

## GOT QUESTIONS?

Do you have a question about car maintenance that you want answered?

We love to hear from all of our good friends and clients who enjoy reading our newsletter. If you have a question about anything related to your vehicle, feel free to give us a call at 503-230-2300, or e-mail us at [tom@tomdwyer.com](mailto:tom@tomdwyer.com). Also, please visit our website at [www.tomdwyer.com](http://www.tomdwyer.com). ♦

## MOTORISTS URGED TO "HANG UP"

The Cellular Telecommunications and Internet Association estimate that there are more than 120 million cellular subscribers in the United States. With Americans spending 40 to 60 percent of their minutes in their cars, it is no wonder that many major automobile manufacturers are racing to incorporate some type of hands-free cellular phone services into the make of their vehicles. However, new data regarding the safety of hands-free cellular devices could bring these cellular plans to a screeching halt as the National Highway Traffic Safety Administration (NHTSA) urges the ban of all cell phone use while driving.

Unsurprisingly, many people consider cell phone use a leading contributor of car accidents. Obviously, taking one hand off the steering wheel to talk on the phone poses some level of danger. That is why so many have turned to hands-free cellular devices as an alternative to holding the phone while driving.

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**Tom Dwyer**  
**ASE**  
Automotive Service Inc

# YOUR CAR MATTERS

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## They're all around us, but... **What makes it a "hybrid"?**

**A**ny vehicle is a hybrid when it combines two or more sources of power. In fact, many people may have owned a hybrid vehicle at some point. For example, a mo-ped (a motorized pedal bike) is a type of hybrid because it combines the power of a gasoline engine with the pedal power of its rider.

Hybrid vehicles are all around us. Most of the locomotives we see pulling trains are diesel-electric hybrids. Cities like Seattle have diesel-electric buses -- these can draw electric power from overhead wires or run on diesel when they are away from the wires. Giant mining trucks are often diesel-electric hybrids. Submarines are also hybrid vehicles—some are nuclear-electric and some are diesel-electric. Any vehicle that combines two or more

sources of power that can directly or indirectly provide propulsion power is a hybrid.

The gasoline-electric hybrid car is just that—a cross between a gasoline-powered car and an electric car.

The hybrid car uses electric propulsion at low speeds and light throttle demand and switches to gasoline propulsion as needed. The hybrid is a great step, but just one of many steps needed for us to start weaning off fossil fuels. Don't be fooled into thinking that the hybrid is the end solution, it is not.

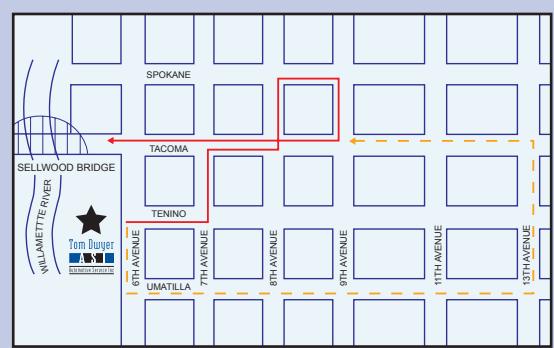
### I'd Rather Have A "PLUG-IN"

Hybrids are a step forward, but America needs to make a huge leap forward. We can do this by

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### Thank You! Thank You! Thank You!

Special thanks go out to all of our clients and friends who have graciously referred our shop to their friends and neighbors. Our business is built based on the positive comments and referrals from people just like you. We just couldn't do it without your help!



*Motorists Urged to Hang Up*  
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Problem solved right? Not necessarily, according to a growing body of evidence that cites "the phone conversation" as the source of driver distraction.

A study recently conducted at the University of Utah tested the response time of 64 drivers when posed with a distraction. They found that drivers who talked on the phone, regardless of whether they used a hand-held phone or hands-free device, were twice as likely to miss traffic signals as drivers exposed to other in-car distractions such as listening to the radio or an audio book. Currently contributing to an estimated 20 to 30 percent of all car crashes, cell phone use could actually increase the number of driving accidents as hands-free devices grow in popularity. According to Jeffrey Runge, NHTSA's administrator, state laws promoting hands-free cellular devices are "not good policy." As tested by the NHTSA, those using voice activated speaker phones actually take twice as long to dial a number than those pushing the buttons by hand. Not to mention, hands-free devices might encourage drivers to stay on the phone longer.

