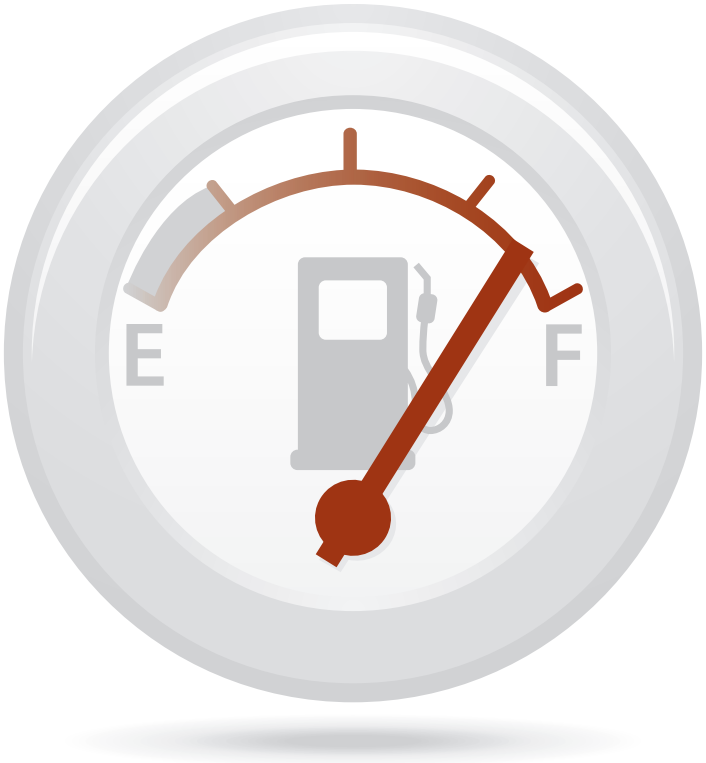

Driving Fuel Economy

By Tom Bagwell

It almost goes without saying that one of the greatest challenges facing a fleet manager today is dealing with the rising cost of fuel. Controlling fuel economy can be an elusive goal. Most of our fleets are already in place; aerodynamic design, tires, and engines are already installed to help save fuel. Many variables, such as weather or driving surface, are outside the fleet manager's control. While the trucking industry supports increasing the fuel economy of trucks for the upcoming model years, Kyle Treadway, chairman of the American Truck Dealers (ATD), points out: "Dealers support improving fuel economy for medium and heavy-duty trucks. However, today's fuel-economy proposal for model years 2014-18 is expected to add thousands of dollars to the cost per truck. We are concerned that this could price some buyers out of the market."[1]

Indeed, the cost of many solutions can easily offset any potential savings. A fleet manager might have some influence in the selection of the truck, but once you have the truck, how do you obtain the greatest fuel efficiency and reduce the impact of the cost of fuel on your operation, and in many cases even remain in operation? That is what this conversation is about.

Let me begin by sharing what we learned at Peterson Trucks when we conducted a fuel efficiency test. We drove a medium-duty truck on the highway at 55 mph, on cruise control. We measured instantaneous fuel economy using a Cat Electronic Technician. We videotaped the computer reading fuel consumption at 8 mpg. Within an hour of the first test, we installed a body air deflection device on the truck and drove it on the same highway under as close to the same conditions as possible: same driver, same speed and highway conditions, etc. The resulting fuel economy was 8.8 mpg, a ten percent increase. We then went to a customer that runs dry-freight vans. We downloaded the ECM (electronic control module) data that gave us his fuel economy. The recorded fuel economy was 7 mpg. We cleared the ECM, added a body air deflection device, and sent the truck back out. The fuel economy only improved to 7.04 mpg, a negligible increase. When we compared his average speed, we saw that his average speed had increased. What we learned is that *the addition of aerodynamic and fuel-efficient devices without driver training is insufficient in terms of achieving gains*.

[1] *nada.org* press release Oct 25, 2010

There are certain things you can do in order to improve fuel efficiency. You can limit top speed and idle time, which in some areas is already mandated. But there is more to it than that. If you really want to squeeze the extra miles out of every $4.50 per gallon (and rising) of diesel, you really need the driver on your side. The bottom line is, many devices in place that are intended to drive up fuel economy are negated by drivers. If a truck can go faster through the wind because it's aerodynamically sound, a driver's tendency will be to drive faster because these features allow him to, therefore limiting potential fuel economy. Aerodynamic features are incredibly important, but the conversation needs to shift more toward what we can control: human behavior and motivation. Government Fleet Magazine recently stated that, according to Bridgestone's Real Answers magazine, up to 35% of a vehicle's mpg is directly attributable to driver behavior. [2] At $4.50 per gallon and rising, squeezing out even an additional ten percent gain becomes significant enough to make the conversation well worth having.

