



# Bulldog<sup>®</sup>

## Mack<sup>®</sup> MD Electric

Medium  
duty game  
changer



### Form + Function

Mack's Design Studio pushes the edges of possibility

### Keep a Record

In-cab cameras boost fleet safety

### Truck-of-the-Month Club

How the Mack Calendar comes to life

Vol. 1 2023

Mack designers chart a dynamic future for Mack Trucks.



Brave the elements with Mack outerwear designed for warmth and movement.



Gear up with new Mack apparel.



Your Passion. Our Gear. Perfect Combination.

MackShop.com



Mack Yeti Hopper Flip Cooler

Be ready on and off the jobsite with Mack merchandise. Look the part with comfortable tees and work gear.



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## An electric start to 2023

We're just a few months into 2023 and already Mack Trucks has introduced several product offerings to meet the changing needs of our industry and customers, a new line of zero-emissions trucks, an extension of a technology that saves customers time and money, and new service offerings designed to make truck operations more efficient and hassle free.



The biggest news so far this year is the unveiling of the Mack® MD Electric, a battery electric vehicle (BEV) for Class 6 and 7 applications. This is a Mack truck through and through, which means that in addition to helping customers meet their sustainability goals, it will deliver the durability, reliability and low total cost of ownership that are hallmarks of this brand.

The MD Electric is very significant and builds upon the great foundation that the diesel MD has created in the medium-duty market place in only two years. It's Mack's second BEV, following the Mack LR Electric which has a growing acceptance in the refuse industry. The MD Electric brings the advantages of Mack's deep knowledge of truck applications, as well as our strong design and engineering heritage. The MD Electric enables another category of truck users to meet the future with confidence. And it has zero tailpipe emissions.

Electric drivetrains demand a steep commitment from a manufacturer to be effective in commercial trucking. Mack Trucks has made that commitment along with our dealers. A steadily growing number have made the investment required to support customers operating BEVs. When it comes time to turn to Mack for an electric vehicle, our network will be ready and waiting for you.

Excellence in customer service is a long-term effort, one that Mack has focused on for its entire existence. In recent years we've expanded capabilities and found new ways to meet the ever-changing needs of truck operators. Once again, Mack's dealer network has been a source of strength for our customers. We have a very strong family of dealers who constantly step up and invest in new personnel, new facilities, new technology and training to keep ahead of industry needs.

From 2010 through 2022 the Mack dealer network has become notably larger and capable of serving an increased population of trucks:

- Mack dealer locations: 303 (2010) vs. 415 (2022)
- Service bays: 3,308 (2010) vs. 5,561 (2022)
- Technicians: 2,533 (2010) vs. 5,844 (2022)
- Master Techs: 550 (2010) vs. 1,892 (2022)

In fact, there has been more than \$1 billion in network facility investments by our dealers in the last 12 years. Our dealers make these investments because they believe in the value of your business and the Mack brand.

In this issue of Bulldog® magazine, you'll also read about how Mack's new Premium Service Contracts simplify maintenance management and how enhancements to our Over the Air Updates brings leading technology to more aspects of truck management. Both of these have been introduced since the beginning of 2023.

There's quite a bit more in this issue to inform and engage you about Mack. So keep watching this space, and keep watching Mack. There's always more to come. ■

**Jonathan Randall, President, Mack Trucks North America**

## Mack expands Over the Air updates to more systems

Mack Trucks will be expanding the number of electronic control units (ECUs) enabled for Mack Over the Air (OTA) updates in the Mack Anthem®, Pinnacle™ and Granite® models.

Prior to this enhancement, key powertrain ECUs were able to connect remotely to allow diagnostics and receive over the air parameter changes and updates.

With the new configuration, the instrument cluster, vehicle ECU and body builder modules join the engine, transmission and aftertreatment control modules in their ability to be connected via Mack OTA technology.

"We are always looking for ways to help our customers maximize their uptime and improve their profitability," said David Pardue, vice president of connected vehicle services for Mack Trucks. "The additional ECUs with OTA capabilities double the number of vehicle systems we can monitor and update."

The additional control modules available for remote updates enhance the customers' ability to maximize uptime. What once required an in-person visit can now be done remotely to more ECUs and at a time most convenient for the customer.

"Mack OTA technology is constantly evolving to meet the demanding needs of our customers," Pardue said. "We set the standard when we launched the remote update capability, and this latest expansion puts us even further ahead with the number of vehicle optimizations possible through this service." ■

## Stephen Roy named global president of Mack Trucks



Stephen Roy has been appointed global president of Mack Trucks, effective June 1, 2023. Roy will also become a member of Volvo Group's Executive Board. He succeeds Martin Weissburg, who is retiring

after a long and successful career at Mack and the Volvo Group.

Roy brings many years of experience with trucks and related industries to his new role, including with Mack. He has most recently been Volvo Construction Equipment's North American leader. Previously, he also served as president of Mack Trucks North America, and as the executive leader of Uptime, Aftermarket and Soft Products, and Parts Sales and Marketing for Mack. Prior to joining the truck organization, he spent more than 11 years with Mack Financial Services in various positions, including vice president of Business Development and vice president of Sales and Marketing. ■

## Mack Trucks is the official truck partner for 23XI Racing



Mack Trucks has signed a multi-year partnership with 23XI (twenty-three eleven) Racing to be its official truck partner. The team is co-owned by NBA legend Michael Jordan and three-time Daytona 500 winner Denny Hamlin.

