
INSTALLATION INSTRUCTIONS

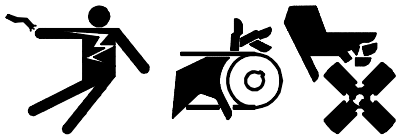
Oil Drain Kits PA-272990 & PA-272990-SD 450-600 kW Standby Generator Sets

This kit allows engine oil to drain when it is not possible or desirable to place drain pan beneath the generator set. A manual drain valve is installed in place of the oil drain plug. A flexible hose, connected to the valve and to a fitting on the skid rail, allows the engine oil to be drained from the service side of the generator set.

It is recommended that the kit be installed during the next scheduled oil change.



WARNING



Accidental starting.

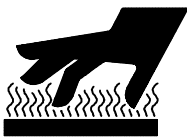
Can cause severe injury or death.

Disconnect battery cables before working on generator set (negative lead first and reconnect it last).

Accidental starting can cause severe injury or death. Turn generator master switch to OFF position, disconnect power to battery charger, and remove battery cables (remove negative lead first and reconnect it last) to disable generator set before working on any equipment connected to generator. The generator set can be started by automatic transfer switch or remote start/stop switch unless these precautions are followed.



WARNING



Hot engine and exhaust system. Can cause severe injury or death.

Do not work on generator set until unit is allowed to cool.

Hot parts can cause severe injury or death. Do not touch hot engine parts. An engine gets hot while running and exhaust system components get extremely hot.

INSTALLATION

1. Turn generator master switch to OFF position.
2. Disconnect battery, negative lead first.
3. Allow engine to cool. Remove drain plug and drain engine oil into suitable container.

NOTE

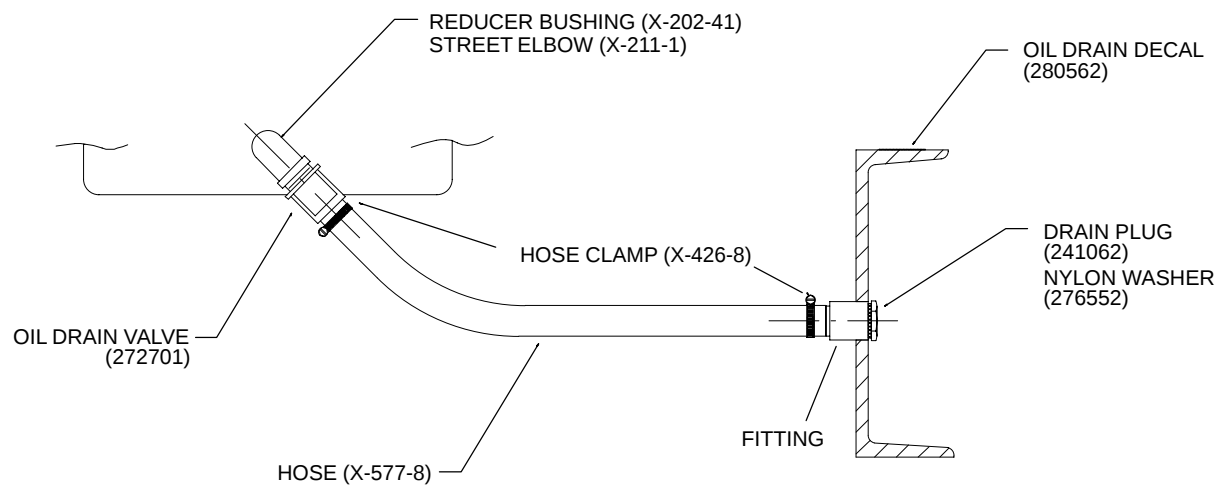
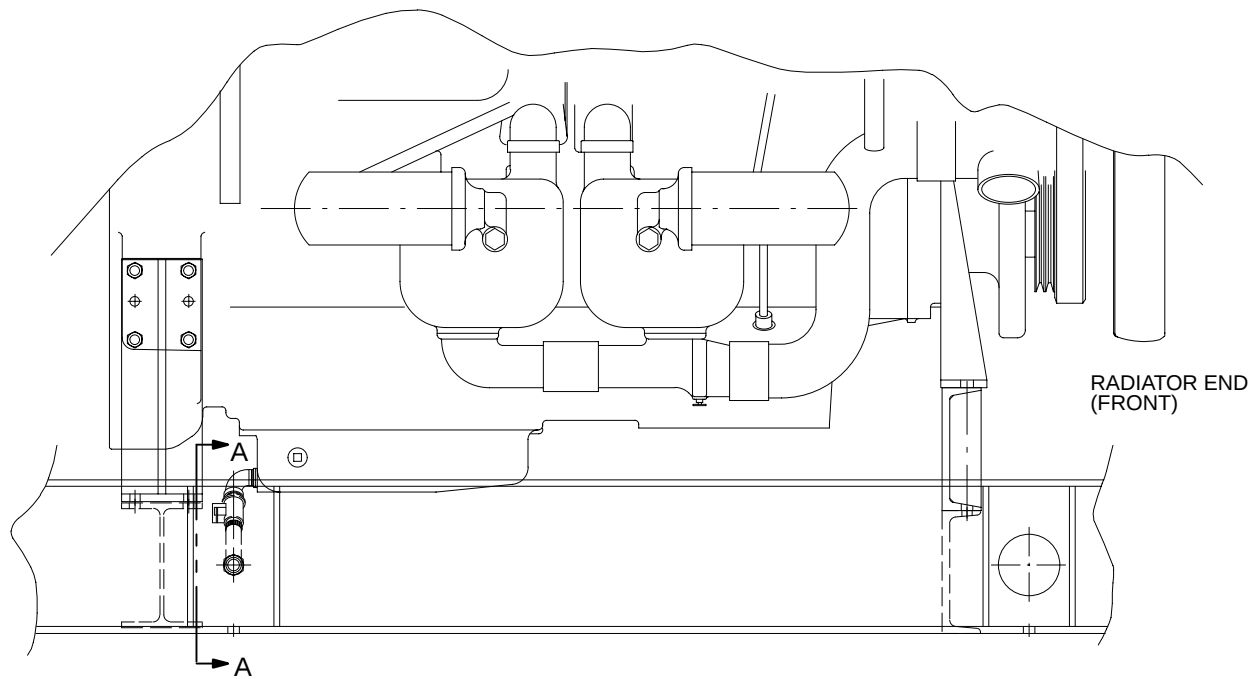
Dispose of used engine oil in an environmentally safe manner. Take used engine oil to a suitable collection facility in your area. **DO NOT POUR USED OIL ON THE GROUND, DOWN SEWERS, OR INTO STREAMS OR OTHER BODIES OF WATER.**

