



Recommended Preventive Maintenance Schedule 400 kW - 2000 kW Standby Diesel Engine Driven Generator Set Units

Following is a preventive maintenance schedule for Generac standby diesel engine driven generator sets from 400 kW to 2000 kW in size. The established intervals in the schedule are the *maximum* required when the unit is used in an average service application. They will need to be decreased (performed more frequently) if the unit is used in a severe application. Use the unit hour meter or calendar time, whichever occurs first, from the previous maintenance interval to determine the next required maintenance interval.

******* WARNING *******

To prevent injury, disable the generator set from starting and/or connecting to the load by setting the control panel Auto-Off-Manual switch to the “Off” position, removing the control panel fuse, turning off the battery charger, and removing the negative battery cable before performing any maintenance. NOTE: The battery charger must be turned off BEFORE removing the battery cable to prevent an over current condition from burning out sensitive control panel components and circuits. Following all maintenance, reverse these steps to insure the unit is returned to standby setup for normal operation when required.

Note: Add 20% to all times noted for 12 cylinder or larger engines.

1. Monthly or following each 10 hours of operation -

An early inspection of the generator set to insure it is ready to operate when required and to identify any potential problem areas.

Note: This inspection requires approximately **.5 man hours** per unit.

1. Disable the unit from operating per the first page warning.
2. Check the engine oil level. Adjust as necessary.
3. Check the engine coolant level. Adjust as necessary.
4. Check the battery electrolyte level if accessible. Adjust as necessary.
5. Check the diesel fuel supply level. Adjust as necessary.
6. Check the air inlets and outlets for debris. Clean as necessary.

7. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
8. Return the unit to operational condition.

2. 3 Months or following 30 hours of operation after purchase -

A break-in service inspection of the generator set to insure it is ready to operate, transfer to, and carry the load when required, and to identify any potential problem areas.

Note: This inspection is performed *only once* following the first three months or 30 hours of operation and requires approximately **2.5 man hours** per unit.

1. Disable the unit from operating per the first page warning.
2. Check the engine oil level. Adjust as necessary.
3. Check the engine coolant level. Adjust as necessary.
4. Check the battery electrolyte level if accessible. Adjust as necessary.
5. Check the diesel fuel supply level. Adjust as necessary.
6. Drain water and sediment from the diesel fuel tank.
7. Drain water from the diesel fuel line water separator if unit is equipped with one.
8. Check the air inlet and outlets. Clean as necessary.
9. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
10. Initiate an automatic start and transfer to load of the unit, and exercise it for at least 1 hour looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
11. Change the engine oil.
12. Replace the engine oil filter(s).
13. Replace the engine fuel filter(s).
14. Return the unit to stand-by setup for operation when required.

3. Semi-annually or following each 50 hours of operation -

An operational inspection of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **1.5 man hours** per unit

1. Disable the unit from operating per the first page warning.
2. Check the engine oil level. Adjust as necessary.
3. Check the engine coolant level. Adjust as necessary.
4. Check the battery electrolyte level if accessible. Adjust as necessary.

5. Check the diesel fuel supply level. Adjust as necessary.
6. Drain water and sediment from the diesel fuel tank.
7. Drain water from the diesel fuel line water separator if unit is equipped with one.
8. Check the air inlets and outlets for debris. Clean as necessary.
9. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
10. Initiate an automatic start and transfer to load of the unit, and exercise it for at least 1 hour looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
11. Return the unit to standby setup for operation when required.

4. Annually or following each 100 hours of operation -

A mid-level check of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **4.0 man hours** per unit.

