In the year 1900 there were only ten miles of paved road in the U.S. Today, there are two million miles of paved roads and streets! Did you ever stop to wonder what all those miles of road are made of? Roads were once paved by placing stones side by side, but this created rough, uneven streets with ruts and holes that would fill up with rain and mud in the winter. It wasn’t until the 1700s that the smooth, even roads we know today became possible. People began layering earth, stone and gravel, raising the street up from the ground allowing the water to drain off the sides. Eventually, a Scottish man by the name of John McAdam mixed the road stones with tar. The tar “glued” all the stone together and created a harder and smoother surface. “Tarmacadam roads” became the standard used everywhere until the 1870s. “Tarmacadam” was a mouthful, so eventually people shortened the word to “tarmac.”

A natural rock known as asphalt had been used to construct buildings for many years. In 1824 large blocks of natural asphalt rock were placed on the wide boulevard in Paris known as the Champs-Élysées. This was the first time this type of rock was used for a road.

Have you experienced poor fuel economy during the winter? The culprit is a fuel additive called Methyl Tertiary-Butyl Ether or MTBE that is added to Portland’s gasoline between November 1st and February 29th.

During the winter months gas stations throughout the state are required by the Oregon Department of Environmental Quality to pump the special fuel blend intended to reduce emissions by burning more cleanly and creating fewer tailpipe emissions. The theory is that if an oxygen-rich chemical such as MTBE...
In the United States during the 1870s, a Belgian immigrant by the name of Edward de Smedt created a man-made asphalt that was of a higher density and quality than the natural stone. And like the tar that McAdam used, asphalt could harden and smooth the road. Smedt’s new product was soon put to the test on Fifth Avenue in New York City and on Pennsylvania Avenue in Washington, D.C.

Today almost all the roads in the U.S. are surfaced with this man-made asphalt. Asphalt comes from the processing of crude oils. Everything that is valuable in crude oil is first removed and put to good use. Then what remains (hydrogen and carbon compounds with minor amounts of nitrogen, sulfur, and oxygen) is made into asphalt cement for pavement.

The state of New York’s Metropolitan Transit Authority recently ordered an additional 500 DaimlerChrysler (DCX) Orion VII transit buses with HybriDrive diesel-electric propulsion. When compared to traditional diesel transit buses operating in New York, the buses show significant reductions in fuel use, pollution emitted and noise produced.

At the heart of the hybrid bus is the HybriDrive propulsion system. The system propels the bus with a single electric motor powered by a diesel-driven generator. The diesel engine provides the generating power, which also charges the system’s batteries. The batteries are the source of additional electrical power for high demand situations, such as fast starts and hill climbs. Acceleration and deceleration are accomplished by varying the speed of the electric motor, not the diesel.

Another feature of the Orion VII hybrid is the regenerative braking system that uses the electric drive motor to slow the bus, effectively turning the motor into a generator to help recharge the batteries. This feature both saves energy and significantly reduces brake wear. The series hybrid design also eliminates the need for a mechanical transmission, which means no transmission overhauls.

Six new Ford Escape Hybrids have joined the New York City taxi fleet, as the city continues taking steps to take on city traffic congestion and high emissions, as well as reduce foreign oil dependence. The change in city policy was prompted by growing public concern over New York’s air quality - ranked as the third worst among U.S. cities in 2004.

The two-wheel-drive version of the Escape Hybrid achieves 36 miles per gallon in city driving, close to 500 miles per tank of gas, allowing cabbies to go an entire shift without taking time to fill up. The savings could enable hybrid owners to recover the premium cost of the technology within the first year on the road.

The need

Quickie Lubes have no history on your vehicle. Therefore, they really have no idea what your vehicle needs (other than an oil change) or what it will need. Imagine seeking medical treatment with no patient history, no exam, and no lab tests. Well, the same is true for your car. If they don’t know what your car has been through then how do they know what it needs? And when a service is recommended how do they know it’s a priority?

Some needs may be determined visually or with test equipment, others by usage intervals, but without vehicle history and accurate inspection or symptoms how can the need for services be prioritized and recommended? The odometer is not an accurate means of determination of service needs. Someone may have already been there and done that. So how do they know that fuel filter really needs to be replaced?

The People & The Process

Let’s say that the services recommended are needed. Even if they were able to determine the need and priority level for services, do they have the knowledge and the right equipment? How are these services being preformed? Are the personnel trained and experienced? We spoke with an employee at one of these convenience lube places and they gave us some information about their employees (see above).

