

# Replacing the Engine Air Filter Element, Donaldson Air Cleaner (03-33648-001, 002)

# 09-35

FLA COE  
 FLB COE  
 FLD Conventional  
 Business Class  
 FLC 112 Conventional

> Century Class Conventional  
 Argosy COE  
 Cargo  
 > Columbia

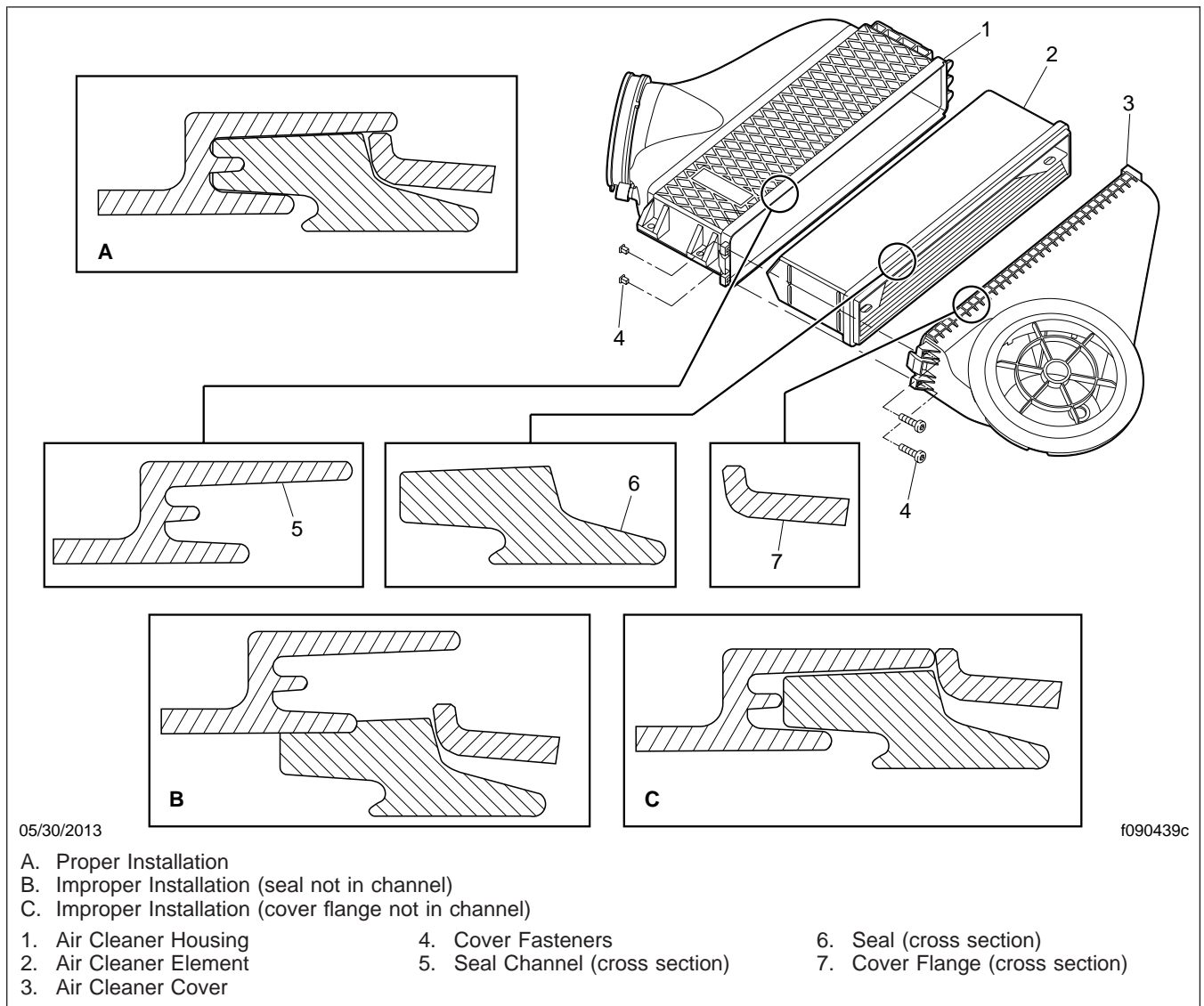
Coronado  
 Business Class M2  
 > Cascadia  
 108SD/114SD

## Freightliner Service Bulletin

## General Information

This bulletin addresses the installation of the filter element in a Donaldson air cleaner assembly (03-33648-001, 002) during regularly scheduled maintenance. This air cleaner is used on all Cascadia vehicles, as well as certain configurations of Columbia and Century Class vehicles manufactured for export.

An improperly installed air filter element can lead to engine damage or failure. When replacing an air filter element, make sure it is properly installed. See **Fig. 1**. Follow the instructions below to inspect, replace, and check the air filter element installation.



