



Bulletin

Vehicle Preventative Maintenance Program

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INTRODUCTION

Developing a preventive maintenance plan will save your company, small or large, a considerable amount of time and money over the long run. Vehicle maintenance is a cost of doing business. Unreliable vehicles can have a major impact on the profitability and reputation of the entire operation of a company.

In smaller fleets, preventive maintenance is more critical than in larger ones. An operation with only a few vehicles depends on these units to keep it in business. Downtime is critical to any operation, but more so when there is not a substitute or replacement unit on hand. The operation that has just enough vehicles to get the job done can be seriously impaired by an extended period of unscheduled downtime.

Contractors find that good maintenance pays in the long run. Vehicles that remain in peak working condition are available whenever they are needed.

Most fleet managers know that vehicle maintenance takes two forms: scheduled and unscheduled. Scheduled preventive maintenance can help prevent, detect, and repair small problems before they become serious and expensive issues. On the other hand, unscheduled maintenance usually only happens after a vehicle breakdown. Unscheduled vehicle repairs are almost always more expensive than routine maintenance planning, involve significant down time, and likely could have been prevented with routine, preventive maintenance.

ESTABLISHING A BASIC PREVENTIVE MAINTENANCE PROGRAM

Developing and implementing an effective preventive maintenance (PM) program can be simple. Here's a quick introduction to setting up a PM program for your fleet.

1. **Perform an inventory of all fleet vehicles and list them on a spreadsheet.** Review maintenance

records to determine regularly required maintenance activities and parts and establish a list of priority vehicles.

2. **Set an annual budget for maintenance.**
3. **Create a PM checklist and schedule.** Consult the manufacturer's recommended maintenance schedules for each vehicle to establish appropriate frequencies.
4. **Determine the best method of communicating.** Implement a system for sending alerts when maintenance is due.
5. **Establish a record keeping method.** Decide how information will be reported and where it will be stored.
6. **Review and analyze the PM program regularly.** Is the program meeting budget and expectations? Are there ways to improve?

BASIC REQUIREMENTS

For most vehicles, a weekly "walk-around" inspection of the unit with an emphasis on battery inspection, water level, oil check, tire inspection and a review of the vehicle's general condition is a good practice. Any problems noted are called to the attention of the appropriate person who then evaluates their importance and need for repair.

Oil and filter changes, lubrication, and all other inspections and/or repairs should be performed in accordance with the manufacturer's prescribed intervals for each vehicle.

Several things in addition to preventive maintenance affect the cost of maintaining and operating your fleet of vehicles.

These include: tire inflation, loading and weight distribution, and operator habits. Periodic training sessions can be held with the vehicle operators to remind them what happens when rpm limits are exceeded, an engine is consistently lugged, a clutch is ridden or gauges are ignored. Fuel economy can be improved by reduced idling time on engines, keeping engines tuned, keeping air/fuel filters clean and avoiding jackrabbit starts.

VEHICLE MAINTENANCE PROGRAMS EXPLAINED

Every company has established some form of a vehicle maintenance program. Defined below are four typical programs found throughout the industry. Your company may utilize a combination of these programs.

1. Do-It-Yourself (DIY) vehicle maintenance

This program depends on the individual driver of the vehicle or fleet manager to take care of all the vehicle maintenance. The do-it-yourselfer must decide when to take care of routine oil and filter changes along with all other important maintenance items. Ignoring routine maintenance can lead to unexpected expenses and unplanned breakdowns which can impact the business.

Recordkeeping of oil changes, tire rotations or tire replacements and all other maintenance should be retained with each fleet vehicle or in logs developed by the fleet manager and/or maintained with all company vehicle records.

2. Dealership purchased maintenance plan

An extended service plan can be purchased at the point of sale or lease of a new vehicle through a dealership.

Various dealership plans are available based on the use of the vehicle. Specific plans will determine when and how often the vehicle will need to be serviced. A comprehensive plan provides premium protection for your vehicle with routine inspections, preventive care and replacement of normal wear items that require periodic attention to ensure the vehicle is running at top performance.ⁱⁱ

Maintenance items that may be included are oil and filter changes, multi-point inspections, brake pads and linings, shock absorbers/struts, spark plugs, clutch disc, engine belts and wiper blades.

When purchasing a maintenance plan, no additional costs are necessary for the life of the plan. It is the responsibility of the driver and/or fleet manager to ensure that the maintenance plan is being utilized at the proper mileage or time intervals. The dealership will retain the vehicle's records as they relate to the maintenance plan.

3. Fleet leasing Plan

While most companies purchase their vehicles, it's becoming more common to lease vehicles. Leasing a vehicle implies lower monthly payments along with reduced payment terms ranging from three to five years. Additionally, depending on the lease, some agreements will allow for equity in the vehicle; please consult with your CPA or accountant.

The beauty of a lease is at the end of its term. You have the option of purchasing the vehicle out-right for a nominal fee or repeat the process again every three to five years. If you purchase the vehicle, you could be driving the newest and most fuel

efficient vehicle on the market. On the other hand, you will be faced with having a constant monthly payment, along with always needing to re-outfit the interior and exterior of the vehicle.

Most leasing companies include a full maintenance program with their lease. The program is a fixed and budgeted program that covers all preventative and unscheduled mechanical repairs. Additionally, the leasing company provides maintenance software to ensure that all leased vehicles receive proper and timely maintenance. Your fleet manager or representative will receive regular reminders of each vehicle's basic maintenance, including oil changes, windshield wipers, tires and lights. In addition to regular maintenance, alerts are available for recalls and citations to drivers.

