self-maintenance steps, generator maintenance

Tip you the process of self-maintenance, maintenance of home generator through the article below, follow along!

Generator is an important tool, contributing significantly to production activities and daily life of people. To ensure the stable operation of the machine, standard capacity, durable operation, the user must regularly **maintain and maintain the generator** . So can this process be done at home? Follow the article below, we will describe in detail for you the process of self-maintenance steps, maintenance of generator at home.

content

Why need periodic generator maintenance?

What is a generator?

A generator is an electromagnetic device that uses the principle of electromagnetic induction to convert mechanical energy into electricity or transform electrical parameters such as voltage, current, frequency, phase angle, etc. The first electric generator in the world was invented in 1831 by the British scientist Michael Faraday.

Primary energy sources can come from steam turbines, water turbines, wind turbines, internal combustion engines or other mechanical sources. The popular models on the market today mainly use mechanical power generated from internal combustion engines running on diesel, gasoline or gas.

Today, generators increasingly assert their importance in production and daily life. It plays a key role in power supply devices, performing three main functions: power generation, voltage regulation and rectifier.

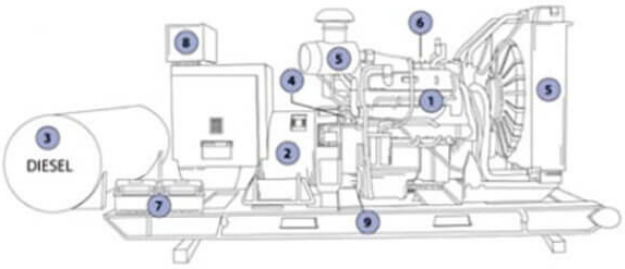
>> **See also:** What is a generator? Operating principle and safe use instructions

Cause regular maintenance of the generator

When a power failure or sudden incident occurs, the generator is our timely 'savior', helping to solve the job quickly and smoothly. To always need the machine can operate smoothly immediately, you must regularly monitor and perform maintenance for the generator. Why need periodic generator maintenance? The main reasons are:

1. Generators are an important backup power source during a power outage, so they must always be in a state of readiness for their best performance. Thus, even if not used, you still have to periodically check 3 - 6 months to detect internal damage and timely repair, keeping engine durability.
2. Regular maintenance of the generator can help the machine operate stably, increase the engine life, avoid small damages that can lead to the creation of more serious faults, affecting the operation.
3. You will save fuel, operating costs, repair costs pretty much if the generator maintenance periodically. Because, when the machine operates stably, the oil filter or ventilation system also operates more efficiently, will not spend too much fuel to compensate.
4. Maintenance of generators also helps you save time and costs in production and business activities, thereby developing and increasing the production of goods to serve the needs of the market, increasing revenue for the facility. manufacturing. The most important thing is that the production will not be stagnant, affect if there is an unexpected power failure, affecting the process and product quality.

Parts of the generator need maintenance and maintenance



1- Động cơ
2- Đầu phát
3- Hệ thống nhiên liệu
4- Ổn áp
5- Hệ thống làm mát
6- Hệ thống xả
7- Bộ nạp ắc quy
8- Bảng điều khiển
9- Kết cấu khung chính

Basic structure of the generator

1. Motor

The engine is one of the most important parts in a generator, so close watch is needed to make sure there are no dangerous leaks, either internal combustion or diesel.

2. Lubrication system

The lubrication system including the engine head and oil filter should also be noticed, you should manually check the oil level as well as the quality of oil in the machine. If you are technically and know how to handle the amount of oil that is replaced appropriately, without affecting the environment, you can change the oil yourself and replace the oil filter.

3. Cooling system

The cooling system has the function of softening the heat level generated by other parts of the generator during operation, avoiding the case of explosion due to overheating. To check this section, remove the cover and consider the radiator, remove all obstructions, dust outside, if the dust is too thick, use low pressure compressed air or water.

4. Fuel system

Fuel will become contaminated and corroded after about 1 year of use, so you should try to run out of fuel before they degrade and must be discharged into the environment. In about 3 - 6 months, even if the machine does not work you have to take away polishing, cleaning fuel adequately.

After a period of use, the fuel filter also needs to be dried to prevent moisture build up in the fuel tank.

5. Electrical system

A weak battery or running out of electricity is also one of the many common causes of a generator inactive. Therefore, if you want your generator to be able to operate effectively when needed, check it regularly, and replace it in the event of corrosion and full charge is an indispensable step.

6. Exhaust system

The exhaust system treats the exhaust gas generated by the generator. You should also pay close attention to the exhaust pipes, joints, welds, gaskets to see if it leaks and affects the environment or not.

