

Evolving Trailer *Technology*

V16 • 1



Walmart Sustainability Trailer of the Future

Addressing efficiency needs with futuristic concepts

The Ultimate “Freedom”

CorroGuard now available on Freedom LT Flatbeds

AdvantEDGE Spotlight

Smith keeps shipments moving

2014 Events Calendar



Great Dane Event



Johnson Refrigerated Truck Bodies Event

April



April 8-11

NAFA- Fleet Managers Association
Minneapolis Convention Center
Minneapolis, MN



April 10-12

Truck World
International Centre
Toronto, Canada



April 13-15

NPTC - National Private Truck Council
Duke Energy Convention Center
Cincinnati, OH

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Evolving Trailer Technology

Great Dane Trailers

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Creating the Future Today

The best innovators are need-seekers.

At <location> we work closely with our customers to identify their pain points in order to provide the best solution to any challenge. Customers may find it challenging to problem solve when immersed in their particular situation, but at <location> we strive to form invaluable partnerships which provide our customers a fresh outlook and the industry experience to overcome any obstacles your operation may face.

Inside the pages of this issue you will learn how Great Dane partnered with industry leaders to develop the sustainability trailer of the future which addresses efficiency needs with futuristic concepts. We also announce an enhancement to our CorroGuard offering along with the new option to CorroGuard the Freedom LT flatbed's mainbeam.

Read about one customer who utilizes 211 years of experience from 11 in-house savvy technicians to help design their Great Dane fleet specifications. In addition, this customer pushes custom specifications further "outside the box" and utilizes Great Dane's unique Double Dex system to increase load flexibility and cargo space.

Also covered in this issue is a customer who has collaborated with a Great Dane dealer to develop a unique cold exhaust system that allows the fleet to haul dual temps on a traditional single temp trailer while reducing exposures to temperature claims.

Great Dane has spent over 100 years developing relationships and inroads with industry experts in order to help our customers create solutions and build their ideal trailer for the future today.

Regards,

Brandie M. Fuller
Vice President, Marketing
Great Dane



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Great Dane.*



Entering the Space Age

Well, maybe not, but this concept vehicle certainly addresses efficiency needs with futuristic concepts

Great Dane was selected by Walmart to work with the company—in conjunction with Peterbilt and Capstone Turbine—to create a concept vehicle designed to maximize efficiency on the road. The concept vehicle, called the Walmart Advanced Vehicle Experience is a one-of-a-kind prototype that offers a whole package of “firsts.”

Over the last three and a half years, Great Dane manufacturing and engineers have worked closely with members of the project team. The end result is a highly sophisticated aerodynamic tractor/trailer combination with radical aesthetics, lightweight construction for fuel economy and the latest technology from component manufacturers.

For Great Dane and the industry, this was the first production of a single piece 53-ft. carbon fiber panel (used in sidewalls and roof). Carbon fiber is a material that is ten times stronger than steel and lighter than fiberglass. Carbon fibers can be wound on a spool like cotton thread, and like any thread it can be woven into a fabric of large sizes. For instance, carbon fabric weaves are oriented to oppose tensile stress in airplane wings, automobile air spoilers, golf clubs and today, tractor trailers. While the cost of the material is high, historically the price has been trending lower, therefore forward thinking manufacturers and customers are exploring the possibilities now.



This concept vehicle, called the Walmart Advanced Vehicle Experience is a one-of-a-kind prototype that offers a whole package of "firsts."

The trailer's nose is "convex" or rounded like trailers of the 1930s to smooth airflow. It is clad with solid carbon fiber, which provides a weight savings of about 4,000 pounds. Great Dane partnered with Roush Engineering, a company from Detroit known for creating striking, yet functional designs for the auto industry, to build a one-off mold for the unique shape.

Fiber-Tech, a current Great Dane supplier, supplied the capability of manufacturing large composite panels. Fiber-Tech in conjunction with Milliken, who provided the panel's core product, created the side panels with a carbon fiber skin and a light-weight core that provided the correct strength while achieving the goal of keeping things light. This partnership pushed the envelope of trailer technology even further as the trailer has a unique solid 53-ft. one-piece floor to reduce weight without sacrificing strength and performance.

