

Guest Editorial



Trends from TMC

By Sean Kilcarr
Senior Editor
Fleet Owner

Saying there's a lot going on in the trucking industry right now is like saying Katrina brought a little water to New Orleans – and one place where a lot of trucking trends come to light is the annual meeting of the Technology & Maintenance Council.

A wide variety of issues took center stage at TMC in March – ones affecting both trucks and trailers alike. Easily at the top of the list was 2007 emission control technology development.

Electronic on-board recorders for automatically recording driver hours-of-service data ran a close second among the hot topics at TMC. A draft of proposed regulation on black boxes is due sometime in May or June that should address the cost of such technology and whether they should be mandated for all truckers.

Of more immediate interest to the trailer community is an effort by Eaton and Dana as part of their Roadranger partnership to boost performance standards for both transmission and drive axle extended life lubricants – moves that could affect trailer axle lubricants standards eventually.

The new specs boost required qualifying performance criteria in a variety of areas, especially expanding high- and low-temperature coverage.

Dana and its partner SmartTire Systems are also rolling out a new wireless tire monitoring system.

The new SmartWave tire pressure monitoring system is the first of several wireless systems Dana hopes to develop not only to record truck and trailer tire pressure and temperature, but to also monitor wheel end temperature and vibration, brake wear data, axle and lubricant temperatures and when lubricants need to be changed.

It all means one thing: nothing is standing still in trucking today. "It also proves the old bromide true," said Bob Wessels, director of product strategy for Caterpillar. "The one thing about change is that there is always more of it."

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CARRIER SPOTLIGHT



Doing It Right at Dacotah Leading North Dakota business celebrates 100th anniversary

In 1906, the company that grew to become Dacotah Paper Company started with modest beginnings. It was an endeavor intended to shelter, clothe and feed the two partners; little did they know that their company would become a leading employer in the region.

In the 1920s, an employee who would have a vital impact in the future of the company came on board as a salesman, F.W. "Bill" Mohr Jr. For the lofty sum of \$30 per week, he helped propel the business forward. Among other winning attributes, Mohr made deliveries in Fargo, N.D., on his bicycle. He felt this provided the level of service the customer deserved.

The business became known for its integrity and reliability, and in 1951 the company incorporated in North Dakota as Dacotah Paper Company.

This year, Dacotah celebrates its 100th anniversary, making deliveries with modern tractors and carrying product in trailers that feature the latest in technology.

While the method of delivery has grown from a bicycle to high-tech trailers, the concept on which the company was founded remains the same. "Doing it right" every time and providing superior customer service has allowed Dacotah paper to expand from one bicycle making deliveries in one town to some 80 pieces of equipment providing service to North Dakota, eastern South Dakota, Minnesota, and parts of Iowa, Wisconsin and Montana.

Dacotah has also expanded its product line, and today is a wholesale distributor of industrial paper, janitorial supplies and equipment, wash-room products, building products, food service disposables, incontinent products, packaging and office products. The company currently stocks more than 5,000 items.

Dacotah's current line of products includes such brand names as Georgia Pacific, Solo Cup, Johnson Wax and other brand name products.

All of this is operated out of a 220,000-square-foot warehouse and office facility in Fargo, all dock high with rail spur accessibility. Their warehouse was recently expanded. A state-of-the-art, Internet-based on-line ordering system for customers makes doing business with Dacotah Paper

simple and fast.

Over the years, the company slowly expanded outside the Fargo area, and in 1967 started over-the-road regional deliveries using straight axle trucks. In 1978 Dacotah Paper bought its first tractor and trailer rig, which included a 28-foot single axle trailer.

Proud of its past and focused on the future, the company credits various factors in its 100-year success. Dacotah's sales force and support staff are continually educated and trained to provide excellent service to customers by solving their problems and analyzing their needs.

"All of us at Dacotah Paper Company strive to provide the best service and the highest quality product at all times," said Matthew Mohr, third generation president of Dacotah Paper. Consistent quality products let customers know they will get consistency at competitive prices. Many of Dacotah's product lines have sold for more than 50 years, and others have been added to better meet customer needs.