7. Other parts

You also have to check an overall outside and inside the ring to detect early if there are small animals such as bees, mice, . into the nest.

Generator maintenance procedure

In order to effectively maintain and maintain household or industrial generators, it is classified according to other milestones such as 1 month, 3 months, 6 months, each year. Each timeline will have maintenance procedures with specific content, tasks to be performed differently.

Mode A - Monthly maintenance

1. Fuel system

1. Check for fuel leaks.
2. Drain oil filter residue.
3. Clean vents and fuel pipes.

2. Lubrication system

1. Monitor engine oil viscosity and quality, cleanliness.
2. Check for oil leakage.

3. Cooling system

1. Check for cooling water leak.
2. Check the status of the radiator.
3. Check the coolant level.
4. Check the status of wind blades.
5. Check the coupling.

4. Intake and exhaust system

1. Check and detect leaks.
2. Check the air filter clogging.

5. Part associated with the engine

1. Check for noise, strange noises or abnormal vibration when operating.
2. Check and tighten the screws, bolts of machine, exhaust pipe, electrical cabinets.

6. Electrical system

1. Check battery charger.
2. Check the water level and add more water to the battery (if needed).
3. Check then tighten the battery terminals.

7. Hygiene and commissioning

1. Wipe the outside dirt with a soft cloth, avoiding scratching the paint.
2. After finishing, try to run the generator to check whether the fault has been repaired.

Mode B - Maintenance after every 250 hours of operation or 3 months

1. Perform mode A maintenance again

2. Fuel system

1. Check fuel hose, coupling.
2. Consider refining raw fuel and fine fuel filters.

3. Lubrication system

1. Replace crude oil filter and pure oil filter.
2. Replace engine oil.

4. Cooling system

1. Check rotors, drive pulleys and water pumps.
2. Replace the water filter.
3. Wipe off the dust on the propeller.

5. Intake and exhaust system

1. Check pipes and couplings.
2. Clean the engine room vents.
3. Replace the air filter (if necessary).

6. Electrical system

1. Check dielectric fluid level and density for battery.
2. Check and align the battery charger belt (dynamo charger).

7. Trial operation of the generator

Mode C - Maintenance after every 1500 hours of operation or 6 months

1. Repeat maintenance mode B

2. Fuel system

1. Adjust the nozzle and xupap heat gap.

3. Cooling system

1. Lubricate the rotor shaft intermediate shaft arm.
2. Lubricate bearings (bearings, propeller bearings).
3. Clean the outside of the radiator (radiator).

4. Exhaust system

1. Clean the engine oil vent filter chamber.
2. Check for airflow blockage.
3. Check turbocharger tightening force.

5. Part motor link

1. Clean the engine.
2. Lubricate the engine front bracket.

6. Electrical system

1. Clean the speed sensor head.
2. Check the warning and safety system.
3. Lubricate bearings for the player unit.
4. Cleaning the player.

7. Try operating the generator to check the overall turn

Mode D - Maintenance every 6000 hours of operation or 1 year

1. Repeat maintenance mode C

2. Fuel system

1. Adjust the nozzle and xupap heat gap.
2. Align nozzle, oil pump.

3. Cooling system

1. Rinsing radiator (radiator) and water pipes.

4. Exhaust system

1. Clean the rotary vane of compressed air part.
2. Check turbo silver gap.

5. Part motor link

1. Check the wheel to reduce vibration.
2. Tighten the bolts.

6. Electrical system

1. Check dynamo battery charger.
2. Check the electric start machine (starting motor).
3. Align the warning and safety system.

7. Start the generator to check again

Some attention when maintenance and maintenance of the generator

1. After 50 hours of commissioning and running for the first time, you must discharge and change the engine engine oil.
2. When it is absolutely necessary that the machine will be idle for a long time, remaining care should be taken to maintain the idle operation time to a minimum.
3. Operating the machine regularly, even if not in use, also enables the machine to operate for at least every three months for 30 minutes with a generator load of about 30% of the machine's rated capacity so that the engine reaches its operating temperature. normal machine operating. This also helps lubricate the engine, preventing oxidation at the electrical contacts.
4. If you want to replace generator parts, you must choose the genuine type, with clear origin, full warranty service.
5. Ensure absolute safety for people and machines, as well as the common grid system during the implementation of inspection, maintenance and maintenance.

Hopefully, the basic information above that we give will help you to be able to self-maintenance and maintenance of home generator in the best way. With the stages requiring high expertise, you should still seek additional help from qualified technicians to ensure the maintenance and maintenance of the family generator more effectively offline.