



Royal Canadian Mounted Police
 E-Division IMIT
 Radio Technology Program

Ver 161223

Back-Up Power Generator Maintenance and Repair Appendix 'B' - Generator Annual Maintenance Check-List

| Site Name/Location : | | Generator Make / Type : | Service Company Name : | | |
|---------------------------------|---------------------------------|------------------------------|--------------------------------|------|---------------------------------------|
| Date Service Completed : | | Generator Model / Capacity : | Lead Technician Name : | | |
| Time Service Completed (24hr) : | | Generator Recorded Hours : | 2nd Technician Name (if any) : | | |
| # | Description | Specs. / Units | Pass | Fail | Comments |
| 1 | Fan Belt | Change annually | | | OEM recommended (only) |
| 2 | Engine Coolant | Change annually | | | OEM recommended (only) |
| 3 | Air Filter/Element | Change annually | | | OEM recommended (only) |
| 4 | Lubricating Oil | Change annually | | | OEM recommended (only) |
| 5 | Fuel Filter | Change annually | | | OEM recommended (Racor 2-micron type) |
| 6 | Oil Filter | Change annually | | | OEM recommended (only) |
| 7 | Generator Battery Float Voltage | 13.2 - 13.6 VDC | | | VDC : |
| 8 | Battery Load Test | Greater than 10.5 VDC | | | VDC : (after 15 Sec. of cranking) |

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|----|--|---------------------------------------|--|--|--|
| 9 | Battery Voltage while Engine Running | 13.5 - 14.2 VDC | | | VDC : |
| 10 | Generator Battery | Inspect, repair / replace as required | | | maintenance free (only) |
| 11 | Battery Cables and Connections | Inspect, repair / replace as required | | | tight connectors, clean battery terminals, no damaged cable insulation |
| 12 | Fuel Tank Condition | Inspect, repair / replace as required | | | no rust, no leak, tight cap |
| 13 | Fuel Line | Inspect, repair / replace as required | | | replace every three (3) years |
| 14 | Fuel Tank Accessories | Inspect, repair / replace as required | | | fuel cap, fuel gauge (when present), drain valve |
| 15 | Fuel Tank Level | 100% of tank capacity | | | top up to 100% annually |
| 16 | Fuel Conditioner and Biocide Additives | as per supplier recommendations | | | identify name/type of product used |
| 17 | Fuel, Engine Coolant, Engine Oil Leaks | Inspect, repair / replace as required | | | replace hoses every three (3) years |
| 18 | Electric Fuel Pump Transfer Pressure | Inspect, repair / replace as required | | | |
| 19 | Engine Glow Plugs | Inspect, repair / replace as required | | | |
| 20 | Exhaust System Condition | Inspect, repair / replace as required | | | including rain/weather cap |
| 21 | Ventilation Thermostat | Inspect, repair / replace as required | | | |
| 22 | Fresh Air Damper Condition | Inspect, repair / replace as required | | | |
| 23 | Ventilation Fan Condition | Inspect, repair / replace as required | | | |
| 24 | Preheater(s) | Inspect, repair / replace as required | | | |
| 25 | Low Oil Pressure Shutdown Test | Inspect, repair / replace as required | | | |

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|----|--|---|--|--|---|
| 26 | High Coolant Temperature Shutdown Test | Inspect, repair / replace as required | | | |
| 27 | Oil Pressure | Record P.S.I. | | | Cold : Hot : |
| 28 | Engine Temperature (working temp.) | Record °C | | | Hot : |
| 29 | Engine Coolant Temperature with doors closed and ventilators running | Record °C | | | Hot : |
| 30 | Generator O/P with No Load | Record VAC , Hz | | | VAC : Hz : |
| 31 | Generator O/V with Site Load | Record VAC , Hz , Amps | | | VAC : Hz : Amps : |
| 32 | Generator O/P with Artificial Load Bank | Record VAC , Hz , Amps | | | VAC : Hz : Amps : |
| 33 | Governor Droop (No Load Thru Rated Load) | Record Hz | | | Hz : (less than 3 Hz drift) |
| 34 | Automatic Transfer Switch (ATS) Operation | Inspect, repair / replace as required | | | |
| 35 | Automatic Transfer Switch (ATS) Start-up | 12 Sec. | | | adjust as required |
| 36 | Automatic Transfer Switch Warmup (TDT) | 12 Sec. | | | adjust as required |
| 37 | Automatic Transfer Switch TRT Delay | 120 Sec. | | | adjust as required, time delay to retransfer back to service power |
| 38 | Automatic Transfer Switch Cooldown | 120 Sec. | | | adjust as required, time delay after request to shut down generator |
| 39 | Generator Exerciser Settings | Run Day : Every Monday Start Time : 0800 Shutdown Time : 0820 | | | adjust as required |

Notes and Observations :