Finally, the marker, mid-turn, and clearance lamps are a new technology provided by Grote Industries. LightForm[®] sets a new benchmark in the future of FMVSS-compliant lighting. The LED emitters are mounted on thin polycarbonate strips and are capable of photometrics that meet and exceed DOT requirements with a current draw far less than traditional LED lighting. These advantages allow an extremely low profile light that can contribute to aerodynamics and damage resistance. In this project, LightForm[®] is especially beneficial in conforming to the contoured exterior surfaces with a stylish lighting product.

While not all of the features on this trailer will actually go into production, over time those that do will likely be similar, or inspired by these features.

On Display at MATS

For those who are attending the Mid-America Trucking Show in March, the entire tractor-trailer combination will be on display in Great Dane's booth 🇺🇸





ADVANTEDGE
National Aftermarket Parts & Service Program

Smith Keeps Shipments Moving

Support on the road gives Smith Transportation Services the advantage

Smith Transportation Services is a fleet that prides itself on providing comprehensive transportation solutions to clients nationwide, including customized consolidation, distribution, logistics and warehousing services. The truckload (TL) and less-than-truckload (LTL) asset-based carrier offers fast, reliable, efficient, cost-effective, quality service, which includes a Load-to-Ride LTL service which is touted as fast, efficient and claim-free, and a refrigerated division that provides reliable perishable deliveries across the USA. The company meets customer needs by keeping its trucks on the

road delivering freight with the help of the Great Dane AdvantEdge program. According to Ryan Bievenue, Branch Manager at Smith, "We have a fleet of 100 trailers and 50 drivers. With our trailers being on the road so much, we need more service locations. That's why we have selected AdvantEdge program to support our operation. Frankly, it gives us many more options now that we are able to have our fleet trailers repaired while out on the road."

Bievenue explains the key features of AdvantEdge that makes the program appealing: "Advantage provides more vendor choices with the ability for consolidated billing. Using the program we've been better able to control cost because of the way the billing and invoicing is done and we are able to maintain better records of our fleet."

The company is based in Sunrise, FL, with offices and terminals in Los Angeles, CA, Nashville, TN, Clearwater, FL, Tampa, FL, Miami, FL, Medley, FL and JFK Airport. The Smith goal is simple: to build an organization on reliability. The AdvantEdge program and Great Dane are key partners in realizing that mission by helping the fleet keep its trailers on the road meeting customer expectations.



TONY'S TECH TIP

Wheel End Failures

Drivers should be taught what to look for during a pre-trip inspection. Check for signs of loose wheel nuts, leaking hub caps or wheel seals and low lubricant level. During an enroute inspection, drivers should check for hot hubs. If the hub is too hot to touch, there is a problem. Wheel end failures are very expensive and dangerous. If any of these conditions exist, take the trailer to the nearest shop or have a service truck come to the trailer in serious cases.



Tony Neven
Great Dane Aftermarket Service Manager

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Web Site: AdvantEDGE.GreatDane.net



Ultimate Line of **Defense**

CorroGuard is the number one defensive player in your anti-corrosion playbook

The undersides of trailers are constantly hammered at high rates of speed by road debris such as pebbles and stones. But not all coatings can stand up to such abusive and high-impact environments. As a result, trailers that look shiny and new can quickly degrade visually, and more importantly be subjected to the damaging effects of rust and corrosion.

That's why adding corrosion resistance and road debris damage protection is often a priority for many fleet operations. In response, trailer manufacturers typically offer a choice of solutions to new trailer buyers. The first line of defense is often standard wax-based self-healing top coat products. But when a customer feels they need to beef up their line of defense even further they often look at galvanizing major trailer components.

