



Great Dane

August 8, 2014

NHTSA Docket No. NHTSA-2010-0079

Docket Management Facility
M-30
U.S. Department of Transportation
West Building, Ground Floor, Rm. W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590.

RE: Comments on the Proposed Phase II Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles

Dear Sir/Madame:

Great Dane, a manufacturer of dry van, refrigerated van and platform trailers, and refrigerated truck bodies has long been regarded as an industry leader in design, technology, innovation and quality. The company is headquartered in Chicago, Ill., and has additional corporate offices in Savannah, Ga., with manufacturing plants strategically-located throughout the United States. Great Dane's network of company-owned branches and independent dealers offers distribution points across North and South America. Great Dane can be accessed online at www.greatdanetrailers.com.

We at Great Dane support reductions in Greenhouse Gas emissions and improved energy efficiencies in transportation. Based on our experience and understanding of the activities relating to the proposed rulemaking we offer the following comments:

The issue of Greenhouse Gas (GHG) regulations affecting semi-truck trailers is a complex matter. Many issues are involved with regard to trailers such as proper selection of tires, weight reduction features and strategies, design for reduction of aerodynamic drag or addition of aerodynamic devices or systems, and of course the general trailer specifications for the intended purpose which influence size, weight and other significant design features. In addition, tractor-trailer interaction such as tractor to trailer ratio, miles traveled per year (per tractor) and tractor-trailer interface dimensions are major factors influencing overall combined vehicle fuel economy and GHG generation.

Trailer specifications vary widely from customer to customer and even within a given customer's fleet based on their operational needs. Our understanding is that most trailer manufacturers participating in the markets we design and build for provide equipment built to custom orders. Order sizes typically vary

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significantly based on many factors such as customer fleet size or needs, and market conditions. Many trailer manufacturers exist, each with various capabilities. Our experience is that the customers or their end users usually dictate critical specifications which may be affected by the proposed regulations.

Rolling Resistance Regulations

We recognize that trailer tires are a major operating expense for trucking fleets. Tires are designed and intended for long life and are expected to be re-treaded several times over their lifespan to lower overall operating costs. Trailer tires are available to our industry in single or dual tire configurations with various tread patterns and depths for various purposes. Tire re-treading is widely available and generally speaking after the initial purchase trailers operate on re-treaded tires. Thus, re-treading is widely available to the fleets in many tread types including low rolling resistance configurations.

We believe that low rolling resistance trailer tires, both dual and single configurations, assist with overall fuel economy where practical by application. Although they may provide some weight reduction and rolling resistance benefits, our understanding is that in many operations wide based single tires (WBST) do not generally provide the life and wear characteristics achievable with dual tires, nor are the re-treading options as available or as practical as for duals. We believe that this has had a major effect on the cost effectiveness of WBSTs and has likely led to them not being widely adopted in many trucking fleets for use on trailers at the present time.

Weight Reduction

Trailer weight reduction features and strategies vary widely as well. Most trailer fleets do not have the ability to forecast trailer payload weights over the life of the trailer. We believe that this has had a considerable effect on the use of this technique for fuel economy improvement.

According to industry experts, weight reduction provides only modest fuel economy improvements as compared to other methodologies. In some cases weight reduction may result in the opportunity for the carrier to take on additional payload (a proven efficiency improvement), however, we believe that in many cases this result is unachievable for many or perhaps most trailer operators. Additionally, weight reduction must be balanced against trailer durability, as lack of durability leads to trailer maintenance cost increases and/or premature trailer replacement. Thus, our investigations indicate that the overall lack of sufficient clarity to calculate a payback due to fuel economy improvements from weight reduction makes this approach impractical for many trailer fleets. We also believe that a weight reduction approach for regulation compliance will likely prove prohibitive for most trailer operators.

Aerodynamic Design or Aerodynamic Enhancement Devices

Aerodynamic enhancements for van or box type trailers are widely available in the marketplace. These aerodynamic systems are generally recognized as having the greatest potential effect among trailer based fuel economy improvement techniques, but they are not universally applicable to every operation. Factors such as tractor-trailer geometric compatibility, operational speed, and maintenance and damage considerations have a strong influence on acceptability for a given fleet. In some applications ancillary or work performing devices built into or mounted onto the trailer may preclude the employment of certain aerodynamic devices or systems.

The use of trailer side skirts for van trailers (skirts) has grown markedly in the past few years. We believe this is partially because of requirements brought forth by California and also due to market forces. Other types of devices such as front or rear devices, or underbelly fairings have seen limited adoption, probably due to damage and maintenance concerns as contrasted to their costs and efficiency improvement potential. We perceive that adoption of these types of devices is highly dependent on operational suitability and many factors have severely limited their adoption.

We not aware of a significant availability of aerodynamic devices intended for trailer types other than van type trailers. Nor are we aware of aerodynamic designs being widely accepted by users for other trailer types, possibly due to operational factors that those fleets experience. Finally, we are not aware of the commercial manufacture or use of inherently more aerodynamic box or van type trailer as compared to today's typical trailers in our served market.

Conclusion

If trailers are included in proposed GHG regulations for the reasons cited above we believe such regulations should be limited to 53' or longer box trailers, account for tractor-trailer ratios in determining costs and benefits, and maintain current tractor-trailer interchangeability.

Due to the wide variation in trailer specifications that are expected to continue to be required we believe that regulations that force technologies or specific designs rather than requiring performance improvements would have a negative impact on the transportation industry. We also believe that the variations in trailers manufacturer's individual capabilities and the variety of trailer configurations in the market combined with a requirement that trailer manufacturers certify actual aerodynamic drag coefficients even under a binning methodology would have the unintended consequence raising trailer costs significantly and would be difficult to enforce.

We believe that regulations that require mandatory adoption of aerodynamic technologies to provide drag reduction as opposed to an absolute value of aerodynamic drag, with well-planned exceptions for certain trailer types and trailer operational characteristics would prove much less costly to our industry and would be much more practical from an enforcement standpoint. Such a methodology expanding on the widely understood SmartWay voluntary technologies could then allow trailer manufacturers to certify compliance to future regulations at an OEM level. Finally we believe that proposed regulations must recognize the limitations of today's technologies and proposed regulations should foster additional improvements thru incentives.

Sincerely,



Charles R Fetz, P.E.
Vice President Design and Development
Great Dane