PowerCore® PSD Air Cleaners

Donaldson. FILTRATION SOLUTIONS

This servicing information is provided as a best practices guide. It is not intended to replace or supersede the service instructions supplied by your engine or vehicle manufacturer. Note: Your air cleaner service cover may be in a different position than shown.

1 Check the Restriction

Replace the filter only when the restriction level has reached the maximum recommended by the engine or equipment manufacturer or on a regular scheduled service.

2 Check Vacuator™ Valve & Pre-Cleaner Tubes

Shut off the engine. Inspect the Vacuator™ Valve (or scavenge line) for damage. If damaged, replace. If plugged or full of contaminant, check the pre-cleaner tubes, which should be free of contaminant. If plugged or excess contaminant is visible, the pre-cleaner tubes will need to be cleaned.

To clean the pre-cleaner tubes, remove the housing service cover and Vacuator Valve and leave the filter installed (to avoid dust from entering the air induction outlet). Use a low-volume of compressed air to gently blow out the separator tubes. The compressed air can be pushed through both sides of the tubes AND from the drop tube where the Vacuator Valve attaches.

If compressed air is not available or the use of compressed air was not effective due to dried contaminant within the housing, remove the air cleaner from the machine, cover the air intake pipe to prevent contaminant. Remove the primary and secondary filters and Vacuator Valve. Use a low pressure water (e.g., garden hose) to clean the tubes and inside of housing. Direct the flow of water through the separator tubes from both ends and repeat as needed to clean out the housing. Spray out the Vacuator Valve port, alternating between it and the separator tubes. Make sure that all internal housing surfaces are dry prior to reinstalling the filters, Vacuator Valve, and unit on the machine.

NEVER use a pressure sprayer to clean out the air cleaner housing while it is installed on the machine. Avoid using excessive pressure when spraying out the separator tubes as damage can occur.

3 Remove the Primary Filter

For end service pull the filter out of the housing.

For side service push down on the service handle to tilt the filter to a 5° angle. This will loosen the seal. Then, pull up on the service handle to remove the filter from the housing.

4 Visually Inspect the Safety Filter

Remove any excess dirt and wipe out the housing with a damp cloth before servicing the safety filter. Visually inspect the safety filter but do not remove it unless it is damaged or due for change-out. Verify that the safety filter is properly seated in the housing. The safety filter should be replaced every three primary filter changes.

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5 Remove Safety Filter if Indicated or if Excessively Contaminated

To remove the safety filter, use the plastic handle on the face of the safety filter. Pull the filter toward the center of the housing and remove it. Ensure that the outlet tube sealing area is clean and undamaged. If the safety filter is removed and the new filter is not to be installed immediately, be sure to cover the seal tube with a cloth so that dirt is not admitted. After removing the safety filter, wipe the air cleaner housing interior and seal surfaces with a clean, damp cloth.

6 Inspect the New Filters

Visually check for cuts, tears or indentations on the sealing surfaces and the media pack before installation. If any damage is visible, do not install.

7 Replace the Safety Filter

If replacing the safety filter, use the plastic handle. Slide the filter at an angle into the outlet side and push it in place until the filter seats firmly and evenly within the housing.

On side-service access models, insert the safety filter tab into the positioning slot before pushing the filter into place.

8 Insert the Primary Filter

For end service access models, slide the primary filter into the housing until the gasket seats against the housing. For side service access models, slide the filter down at approximately a 5° angle until it makes contact with the end of the housing. Rotate the filter toward the outlet section to complete the seal.

9 Replace the Service Cover

For end service access models with hinge tabs, insert the hinge tabs into the housing, tilt the service cover into place and secure latches. For end service models without hinge tabs, put the service cover into place and secure the latches. For side-service access models, place the service cover in position and fasten the metal or rubber (PSD14) latches. If the cover doesn't seat, remove and re-check the filter position and access cover orientation.

10 Inspect the Entire Air Cleaner System

Make sure that inlet and outlet connections are in good condition. Torque to and do not exceed 40 in•lb. Replace rubber connectors if necessary and reset the service indicator.