

*The authoritative guide to reducing commercial tire expenditures from  
Pressure Systems International,  
the manufacturer of the Meritor Tire Inflation System by PSI™*

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## The Future is Now

PSI has written a  
White Paper  
about tire infla-  
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In many of the Tire Digest issues we talk about how tires can influence fuel economy because we understand that reducing your fuel consumption is very important. The subject of this month's article will give you a look at what's possible when you are considering ways to really move the needle where fuel economy is concerned.

The AirFlow BulletTruck is not just a futuristic model but a fully operational long-haul truck moving freight right now. Bob Silwa, President of AirFlow Truck Company has set a goal to produce the most fuel efficient commercial vehicle anywhere by building a complete tractor trailer integrated system, utilizing innovative aerodynamic designs and materials. Bob has been a trucker and for years was tweaking his own rigs to get the best fuel efficiency before he founded AirFlow Truck Company. Now he's moving freight coast to coast, making money and on a recent trip of 3043 miles he averaged 13.4 miles per gallon while running against 35 MPH headwinds through Wyoming and 40 MPH crosswinds in Utah.

How does he do it: The answer is he uses advanced 21st. century computer-aided-design aerodynamics, light weight modern materials and assembly, and innovative but practical solutions to common problems. Solutions Bob has incorporated include:

- The 450hp Cummins ISX engine is only operated between 1100-1250 rpm all day long. Cruise speed is set at 55 mph and at that speed, the engine is turning 1225 rpm
- The use of a full-sized ducted radiator hidden underneath an extremely aerodynamic body.
- A hybridized A/C compressor and a re-engineered drive belt system greatly reduce diesel engine parasitic losses and emissions and increases fuel economy.

- A 9" high-definition monitor that sits directly behind the steering wheel ties directly into the engine computer. The video panel provides important engine feedback and is used by the driver to monitor the engine precisely for world-record fuel economy.

Besides Bob's own pioneering ideas, he has partnered with many industry manufacturers who are making products that through their own development reduce fuel consumption - by reducing weight, improving aerodynamics or in the case of PSI, keeping tires inflated to the appropriate pressure which always maximizes miles per gallon. In addition to using the standard PSI system on the trailers, he also made a modification to also use it as an external system on the tractor's drive tires. We've pointed out in the past that any reduction in air pressure increases the tire footprint and therefore its rolling resistance, and so it's directly correlated with lower fuel economy. Now that Bob is out on the road, having an automatic tire inflation system on the rig has helped him in not only keeping tires inflated properly but twice the system has allowed him to re-inflate a flat on the road so he could keep moving the freight he was hauling without adding unproductive time to his trip.

When you're not encumbered by thinking "that won't work", you can try ideas in your own fleet or make suggestions to manufacturers that may ultimately set a reasonable goal of double digit mpg for the commercial vehicle industry. See what's possible at [www.airflowtruck.com](http://www.airflowtruck.com)



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