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It is understood that all drivers start out with their own set of needs; they want to provide for their families, they want to be safe, professional, and get the job done *fast* in an industry that promotes speed. There are a host of operating factors that lead drivers to worry about things other than fuel efficiency. Historically, driver effectiveness has been measured by knowledge of what they were doing; were they driving safe, were they professional with the customer, was their paperwork in order, did they get along with the folks in the office and most importantly, were they on time. At under $2.00 per gallon, fuel efficiency was not on the radar for drivers or most managers of small fleets. Today, the focus has dramatically shifted to how, in today's environment, you can manage to keep the spiraling cost of fuel in check without destroying your bottom line. New questions arise, such as can you increase your loads without increasing the cost of the delivered product without incurring other costs such as safety? The industry is being driven on a cost per mile basis. As such, there is a need to look at the total impact of what it means to be competitive in this environment. One must take a very close look at how to balance the financial, safety, and even sustainability aspects of the business. The challenge is how to get drivers to buy-in to the need of making fuel economy a top priority. There are many tools on the market that may drive an improvement in fuel economy, but the smart manager won't waste a cent on any of them until they lay the groundwork toward changing the mindset on the importance of fuel-efficiency within their organization.

What can a manager do to help a driver improve their fuel economy based on how driving habits? Can you implement a system in which you encourage and train a driver to improve fuel economy? The answer is yes, but it is not easy. Larger fleets may already be doing this to some degree. But in looking at the industry, however, one must understand that improving fuel efficiency *across the board*, in a country where transportation costs are high, would increase our nation's overall competitiveness. Whether driving for a large fleet or for a small business with just a few trucks, drivers play a critical role in improving fuel efficiency. *The most significant fuel economy variable is the driver*. It is the driver who controls vehicle speed, trailer gap setting, acceleration rate, brake usage, idle time, tire inflation pressure, shifting technique, and more. As I have already mentioned, it is not uncommon for fleets with identically spec'd trucks to see a fuel consumption difference of as much as 25% between the least and most effective drivers.

So, if the answer is yes, it's possible for a driver to improve their fuel economy based on how they are driving. But this bears the question, how do you track fuel economy? It is critical to collect data both consistently and accurately, measuring it in such a way that your data is both valid and reliable. Traditional methods, such as measuring the fuel bill or tracking tank-to-tank, can lead to discrepancy due to the limitations of assumption and human error. A better approach would be getting the information from the engine computer. Whether using modern tools such as electronic extraction and GPS, or reestablishing disciplined, driver-controlled methods such as spreadsheet tracking, developing a practice of accurate data collection is essential to improving fuel economy. More important, however, is getting

[2] *government-fleet.com* January, 2011 Bob Stanton, author

accurate data to the manager *and driver* in a timely and useful manner. Realistically, you can't ask your people to make an improvement in performance if they don't have useful data from which to baseline performance and ultimately demonstrate improvement. Implementing this type of change requires an adjustment of mindset for the manager that makes drivers *a part of the solution, and not the problem.*

You have good people working for you; you trust them with a $100K piece of equipment and believe in them to do the right thing with your customer relationships. It must be understood then, that as the one generating the data, the one holding the wheel, and the one pushing the brake and accelerator, it is the driver who must believe that they share a common goal that they can aspire to in order to effect change. This is crucial because the driver has to be worried about rising cost of fuel as well. They know how bad this is hurting the company; they see it every time they fill up the tank. Therefore, having drivers help the company to solve this critical problem is a good thing. This is not a problem for just the select few who make all of the decisions; you can get drivers, in their own small way, to help mitigate this problem.

It is important to understand that even if you tell a driver to be more fuel efficient, track them with GPS and set mandates, but don't incorporate their actions and insights, involve them in the process or give them the tools they need, including both valid data and a voice in the process, any improvement will be limited. On the one hand, as a manager it is easy to give directives and set guidelines without driver input. What managers usually find, however, is that drivers can find a way around directives, and ultimately dampen results. This type of '*do-to'* mentality with drivers is ineffectual. On the other hand, with a buy-in approach, or a '*do-with'* mentality, managers will find that drivers are a great source of ideas. The manager who brings his drivers into the discussion and says, "Here is the goal, what can we do to improve and how can we celebrate when we achieve our goals", is giving his drivers a voice in the company. Drivers clearly understand the business environment and what the issues are; it's really about helping them help the business. Drivers who buy into goals around fuel efficiency will be much more willing to develop the necessary behaviors, and share their successes with others for the greater good.

