
INSTALLATION INSTRUCTIONS

Original Issue Date: 5/99

Model: 230-300 kW (Detroit Diesel Series 60)

Market: Industrial

Subject: Heavy Duty Air Cleaner Kits PA-343508 and PA-343508-SD

The heavy duty air cleaner kit provides extra protection for dusty/dirty environments. Install the optional restriction gauge kit, if used. Otherwise, insert pipe plug per step 11.

NOTE

Allow a minimum of 27 inches (686 mm) clearance around the air cleaner assembly to service air cleaner element.

Observe the following safety precautions while installing the kit.

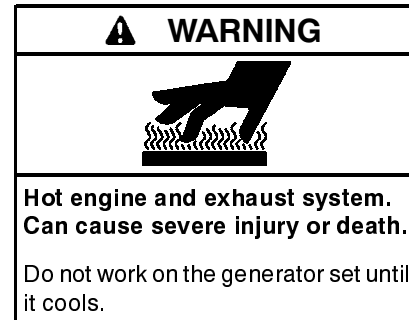
⚠ WARNING



Accidental starting.
Can cause severe injury or death.

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

Disabling the generator set. Accidental starting can cause severe injury or death. Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent starting of the generator set by an automatic transfer switch, remote start/stop switch, or engine start command from a remote computer.



Servicing the exhaust system. Hot parts can cause severe injury or death. Do not touch hot engine parts. The engine and exhaust system components become extremely hot during operation.