The NHTSA is recommending a federal ban on all cell phone use while driving. Already, the agency has drafted letters to the country's 50 governors urging them to ban cell phone driving in their states. The Department of Transportation however, has put the NHTSA's efforts on hold regarding this issue until more research can be done. ♦



## Heard the term "Peak Oil" Yet?

The world is running off the bottom half of the tank now days and with China and India's rapidly growing thirst, oil resources are becoming a major issue! You don't hear politicians talk about this, and it's a taboo topic among the oil barons, but an increasing number of geophysicists agree that production either has "peaked" or will very soon, meaning we humans have already consumed half of the oil that is feasible for commercial extraction. We're sucking up the final half of the underground reservoirs of oil that it took Mother Nature millions of years to create, and the second half is much more costly to extract. Oil experts calculate that crude prices could spike to as high as \$105 a barrel—double today's price. My prediction in 2004 was \$3.00 a gallon this Spring/Summer 2005 never to see below \$2.00 again. So far my prediction seems to be accurate.

At the same time, we're stuck with an oil-soaked energy policy that has us using more and more—U.S. oil consumption is expected to grow by 50% in the next 20 years. Meanwhile, look out, because here is China's massive population and supercharged economy with a growth in oil consumption seven times greater than the US! Ever-rising prices could be the least of our problems. Since China, the U.S., and other big users will see it in their national interest to grab as much oil as possible for themselves, we are looking at the real possibility of global oil wars.

Shouldn't our leaders (corporate, political, and media) be planning an alternative path instead of continuing to consume as though there is no tomorrow and pretending that there will always be more oil?



## Some Things You Can Do NOW To Save Some Fuel

### Keep your tires inflated to the proper pressure.

It is estimated that if every tire in America was properly inflated millions of gallons of gasoline would be conserved annually. We check the air pressure on every vehicle that passes thru the shop.

### Combine your trips whenever possible.

Plan your shopping trips to combine errands  
Carpool the kids  
Walk there if possible  
Ride your bike or buy one and use it!

### Keep your vehicle running right.

Replace worn ignition parts and filters  
Clean your fuel injectors and intake system  
Use good quality fuel, not the cheapest you can get  
Make sure your cooling system thermostat works properly

### Minimize the time your car idles.

Avoid rush hour traffic if possible  
Avoid prolonged cold start idle time  
Turn off the ignition if waiting stopped

### Learn to drive in a manner that conserves fuel

Drive the speed limit  
Avoid rabbit starts and stops  
Keep a steady throttle  
Avoid unnecessary braking  
Coasting and using gravity can help a bunch  
Run the A/C in economy mode or as little as possible  
Keep the gas tank over 1/4 full  
Remove unneeded stuff, weight cuts mileage

*What Makes It a "Hybrid"?*  
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shifting from what's now on the market to the new plug-in hybrids, which essentially are consumer-friendly electric cars. Rather than using batteries as backup to the gasoline motor, as the Prius and Civic do, plug-ins rely almost entirely on batteries, providing a small gasoline motor for use if and when you need a backup power source. In fact, you don't have to put any gas in it at all. You can if you want, but it's not necessary.

This is because a new generation of powerful lithium ion batteries can take you up to 60 miles without recharging. That's three times the daily commute and other driving done by the majority of Americans, so these vehicles break through the short-range restrictions of the previous generation of electric cars.

Better yet, recharging these babies is a breeze. Every night, you plug your car into one of the standard 110-volt wall sockets in your house, the same way you recharge your cell phone and laptop already.