However, the most galvanizing force available to help combat corrosion on your trailers isn't galvanizing at all. Available exclusively from Great Dane, CorroGuard benefits are unmatched by any other alternative. Applied as a tough resilient thermoplastic coating to sub-frames, landing gear and other components, CorroGuard is an extremely powerful defense against the profit-eating effects of corrosion.

A galvanized coating can crack and flake due to impact from rocks and other road debris, exposing the base metal to corrosion. A spray-on thermoplastic coating, like CorroGuard, resists impact damage and is not easily abraded or compromised. CorroGuarded trailer components are also impervious to the nasty road chemicals in use today. In short, CorroGuard is your right hand man when it comes to impact and corrosion protection.

CorroGuard is typically applied to components under the trailer that are hard or impossible to galvanize, such as axles, brake chambers, air tanks and support gear legs; thus offering the most comprehensive corrosion protection system available. Other trailer manufacturers are unable to hot-dip galvanize these individual components; however Great Dane's spray-on process happens in the production line which allows for complete coverage of the undercarriage.

In addition to superior appearance, CorroGuard is the best, most cost-effective solution that adds life to the trailer.

CorroGuard is a premium feature available on the Champion Dry Vans, Everest Reefers, and the Freedom LT flatbed, and is backed by a five-year limited warranty. 



Tech Spec'd

AAA Cooper Transportation technicians customize Great Dane trailer specs

Capitalizing on their combined 211 years of experience, eleven savvy technicians who work for AAA Cooper Transportation sat down with their Great Dane representative and developed customized trailer specifications for the fleet. Using their years of experience and understanding of trailer component combinations, they came up with the perfect specs for the new Great Dane 53-ft vans and 28-ft. pups which the fleet recently ordered.

According to AAA Cooper Transportation's Vice President of Safety and Maintenance, Steven Aronhalt, "Our fleet technicians worked closely with our Great Dane representative to review trailer specifications— line by line—to build the best trailer for our application. The spec' includes every detail from exterior and interior wall preferences to the ways we need to haul and protect cargo. As a less-than-truckload (LTL) carrier, the inside of our trailers have to handle a variety of loads—differing sizes and weights—which means we need optimum flexibility."

Double Dex System

- Increases Load Flexibility
- Maximizes Trailer Cube
- Recessed Snag-Free Cargo Track

“Our fleet technicians worked closely with our Great Dane representative to review trailer specifications— line by line—to build the best trailer for our application.”

Steven Aronhalt
Vice President of Safety & Maintenance AAA Cooper Transportation

Added flexibility

One of the creative aspects of AAA Copper’s newly designed trailer specification is the addition of the Double Dex system developed by Great Dane, which allows for increased load flexibility. It is ideal for LTL carriers because of its “double-decking” freight capability that helps decrease cargo damage and increase profits by maximizing useable trailer cube.

Aronhalt notes, “The Double Dex system allows us to put pallets on the floor and add a second deck for additional cargo.” It works by using captive beam technology, which can help to improve load average and increase revenue per mile. As a factory-installed option, this innovative design enables the captive beam cargo track to be entirely recessed in-between the interior panels of the fleets’ Great Dane SSL trailers, providing a virtually snag-free area. Plus, the beams used in this system lock into place at the extreme top of the trailer, providing an additional 2.31 inches of overhead clearance as compared to the competition.

Company technicians know the importance of minimizing shop time so their trailers can be on the road earning revenue. As a result, the trailers need to be easy to repair. So, not only does the system improve cargo space, but it also offers ease of maintenance. In the event the inner post requires repair, replacement does not upset the liner or the inverted steel post, which is recessed in the track.

By capitalizing on the talent of its technicians, AAA Cooper Transportation has created the best spec for the needs of its operation. 🚛



Saving Weight, Saving Money

Great Dane's lightweight Everest reefers lower "TCO"

Lowering total cost of ownership (TCO) is top-of-mind for most fleet managers these days. One of the ways to accomplish this is to buy the right trailer for the application— one that is durable, lightweight and provides fuel savings. For refrigerated fleets across the Americas, the best solution is often a Great Dane Everest reefer.