Mohr also credits the company's success to timely and cost-effective delivery. According to Gary Rodacker, fleet manager at Dacotah, the Great Dane Classic vans his company delivers product with are built for the long haul. Quality and durability, plus Great Dane's willingness to put specs that work for Dacotah, are the reasons he believes in the Great Dane product.

While celebrating a landmark anniversary, Dacotah does not intend to stop here. According to Mohr, the future growth of his company will come from geographic expansion, noting the recent addition of a new transfer location in Sioux Falls, S.D.

The next time you see a "school bus yellow" truck and trailer with the Dacotah Paper name, remember that despite humble beginnings and deliveries on a bicycle, Dacotah is now the most modern and effective operation in the area.

Dacotah Paper is a customer of Trudell Trailers, Fargo, ND.

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TRACKING TECHNOLOGY

Untethered trailer tracking use on the rise

After 9/11, the Federal Motor Carrier Safety Administration (FMCSA) was directed by Congress to administer a pilot test for the development of an Untethered Trailer Tracking system (UTT) for monitoring trailers at every phase of movement: pick up, delivery, receipt and storage. The FMCSA has published the final pilot report, which examines technology and methods to improve safety and security of trailers and shipments.

The FMCSA and government officials hope the project, when voluntarily implemented by carriers, will reduce the vulnerability of truck operations to acts of terrorism. The UTT system is meant to reduce vulnerabilities by addressing the potential threats of stolen trailers.

The FMCSA concluded that the UTT system test highlighted various security improvements. According to test participants, the system can effectively monitor cargo and trailer integrity by providing alerts of intrusion, diversion or theft events.

Meanwhile, providers are continually testing both tethered and untethered trailer tracking systems, which continue to evolve. In addition to strengthening security, these systems also offer benefits to support the bottom line.

Generally speaking, untethered trailer tracking systems use either satellite or terrestrial

technology. Some combine the two. The systems offer capabilities that help users increase trailer utilization, improve cargo security, reduce fuel costs and increase driver satisfaction.

These systems know which unit is attached to which trailer, when they disconnect and which truck left which trailer at a specific location.

This provides better visibility of equipment in real time; carriers who have implemented these systems also say they give them a leg up over the competition. They enable a carrier to be more efficient, and carriers are reporting reduced tractor-to-trailer ratios. Load sensors can be used to document detention charges.

Trailer tracking also benefits drivers. Instead of having to physically check customer locations and hunt down trailers, these systems can tell them exactly where the trailers are.

A variety of systems are available, and more innovations are on the way as trailer tracking continues to demonstrate the many benefits it offers for both security and the bottom line.

Compiled in part with information provided by Today's Trucking.

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Available Trailer Tracking Systems

ATTRAXE: assuredtracking.com

GEOLOGIC: gogeologic.com

GE TRAILER FLEET SERVICES: trailerservices.com

SKYBITZ: skybitz.com

TERION: terion.com

TRANSCORE: transcore.com

QUALCOMM: qualcomm.com

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Are Greatec radials right for you?

Today's new wide single radials are generating lots of interest. Extravagant claims are being made. They're even being touted as ideal for everybody. Bridgestone's position is that its Greatec wide single radials are a "Real Answer" for a very select niche of customers – those who can convert weight savings into payload – fleets who tend to "gross out" before they "cube out."

It's a significant payload increase: By converting drive and trailer tandems, you could save nearly 1,200 pounds if you're currently using steel wheels. Extra payload means fewer loads, fewer miles on the vehicle, fewer drivers needed, less maintenance, maybe even reduced insurance costs.

For a dairy hauler, it might mean 140 extra gallons of milk; even if you haul a dense produce, like lettuce, you could see a significant increase in capacity per load.

Wide single tires also provide fuel economy. A great deal of the fuel consumption attributable to tires is the result of having to flex sidewalls with each revolution.

