommended sealant.
3. Install the upper oil pan gasket (3) and oil pan (2).
4. Install the upper oil pan bolts (1 and 4) and hand tighten.



Caution: Refer to Fastener Caution.

5. Tighten the upper oil pan bolts in sequence, first pass:

- M6 to **15 Y (12 lb ft)**
- M8 to **32 Y (23 lb ft)**

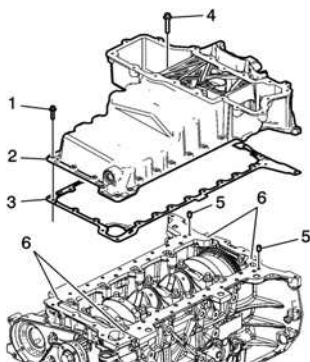
- Loosen all the bolts by 90 degrees.
- Tighten the upper oil pan bolts in sequence, final pass:

- M6 to **15 Y (12 lb ft)**
- M8 to **32 Y (23 lb ft)**

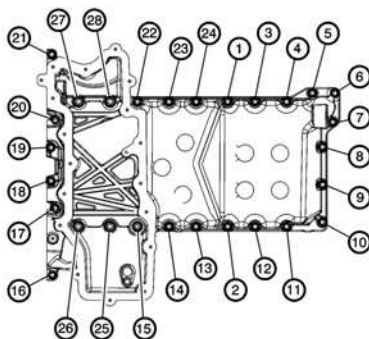
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



1. Install the case to pan alignment dowel pins (5).
2. Install a thin bead of sealant at the upper oil pan to front and rear cover joints (6). Refer to Adhesives, Fluids, Lubricants, and Sealers for the recommended sealant.
3. Install the upper oil pan gasket (3) and oil pan (2).
4. Install the upper oil pan bolts (1 and 4) and hand tighten.



Caution: Refer to Fastener Caution.

5. Tighten the upper oil pan bolts in sequence, first pass:

- M6 to **15 Y (12 lb ft)**
- M8 to **32 Y (23 lb ft)**

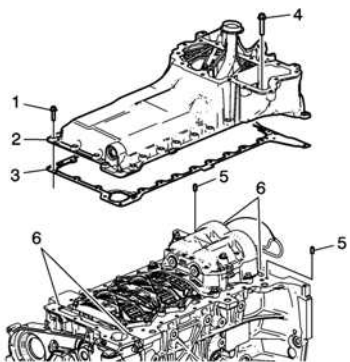
- Loosen all the bolts by 90 degrees.
- Tighten the upper oil pan bolts in sequence, final pass:

- M6 to **15 Y (12 lb ft)**
- M8 to **32 Y (23 lb ft)**

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

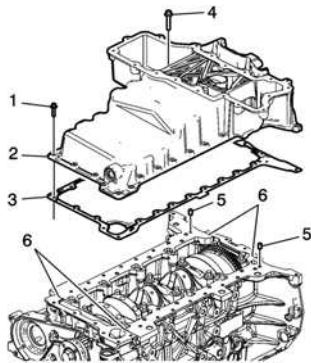


1. Remove the upper oil pan bolts (1 and 4).
2. Remove the upper oil pan (2) and gasket (3).
3. Remove case to pan alignment dowel pins (5).

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



1. Remove the upper oil pan bolts (1 and 4).
2. Remove the upper oil pan (2) and gasket (3).
3. Remove case to pan alignment dowel pins (5).

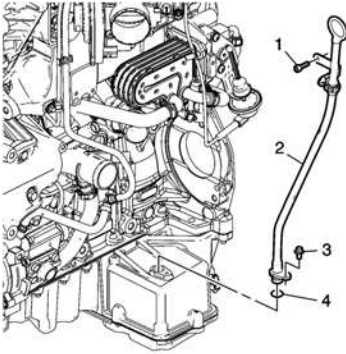
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

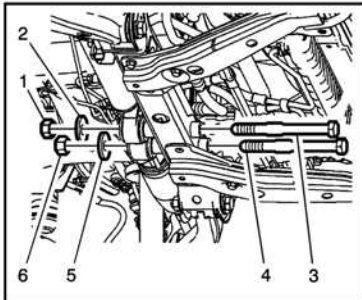
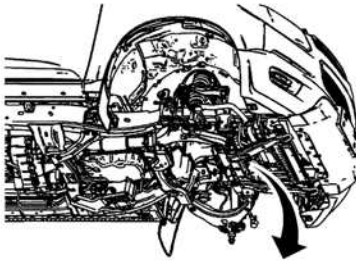
[Removal Procedure](#)

