



(Both filters required for service)



# Application:

2013-2015 Ram 2500-5500 HD Trucks with Cummins® 6.7L Turbo Diesel Engines.

## Location:



Primary Fuel Filter: The fuel filtration module (fuel filter/water separator assembly) is located on the left side of the engine above the starter.

Secondary Fuel Filter: <u>On pick up models</u>, this filter is located at the rear of the undercarriage, in front of the rear axle and beside the fuel tank. <u>On chassis cab models</u>, this filter is located on the frame behind the front axle.

Note: The Electronic Vehicle Information Centre (EVIC) will display a "Fuel System Service Required" message when the fuel filter maintenance life is less than 5%. Both the engine mounted and frame mounted fuel filters should be replaced when this message is displayed.

### Service Procedures Primary Fuel Filter (Part# 56083):

 Turn the ignition off and remove keys. If the vehicle is equipped with push button start, remove the key fob from vehicle. This will prevent accidental start up during service by anyone remaining in the vehicle.

#### 2. Drain all fluid from the fuel filter housing.

a. Place a container under the fuel filter housing drain hose.

b. Open the drain valve (circled yellow) one quarter turn counterclockwise.
 c. Using a 6 point 28 mm or 1-1/8" socket, open the housing cap (circled

red) two full turns. DO NOT totally remove housing cap at this time.

Allow the housing to drain for approximately two minutes.

e. Remove the housing cap and ensure all fluid has drained from the housing.

f. Close the drain valve by turning in clockwise direction.

#### 3. Remove the old fuel filter cartridge from the housing.

a. Remove the old filter cartridge from the housing. Place shop towel under filter cartridge to capture any dripping fuel. DO NOT pry against the housing as damage to the housing may result.
b. Remove the old housing or ing and discard.

b. Remove the old housing o-ring and discard.

#### 4. Install the new fuel filter cartridge into the housing.

a. Inspect the internal housing walls and the WIF sensor for debris (eg. metal slivers, grass, seeds, rust or bugs).

NOTE: Excessive debris may be an indication of a potential fuel system problem. If debris is found on housing walls or the WIF sensor, use clean fuel or mild solvent to rinse residue or debris from inside the housing and drain thoroughly. DO NOT use brake cleaner, carburetor cleaner or similar harsh solvents for cleaning the internal housing walls.

b. Ensure that the internal housing walls are clean of debris before installing the new filter cartridge.



56085





# CAUTION: DO NOT pre-fill the housing with fuel. <u>Pre-filling the housing with fuel may damage fuel</u> <u>system and injector system components</u>. This system utilizes an electric fuel pump that will easily fill the filter and purge air from the system. See Prime and Start instructions on page three.

c. Ensure that the housing cap and the housing o-ring groove are clean.

d. Insert the new filter cartridge into the housing and push down on filter to ensure it is properly seated.

e. Lubricate the new o-ring with clean engine oil and install in housing o-ring grove.

f. Install the housing cap. Thread the housing cap onto the housing slowly and tighten to 22.5 ft-lb (30.5 N-m) using a 6 point 28 mm or 1-1/8" socket.

g. Wipe up any spilled fuel.

h. Properly dispose of old filter cartridge, soiled shop towels and any captured fuel.

### Service Procedures Secondary Fuel Filter (Part# 56085):

Before beginning, clean off any debris around the secondary fuel filter.

#### 1. Drain fuel and water from the fuel filter.

a. Place a suitable container under the fuel filter.

b. To drain the filter, open the drain valve on the water-in fuel (W.I.F.) sensor one full turn counterclockwise.

c. Close the valve once draining is complete.

**Tech Tip:** A 3/8" hose may be attached onto the end of W.I.F. sensor to help direct fluid away from chassis components.

#### 2. Remove old fuel filter.

a. Disconnect the W.I.F. sensor harness connector (circled yellow).



b. Using a filter wrench remove the old fuel filter. Be careful not to damage the W.I.F. sensor as it must be transferred to the new fuel filter. Ensure the large base plate o-ring comes off with the old filter.

c. Using CLS tool **#34900** remove the W.I.F. sensor from the old fuel filter by turning sensor counterclockwise. Discard the old fuel filter. Wipe W.I.F. sensor clean.



W.I.F. Sensor

W.I.F. Sensor Drain Valve



d. Remove the old o-ring (small) from the W.I.F. sensor and discard o-ring.

#### 3. Install new fuel filter.

a. Install the new sensor o-ring onto the W.I.F. sensor and lubricate with clean
engine oil. Install W.I.F. sensor onto new fuel filter. Be careful not to over tighten the sensor.
b. Using clean engine oil, lubricate the large base plate o-ring on the new fuel filter.



- c. Wipe the filter mounting plate clean (circled yellow).
- d. Install the new fuel filter (with sensor pre-installed). Hand-tighten the filter and then tighten an additional  $\frac{1}{2}$  turn.
- e. Reconnect the W.I.F. sensor harness connector.

f. Wipe up any spilled fuel and double-check W.I.F. sensor drain valve is tight.

#### 5. Prime and start the engine.

Please Note: Ensure vehicle has adequate amount of fuel in tank as fuel is required for priming process.

a. Turn ignition switch to "START" position to engage the starter for <u>one second</u> and then quickly return ignition switch to "RUN" position before engine starts. This will activate the in-tank fuel pump for approximately 25 seconds. After 25 seconds, turn ignition switch to the "OFF" position and leave off for 5 seconds.
b. Repeat above sequence two times.

# Note: For push button start equipped vehicles, place key fob in vehicle and mimic steps "a" and "b" to prime fuel system.

c. Start the engine. In most cases the engine will start right away. In others, the engine will start but may initially run rough. This may occur briefly as the engine purges trapped air from the fuel system. Check the filter housing for leaks while the vehicle is running.

# CAUTION: DO NOT engage the starter for more than 15 seconds at a time. Allow two minutes between cracking intervals.

d. Check for leaks.

#### 6. Reset "fuel filter life" monitor.

#### For vehicle with key start ignition

a1. Without depressing the brake pedal, turn the ignition to the "ON/RUN" position but do not start engine.

#### For vehicle with push button start ignition

a2. <u>Without depressing the brake pedal</u>, press the "START/STOP" button to put ignition system in "ON/RUN" position. <u>Do not start the vehicle at this time</u>.

b. Navigate the EVIC menu to "Vehicle Info" then press select button. Press the left/right button to scroll through and select "Fuel Filter Life".

c. Press and hold the right arrow button down for one second to access the "Reset Confirmation" screen.

d. Press the up/down button to select "Yes".

e. Press and hold down the right arrow button to reset to 100%.

f. Press and release the "UP" arrow button to exit the EVIC screen once the fuel filter life has been reset.

#### Caution:

During normal engine operation through high pressure fuel lines, the diesel injection pump supplies fuel to each individual injector at extremely high pressure. Before cranking/starting vehicle, ensure all fittings are tight. Fuel under high pressure can cause serious personal injury.

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