International Newsroom

International Truck and Engine Corporation Questions Cascadia Aerodynamic Claim

Testing Should Include Whole Trailer in Addition to Tractor, and Meet SAE Standards; ProStar™ Results are Filmed and Documented in Real-World Simulation

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International Truck and Engine Corporation is questioning competitor Freightliner's recent claim that its new Cascadia is "officially" more aerodynamic than other Class 8 commercial vehicles.

"No truck that we have tested has outperformed our new ProStar™ in testing to Society of Automotive Engineers (SAE) standards, which include the whole trailer as well as the tractor in real-word simulations. Freightliner simply cannot say that," said Steve Gilligan, assistant general manager of International's Heavy Vehicle Center. The Cascadia was tested in Freightliner's private facility, which cannot accommodate a full tractor trailer.

The difference between the testing methods is critical, according to Bob Weber, International's chief engineer of heavy vehicles. "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 does on the road," said Weber.

Both the aft end of the trailer and the size and shape of the wake behind the vehicle "have a profound influence on the overall aerodynamic drag of the tractor-trailer combination," said Weber. "A vehicle's wake changes shape and becomes more pronounced as cross winds (and subsequent yaw angles) increase.

"International's ProStar is uniquely designed to minimize this wake and to achieve outstanding aerodynamic performance across the wind spectrum that drivers encounter every day on the road," said Weber. "It does not appear that

Freightliner is presenting aerodynamic drag data based on the wind-averaged drag coefficient formulation recommended in the SAE best practice for truck and bus wind-tunnel testing (SAE J1252)."

Gilligan said International is looking forward to delivery of a Cascadia, ordered to conduct testing according to recommended SAE standards. However, these plans have been postponed due to an apparent delay in the shipment of Cascadias. Citing communication from a Frightliner dealer, Gilligan explained that Cascadias are being held for shipment because of production issues. Additionally, chassis skirts apparently will not be available until late in the year, which will impact testing of full aerodynamic specifications. International's objective is to test all competitive products in a simulated real-world environment that removes factors that could distort the aerodynamic results.

International stands by results of previous tests that demonstrated ProStar to be more aerodynamic than any other Class 8 truck being operated in North America. International has spent more than \$1 million conducting full-scale tractor-trailer testing to SAE standards at Canada's National Research Council Institute for Aerospace Research. Competitive Class 8 vehicles including the Freightliner Century, Freightliner Columbia, Peterbilt 386, Volvo VNL780 and the Kenworth T2000 were tested, filmed and the results documented. None of these vehicles was more aerodynamic than ProStar, and at least one tested as much as 14 percent less aerodynamic. Aerodynamic design has been shown to be one of the key factors that can improve fuel efficiency.

International acknowledges that while Freightliner used a reputable agency, Auto Research Center, Inc., to observe the testing, ARC later stated that it "was not contracted to validate the flow quality of Freightliner's wind tunnel nor establish the criteria for the these tests," Gilligan said, adding that ARC uses full trailers when it conducts its own 1/8th scale wind-tunnel testing of tractor-trailer combinations in its own facilities.

When the Cascadia package becomes available, International will support

independent third-party fuel-economy testing of the Cascadia compared with the ProStar. These results will be published.

About International Truck and Engine Corporation

A wholly owned subsidiary of Navistar International Corporation (OTC:NAVZ), International Truck and Engine Corporation is a leading producer of medium trucks, heavy trucks, severe service vehicles, mid-range diesel engines, parts and service. International and its affiliates sell their products, parts and services through a network of nearly 1,000 dealer outlets in the United States, Canada, Brazil and Mexico and from more than 60 dealers in 90 countries throughout the world.

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