1. Remove the transmission. Refer to the appropriate procedure:

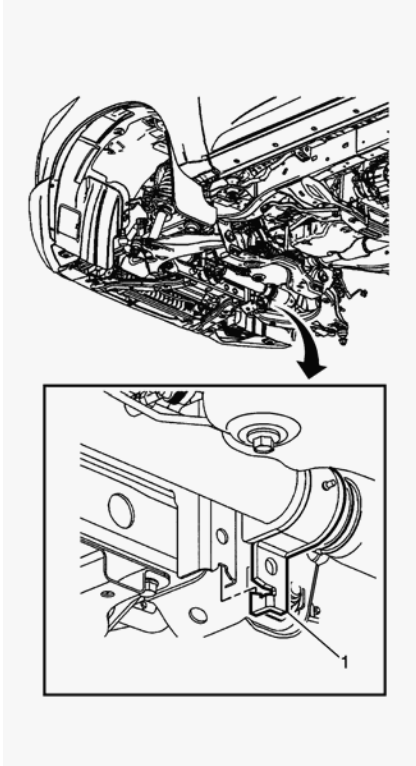
- Transmission Replacement.
- Transmission Replacement.
- Remove the drivetrain and front suspension frame front crossmember. Refer to Drivetrain and Front Suspension Frame Front Crossmember Replacement.
- Remove the lower oil pan Lower Oil Pan Replacement.



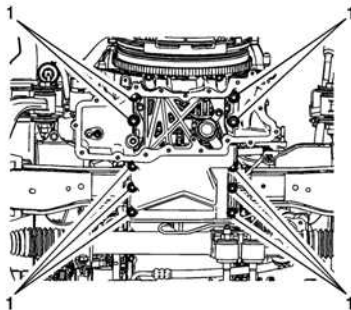
- Remove the oil level indicator tube (2). Refer to Oil Level Indicator Tube Replacement.



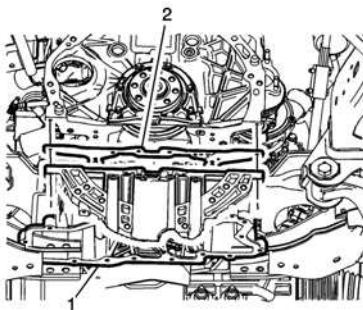
- Remove the following components from the driver's side of the steering gear:
 - The 2 steering gear nut (1, 6).
 - The 2 steering gear washer (2, 5).
 - The 2 steering gear bolts (3, 4).



- Disconnect the steering gear bracket hook (1) from the bracket.

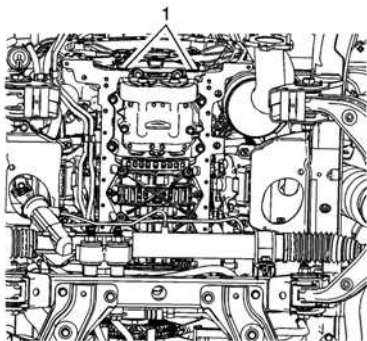


- Remove the upper oil pan bolts (1).

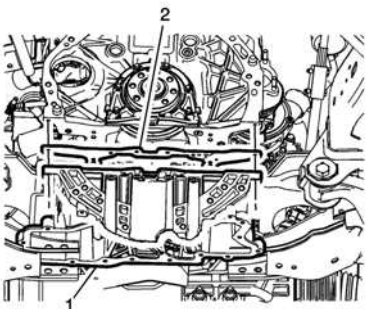


- Remove the oil pan and gasket (2) and oil pan (1).
- For cleaning and inspection. Refer to Upper Oil Pan Cleaning and Inspection.

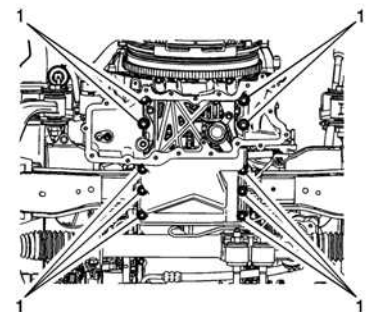
[Installation Procedure](#)



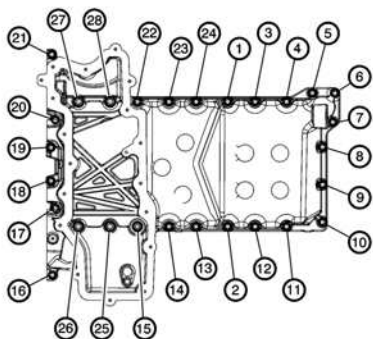
1. Install a thin bead of sealant at the upper oil pan to front and rear cover joints (1). Refer to Adhesives, Fluids, Lubricants, and Sealers.