4. Global Positioning System (GPS) fleet tracking solutions

Web-based fleet management solutions that provide fleet operators with visibility into vehicle location, fuel usage, speed and mileage, and other insights into their mobile workforce, enables them to reduce operating and capital costs, as well as increase revenue.ⁱⁱⁱ

There are two types of GPS hardware; hardwired options and plug-in options. Hardwired systems are typically installed by a service professional and hidden under the hood or below the dashboard. Vehicles that have hardwired systems installed are comprised of a wiring harness that supplies power and a ground to the device through the vehicle's ignition. The tracking devices work without any exposed wires and antennas and allow for covert installation if needed. Also available are plug-in GPS systems. These devices are simply

plugged in below the dashboard and can easily be removed.

Once installed, the tracking device technology begins recording real-time fleet monitoring data. You will need to consider the level of detail that you want to track. A few options include miles driven, scheduled maintenance, idling time and even aggressive driving habits. Finally, you will need to decide how you want this information reported. Reports can be reviewed on a regularly, scheduled basis by logging into the software or they can be set up as an automatic e-mail notification to the driver or fleet manager.

Implementing GPS for your fleet maintenance will consolidate all the data for each vehicle while storing vehicle data into the system which allows you to see trends and make more knowledgeable decisions about each vehicle. Consequently these devices lower operating costs; keep drivers on task; keep trucks running effectively; allow you to find extra time in your day by tracking maintenance data; and improve customer service because you can get to the customer faster and respond quickly to customer emergencies.

FIXED COSTS/VARIABLE COSTS

Take a look at your operation. Determine where to devote your greatest attention. First determine which cost items are subject to the greatest improvement and over which you can exercise some significant degree of control.

Such items as vehicle depreciation, interest on investment, taxes, registration fees and permits, administrative salaries, building and office overhead and insurance premiums represent costs of a

generally fixed nature. While subject to some movement, they rarely have much effect on changing the bottom line totals. Those cost items subject to large fluctuations and over which a significant degree of control can be exercised are those usually referred to as vehicle running costs. It is in the cost areas of fuel, shop labor, parts and tires where controls can and must be employed.

REPAIR OR REPLACEMENT

When deciding between repairing or replacing a vehicle in your fleet there are several considerations that need to be evaluated.

- What is the life expectancy on the vehicle?
- Can this vehicle be utilized in a different manner (site truck)?
- Are the repairs going to cost more than what the vehicle is worth? If so, should the vehicle be sold or scrapped?
- With leased vehicles, the data-collected reports will show the equity position of the vehicle, the trending repairs, the cost-per-mile operating expense and the estimated market value of the vehicle. Reviewing these records allows you to make an informed decision.

PREVENTIVE MAINTENANCE PROGRAM TIPS

- Develop a comprehensive vehicle maintenance checklist for all your vehicles in your fleet. Make this a team effort between your drivers, fleet manager and/or the companies that make the repairs on your fleet.
- Examine both your routine and unscheduled maintenance data to develop a maintenance schedule that works for your fleet.

- Take advantage of technology and upgrade to a digital system. Search online for additional details about fleet maintenance schedules.

CONCLUSION

There are tools and technology available that can make developing a vehicle preventative maintenance plan easier and more straightforward than ever before. Implementing the tools and technology available will help save your company time, frustration and money. When developing your fleet maintenance plan, ask yourself these five questions^{iv}:

- What should be covered in the preventive maintenance checkup?
- Who will be responsible for preventive maintenance service?
- When will the service take place?
- How can you simplify your record keeping?
- Where can you find more information?

Implementing a successful preventive maintenance program depends on the cooperation of your entire team and in the long run, it will pay off; it is a win-win for everyone. Without a PM program in place, you are putting your fleet and your drivers at risk of breakdowns, costly repairs and loss of business. If you are looking to lower your annual maintenance expenses and have your vehicles spend less time in the shop, then plan it, track it, record it and include your drivers in the entire preventive maintenance process.

Additional PM Resources

Dealership Maintenance Plans

Daimler
<https://www.mopar.com/chrysler/en-us/care/mopar-vehicle-protection.html>

Ford Motor Company
<http://fordprotect.ford.com/premium-maintenance-plan>

General Motors
<https://www.gmfleet.com/maintenance/brand-maintenance.html>

Fleet Leasing Programs

Enterprise Fleet Management
<http://www.efleets.com/>

Penske Truck Leasing
<https://www.pensketruckleasing.com/>

Wheels, Inc.
<https://www.wheels.com/>

GPS Fleet Tracking Software

Field Logix
<https://fieldlogix.com/>

Fleetmatics
<https://www.fleetmatics.com/>

i <https://www.geotab.com/blog/preventative-maintenance-planning-for-fleets/>

ii Ford Protect Premium Maintenance Plan Brochure
http://fordprotect.ford.com/media/pdf/64172_672b_FordPMPbro-2017_8-18.pdf

iii [Fleetmatics.com/about-us/18](https://www.fleetmatics.com/about-us/18)

iv Fleetmatics eBook, Why Regular Vehicle Maintenance Matters
<https://www.fleetmatics.com/resources/ebooks/why-vehicle-maintenance-matters>

NexTraq
<http://www.nextraq.com/fleet-tracking-solutions/>

Trimble
http://www.trimble.com/fsm/fleet_management.aspx