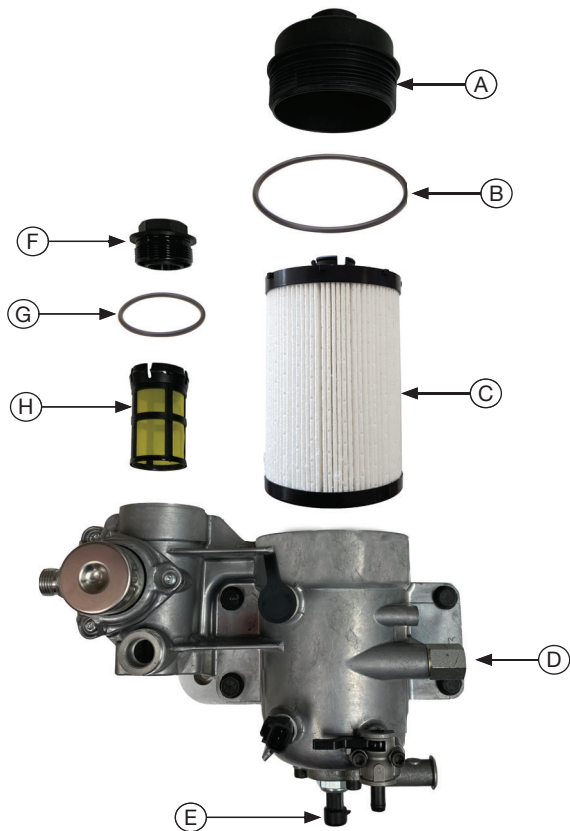




FS19947 Service Instructions For International® and MaxxForce™ 11 and 13 Engines

Parts List



| Part | Description | Quantity Included in Kit | Cummins Filtration Part Number |
|-----------|------------------------|--------------------------|------------------------------------|
| A | Fuel Filter Cap | - | - |
| B | Fuel Filter Cap O-Ring | 1 | Included (not for individual sale) |
| C | Cartridge, Fuel Filter | 1 | FS19947 |
| D | Fuel Filter Housing | - | - |
| E | Water Drain Valve | - | - |
| F | Strainer Cap | - | - |
| G | Strainer Cap O-Ring | 1 | Included (not for individual sale) |
| H | Fuel Strainer | - | - |
| Not Shown | Instruction Sheet | 1 | - |

⚠ CAUTION: Failure to replace the top cap o-ring at each filter change can cause a fuel leak at the top housing cap. A new o-ring must be properly installed in the o-ring groove before lid installation.

⚠ CAUTION: Allow the engine to cool before working to avoid personal injury.

🏛 GOVERNMENT REGULATION: Some state and federal agencies have determined that used engine oil can be carcinogenic and cause reproductive toxicity. Avoid inhalation of vapors, ingestion, and prolonged contact with used engine oil. If not reused, dispose of the used oil in accordance with local environmental regulations.

⚠ CAUTION: These instructions are intended for use by professional mechanics who are trained in the proper use of power and hand tools, using appropriate safety precautions (including eye protection).

Removal Procedure

1. Turn the engine/key off.
2. Allow the engine to cool.
 - ⚠ **CAUTION:** To avoid engine damage, the area surrounding the filter must be cleaned to avoid contaminants falling into the housing. Clean the interior of the housing using compressed air.
3. Drain the water from the filter.
 - a. Locate a container to use to collect the separated water.
 - b. Connect the hose to the water drain valve.
 - c. Open the water drain valve
 - d. Allow the water to drain into the container.
 - e. Dispose of the water.
4. Drain the used fuel from the filter.
 - a. Connect a hose to the fuel drain valve.
 - b. Loosen the fuel filter cap 220 in-lbs (25Nm) to allow the housing to drain.
 - c. Allow the used fuel to drain into the container.
 - d. Dispose of the used fuel properly.
5. Remove the fuel filter element from the housing.
 - a. Move the engine wire harness to create clearance for filter removal, if necessary.
 - ⚠ **CAUTION:** Do not unplug the engine wiring harness connector located above the housing.
 - ⚠ **CAUTION:** To avoid damaging the fuel filter stand post, avoid contact with the wiring harness connector during filter removal.
 - b. Lift the fuel filter cap and attached fuel filter element halfway out of the fuel filter housing.
 - ⚠ **CAUTION:** To eliminate pressure on the standpipe, lift the filter cap/filter element straight up during removal.
 - c. Firmly holding the fuel filter element, push on the fuel filter cap to detach it from the filter element.
6. Remove the used o-ring from the fuel filter cap.
7. Properly dispose of the used fuel filter element and o-ring.

Installation

1. Inspect the inside of the housing and the stand post and clean the surfaces, if necessary.
2. Lubricate the new o-ring with clean diesel fuel.
3. Install the lubricated o-ring on the fuel filter cap.
4. Lubricate the threads of the fuel filter cap with clean diesel fuel.
5. Install the new fuel filter element.
 - a. Slide the new fuel filter element halfway onto the stand post, keeping it vertical and avoiding contact with the engine wiring harness connector.
 - b. Firmly holding the fuel filter element, place the fuel filter cap onto the element and push down firmly until it snaps into place.
 - c. Slide the fuel filter cap and attached fuel filter element all the way into the housing.
6. Turn the fuel filter cap clockwise on the housing until finger tight.
7. Tighten to 220 in-lb (25 N·m) min.
8. Prime and start the engine and check for leaks.

Replacing the Strainer Assembly O-Ring

1. Remove the fuel strainer assembly from fuel filter header.
2. Remove fuel strainer and clean.
3. Remove o-ring and properly discard.
4. Clean sealing areas on both fuel strainer cap and fuel filter header.
5. Install new o-ring and cleaned fuel strainer onto fuel strainer cap.
6. Lubricate fuel strainer cap threads and new o-ring with clean diesel fuel.
7. Torque fuel strainer cap to 155 in-lbs (17 Nm).



Filtration

For more information, visit
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LT36673 Rev. A
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