2. Install upper oil pan gasket (2) and oil pan (1).



3. Install the upper oil pan bolts (1) and hand tighten.

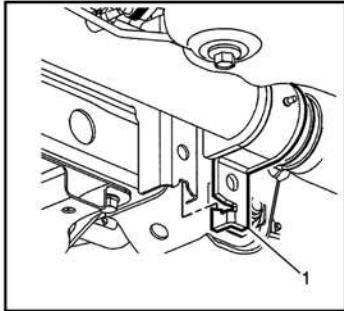
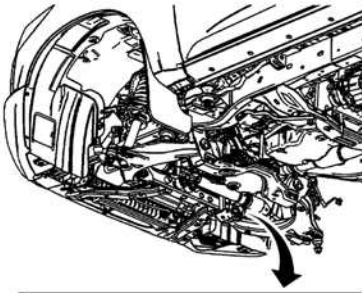


Caution: Refer to Fastener Caution.

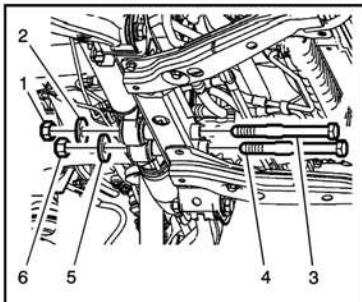
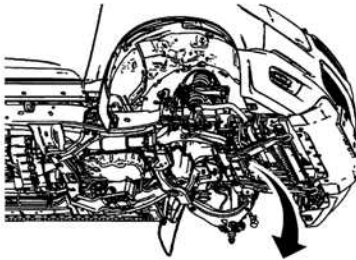
4. Tighten the upper oil pan bolts in sequence, first pass:

- M6 to 15 Y (12 lb ft).
- M8 to 32 Y (23 lb ft).
- Loosen all the bolts by 90 degrees
- Tighten the upper oil pan bolts in sequence, final pass:
- M6 to 15 Y (12 lb ft).

- M8 to 32 Y (23 lb ft).

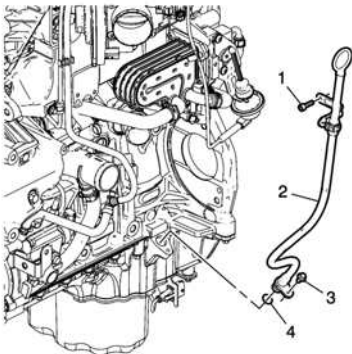


- Connect the steering gear bracket hook (1) to the bracket.



- Install the following components to the driver's side of the vehicle:
 - The 2 steering gear bolts (3, 4).
 - The 2 steering gear washers (2, 5).
 - The 2 steering gear nuts (1, 6).
- Use a wrench in order to hold the steering gear bolts. Tighten the steering gear nuts to **220Y (162 lb ft)**.

Upper Oil Pan Replacement (4x2)



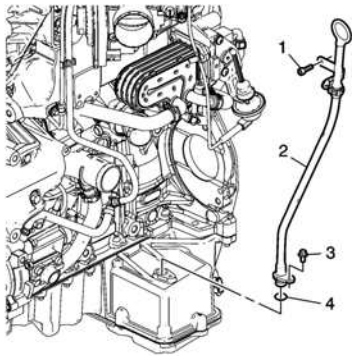
- Install the oil level indicator tube (2). Refer to Oil Level Indicator Tube Replacement.
 - Install the lower oil pan. Refer to Lower Oil Pan Replacement.
 - Install the drivetrain and front suspension frame front crossmember. Refer to Drivetrain and Front Suspension Frame Front Crossmember Replacement.
 - Install the transmission. Refer to the appropriate procedure.
-
- Transmission Replacement.
 - Transmission Replacement.

2013 Chevrolet Colorado

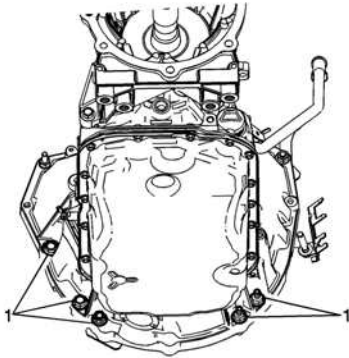
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

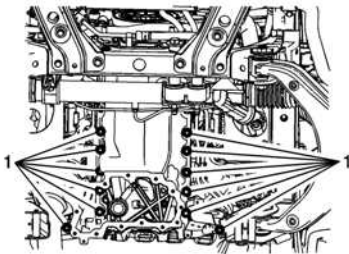
1. Remove the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.
2. Lower the steering gear to gain space to remove the upper oil pan. Refer to Steering Gear Replacement.
3. Remove the lower oil pan Lower Oil Pan Replacement.