With wide singles, there are half as many sidewalls flexing, and Bridgestone estimates this could result in savings of 2 to 5 percent on fuel. This may not be big enough to warrant buying all new wheels and tires, but as engineer Guy Walenga puts it, "If you can turn that weight savings into added revenue, the additional fuel you save is pure gravy."

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The Road Ahead



The Big Picture

Phill Pines
Chief Operating Officer
Great Dane Trailers

For more than a decade, the trailer has been touted as "no longer a box on wheels." Indeed, technology has enabled engineers to create trailers with numerous benefits. From components to materials to the actual manufacturing process, today's trailers are among the marvels of modern technology.

Further advancements in technology have provided additional benefits of customization. While mass production of like items cuts costs, not all businesses operate in the same way. This is especially true in the trucking industry. Specialized operations call for highly spec'd trailers. One type of trailer just will not fit all hauls.

At Great Dane, we tailor products to specific needs in a cost-effective manner. Great Dane has a diversified product line because our customers have diversified needs. Products such as the Classic freight van and P-Series serve a broad base of customers, while trailers such as the Double Dex and i-Van provide unique solutions for niche markets.

Despite this wide diversification, we utilize technology to factor customer solutions into all of our products. For example, a key component in all of our products is ease of repair. Another common thread: standard specifications and available options to reduce maintenance costs.

Customization often creates a competitive edge. Many of our customers are looking for that edge, and Great Dane has found creative, cost-effective ways to provide solutions. At Great Dane, the future in trailer design will continue to expand beyond the one-size-fits-all concept.

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Evolving Trailer Technology



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CARRIER SPOTLIGHT

'Do-It-Yourself' concept applied to P-101s



Sherwin-Williams rolls out the new year with pre-painted vivid blue trailer

Just in time for the holidays, Sherwin-Williams took delivery of 201 "Very Special" new P-Series Vans.

What makes them special? These trailers were built with pre-painted aluminum coil coated with Sherwin-Williams' own Kem-Flex®3000 coil coating.

The project is a result of the vision of Dan Dingfelder, director of Logistics and Fleet Operations at The Sherwin-Williams Company headquarters located in Cleveland, Ohio.

A long-time valued patron of Great Dane Trailers, Dingfelder always wanted to use his company's products in the trailer manufacturing process.

The trailers were formerly completely enveloped with a blue decal material and then had the famous "Cover the Earth"™ logo and company name applied on top of that; a time-consuming and costly process.

While negotiating this year's trailer order Dingfelder made it known that every available opportunity needed to be explored to get the trailers



built using Sherwin-Williams products.

Great Dane Representatives worked together with aluminum suppliers and David Calabria, market development director-Metal Building Products, Chemical Coatings Division of Sherwin-Williams, to formulate a coating that met the required specifications. Alcoa tested the product and provided samples, and the results can be seen in the photo. The Kem-Flex®3000 coil coating is now part of the P-Series trailer specifications.

A prototype model was built at Great Dane's Danville, Pa. plant, and a review was held along with Sherwin-Williams personnel.

Twelve different models of the trailer specifications were made to suit the needs of each Sherwin-Williams region, using insulated and non-insulated vans, Thermo King propane and diesel heaters, swing and roll-up doors, liftgates, etc.; in lengths of 48, 40 and 28 feet.

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Market Trends



Vertical Cube

Over the years advanced technology has allowed trailer manufacturers to maximize interior space by using specifications such as lower silhouette upper couplers, wedge designs, deck systems and shallow side posts. In the ever-increasing search for more usable cube, however, some operations have resorted to "old fashioned" technology in their search for ways to haul more product.

While it might be a stretch to call it a trend, we are seeing an increased interest in drop deck vans, particularly shallow drops or "electronics vans." Looking back into the late '60s, '70s and even the mid-'80s, drop deck vans were popular in all segments of our industry, especially among furniture haulers.

Rising fuel costs and the advent of the 53-foot straight frame "Can Van" gave way to a new era. Drops with wheel boxes and even the electronics van became increasingly more difficult to operate efficiently and they were driven to near extinction.

