

# Generator System Scheduled Maintenance



## Inspection Minor Service - Monthly, Quarterly, Semi-Annual

### Air Intake and Exhaust System

1. Inspect air filter element condition and seal
2. Check filter service indicator reading<sup>1</sup>
3. Inspect hoses, clamps, piping for leaks, condition
4. Inspect turbocharger inlet, outlet connection<sup>1</sup>
5. Inspect manifolds and piping for leaks
6. Inspect exhaust for wet stacking conditions
7. Inspect flex pipe connection condition and leaks
8. Check rain cap operation and inspect silencer<sup>3</sup>

### Controls & Annunciation

1. Inspect panel wiring, relays and components
2. Verify operation of panel meters, test lamps
3. Visually inspect all engine mounted sensor wiring
4. Verify operation of engine and generator safeties
5. Verify remote annunciation is operational<sup>1</sup>

### Cooling System

1. Inspect radiator for leaks, record coolant level
2. Inspect radiator cap, filler neck, top tank
3. Check and record minimum protection level
4. Inspect fan, water pump (leaks), pulleys for wear
5. Inspect radiator general condition, cleanliness
6. Inspect all drive belts for cracking, deterioration
7. Inspect condition of coolant hoses, connections

*Optional:*

*Coolant Sample for laboratory analysis*

### Fuel System Checks (vary based on fuel type)

1. Check base and or day tank levels and record
2. Check base and or day tank for water in fuel
3. Inspect rupture basin, day tank, fuel lines for leaks
4. Inspect fuel filter water separator, drain<sup>1</sup>
5. Check operation of day tank pump controls<sup>1,2</sup>
6. Inspect fuel lines, pipe fittings, governor linkage

*Optional:*

*Fuel Sample for laboratory analysis*

### Generator Assembly

1. Visually inspect output breaker and connections
2. Manually operate output breaker (non-parallel units)
3. Visually inspect all AC terminals, wiring, sensing
4. Inspect generator bearing and lubricate

### Lube Oil System

1. Check and verify engine oil level & visual appearance
2. Inspect crankcase ventilation for leaks, obstruction
3. Check for any signs of oil leakage in or around unit

*Optional:*

*Oil Sample for laboratory analysis*

### Starting Battery, Charing & System

1. Check battery connections for rubbing, cleanliness
2. Check battery specific gravity, proper electrolyte level
3. Perform battery conductance test, record results
4. Check battery charger operation record voltage, amps
5. Check engine driven charging alternator operation<sup>1</sup>
6. Check starter mounting, cables connections
7. Confirm coolant is heater working, record static temp
8. Record the date that batteries were last replaced

### Generator Enclosure, Base & Room

1. Check operation of doors and locks
2. Inspect fuel fill connection is clean and secure
3. Inspect vibration isolators
4. Check louver components, operations, cleanliness
5. Check lighting, heating and environmental systems<sup>1</sup>

### Generator System Functional Test

1. Run generator test, no-load for 15 minutes<sup>2</sup>
2. Adjust output voltage and frequency
3. Check operation of crankcase breather
4. Check operation of intake and exhaust louvers<sup>1</sup>
5. Check for oil, fuel, and coolant leaks
6. Record systems dynamic readings
7. Check for abnormal noise, vibration, exhaust gas clarity
8. Verify shutdown safeties<sup>2</sup>

## Annual Major Service - Once Per Year

Perform all work required under the Inspection-Minor plus:

Lube Oil and Filter Service: Change engine lube oil, primary and bypass filters

Fuel System Service: Change fuel filters (secondary and aftermarket fuel filters not included).

Our scheduled maintenance is work planned and scheduled by Unified and performed within a set timeline. Our inspection is the process of evaluating the condition of your machines and related equipment. Any additional repairs, parts, or service that is required will be brought to the attention of the owner/owner's agent. Repairs will only be made after proper authorization from the owner/owner's agent is given to Unified to proceed. Any additional repairs, maintenance or service performed by Unified for a Scheduled Maintenance Agreement (SMA) holder will be at current labor rates.