

IT'S TIME TO SET THE RECORD STRAIGHT. PROSTAR™ IS 5.7% MORE FUEL EFFICIENT.

We proved what we already knew. The ProStar™ is 5.7% more fuel efficient than Cascadia. Which can equate to a \$3,900 per truck annual savings* to your bottom line. So, how did we know?

BUILT TO BE BEST-IN-CLASS.

From the earliest days of its development, the International® ProStar™ was engineered to be the most aerodynamic and fuel efficient Class 8 tractor ever built. Hundreds of hours were spent in a third-party wind tunnel. Numerous simulations were run using advanced computational fluid dynamics. Surfaces were refined to better manage airflow over both the tractor and the trailer. Bumper gaps were diminished. Wheel openings sculpted. In the end, all the attention to detail paid off. ProStar was up to 14% more aerodynamically efficient than its competition in tests using methods approved by the Society of Automotive Engineers. At a standardized speed of 65 miles per hour, that aerodynamic efficiency calculates to an annual savings of up to 7% in fuel costs.

“a 5.7% advantage means \$3,900 per truck a year savings to the bottom line.”

- Bob Weber, International ProStar Chief Engineer

THEY SHOULD'VE KNOWN BETTER.

All the effort International put into the design of the ProStar made Freightliner's recent claims of superior fuel economy for its Cascadia all the more perplexing. It seems their assertions were based on data from aerodynamic tests conducted in Freightliner's own wind tunnel and observed by engineers from Auto Research Center, Inc. This company, better known as ARC, is best known for testing racecars. Last we checked, stock cars don't pull trailers. And there's a big size difference between a car and a Class 8 tractor. Not least of which is the scale of wind tunnel needed for the test. And strangely enough, Freightliner's own wind tunnel was not built large enough to test the Cascadia with a full trailer attached.

What did they do to overcome this engineering obstacle? Saw the trailer in half?

Not testing with a full trailer makes a profound difference in aerodynamic performance. According to Bob Weber, chief engineer for heavy vehicles at International, "Since their test does not include the aft section of the trailer, it does not allow a wake to form behind the vehicle as it would on the road." Both the aft end of the trailer and the size and shape of the wake "have a profound influence on the aerodynamic drag of the tractor-trailer combination." In other words, not testing with a full trailer gave the Cascadia artificially inflated test results. Plus, not many truckers pull half a trailer. Unless they're into making two trips.

By comparison, International spent over \$1 million conducting full-scale tractor-trailer testing to SAE standards at Canada's National Research Council Institute for Aerospace Research. In these tests, a ProStar and complete trailer were lowered by crane into a massive wind tunnel designed to test aircraft. Both tractor and trailer were then comprehensively evaluated, including tests to gather cross wind data.

The full tractor/trailer was positioned on a turntable and tested at angles up to 9-degrees. This allowed us to optimize the aerodynamic design for 90% of all average wind conditions experienced in North America at any given time. Furthermore, International also evaluated five other Class 8 trucks: Freightliner Century, Freightliner Columbia, Peterbilt 386, Volvo VNL780 and the Kenworth T2000. The ProStar was proven the most aerodynamic of all the trucks.

You could say we're committed to unbiased testing. We'd say we just like comparing apples to apples.

Vehicles Tested:

Truck Brand:	ProStar	Cascadia
Configuration:	High Rise	Condo Sleeper
Engine:	Cummins ISX 400 HP ST (I550/I750)	DDC Series 60 455 HP (I550)
Transmission:	Eaton IO-spd direct	Eaton IO-spd direct
Axles:	I2K Frt, 40K Rear (2.62 AR)	I2K Frt, 40K Rear (2.62 AR)
Tire Brand/Model:	Michelin XZA/XDN	Michelin XZA/XDN
Tire Size:	275/80R22.5	275/80R22.5
Trailer Gap:	43 in	43 in
Test Weight:	80,000 lbs	80,000 lbs

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UNBIASED TESTS.

After all of this exhaustive testing, International was more than prepared to dispute any claim about fuel economy leadership. So we asked one of our customers with a large fleet if we could use their own production-spec'd trucks to perform immediate, head-to-head, real world road economy tests. They agreed, and sent a ProStar and a Cascadia from their fleet to the Goodyear Proving Grounds in San Angelo, Texas, for independent and unbiased testing performed to Society of Automotive Engineers Type III standards. This customer has also offered the same opportunity to all competitors to test their trucks.

Both trucks were subjected to a minimum of six runs, each 41 miles in length. Using GPS technology to confirm vehicle speeds, the trucks circled the test track at 65 miles per hour. Before and after each run, fuel tanks were weighed to determine consumption. After three valid runs, the drivers and trailers were switched between the ProStar and the Cascadia and three more valid runs were completed. Then the results of six valid runs were averaged to constitute completion of one test segment. On the days that followed, the tests were repeated to validate the results. The 5.7% fuel economy advantage posted by ProStar is the cumulative average of two days of consecutive testing. As Mike Hood, Development Engineer Mileage Team of the Goodyear Proving Grounds, said, "People come [here] for testing because

we can give them unbiased data. We have no interest either way." Unlike Freightliner's aerodynamic tests, this time there was a level playing field. Which in turn allowed ProStar to level the competition.

REAL-WORLD DATA. REAL VALUE FOR DRIVERS.

When all was said and done, the ProStar was 5.7% more fuel efficient than Cascadia. As Bob Weber pointed out, "a 5.7% advantage means \$3,900 per truck a year savings to the bottom line."** This outstanding fuel economy puts ProStar miles ahead of Cascadia, not to mention every other Class 8 truck on the road today.

WE STAY OUT IN FRONT SO OUR CUSTOMERS AREN'T LEFT BEHIND.

The International ProStar was developed using advanced computer modeling. The design proved itself superior in the wind tunnel. Now its unsurpassed fuel efficiency has been confirmed in this independent road test. All of which prove the lengths International will go to make sure its customers are never misinformed. And always Miles Ahead.

SEE DOCUMENTARY FOOTAGE OF THE ACTUAL TEST AT INTERNATIONALTRUCKS.COM

MILES AHEAD



A NAVISTAR COMPANY

*\$3,900/year savings is based on 144,000 miles/year at \$3 per gallon of gas. **The average fuel consumption difference between ProStar and Cascadia, using SAE Type III test methods during the days of October 2 and 3, 2007, was 5.7% in favor of ProStar.

PROStar™



IT'S OFFICIAL. PROSTAR™ BEAT CASCADIA.



PROStar™

In head-to-head road tests performed in early October, the International® ProStar™ disproved Freightliner Cascadia's recent, and very perplexing, claims of superior fuel economy. Given the exhaustive testing we've put ProStar through, we were more than confident we could dispute their claim. So we asked one of our customers with a large fleet if we could use their production-spec'd trucks to perform head-to-head, real road fuel economy tests. They agreed, and immediately sent a ProStar and a Cascadia from their fleet for testing performed to SAE Type III standards. When the dust cleared, the ProStar was 5.7% more fuel efficient than Cascadia.* In fact, it's miles ahead of every other Class 8 truck on the road today.

SEE DOCUMENTARY FOOTAGE OF THE ACTUAL TEST AT INTERNATIONALTRUCKS.COM

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