Today, the ever-increasing pressures on the bottom line have some of our customers rethinking the past; simply how to find additional space for loads that typically cube out before they weigh out. A few customers who haul these light loads, such as furniture, potato chips, plastic soda bottles and foam, appear to be returning to the drop deck model to take advantage of the additional vertical cube.

The additional space is not substantial on the surface, but over time it will add up. For example, a 53-foot electronics van, or shallow drop, compared to the same 53' x 102" x 13'6" with 110" inside height straight frame trailer, has 7 percent more cubic-foot capacity. A furniture van, or deep drop, compared to the same 53-foot straight frame van, has 12 percent more cubic-foot capacity.

For some types of hauls, drawbacks to drop decks are insurmountable compared to a straight frame. However, drop decks are no longer an endangered species. Whether this will become a market trend or simply an imaginative solution for specific hauls remains to be seen.

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ENGINEERING TECHNOLOGY



In Control Corrosion Undercoating and Maintenance

By Chris Stolfe
Sr. Manufacturing Engineer
Great Dane Trailers

Trailer underbodies, including structural members, suspensions, axles, floor supports, landing gear and upper-couplers, are subject to extreme and demanding conditions throughout the life of the trailer.

Moisture, road debris and winter road traction and de-icing materials sandblast the painted understructure area of trailers. Once the paint coatings are abraded, even if only to a minor degree, it will expose these areas to the caustic environment of the road salts and other de-icing materials as well as allow dirt and road debris to accumulate on these surfaces.

Exposure to ice-melting chemicals such as sodium chloride, magnesium chloride and calcium chloride; stone and gravel impingement; wide temperature variations; and rain and snow all contribute to a destructive environment that requires innovative and advanced technology coatings for proper rust and corrosion control.

Great Dane's undercoating compounds are specifically designed to provide a protective barrier against this harsh environment. "Dry-Flex" undercoat is a soft and flexible high-build film that resists stone chipping and temperature extremes

while blocking moisture from reaching the steel components of the underbody.

Underbody "I" Beam crossmembers are dipped in a specially formulated high-temperature, hot-melt wax compound that completely encapsulates the crossmember. This effectively blocks corrosion by sealing the steel from the environment.

For optimum corrosion protection, proper maintenance of these protected surfaces also is important: Frequent fresh-water pressure washing of the undercarriage helps to remove the corrosive chemicals used for de-icing during the winter months. Repair any damaged areas of the coating as soon as possible to prevent spot corrosion that can spread.

Great Dane is working on new technologies to further enhance underbody corrosion control. Thermo-plastic coating of steel underbody components is currently in testing, and advanced chemistry for soft coatings, which will provide greatly improved corrosion resistance for magnesium chloride, is under development. Both of these new technologies may be available in the near future.

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Valspar Supplies A Cure for Corrosion

The environment trailers are exposed to in cold climates has become increasingly challenging due to the chemicals that are being utilized for melting snow and ice. A poor coating selection can cause premature rusting on trailers, which adversely affects the aesthetics of the trailer and potentially shortens the longevity of the trailer.

To combat corrosion, Great Dane utilizes Valspar's R-Cure™ coating technology to achieve its performance expectations. To maximize the performance properties, Great Dane's facilities employ a two-coat process with the R-Cure 200 Epoxy Primer initially applied to the trailer followed by the R-Cure 400 Urethane Topcoat.

One of the significant benefits of the R-Cure 200 Epoxy Primer material is that it is very forgiving under different substrate conditions.

Another benefit of the R-Cure 200 Epoxy Primer is the minimal operational costs and labor required to apply the technology.

Through the ongoing partnership with Great Dane Trailers, Valspar continues to pursue further developments of the R-Cure technology to provide a better product for customers by reducing operating costs and increasing performance of the final product.

Information submitted by Valspar.

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ENGINEERING TECHNOLOGY

P-Series provides protection "Secure Cam" lock rods improve trailer security.

By Dan McCormack
Classic Reefer Product Manager
Great Dane Trailers

The security of cargo is becoming an ever-increasing concern. While it is impossible to provide total security for an unattended trailer, unique security features on Great Dane trailers provide additional deterrence and on-the-spot evidence that tampering has occurred.