**Fig. 1, Intake Air Cleaner Assembly**

### Inspection and Replacement

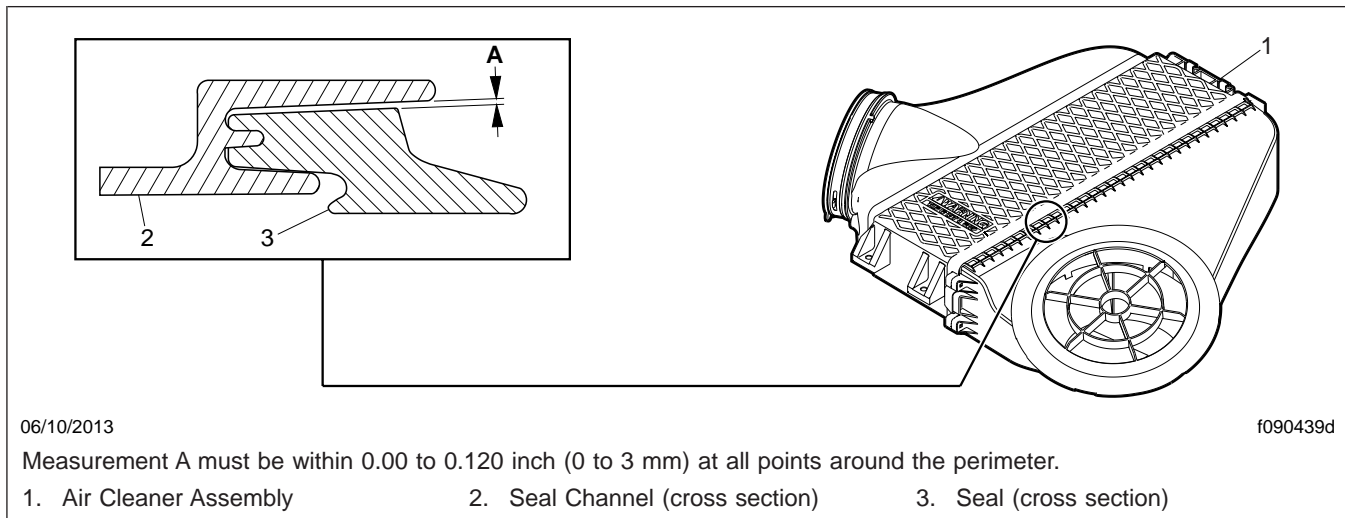
#### NOTICE

All air intake components and connections must be air- and water-tight. Dirt or dust entering the engine can cause internal engine damage. Most of the dirt and dust particles are silicates, which fuse into abrasive glass-like particles when exposed to engine combustion. These particles can grind piston rings, pistons, and cylinder liners. Do not operate the engine with the air filter element or any air intake component removed. Do not modify, or use modified air cleaners and ducting components.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the tires.
2. Tilt the hood.
3. Remove the cover fasteners, then remove the cover and the filter element.
4. Wipe any dust from the interior of the housing with a clean damp cloth.

**IMPORTANT:** If the air cleaner housing or cover is damaged or warped to the point that the filter seal will not fit into the seal channel properly, or the housing and cover will not fit together to create a proper seal, replace the air cleaner assembly. Refer to Items B and C in **Fig. 1** for examples of an improper installation.

5. Install the new filter element in the air cleaner housing making sure that the seal fits into the seal channel all the way around the edge of the housing.
6. Using a 0.120-inch (3-mm) feeler gauge, inspect the mating surface between the seal and the seal channel for proper installation. The gap between the seal and the seal channel must be within 0.00 to 0.120 inch (0 to 3 mm) to make a proper seal. See **Fig. 2**. If any points of the perimeter will not align properly, replace the air cleaner assembly. For instructions, refer to **Subject 09.01, 110** in the *Cascadia Workshop Manual*.



**Fig. 2, Measuring the Gap Between the Seal Channel and the Seal**

7. Apply P-80 rubber lubricant to the air cleaner cover mating surface.

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8. Install the air cleaner cover making sure the lip of the cover fits inside the the edge of the housing and rests against the seal at all points. If needed, use a prying device to position the lip of the cover into the housing.
9. Install the cover fasteners. Tighten 25 to 35 lbf·in (280 to 400 N·cm).
10. Verify that the cover is properly installed. Inspect all four sides of the interface between the air cleaner housing and the air cleaner cover. The lip of the cover should fit inside the edge of the housing all the way around the perimeter of the housing. If the air cleaner cover can not be properly installed, replace the air cleaner assembly.
11. Close and latch the hood.

## Warranty

This procedure informational only. Warranty does not apply.