Adding Cargo AND Saving Fuel

Lighter weight trailers allow the shipper/carrier additional cargo capacity towards the 80,000 lb. GCVW allowed by law. It can also translate into fuel savings as lighter vehicles burn less fuel. With Everest trailers, achieving light weight is not just about cutting specs. It's a process of balancing optimal specs and design without compromising integrity and adding costs.

With Everest trailers, Great Dane is focused on surpassing the 12,000 lb. weight barrier through innovative design. This is being achieved with extensive engineering design and testing that enables engineers to "push the

envelope" of the design and material properties of numerous components.

Lightweight AND Strong

Efficient extrusion designs, use of adhesives, and state-of-the-art foaming processes help achieve strength while saving weight. In addition, Great Dane's panel foam construction not only ensures thermally efficient insulation, but the panel construction also enhances the overall strength of the trailer and makes it easier to repair.

Performance AND Durability

When it comes to optimum performance and durability, the Everest's advanced weight-saving design—along with PunctureGuard (standard) lining and ThermoGuard (optional) lining—make it the perfect solution. Add to that the enhanced strength and an advanced and modern insulating process and you have the complete package in an efficient and durable trailer.

The Bottom Line

Everest refrigerated trailers help fleets lower their TCO! 

ThermoGuard iPad App Now Available for Download

Great Dane has released its first iPad app, focusing on our company's patented ThermoGuard liner. The app includes a wide range of interactive features such as animations, dynamic charts and videos. By utilizing the app, users can focus in quickly on those features and benefits of most interest to them. The app can now be downloaded on the Apple App store at no charge. Just search under "Great Dane" or "ThermoGuard".

Some of the key information available in the app include:

- An animated comparison between traditional liners & ThermoGuard
- A visual presentation of ThermoGuard layers
- Graphics showing how traditional liners allow insulation outgassing and moisture absorption, while ThermoGuard liners greatly reduce this effect
- Product videos
- Customer testimonials
- Interactive fuel savings charts



Great Dane  FREEDOM LT

The Ultimate “Freedom”

CorroGuard now available on Freedom LT Flatbeds

When a Great Dane Freedom LT flatbed spec includes CorroGuard, the owner has just purchased “freedom” from structural damage caused by rust and corrosion from stone impingement and road debris. It’s common knowledge that fleets want to extend the life of their trailers and they know that corrosion protection and damage control are important factors.

Not only does CorroGuard protect the flatbed, but it also improves and enhances its appearance. While protecting the trailer from damage helps keep it looking like new, Great Dane’s CorroGuard can also add durable color to the trailer, improving its look for many years to come.

Today’s aggressive de-icing chemicals (sodium chloride, calcium chloride, magnesium chloride) being used on the highways can wreak havoc on steel trailer components and structures. Road salt (sodium chloride), which was long used in states affected by snow and ice during the winter months was a known corrosion-inducing agent. But in recent years, many state transportation departments have replaced or augmented sodium chloride with other ice control chemicals—chemicals that are even more aggressive in inducing corrosion. Fleets that add CorroGuard to the Freedom LT trailer spec know it provides a tough barrier to protect against chipping and abrasion, which can expose the structure of a flatbed to these corrosive chemicals.

Protecting the bottom line, improving image

CorroGuard’s extra protection saves fleets money. Here’s how the return on investment plays out. Repainting a flatbed can cost a fleet thousands of dollars—and there could be additional costs related to lost revenue depending on the amount of downtime trailers incur when they are sidelined. CorroGuard can help fleets avoid those expenses. In addition, Freedom flatbeds with CorroGuard protection look better longer—and that helps fleets maintain their positive image. 🐾

Providing the best solution

Great Dane’s CorroGuard option is a spray-in-place thermoplastic coating uniquely engineered for superior long-term protection from road abrasion, stone impingement and corrosion. It offers excellent chemical and corrosion resistance. The textured surface and color provides significantly better appearance compared to traditional galvanizing and/or undercoatings. CorroGuard is a high performance coating alternative to galvanizing and provides the highest physical properties of undercoating materials including tensile, tear, and elongation strength.