This added layer of security, a standard feature on Great Dane P-Series van trailers, is made possible with the exclusive "Secure Cam" rear door lock rods.

While a typical trailer rear door lock rod provides a high degree of tamper resistance, the handle bolts or rivets could be removed and the door opened without breaking the lock or seal given enough time and tools. This makes it difficult, if not impossible, to determine if the trailer has been tampered with.

The "Secure Cam" design used on Great Dane P-Series trailers provides another layer of security. In addition to allowing the lock rod handle to be locked and sealed in the usual way, the curbside lower lock rod's cam and keeper have an integral loop forged into them. These loops allow an additional seal or lock to be applied directly to the rod locking mechanism. This second layer of security provides deterrence by forcing a criminal to spend twice the normal amount of time gaining entry and thereby risking detection.

Additionally, the Secure Cam provides a positive indication of tampering if the seal on the cam/keeper has been cut. Because the seal is applied directly to lock hardware welded to the body of the trailer, it is impossible to open the door without cutting the lock or seal.

As an added benefit, Secure Cam lock rods are also easier to open than traditional mechanisms.

Secure Cam is another example of Great Dane leading the way with innovative products for trailer customers. This exclusive security feature has been available from Great Dane since 1997, when it was developed for customers in border crossings and other high-risk areas. As carriers began seeking added security measures after 9-11, Secure Cam provided a ready solution.

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ON-LINE TECHNOLOGY

The full versions of the articles in this newsletter are published in the e-newsletter which can be delivered right to your in-box! Access the Great Dane web site to find out how and to access the in-depth articles that carry the e-newsletter symbol. Great Dane's web site also provides a full library of trailer technology news and product information. For additional information on the manufacturers or suppliers referenced in this issue, access their web sites below.

Customer Spotlights

www.dacotahpaper.com
www.sherwin-williams.com

www.hendrickson-intl.com

Hendrickson has expanded its web site to include a service facility locator for Pro-Genuine service affiliates in the United States and Canada.

www.trincongroupp.com

Trincon Group is a transportation business advisory company.

www.trucktires.com

Are Bridgestone's Greatec radials for your operation?

www.valspar.com

Benefits of Valspar's R-Cure™ coating technology.

www.fleetowner.com

Sign up for Fleet Owner's daily e-newsletter.

www.fmcsa.dot.gov/facts-research/research-technology/report/untethered-dec05/index.htm

Review the entire Untethered Trailer Tracking System report from the FMCSA.

Hendrickson introduces 121-inch axle spread

Hendrickson recently introduced a 121-inch axle spread version of the VANTRAAX HKANT 46K slider, a light-weight, tapered-beam 46,000-pound capacity system. It was refined specifically for haulers running heavy-duty, over-the-road box and refrigerated vans.

With the 121-inch spread VANTRAAX, the acceptable load capacity increases from 34,000 pounds for a typical closed-spaced application to 40,000 pounds in a 10-foot spread application. The wide spread also provides increased flexibility in terms of load distribution.

The wide-spread HKANT 46K comes with the same features as the closed-space 46,000-pound capacity VANTRAAX and trims more than 300 pounds compared to similar 121-inch spreads on the market.

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VAN TECHNOLOGY

High Cube Freight Vans

The P-101's unique design provides more than added space benefits.

By Chris Lee

P-Series Product Manager
Great Dane Trailers

One of the most comprehensive engineering and manufacturing projects in Great Dane's history, the P-Series incorporates features and options designed to provide durability and space at an economical price.

Since the introduction of thin-wall, dry freight models, the high cubic capacity P-101 has maintained its popularity because the need for 101-inch interior width remains strong. In addition, the P-101 also offers unique design benefits.

Among the design advantages of the P-Series are the simple wall construction for ease of manufacturing and repair, superior sidewall strength and relatively lighter tare weight than other thin wall trailers.

