

Georgia Tech Fleet Management (GTFM)
Equipment and Vehicle Maintenance Standard Operating Procedures

Preventative Maintenance – (PM) is defined as services and/or checks scheduled based on measurable intervals which are designed to keep vehicles and equipment functioning properly. The primary goal of maintenance is to avoid or mitigate the consequences of a failure of vehicle/equipment. Georgia Tech Fleet Management will ensure all vehicles have, at least, the normal preventive (scheduled) maintenance performed as required by the vehicle manufacturer and that materials used meet specifications so as not to void warranty coverage. Vehicles requiring special maintenance will be identified and special requirements met. Examples include:

- Severe Duty (Quarterly)
 - Police Use.
 - Driving at low speeds for long distances.
 - Towing or carrying heavy loads.
- Regular duty (Semi-Annual)
 - Low-speed vehicles
 - Police admin vehicles
 - Toro's / John Deere / equipment
 - Non-severe duty vehicles.

Road Test: Pre and Post road test should be performed at an adequate distance for the engine to reach operating temperature to ensure proper operation of all functions and accessories.

- **Pre-test** – Listen for unusual noises. Note any possible problems in drivetrain, steering, suspension, engine or brake systems.
- **Post-test** – Verify service is complete and customer complaint was resolved. Confirm the proper operation of the parking brake assembly.

Lubrication: Change the oil and filter every 6 months or 3,000-mile PM interval as scheduled, whichever occurs first. For severe duty vehicles (Police, Parking and Transportation and CRC), every 3 months or 3,000 miles as scheduled, whichever occurs first.

- **Engine Oil** – Replacement engine oil must be consistent in viscosity and grade as specified by the vehicle / equipment manufacturer. *Reset oil life monitor if equipped.*
- **Oil Filters** – Replacement oil filters should be original equipment or equivalent.
- **Transmission-** Check transmission for leaks and correct fluid level during each PM. Replacement transmission fluid should be equivalent to the type specified by the manufacturer.
- **Constant Velocity Joint-** Check all constant velocity (CV) joints for cracked or broken rubber boots.

Safety Check- This is a visual inspection of safety items, all lights, tires, wipers, mirrors, seat belts and horn. Verify the proper operation of the parking brake assembly. If a repair is required, a new work task for each additional repair and record in the notes “Found during Safety Check.”

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Equipment and Vehicle Maintenance Standard Operating Procedures

Emissions – All state-owned motor vehicles operating in areas requiring emissions inspections shall be properly inspected annually as required by state law. Emission test dates must be copied into DOAS's Fleet Management System on the vehicle asset record in the field "Emission Date". This work task is scheduled and shall be completed in conjunction with Preventative Maintenance.

Tires – Check visually each tire and rim, including the spare, for condition, wear, cuts, weather cracking, separation, obvious leaks, bulges, feather edging, dips, bent rims, obvious under or over inflation, correct size and ply rating. Rotate tires, including spare (full size if equipped). **Note:** State law and DOT regulations require each tire to have at least 2/32" tread across the entire contact surface and on all axle assemblies. If a *non-steer* tire is down to 3/32" it shall be replaced. Steer tires are replaced at 4/32". **As an industry best practice both steer tires must be the same size, type and identical thread depth.**

IMPORTANT: According to Federal Motor Carrier Safety Administration (FMCSA) regulations, the minimum tread depth for a steer tire is 4/32 of an inch on every major tread groove. These same rules apply to drive and trailer tires, but the minimum tread depth is 3/32 of an inch in every major groove.

- **Tire Inflation** – Check the pressure in each tire and inflate it to the recommended inflation pressure. Measure the tread depth of each tire and record the tire pressures and the tread depth on the PM Checklist. **Note:** Tire pressures are determined by the up fitters to ensure the tires are inflated to the correct PSI for the axle weight rating.
- **Tire Size** – The vehicle should have only the correct size tire mounted on it. Identical size tires should be placed on each axle.
 - Do not mix load ranges on the same axle.
 - Do not mix all-terrain designed tread patterns with highway type tread patterns on the same axle.
 - It is permissible to have all terrain tread on the rear and highway tread on the front, but the reverse (all terrain on the front) is not permissible.
 - Tires with a load range rating lower than the OEM are not permitted.

Wheels - Check all wheels for bent or cracked conditions. Check around the lug nuts for rust or wallowing. If wheels are cracked damaged are bent, it shall be replaced before returning the vehicle to service.

Engine – Check the engine for leaks, especially around the valve cover gaskets, oil sending unit, oil filter, timing cover and oil pan. Repair as necessary. Check for unusual noises coming from the engine. Noises such as excessive valve chatter, clapping or knocking noise, grinding sounds, whistling noises, of intermittent pinging could indicate major engine work is needed.

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Equipment and Vehicle Maintenance Standard Operating Procedures

Diesel engine - Fuel filters should be replaced on a routine maintenance schedule, approximately every 10-15K miles. Most newer diesel engines will have two fuel filters, a primary and a secondary. Coolant should continually be monitored because it will become more acidic over time. Refill the Diesel Exhaust Fluid (DPF).

Body / Decals

- **Report My Driving** – Ensure the proper decal is on all street legal vehicle. **GTPD is exempt from this decal requirement.*
- **Ladder Racks / Shelving / Cab Divider** – Check condition/operation of ladder, lubricate and tighten as needed. Check accessories, shelving and cab divider for security.
- **Decal** – Check all vehicle decals. Remove all unauthorized decal or stickers.
- **Doors** – Check the operation of door lock mechanism, latches and hinges.

Glass – Check all window glass for cracks and visibility. Check the windshield to ensure it meets DOT / state inspection requirements. Check latches and handles for proper operations. Check mirrors for looseness and condition; adjust as needed.

HVAC – Check the heating, ventilation, defrost and air condition for proper operations.

Upholstery – Note the condition of the upholstery; have torn seats covered or repaired as necessary. Check the pedal pads and replace worn or missing pads. Check the floor mats for holes and excessive damage. Replace worn floor mats needed.

Seat Belts – Check seat belts, mechanism and belt material for condition and proper operation.

Record Retention:

GTFM is required to maintain the following records for each vehicle in their fleet for the length of time that the vehicle is owned by the state. There are additional vehicle record requirements listed in the Georgia Retention Schedule GASC-07-016 Property Disposition Requests for the disposition of a vehicle.

- Agency Purchase Order*
- Manufacturer's Certificate of Ownership
- Dealer Invoice*
- Original Title
- Registration
- Surplus transaction record when turning in a vehicle to Surplus Property Division is kept within the DOAS Asset Management System

Georgia Tech Fleet Management (GTFM)
Equipment and Vehicle Maintenance Standard Operating Procedures

- Maintenance/Repair records*
- Emission Control Inspection (where applicable)
- Physical location of where the vehicle is based
- Other legal documentation

*GTFM and Surplus Management systems maintain most documentation electronically.

General Notes:

1. Repairs performed as a result of the Preventative Maintenance, requires a new separate work task.
2. A leak is defined as a small quantity of liquid drops escaping from an orifice, a hole or a crack in a vehicle's component or reservoir.
3. Seepage is defined as liquid escaping, but not yet in droplet form. It will appear in the form of moisture, oozing, or dampness.