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BEST TECHNICAL LETTER By ROB WARD, AMT

Maintaining Your Investment

In order for client's to protect their automotive investment, and get the maximum reliability and safety from the vehicles that they depend upon on a daily basis, they need to establish and follow a maintenance plan. The following are some of the key components of vehicle maintenance in aiding clients in the protection of their investment.

Lubing for life - The engine is the heart of the vehicle and probably the most expensive to repair when something goes wrong with it. A lot of adjustments have been eliminated due to modern electronic controls and so, what we used to refer to as "a tune-up" has grown into being something more like a complete physical, making sure that there is proper operation of computer control systems. New vehicles run cleaner than ever before, however the engine and all related control systems must be kept working exactly as designed to prevent increased engine emissions as well as many other possible drivability problems. One thing to do, to certainly add many kilometers to an engine, is perform regular oil and filter changes.

Get The Grit Out - Filters are an important part of regular maintenance. Problems arise when filters get dirty and clog up. It is the job of the air and fuel filter, to keep dirt and abrasive grit out of an engine. A lot of common drivability problems, such as hesitation and rough idle can be caused by dirty filters. Regular inspections are required to ensure they are in clean working order.

Facts on Fluid- The most important, and most ignored fluid in a car, is the brake fluid. Brake fluid is not a petroleum-based product, so it absorbs moisture from the air, decreasing its effectiveness and lowers braking performance. Contaminates build up over a period of time and may block the valves inside ABS units; resulting in costly repairs or replacement. These contaminates can also cause calipers and wheel cylinders to leak, resulting in more repair. The best thing to do is to have the brake fluid flushed and refilled periodically. The transmission fluid also needs to be changed regularly to help keep the transmission

P. O. Box 783 Red Deer Alberta T4N 5H2 403. 885. 5807 www.apdweblink.com © Automotive Aftermarket E-Learning Centre Ltd. working properly. Power steering is another fluid that is often ignored and should be flushed and refilled at least as often as the brake fluid is replaced. Replacing the differential fluid is something that is most often overlooked. A regular fluid change will help the differential last the life of the vehicle. If the vehicle is 4 wheel drive or all wheel drive, also change the transfer case fluid.

Keeping It Cool - Vehicles run hotter than they used to. With the trend to downsize vehicle components to save space and weight, cooling system components are being asked to do more than their ancestors. In order to maintain a cooling system at peak efficiency during the life of a vehicle, it is imperative to replace the coolant according to the manufacturer's recommendations. Although some of the newer coolants last longer, anti-freeze does wear out. By replacing the coolant periodically, it insures that the corrosion inhibitors are fresh and are helping to eliminate the scale and corrosion that builds up inside the cooling system.

Basics on Belts - One of the most critical engine components these days is the timing belt. Not all engines have one, but on those that do, it's critical that it be replaced before it breaks. At some point the belt breaks and if the vehicle has an interference engine where the valves and pistons occupy the same place in the combustion chamber at different times, serious engine damage can occur. If the vehicle has a non-interference engine, the worst that will happen is the client will be stranded somewhere. It is a good rule to check other engine drive belts each time you perform an oil change. Many accessories including the alternator, power steering pump and water pump are operated by drive belts. If these belts break or slip, the components they drive will fail to work, and that can leave a client stranded. Another item to check at this time is the battery. Virtually all batteries are maintenance-free these days, except for a periodic terminal cleaning and inspection for cracks or leaks. Always make sure the battery is mounted securely.

Tips on Tires - Tires are one of the most important maintenance items under a vehicle. The way to get the most out of tires is by having them rotated and balanced on a regular basis. This will ensure that they wear evenly and last as long as possible. Balancing is important to eliminate vibration at road speeds and because a properly balanced tire reduces the stress and strain on shocks, struts, and steering parts. Keeping the tire pressures set to specification also goes a long way in extending tire life and gas mileage.

Final Thought - Make sure to replace wiper blades on a vehicle at least once a year. Wiper blades are the most inexpensive safety feature on a vehicle. Following a maintenance program is not only the best insurance a client has against unexpected breakdowns but also the best way to ensure that they are protecting their investment.

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