Call it "home fueling." Also, call it a bargain, for the price of

that electricity is the equivalent of 56-cent-a-gallon gasoline

Speaking of gasoline, you only need it when you drive more than 60 miles a day. If the car's battery power winds down on a longer day trip, the gasoline automatically kicks in, moving the car down the road and at the same time recharging the batteries so you can switch back to electric. Studies of GO cars show that most drivers never visit a gas station, and those who do average only six trips to the pump a year.

Yeah, you say, but aren't these things the dorky, slow-poke electric cars that have all the zip and style of a golf cart? Nope. Plug-ins are standard cars and trucks. Daimler Chrysler, for example, is now producing a small run of its conventional Dodge Sprinter with the plug-in technology—and these converted full-size vans, which are to be leased to several government agencies and corporations for a nation wide test, have better acceleration than conventional Sprinters.

The University of California at Davis has done much of the R&D for plug-ins, and they've converted a Chevy Suburban, Ford Taurus, and Ford Explorer. The Explorer, with 325 horsepower, is more powerful than the standard version. It takes off like a shot; it gets double the fuel economy of a regular hybrid. Even with the heavier battery load, UC's plug-in Explorer weighs no more than the conventional version, for the hybrid dispenses with the generator, fan belt, water pump, and other components. It has less moving parts used in a standard Explorer, which makes the hybrid easier to assemble and more reliable.

A small entrepreneurial firm in California has already produced a plug-in sports car it calls Tzero, which has batteries that zoom it from 0 to 60 mph in a remarkable 3.3 seconds. It cruises at 70 to 80 mph and has a battery range of up to 300 miles per charge. ♦

## Don't Hold Your Breath for Hydrogen Cars

Why mess with Hybrids, Flex Fuel Vehicles, Plug-Ins, Ethanol or Biofuels when none other than George W Bush has proclaimed that the "hydrogen economy" is our future?

Hydrogen includes some major obstacles:

- At present, to extract hydrogen from water consumes more energy than the captured hydrogen could produce.
- Using natural gas to extract hydrogen, as has been proposed (thus pleasing the oil giants that own most of the gas deposits), generates carbon dioxide, so there's no reduction in greenhouse gas emissions.
- Using current technologies, hydrogen fuel is four times more costly than gasoline.
- Hydrogen can cause metal to become brittle, which is not good in a car.
- As an ultra light gas, hydrogen poses enormous problems in transportation, storage, and distribution, requiring an entirely new refueling infrastructure that will cost hundreds of billions of dollars to build. True, the extraction of green hydrogen from water by a process using renewable fuels holds long-term promise and should be pursued. But the National Academy of Sciences estimates that this future is 50 years away. We can get off our oil addiction and clean up our environment now, with flexible fuel, hybrids, and plug-ins that are already in production.

## ARE YOU DRIVING A FLEXIBLE-FUEL VEHICLE?

You may be and not even know it. (Our Courtesy Van is a FFV!)

Flexible-fuel vehicles (abbreviated FFV) can run on either alcohol fuels or gasoline or any combination of the two. Many GM, Ford and Chrysler cars are FFVs. Call us and we can use your VIN # (vehicle identification number) to tell you if you own a FFV and don't even know it.

The most common of these alcohol fuels in America is E85—an ethanol made from corn or other grains, then mixed with a small amount of gasoline. The mixture is usually 85% Ethanol, thus dramatically dropping the consumption of gasoline. But corn is not the best possible source, and alcohol fuel can be made more efficiently by distilling plant wastes (such as stalks left in the fields after harvest, sawdust and tree trimmings, and urban landscaping waste) to make "Cellulosic Ethanol." This alcohol creates almost no greenhouse gases during its manufacture or when it's burned as a fuel, which is why Cellulosic Ethanol is getting a green thumbs-up from Enviro groups, and Biorefineries in Canada and the U.S. are gearing up for mass production.

Existing gas stations can distribute all of these Biofuels, and the FFVs that use them are conventional vehicles with minimal mechanical adjustments costing the manufacturer under \$200 per vehicle. Again, no rocket science involved. An FFV simply has a different control

## Kids Want Fewer Activities, More You

At a family gathering, a mother noted that her son had been very talkative as a child: "He would just follow me from room to room talking."