The side wall is constructed with .50-inch aluminum side sheet; heavy-duty extrusion aluminum top and bottom rails; 14-gauge, 80 KSI steel posts located at 12-inch centers forward of support gear and 16-inch centers to the rear; and 2-inch vertical rivet spacing throughout.

The special thin-wall top rail design and the .50-inch deep anti-sag series "A" logistic post provide a nominal 101-inch interior width from roof bow to scuff band. The patent-pending, snap-in lining design provides easy installation and removal for lining repair.

The P-101 sidewall is designed with the highest wall stiffness (EI) value among other thin wall designs. In addition, the fastener-free polyethylene

plastic lining provides a smooth interior that will not damage cargo. And the bright white color is aesthetically clean, which remains a priority for some customers.

While three times more puncture resistant than traditional plywood interior, the P-101's plastic lining is 20 percent lighter than hardwood.

Due to these unique design features, P-101 trailers have gained a positive reputation for durability and substantially reduced damage to the interior lining. As a result, P-101s are being used by a growing number of large fleet carriers that haul demanding loads such as paper and carpet.

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Protected by PunctureGuard for Heavy Haul Specs's

Added solutions are available for the heavy cargo hauler requiring extra-durable specifications. Among the options are 12-gauge posts and 12-inch post spacing offered throughout, and .20-inch thick PunctureGuard lining are available.



SHERWIN-WILLIAMS
from front page 1

The trailers were built at Great Dane's Brazil, Ind., Danville, Pa. and Jonesboro, Ark. plants; heater, decal, and liftgate installations coordinated, and the trailers delivered on time to go to work in 2006.

The use of the pre-painted coil significantly reduced the entire build process time and cost by eliminating the need move them to and from the decal company and incur the cost of that additional freight.

Founded in 1866, Sherwin-Williams is the nation's largest specialty retailer of paint, stains, coat-

ings, wallcoverings and associated supplies and sundry items. With more than 3,000 stores in North America, the company is dedicated to supporting the do-it-yourself consumer with specialized products, superior technical knowledge and one-on-one, personalized service that's focused on the do-it-yourself's unique project needs. Sherwin-Williams brand-name products can only be found at Sherwin-Williams stores.

Sherwin-Williams is a customer of Great Dane, Columbus, OH.

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Did You Know?

Semi-insulated, fully beneficial

Selecting a trailer to haul cargo is not a haul and white decision. And it is not always as easy as choosing a dry freight van or a reefer. Specialized markets call for unique solutions, which is where the semi-insulated trailer enters the picture.

Great Dane's i-Van, a versatile member of its van product line, features the latest in semi-insulated trailer technology. i-Van is manufactured using pour-in-place foam, which allows it to be approximately 20 percent more thermally efficient than conventional semi-insulated vans.

Engineers combined some of the technology of refrigerated trailers with requirements for durability and large interior dimensions to create a product that is perfect for temperature-sensitive loads and protects cargo from temperature extremes and/or fluctuations.

i-Van may not be the solution for all customers. Then again, a dry van is not the solution for all customers.

Carriers hauling products in Canada and the northern U.S., or even those running through varied temperatures, will find the i-Van integral to maintaining a steady temperature inside. For example, "Chemical Manufacturer A" that runs through moderate locales may not require an i-Van, while "Chemical Manufacturer B" that runs in Canada or the northern U.S. could greatly benefit from the insulating qualities of the i-Van. On the flip side, a candy hauler might have few or no issues hauling its product through Canada, but would experience disastrous problems attempting to run through the southern U.S. without an insulated trailer.

Other temperature-sensitive loads that will benefit from being hauled in an i-Van include pharmaceuticals, nursery/floral cargo, paint and perishable foods that do not need to be refrigerated, to name a few.

By combining materials and manufacturing methods developed to build refrigerated trailers with dry freight post side walls, i-Van offers the durability and toughness of a dry freight sidewall with the thermal integrity of refrigerated trailer insulation bonded to a smooth, non-plywood snag-free liner.

Admittedly, i-Van serves a niche market. But for those operating in this niche market, the benefits are unique and invaluable.

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