Freedom LT Appearance Package

For enhanced visual impact, be sure to ask about the Freedom LT’s optional Appearance Package which includes an aluminum filler plate and extra lighting.



Varying Degrees

Midwest Refrigerated Services employs Great Dane reefers specially designed for multi-temp loads

When it comes to hauling varying temperature loads, Midwest Refrigerated Services (MRS) has it down to a science. The company is a refrigerated less-than-truckload (LTL) load consolidator with a fleet of trucks, 55 Great Dane Everest SS trailers and a public refrigerated warehouse company with sites in southern Wisconsin running multi-stop truckloads—consolidated to all 48 states. Working in collaboration with its suppliers, the fleet has developed what it believes is the perfect refrigerated trailer for its needs.

Reefers handle “cool” to “frozen”

It takes the right trailer and interior configurations to handle deep frozen to cool loads. Jim Koeble, Vice President of Transportation, describes how his trailers handle the extremes: “We separate frozen and refrigerated compartments (frozen in nose, refrigerated on tail) with an insulated bulkhead. A thermostat in the rear of the

trailer (refrigerated compartment) controls an exhaust fan attached to a PVC pipe that blows the colder air in the front to the rear through the pipe when the refrigerated compartment becomes warmer than the thermostat set point. The bulkhead has a notched corner to accommodate the PVC pipe, which is mounted along the length of the upper corner ceiling of the driver’s side of the trailer. Additionally, a temperature probe is mounted in the rear of the trailer that is wired in to the refrigeration unit allowing for the driver to monitor the temperature in both compartments and to provide temperature trip history in the unit’s data logger. Our Great Dane trailer dealer, Trudell Trailers, our refrigeration unit dealers, and our bulkhead supplier, ITW Insulated Products, all collaborated with us to develop this solution.”

Trudell Trailers staff helped lead the fleet as it gathered



"...as we updated the fleet we stayed with the same Great Dane spec that had proven itself in hard duty"

Jim Koeble, Vice President of Transportation MRS

information from a cross functional team of MRS employees from the transportation and warehousing areas of the business to discuss ideas and ask questions regarding the fleet's particular freight needs. From that meeting other vendors were brought in and specs formulated to find solutions to those needs. The modification that came from that meeting was the cold exhaust system (detailed previously) that allows the fleet to haul dual temps on a traditional single temp trailer and reduce exposure to temperature claims. Koeble adds, "We continue to look for ways to reduce costs and improve efficiencies with our business partners."

Out for delivery

According to Koeble, "Once our trucks are empty, we generally reload them with full truckloads and move those loads back to the upper Midwest and unload them so that they can be reloaded back out again with another pool consolidation load. The steady 52 weeks per year freight and predictable nature of our lanes and patterns are attractive to many drivers. We deliver to all of the major retail grocery distribution centers and food service distribution operating companies. We haul for both the food processor/manufacturer shippers and for customers who control their inbound logistics from their suppliers. The major commodities in our consolidation program are cheese, dairy, meat, chocolate, baked goods, and food ingredients."

MRS has been in operation since 2008. The fleet has its roots and refrigerated LTL load consolidation model dating back to the early 1990's through previous ownership. Koeble notes, "When MRS was spun off in 2008, it included a fleet of existing Great Dane trailers. The trailer boxes were in excellent condition for their age, so as we updated the fleet we stayed with the same Great Dane spec that had proven itself in hard duty. In addition to company-owned trailers, many of our dedicated owner-operators run their own Great Dane trailers." 🚛

Bridgestone Rolls Out NEW R268™ Ecopia™



Bridgestone Commercial Solutions has debuted a new addition to its fuel-saving Ecopia tire product line. The R268 premium all-position radial is designed for regional and pickup/delivery fleets seeking performance that stands up to high scrub environments while offering fuel efficiency advantages.