1. Disable the unit from operating per the first page warning.
2. Check the engine oil level. Adjust as necessary.
3. Check the engine coolant level. Adjust as necessary.
4. Check the diesel fuel supply level. Adjust as necessary.
5. Drain water and sediment from the diesel fuel tank.
6. Drain water from the diesel fuel line water separator if unit is equipped with one.
7. Check the air inlets and outlets for debris. Clean as necessary.
8. Check the battery electrolyte level if accessible. Adjust as necessary.
9. Check the battery posts, cables, and charger for loose connections, corrosion, and proper operation. Correct as necessary.
10. Check the unit wiring for loose connections, corrosion, and damage. Correct as necessary.
11. Check the engine V-belts for wear, weather cracking, and damage. Replace as necessary.
12. Check the engine coolant thermal protection level. Correct as necessary.
13. Test the unit safety devices (alarms, shutdowns, etc.) for proper operation. Correct and/or adjust as necessary.
14. Perform an oil analysis (send a sample to a lab for results). Change the engine oil and filters if the analysis results indicate this is required.
15. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
16. Start and exercise the unit under full rated load for at least 2 hours looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
17. Return the unit to standby setup for operation when required.

5. **Biannually or following each 250 hours of operation** -

A comprehensive inspection of the generator set to insure it is properly serviced and ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **8.0 man hours** per unit.

1. Disable the unit from operating per the first page warning.
2. Check the engine oil level. Adjust as necessary.
3. Check the engine coolant level. Adjust as necessary.
4. Check the diesel fuel supply level. Adjust as necessary.
5. Drain water and sediment from the diesel fuel tank.
6. Drain water from the diesel fuel line water separator if unit is equipped with one.
7. Check the air inlets and outlets for debris. Clean as necessary.
8. Check the battery electrolyte level if accessible. Adjust as necessary.
9. Check the battery posts, cables, and charger for loose connections, corrosion, and proper operation. Correct as necessary.
10. Check the unit wiring for loose connections, corrosion, and damage. Correct as necessary.
11. Check the engine V-belts for wear, weather cracking, and damage. Replace as necessary.
12. Check the engine coolant thermal protection level. Correct as necessary.
13. Check the engine valve clearance. Adjust as necessary.
14. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
15. Start and exercise the unit under full rated load for at least 2 hours looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
16. Change the engine oil.
17. Replace the engine oil filter(s).
18. Replace the engine fuel filter(s).
19. Replace the engine air filter(s).
20. Start the unit and exercise it for at least 15 minutes looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
21. Return the unit to standby setup for operation when required.



Recommended Preventive Maintenance Schedule 400 kW - 2000 kW Standby Diesel Engine Driven Generator Set Units

Attached is a preventive maintenance (PM) schedule for Generac standby diesel engine driven generator sets from 400 kW to 2000 kW in size. The established intervals in the schedule are the *maximum* required when the unit is used in an average service application. They will need to be decreased (performed more frequently) if the unit is used in a severe application. Use the unit hour meter or calendar time, whichever occurs first, from the previous maintenance interval to determine the next required maintenance interval.

******* WARNING *******

To prevent injury, disable the generator set from starting and/or connecting to the load by setting the control panel Auto-Off-Manual switch to the “Off” position, removing the control panel fuse, turning off the battery charger, and removing the negative battery cable before performing any maintenance. **NOTE: The battery charger must be turned off BEFORE removing the battery cable to prevent an over current condition from burning out sensitive control panel components and circuits.** Following all maintenance, reverse these steps to insure the unit is returned to standby setup for normal operation when required.

1. **Monthly or following each 10 hours of operation** -

An early inspection of the generator set to insure it is ready to operate when required and to identify any potential problem areas.

Note: This inspection requires approximately **.5 man hours** per unit.

- 1. Disable the unit from operating per the first page warning.
- 2. Check the engine oil level. Adjust as necessary.
- 3. Check the engine coolant level. Adjust as necessary.
- 4. Check the battery electrolyte level if accessible. Adjust as necessary.
- 5. Check the diesel fuel supply level. Adjust as necessary.
- 6. Check the air inlets and outlets for debris. Clean as necessary.
- 7. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
- 8. Return the unit to operational condition.

Technician's Signature

Date

Unit Model Number

Unit Serial Number

Unit Hour Meter Reading
Following the Inspection

2. **Semi-annually or following each 50 hours of operation** -

An operational inspection of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **1.5 man hours** per unit.