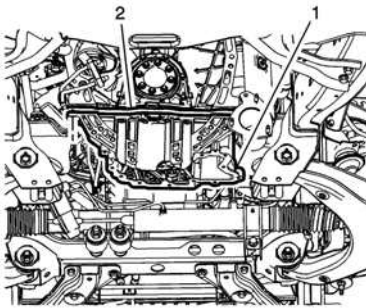
4. Remove the oil level indicator tube (2). Refer to Oil Level Indicator Tube Replacement.



5. Remove the 4 lower fasteners (1) securing the transmission to the engine.

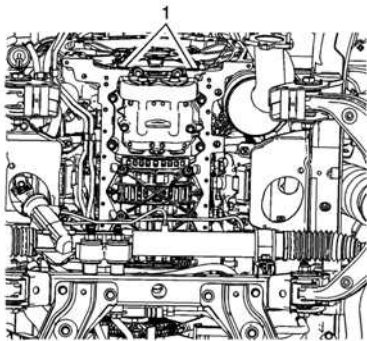


6. Remove the upper oil pan bolts (1).

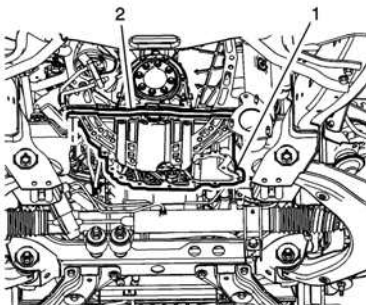


7. Remove the oil pan and gasket (2) and oil pan (1).
8. For cleaning and inspection. Refer to Upper Oil Pan Cleaning and Inspection.

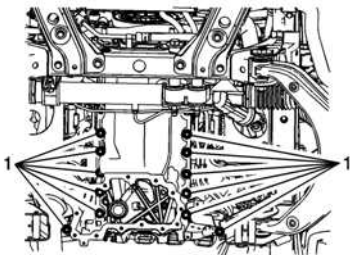
[Installation Procedure](#)



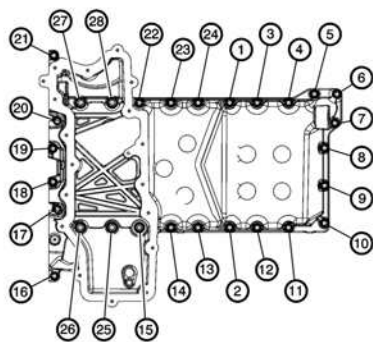
1. Install a thin bead of sealant at the upper oil pan to front and rear cover joints (1). Refer to Adhesives, Fluids, Lubricants, and Sealers for the recommended sealant.



2. Install upper oil pan gasket (2) and oil pan (1).

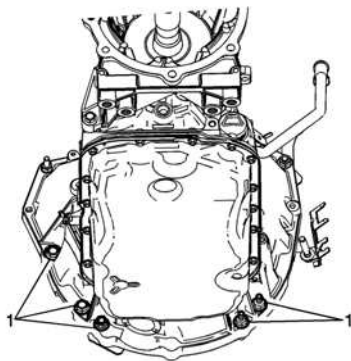


3. Install the upper oil pan bolts (1) and hand tighten.

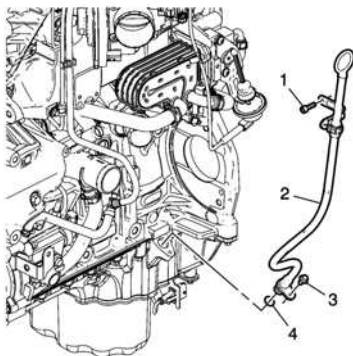


4. Tighten the upper oil pan bolts in sequence, first pass:

- M6 to **15 Y (12 lb ft)**.
- M8 to **32 Y (23 lb ft)**.
- Loosen all the bolts by 90 degrees
- Tighten the upper oil pan bolts in sequence, final pass:
 - M6 to **15 Y (12 lb ft)**.
 - M8 to **32 Y (23 lb ft)**.



- Install the 4 lower bolts (1) securing the transmission to the engine and tighten to **50Y (37 lb ft)**.



- Install the oil level indicator tube (2). Refer to Oil Level Indicator Tube Replacement.
- Install the lower oil pan. Refer to Lower Oil Pan Replacement.
- Install the steering gear Steering Gear Replacement.
- Install the differential carrier assembly. Refer to Differential Carrier Assembly Replacement.