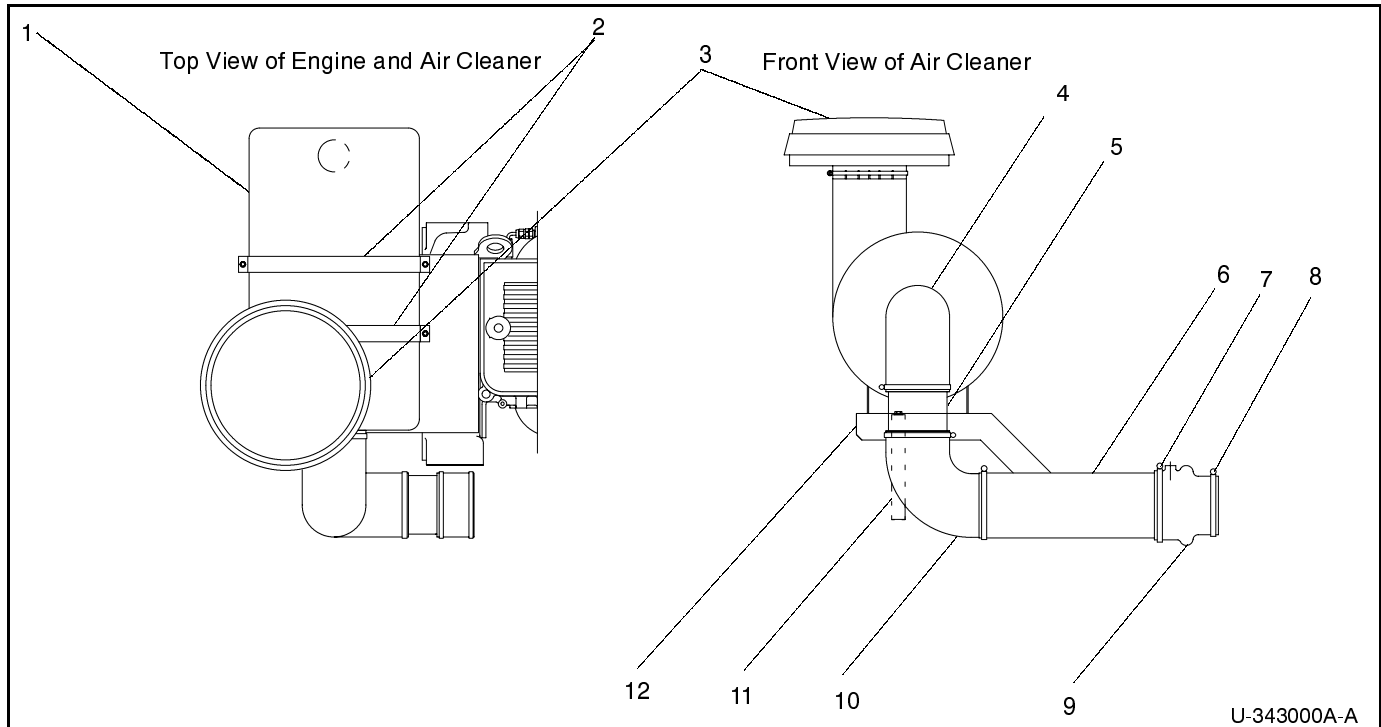
Installation

1. Place the generator set master switch in the OFF position.
2. Disconnect the power to the battery charger, if equipped.
3. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
4. Allow the generator set to cool.
5. Remove the existing engine air cleaner, mounting brackets, piping, and any additional attaching hardware.
6. Attach support bracket (343172) to the alternator using existing screws. See Figure 1.
7. Connect mounting bracket (343243) to the engine with screws (X-6052-7 qty. 2) and washers (X-25-26 qty. 2).
8. Secure mounting bracket (343243) to support bracket (343172) with screws (X-6238-3 qty. 2) and washers (X-25-37 qty. 2).
9. Attach 2 air cleaner brackets (291666) to mounting bracket (343243) with screws (X-6238-11 qty. 4), washers (X-25-37 qty. 4), and nuts (X-101-13 qty. 4).

as shown in Figure 1. Do not fully tighten the mounting brackets until the second last step.

10. Connect one of the hose elbows (272627) to the air cleaner outlet. Use a hose clamp (254013) to fasten the hose elbow in place.

11. Secure the other end of the hose elbow (272627) to the 5.7 in. long steel tube (X-522-60) with a hose clamp (254013). Screw the pipe plug (X-75-4) into the steel tube if no restriction gauge kit has been ordered. Otherwise install the restriction gauge instead.



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| 1. Air cleaner assembly (A-279713) | 8. Hose clamp (254344) |
| 2. Brackets (291666 qty. 2), screws (X-6238-11 qty. 4), washers (X-25-37 qty. 4), nuts (X-101-13 qty. 4) | 9. Hump hose (343429) |
| 3. Rain Cap (272674) | 10. Hose elbow (272627) and hose clamps (254013 qty. 2) |
| 4. Hose elbow (272627) and hose clamps (254013 qty. 2) | 11. Support bracket (343172), screws (X-6238-3 qty. 2), washers (X-25-37 qty. 2) |
| 5. Steel Tube (X-522-60) and pipe plug (X-75-4) | 12. Mounting bracket (343243), screws (X-6052-7 qty. 2), washers (X-25-26 qty. 2) |
| 6. Steel Tube (X-522-85) | |
| 7. Hose clamp (254013) | |

Figure 1. Heavy Duty Air Cleaner Kit Component Identification

12. Fasten the smaller diameter hose clamp (254344) to one end of the hump hose (343429) and air inlet.
13. Connect the other end of the hump hose (343429) to the 17.5 in. steel tube (X-522-85) with a hose clamp (254013).
14. Fasten the other end of the 17.5 in. steel tube to the hose elbow (272627) with a hose clamp (254013).
15. Secure the other end of the hose elbow (272627) to the 5.7 in. long steel tube (X-522-60) with hose clamp (254013). (The other end of 5.7 in. long steel tube is connected to the only other hose elbow).
16. Fit the rain cap (272674) onto the top of the air cleaner assembly. Secure the rain cap by tightening the mounting band at the bottom of cap.
17. After air cleaner assembly is vertically aligned, do a final tightening of the air cleaner assembly, all hose clamps, screws, and washers.
18. Check to make sure the generator is still in the OFF position. Reconnect the battery to the battery charger, if equipped.

Heavy Duty Air Cleaner Kit

| Parts List | | |
|-------------------------------|--|--------------|
| Kits: PA-343508, PA-343508-SD | | |
| Qty. | Description | Part Numbers |
| 1 | Air cleaner assembly | A-279713 |
| 4 | Hex nut, elastic, 3/8"-16 | X-101-13 |
| 2 | Washer, plain, 0.531" I.D., 1.062" O.D. | X-25-26 |
| 6 | Washer, plain, 0.406" I.D., 0.812" O.D. | X-25-37 |
| 1 | Tube, steel, 5.7" long x 6 in. wide | X-522-60 |
| 1 | Tube, steel, 17.5" long x 6 in. wide | X-522-85 |
| 2 | Screw, hex head, 0.472 in. dia. x 0.984 in. long | X-6052-7 |
| 2 | Screw, hex head, 3/8"-16 | X-6238-3 |
| 4 | Screw, hex head, 3/8"-16 | X-6238-11 |
| 1 | Pipe plug, 1/8", NPT, brass | X-75-4 |
| 5 | Hose clamp, 6.25"/6.56" | 254013 |
| 1 | Hose clamp, 5.43"/5.74" | 254344 |
| 2 | Hose elbow, 90° | 272627 |
| 1 | Rain cap | 272674 |
| 2 | Bracket | 291666 |
| 1 | Bracket, support | 343172 |
| 1 | Bracket, mounting | 343243 |
| 1 | Hump hose, 5" ID, straight | 343429 |