



PREVENTIVE MAINTENANCE

PM1 AND PM2

To help protect your investment and assure the reliability of your power generation equipment, Milton CAT offers different types of Preventive Maintenance or PM agreements. As with all Milton CAT Preventive Maintenance, PM1 and PM2 services are scheduled and performed by Milton CAT factory-trained technicians.

PM1 SERVICE (INSPECTION/MINOR)

Cooling System

- Inspect radiator/heat exchanger for leaks, exterior cleanliness and/or deterioration.
- Check and record coolant level.
- Check and record coolant freeze protection.
- Obtain coolant sample and send out for laboratory analysis.
- Inspect hoses and connections for signs of leaks and/or deterioration.
- Inspect fan drive pulley and fan for signs of wear or cracks.
- Inspect fan drive belts for signs of cracking or deterioration.
- Confirm jacket water heater is working and record coolant temperature (engine not running).
- Inspect water pump for any indication of leaks.

Fuel System

- Inspect fuel water separator (if equipped), drain any water from water/sediment bowl (if equipped).
- Check and record fuel tank level (if equipped with gauge).
- Visually inspect fuel tank and fuel piping for any indication of leaks.
- Inspect fuel lines and connections for leaks.

- Inspect governor linkage (if equipped) for free movement and signs of wear.
- Record fuel pressure (if equipped) while engine is running.

Air Intake and Exhaust System

- Check air filter restriction gauge (if equipped with gauge) for amount of filter restriction.
- Inspect filter element visually.
- Inspect air intake system for any loose components or signs of wear/rubbing.
- Inspect turbocharger(s) (if equipped) for loose intake or exhaust components.

Lube Oil System

- Verify oil level is between “add” and “full” marks on dipstick.
- Inspect crankcase breather and related tubing for signs of leaks or excessive pressure.
- Crankcase fumes disposal tube/piping should be extended beyond radiator to prevent oil mist contamination of radiator core.
- Note and record oil pressure on gauge with engine running.
- Obtain oil sample (via sample port with engine running) and send out for laboratory analysis.*
- Check for any signs of oil leaks.

* If engine is not currently equipped with a sample valve, Milton CAT will install one at no cost during first scheduled service.

Starting System

- Check and record specific gravity reading of each cell (if maintainable).
- Check for proper level of electrolyte in each cell.
- Check battery charger for proper operation and record amperage reading.
- Check and record the last date that batteries were replaced. Recommend that batteries be replaced every three years, regardless of condition.

Control Panel

- Verify gauges are operating and record readings.
- Check for presence of any warning lights/alarms.
- Perform lamp/bulb test.

Safety Controls – check for proper operation of safety devices below:

- Overcrank
- Overspeed
- High Coolant Temperature
- Low Oil Pressure
- Not-in-Auto
- Emergency Stop

Natural Gas or Propane Generator Sets

- Inspect engine gas lines, regulator and carburetor for signs of leaks/corrosion.
- Inspect carburetor and linkage (if equipped) for proper operation.
- Inspect ignition system (magneto/distributor/spark plugs/wires).

Operational Checks with Engine Running

- Check for any leaks or unusual noises.
- Verify proper voltage and frequency via control panel gauges.
- Check for proper air inlet and outlet louver operation (if equipped).
- Operate for no more than five (5) minutes without load. Longer periods not recommended without a minimum of 30% of nameplate capacity load applied.
- Perform five (5) minute confidence test/available building load test if permitted by customer. Customer representative must be present to operate necessary circuit breaker to allow transfer to emergency source.

Walk-around inspection

- Visual inspection of generator and environment.
- Check for signs of rodent/insect activity.

Conclusion of visit / Recommendations

- Control panel: confirm control switch is in “auto” position.
- Circuit breaker: confirm breaker is in “ON” position.
- Provide written recommendation(s) for any suggested repairs.
- Make electronic copy of inspection report available to customer.
- Provide written estimate of additional work to customer within one week of service visit.
- Technician will clean up and dispose of any waste generated during service visit.

PM2 SERVICE (INSPECTION PLUS OIL CHANGE/ MAJOR)

Perform all work required under PM1 Inspection plus;

- Replace lubricating oil and lubricating oil filters and fuel filters (including fuel/water separators).