- 1. Disable the unit from operating per the first page warning.
- 2. Check the engine oil level. Adjust as necessary.
- 3. Check the engine coolant level. Adjust as necessary.
- 4. Check the battery electrolyte level if accessible. Adjust as necessary.
- 5. Check the diesel fuel supply level. Adjust as necessary.
- 6. Drain water and sediment from the diesel fuel tank.
- 7. Drain water from the diesel fuel line water separator if unit is equipped with one.
- 8. Check the air inlets and outlets for debris. Clean as necessary.
- 9. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
- 10. Initiate an automatic start and transfer to load of the unit, and exercise it for at least 1 hour looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
- 11. Return the unit to standby setup for operation when required.

Technician's Signature

Date

Unit Model Number

Unit Serial Number

Unit Hour Meter Reading
Following the Inspection

3. **Annually or following each 100 hours of operation -**

A mid-level check of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **4.0 man hours** per unit

- 1. Disable the unit from operating per the first page warning.
- 2. Check the engine oil level. Adjust as necessary.
- 3. Check the engine coolant level. Adjust as necessary.
- 4. Check the diesel fuel supply level. Adjust as necessary.
- 5. Drain water and sediment from the diesel fuel tank.
- 6. Drain water from the diesel fuel line water separator if unit is equipped with one.
- 7. Check the air inlets and outlets for debris. Clean as necessary.
- 8. Check the battery electrolyte level if accessible. Adjust as necessary.
- 9. Check the battery posts, cables, and charger for loose connections, corrosion, and proper operation. Correct as necessary.
- 10. Check the unit wiring for loose connections, corrosion, and damage. Correct as necessary.
- 11. Check the engine V-belts for wear, weather cracking, and damage. Replace as necessary.
- 12. Check the engine coolant thermal protection level. Correct as necessary.
- 13. Test the unit safety devices (alarms, shutdowns, etc.) for proper operation. Correct and/or adjust as necessary.
- 14. Perform an oil analysis (send a sample to a lab for results). Change the engine oil and filters if the analysis results indicate this is required.
- 15. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
- 16. Start and exercise the unit under full rated load for at least 2 hours looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
- 17. Return the unit to standby setup for operation when required.

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3. *Annually or following each 100 hours of operation* -
(continued)

Technician's Signature

Date

Unit Model Number

Unit Serial Number

Unit Hour Meter Reading
Following the Inspection

4. **Biannually or following each 250 hours of operation** -

A comprehensive inspection of the generator set to insure it is properly serviced and ready to operate and carry the load when required, and to identify any potential problem areas.

Note: This inspection requires approximately **8.0 man hours** per unit.

- 1. Disable the unit from operating per the first page warning.
- 2. Check the engine oil level. Adjust as necessary.
- 3. Check the engine coolant level. Adjust as necessary.
- 4. Check the diesel fuel supply level. Adjust as necessary.
- 5. Drain water and sediment from the diesel fuel tank.
- 6. Drain water from the diesel fuel line water separator if unit is equipped with one.
- 7. Check the air inlets and outlets for debris. Clean as necessary.
- 8. Check the battery electrolyte level if accessible. Adjust as necessary.
- 9. Check the battery posts, cables, and charger for loose connections, corrosion, and proper operation. Correct as necessary.
- 10. Check the unit wiring for loose connections, corrosion, and damage. Correct as necessary.
- 11. Check the engine V-belts for wear, weather cracking, and damage. Replace as necessary.
- 12. Check the engine coolant thermal protection level. Correct as necessary.
- 13. Check the engine valve clearance. Adjust as necessary.
- 14. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.
- 15. Start and exercise the unit under full rated load for at least 2 hours looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.

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4. **Biannually or following each 250 hours of operation** -
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- 16. Change the engine oil.
- 17. Replace the engine oil filter(s).
- 18. Replace the engine fuel filter(s).
- 19. Replace the engine air filter(s).
- 20. Start the unit and exercise it for at least 15 minutes looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.
- 21. Return the unit to standby setup for operation when required.

Technician's Signature

Date

Unit Model Number

Unit Serial Number

Unit Hour Meter Reading
Following the Inspection