Changing the management mindset towards one of getting people to *want* to do things involves letting go of old fashioned '*do-to*' management techniques. Management directives, tracking drivers, and enforcing an 'or else' mentality might force the right behavior in pursuit of improving fuel economy, but you can end up with a driver who doesn't care about the equipment or the customer because they have no voice in the process. Drivers are a key component in delivering customer satisfaction. If your driver is one who arrives with a load of excuses and a bad attitude, as opposed to one who buys in to your goals and works with your customer to seek a win-win situation, that driver can make or break a lucrative relationship *and your bottom line*.

So, by what criteria do you reward your driver for superior performance? Common industry answers have been on-time delivery, professionalism, safety record and paper work. Most companies don't reward for fuel economy. Furthermore, they don't train for fuel economy. Concepts such as the use of cruise control, speed regulation, proper shifting techniques, or the impact breaking and accelerating has on fuel efficiency all affect a driver's ability to achieve desired performance. Coaching drivers who have bought into the concept of improving fuel economy will help bring about the desired behaviors.

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In the course of working with drivers, managers must strive to develop agreed upon benchmarks, and then train to the level of that benchmark. Rewards must be carefully thought out. Whether rewards are individual or group based, extrinsic (prizes, awards, newer truck/truck upgrades) or intrinsic (time off, special training courses) should be determined based on the dynamic of the group. Whatever the reward, it should be one that drives the right behavior. There is no single right answer in that respect. Care must be taken to ensure that the reward is a good fit for the team, and that it ultimately drives the desired behavior.

There are simple things a manager can do to drive the right behavior. The Environmental Defense Fund, in its 'Fleet Drivers and Fuel Smart Driving' publication, offers some logical advice[3]:

Set specific, measurable and realistic goals.
These goals should be developed *with* your drivers, not *for* them.

Don't send conflicting messages.
Fuel efficiency messages should not conflict with messages related to business efficiency, customer service or teamwork.

Link fuel-efficient driving behaviors to concepts such as accident prevention, safety, or concern for the environment.
Different drivers will respond to different motivators when deciding to slow down. Some will do it to save fuel, others for their own safety.

Recognize drivers who set a good example.
Allow drivers to share their successes and tips on how to improve performance. Partner with your top performers in driver education programs.

Broadcast your successes widely and frequently.
Acknowledging progress towards goals motivates your top drivers to sustain desired behaviors.

Adjust your message to the season, and change the messaging.
Offer winter tips in winter, and change the message from year to year. Mix it up to keep the message fresh.

Incentives need to be meaningful.
They should be meaningful enough to influence drivers, but not so much as to induce gaming. They should also reflect a balance between driver's preferences and your organization's culture.

Once you have a program in place that values driver input, never forget that credit needs to go to the driver, not the manager. The driver is the one who will effect change, and needs to get the credit when performance improves. Lastly, find a way to reward all drivers. Everyone needs to feel a sense of participation and recognition for their efforts.

The suggestions above are a good start. But they are just that; a start. I do not propose to have all of the answers. Rather, the purpose of this paper is to strike up a conversation. Most of you reading this have much more experience at managing drivers than I do. What I bring into this equation is experience in change management and team building, with a transportation background. Everyone is struggling with the same critical issues around fuel efficiency. Each manager, whether a Peterson customer or not, has a unique vision and valuable ideas to share. Together we need to find a way to connect and share these ideas. In an effort to advance this conversation, I would like to invite you to join our discussion group on Linkedin. Registration is free. Simply go to Linkedin, input 'Peterson Trucks' in the 'Groups' field, and join us in this conversation. Together, we can engage in a discussion among fleet managers on what we can do to get drivers to *want* to drive more fuel efficiently. If we can work together to teach drivers how to succeed in ***driving fuel economy***, everyone wins.

AUTHOR:

Tom Bagwell is the Director of Training and Power Marketing at Peterson Power Systems with over 20 years of transportation experience. Among his distinctions are sales awards for outstanding achievement from Caterpillar, Peterbilt, Mitsubishi, Idealease, and International. Tom Bagwell is also a Certified Transportation Professional by the National Private Truck Council and maintains a Class-A license.

[3] *edf.org/greenfleet*