



Senior Technical Editor Paul Abelson braved the stifling Dallas August heat to scour the aisles of Great American Trucking Show to bring you highlights of the most innovative and practical new products out there.

I've long been skeptical of products promising significant fuel economy improvements, especially when improvements approach 10 percent. I've gone on record that I would write about them only if they prove their claims with tests strictly following SAE J1321 and TMC RP1102 procedures conducted by an independent test facility.



Hy-Drive Technologies, 888-359-5697, hy-drivesaves.com, had the test done by Professional Services Industries, Portland, OR.

Hy-Drive makes an on-board hydrogen generator that uses electrolysis to separate hydrogen and oxygen in water. The hydrogen is injected into the air intake. The laws of physics state that by burning the hydrogen, you recover less power than you use extracting it. But when burned with diesel, the hydrogen evidently improves combustion efficiency of the fuel, resulting in a better burn for improved fuel mileage and lower emissions. The tests yielded about

a 10 percent average improvement. From being a skeptic, I've become a believer. So far, Hy-Drive is the only manufacturer to present test results.

Despite better maintenance, loose wheel incidents still occur, often with disastrous results.

As temperatures change, metals expand and vibration can loosen wheel nuts. When surface rust or corrosion occur, further wheel end vibration loosens nuts.

Some devices show when loosening has happened, but the **Safety Lug Lock**, 888-381-2355, www.spectraproducts.ca, actually prevents hub-piloted lug nuts from backing off.

Made of polymer, shaped to fit



3-1/2 inch stud center

4-1/8 inch stud center

over two adjacent wheel nuts with a corrugated connector bar between to absorb any differential vibration, four or five locks are used per

wheel, depending on configuration. They hold the corners of the nuts to keep them from backing off. During inspection, you can easily verify that all nuts are in proper position.

For most drivers, accurate weights on each axle set are essential data. To save time and money at commercial scales and to avoid



finer, on-board scales continue to grow in popularity.

Right Weigh Load Scales, 888-818-2058, rwls.com, introduced the E-Z Weigh digital scale that calibrates quickly and easily in two operations. Just get an empty scale weight, push a button and enter the axle or tandem weight. Push one more button and the weight is locked in. Then get loaded, either fully or partially, and repeat the process.

With two established set points, the E-Z Weigh computes any weight on the air suspension and displays it on an easy-to-read, bright LCD display. It mounts in about 10 minutes, reads in pounds or kilograms, and costs less than \$300. Accuracy is within 250 pounds.