4. Install reducer bushing (X-202-41) in place of drain plug (see Figure 1).

NOTE

Use thread sealant on all threaded connections to prevent leakage.

5. Install elbow (X-211-1) in reducer bushing.
6. Install oil drain valve (272701) on elbow.
7. Connect 20-in. (508 mm) hose (X-577-8) to drain valve. Secure hose to drain valve with hose clamp (X-426-8). Locate clamp 1/4 inch (6.3 mm) from hose end and tighten clamp.
8. Connect hose to existing fitting in skid rail and secure with hose clamp (X-426-8).
9. Place nylon washer (276552) on drain plug (241062) and install in fitting located on skid rail. See Figure 1, View AA.



VIEW A-A

AX-272000-B

Figure 1. Oil Drain Kit

10. With surface clean and dry, apply oil drain decal (280562) to skid rail.
11. Verify that oil drain valve is closed and the drain plug is tight. Fill engine with proper grade oil (see operation manual for proper specification).
12. Reconnect battery cables, negative lead last. Run generator and check for leaks. STOP generator set.
13. Wipe up any spilled oil with rags. Dispose of rags in a proper container.

DRAIN VALVE OPERATION

To open drain valve, lift tab to clear detent position and rotate 90° counterclockwise (see Figure 2). Return tab to closed position before adding engine oil.

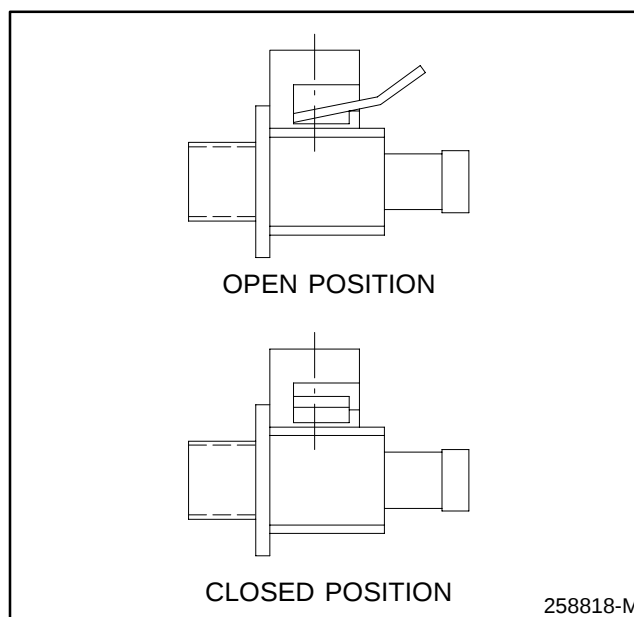


Figure 2. Drain Valve Operation

Parts List		
Kits PA-272990 & PA-272990-SD		
Qty.	Description	Part Number
1	Bushing, reducer	X-202-41
1	Elbow, street, 1/2 in. NPT	X-211-1
2	Clamp, hose, 0.081 to 1.73 in. x 0.56 in.	X-426-8
1	Hose, 0.625 in. ID x 20 in.	X-577-8
1	Plug, drain	241062
1	Valve, oil drain	272701
1	Washer, nylon	276552
1	Decal, oil drain	280562