This kind of experience might be satisfactory for basics such as oil and filter jobs, but when it comes to more intricate work like...
cooling system or a fuel injection service (or anything else that they might say you need when all you came there for was an oil change), it takes someone with knowledge and experience to get the job done properly.

Anything other than a basic lube, oil, or filter job requires the proper equipment and is going to cost significantly more. So what exactly are you getting for that extra charge? Let’s take a fuel injection service as an example. At a convenience lube shop it will cost you around $69.95. This will get you one bottle of GUNK brand injector cleaner (available for about $3.00 at any parts store) dumped into the gas tank, and, if possible, the use of a vacuum line from the engine to siphon a solvent into parts of the intake system and some of the combustion chambers. What does this accomplish? Not much! Aerosol can systems and additives in the gas tank just don’t deliver.

**TOM’S TIPS**

If you want to add a bottle of injector cleaner to your fuel tank use Techron and you can do it yourself. It is available retail and at Chevron stations in 20 oz bottles for about $12.00 or less. Techron will clean the injector nozzle but not the rest of the system, and will work much better than GUNK!

“I didn’t subscribe to multiple people working on the same vehicle, especially simultaneously. More involved service processes for cooling systems, fuel systems, and transmissions cannot be run simultaneously. Each process takes time to be completed before another can begin. Even multiple experienced technicians can “under-lap” or “over-lap” important details on a service and cause major problems when working in teams.

It is important to us to know that we have delivered value to a customer when we perform a service. I don’t want to feel we are going thru the motions just to make a profit. There is too much real work that needs to be done to be spending time on illusion. There are many methods used to clean fuel injectors and intake systems, to flush cooling systems, and to service transmissions and differentials. The best methods are rarely the fastest or cheapest. Our fuel injection service is not accomplished by dumping an additive into your gas tank or using an aerosol can hooked to the fuel rail. Our cooling system service is more than an exchange or drain and refill (see Fall 2005 newsletter). We have the best equipment available to perform maintenance services, and our choices for equipment are not based on how fast we can push your vehicle out the door, but rather on what will get the job done properly the first time.

I could fill volumes with the ignorance displayed and the damage done by inexperienced people working on vehicles they don’t understand, working under corporate pressure to produce. We see cooling systems, fuel systems, transmissions improperly serviced, oil pans damaged, incorrect fluids installed, problems missed, good parts replaced, and on and on.

The next time you’re inclined to use a “convenience lube” establishment think twice before authorizing any additional work. If we have been allowed to fully inspect your vehicle we can tell you what services are appropriate and when they should be scheduled. When we service your vehicle you can trust that we only do what is needed and it is being done the right way. We have been given the ASE Blue Seal Facility of Excellence Award.

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Use us for our ASE Master Technicians, the most current equipment, comprehensive capability, thorough inspection, honest service, advice, and prioritization, professional work, records management, and the best guarantee in the industry.

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**SIDE NOTE FUN FACT:**

Exxon’s profit for 2005 was $36 billion dollars, a new record for annual profit for any company ever. That’s $80,000 per minute for every minute of 2005!
Gasoline prices surged above $3.00 per gallon following the recent hurricanes, before settling back to near the $2.20 per gallon level nationwide. While it is difficult to absorb huge recent increases in a short time, things could be worse. Here are two graphics to help put current prices in perspective:

- **Lipton Ice Tea**
  - 16 oz for $1.19
  - $9.52 per gallon

- **Gatorade**
  - 20 oz for $1.19
  - $10.17 per gallon

- **Diet Snapple**
  - 9 oz for $1.29
  - $10.32 per gallon

- **Evian Water**
  - 9 oz for $1.29
  - $10.32 per gallon

- **Scope Mouthwash**
  - 1.5 oz for $0.99
  - $84.48 per gallon

- **Brake Fluid**
  - 12 oz for $3.15
  - $33.60 per gallon

- **Pepto Bismol**
  - 4 oz for $3.85
  - $123.20 per gallon

- **Vick's Nyquil**
  - 6 oz for $8.35
  - $178.13 per gallon

*Gas prices from Fall 2005

Unfortunately, the problems with winter fuels are not limited to fuel economy. MTBE has been found in ground water near surrounding areas of use and is suspected to be a carcinogen. Not only that, the added oxygen of oxygenated fuel is of little benefit to modern self-tuning, fuel-injected engines that are constantly adjusting their fuel-air mixture. Legislation is currently underway to ban the use of MTBE, but the oil companies would prefer to continue diluting their product for four months of the year and charge between one and three extra cents per gallon for it. For more information visit: www.oxybusters.com