With benefits such as high-traction, long wear life, and low rolling resistance, the Bridgestone R268 Ecopia not only answers customer needs, but also expands options to maximize fleet performance. Adding to the appeal is the fact that it is EPA SmartWay® verified and California Air Resources Board (CARB) compliant.

Features include:

- Wave Channel Design—reduces groove bottom strain, combating the initiation and spread of irregular wear
- Optimized Rib Distribution—ribs are proportioned for added stiffness, helping to reduce irregular wear throughout the footprint
- NanoPro-Tech™ Compound—limits energy loss for improved rolling resistance and optimum fuel efficiency
- High Scrub Tread Compound—enhances resistance to tread scrubbing, increasing tread life

The new R268™ Ecopia™ is a replacement for both the Bridgestone R250F and the Bridgestone R260F. It is an optional tire on Great Dane trailers. 



BRIDGESTONE

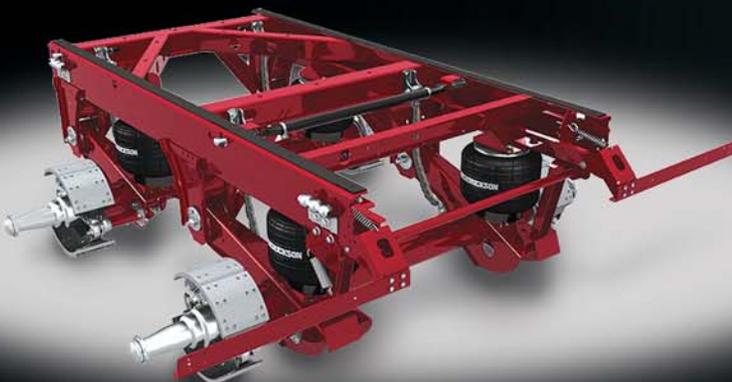
Hendrickson's ULTRAA-K™ System Offers ONE-TWO PUNCH

Hendrickson International's ULTRAA-K™ system offers a juxtaposition of light weight and strength, is stronger than the heavy-duty VANTRAA-X model and yet is the lightest slider system in the industry by nearly 100 lbs.

Great Dane partners with Hendrickson

As strategic partners, Hendrickson worked closely with Great Dane throughout the development of ULTRAA-K. By supplying prototypes for Great Dane, Hendrickson logged valuable real-world miles to validate the system's design while giving Great Dane an opportunity to provide feedback about its maintenance and ride quality characteristics. Additionally, Great Dane submitted ULTRAA-K to rigorous testing to evaluate its strength and durability to ensure this system lives up to its stringent standard for supplying high-quality, dependable products. Standard, exclusive ULTRAA-K features including:

- **Zero Maintenance Damping™ (ZMD™):** Featuring a patent-pending design, this "shock-less" ride technology incorporates suspension damping within the air spring, which is designed to provide uniform damping levels over the life of the spring. ZMD air springs offer superior cargo protection and driver comfort compared to shocks. The elimination of the shock absorber decreases suspension maintenance and reduces risks associated with roadside tickets and CSA violations.
- **Pivoting Mud Flap Brackets:** Mud flaps and associated components are susceptible to damage, especially when pinched against a curb while a trailer is operating in reverse. Hendrickson designed pivoting mud flap brackets to prevent damaged mud flaps and to reduce maintenance associated with replacing mud flap components.
- **Protected Height Control Valve Mounting:** ULTRAA-K's unique HCV mounting ensures more accurate ride height settings and locates the HCV in a more secure location to protect against road debris.



- **10-Year Warranty:** Engineered for toughness, ULTRAA-K is backed by a 10-year structural corrosion warranty, unmatched in today's marketplace.

Key Advantages

Like Great Dane's line of Everest trailers, the ULTRAA-K system is known for its strength, dependability and light weight. With a robust yet lightweight design and virtually maintenance-free components, ULTRAA-K is a high-performance system that allows fleets to carry more cargo per load and helps keep Great Dane's Everest trailers where they should be—out of maintenance bays and on the road. Beginning July 2014, the ULTRAA-K will come standard on all Great Dane Everest reefer models. 🌐

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