"I remember that," said the son, now a father himself. "I kept trying to talk to you, but you would just keep on with what you were doing. You were always so busy."

How many of us have not stopped to listen, or have not spent those few moments focusing on a child?

A nationwide study of kids in grades 3 through 12 found that what they wanted most was time with parents that was less rushed and stressed, that's more enjoyable than a scheduled activity. ♦

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*Flexible Fuel Vehicles*  
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chip and optical sensor in the fuel line. The technology is on the shelf, and it's already being used—50% of Brazil's new cars are FFVs.

Combine the two technologies, and you have a flexible-fuel hybrid that blends electric, alcohol, and (when necessary) gasoline fuels and can take you 500 miles per gallon of gasoline used as a 15% mix. ♦



## What You Can Do To Keep Your Conventional Gas Vehicle Efficient

MotorVac service restores lost mileage and performance. We are pleased to offer the MotorVac system.

### What Does MotorVac Do?

MotorVac is the first gasoline engine system of its kind to effectively clean the fuel system. The MotorVac system cleans the fuel injectors, valves, combustion chambers, oxygen sensor and catalytic converters without having to remove any engine components.

### How Does MotorVac Work?

MotorVac's two-line cleaning system connects to the engine using vehicle specific adapters, temporarily replacing the vehicle's fuel system. During the first cleaning phase (with the engine off) the system circulates MotorVac's powerful yet safe detergent mixed with gasoline through the components of the engine's fuel system. This phase safely dissolves contaminants, gum and varnish deposits, capturing them in the unit's 2 micron filter.

During the second cleaning phase (engine running), the injector screens, intake & exhaust valves, top of pistons, combustion chamber, oxygen sensor, and catalytic converter are cleaned. This safely dissolves and removes most of the soft carbon deposits, passing them harmlessly out with the exhaust.

The air intake plenum, throttle body and intake runners should also be cleaned to perform a complete service of restoring your vehicle's fuel system to optimal conditions.

### Proven Effective

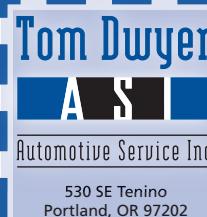
Independent tests show that the MotorVac Service restores engine performance, improves fuel economy, and reduces exhaust emissions. More importantly, you will immediately feel the difference and get better mileage. ♦



**\$35.00 Off MotorVac Service  
With This Coupon**

Expires 9/30/05

Coupon #07150501. Not redeemable for cash.  
Redemption value not to exceed \$35.00.  
Not combinable with other discounts.



**\$35.00 Off Air Conditioning  
Repair/Service With This Coupon**

Expires 9/30/05

Coupon #07150502. Not redeemable for cash.  
Redemption value not to exceed \$35.00.  
Not combinable with other discounts.

## Some Reasons You Chose Our Service

It is not uncommon when we carefully review a new customer's repair records that we find gaps and overlapping services. Some service providers will neglect portions of a car and over-maintain others. Due to lack of training or equipment, not using the vehicle's repair history, limited services offered or a profit driven agenda, vehicles often don't get the care they need to deliver value to the owner. We don't follow the industry, we lead it! We are a unique business in our industry and our customers know it.

### We Offer:

- Convenient hours
- 23 year track record of impeccable service
- Commitment to complete vehicle care
- Accurate and Honest Inspection
- Inspection intensive not menu driven recommendations
- On Time and On Estimate completion of work
- Complete repair, right the first time
- 18 month / 18,000 mile repair warranty locally
- 12 months / 12,000 mile repair warranty nationally
- 100% Satisfaction Guarantee
- ASE Blue Seal of Excellence Facility Award
- BBB, ASA and NATA Member
- Long-term well trained and ASE certified shop staff
- 8 ASE Master Technicians on staff (average 22 years experience)
- Latest equipment and technical information
- Courtesy Shuttle transportation by appointment
- Customer vehicle record management
- Customer Reminders if desired
- Service Advisors that are technically trained
- Service Advisors not paid sales commission
- State of Oregon Approved Emissions Repair Facility
- Our professional commitment to excellence