Mack will provide three Mack Anthem® models and one Mack® MD Class 6 model to 23XI Racing to support the team throughout the NASCAR Cup Series season. The Mack Anthem models will haul Bubba Wallace's No. 23 Toyota Camry TRD and Tyler Reddick's No. 45 Toyota Camry TRD between races, in addition to hauling team equipment. The Mack MD model will be equipped with a flatbed to transport the teams' vehicles as they are being prepared for competition.

"We make trucks that move racecars, but the partnership between Mack Trucks and 23XI racing is based on more than just capabilities," said David

Galbraith, vice president of global brand and marketing for Mack Trucks. "We have a similar focus on high performance, excellence in engineering and winning in everything we do. We are intentional when it comes to our partners, and 23XI's ethos is something we recognize in ourselves."

All three Mack Anthem models are black, 70-inch stand-up sleepers with full aerodynamic fairings packages, including side, roof and chassis coverage for improved aerodynamics. The trucks are powered by the efficient Mack MP®8-505C+ engine with 505 horsepower and 1,900 lb.-ft. of torque. Transferring that power to the wheels is a Mack mDRIVE™ 12-speed automated manual transmission. The Anthems are also equipped with an electric Auxiliary Power Unit (eAPU) to keep the cab cool without having to run the engine, and as a result, reduces emissions.

The 23XI Mack MD is outfitted with a custom rollback body that is designed

for low-clearance racecars to be loaded without damage to the bodywork. The MD's powertrain includes a 300-horsepower, 6.7L Cummins turbodiesel engine and a six-speed Allison automatic transmission.

The first Mack Anthem has been delivered to the team and can be seen at NASCAR events around the country. The remaining two Mack Anthems and Mack MD are planned to be delivered to 23XI in the second quarter of 2023.

"Innovation, efficiency and performance are all vital aspects of 23XI Racing and Mack Trucks provides our team with an excellent product that will get us to the track efficiently and in style," said Steve Lauletta, president of 23XI Racing. "In addition to sharing performance values with Mack, we also share important social values that include being actively engaged in helping to grow and diversify our industries." ■

## Mack Trucks offers premium service contracts to simplify maintenance management

In order to simplify and offer a more comprehensive bundled suite of services, Mack Trucks now offers Mack Premium Service Contracts.

The Premium Service Contract helps to increase customer uptime, increase a customer's return on investment and offers improved service for small- and medium-sized fleets.

"Our customers can see real results from the Mack Premium Service Contracts, including the prevention of unplanned downtime events as a result of our 74-point inspection," said Patrick Brown, Mack Trucks services and solutions strategy manager. "This translates in time and

money saved for the customer."

Premium Service Contracts offer dedicated maintenance management with a single point of contact at local dealers to manage the scheduling of maintenance; upfront parts and labor costs offering cost consistency; adaptive maintenance optimized based on each customer's unique operations allowing for improved vehicle health; and consistent repair and maintenance through Mack Certified Uptime Dealers. The result is improved vehicle uptime and reduced customer costs, improving the customer's total cost of ownership.

Eligible vehicles for the Premium Service

Contract are those that are powered by Mack engines with fewer than 150,000 miles. Preventative maintenance, adaptive maintenance and fleet management by the dealer are included.

"Premium Service Contracts help to ensure that maintenance is completed on-time and optimized for the customer's operation, software is up to date, open campaigns are completed on-time, and uptime is maximized," Brown said.

The Mack Premium Service Contract is available for normal-duty applications in 100,000-mile increments, while Mack heavy-duty Premium Service Contracts are available in 50,000-mile increments. ■

# HEADLIGHTS



## LR Electric makes the rounds

Mack's BEV proves popular option for customers choosing electrification

Mack customers from coast to coast are enthusiastically embracing battery-electric vehicles (BEVs), choosing LR Electric trucks for a range of applications. The latest BEVs will be hard at work for the following Mack customers:

- **The University Endowment Lands**, west of Vancouver, British Columbia, Canada
- **Evergreen Waste Services**, based in Hockessin, Delaware
- **Coastal Waste & Recycling**, headquartered in Boca Raton, Florida
- **City of Cambridge**, Massachusetts
- **Casella Waste Systems, Inc.**, located in Rutland, Vermont.

Marcus Stevens, president of Evergreen Waste, said Evergreen wanted to support the adoption of electrification and the move toward renewable energy, which is why the company chose to order an electric refuse truck. The LR Electric will be delivered in the summer of 2023. "We didn't want to compromise service, reliability or capacity

on route," Stevens said. "We're looking forward the Mack LR Electric and Mack Trucks delivering in all of these areas, and we believe they will."

### New EV dealers on board

To become EV-certified, dealers must meet numerous safety, infrastructure, charging, tooling and training requirements. Mack executives meet routinely with dealer leadership during the certification process to ensure a smooth transition to electrification.

Multiple new dealers and locations have now become EV-certified, meaning they will support both the LRe and the new MDe.

### Impactful partnership

Mack Trucks has entered partnerships with Heliox and Gilbarco Veeder-Root to help encourage customer adoption of battery-electric vehicles (BEV) such as the LR Electric, Mack's first fully electric Class 8 refuse truck.

"This is another terrific example of Mack offering the total solution for electrification,"

said Jonathan Randall, president of Mack Trucks North America. "Partnering with these two well-known companies is a game-changer for Mack in the sense that we can now support our customers with their infrastructure upgrades, enabling them to have better access to mobile and fixed chargers. Heliox and Gilbarco have gone through substantial testing to ensure the reliability of their charging solutions, so we are confident that Mack customers will enjoy the same level of support they have come to expect from Mack."

These agreements offer end-to-end support and enable customer accessibility to Mack partners who will help them in their journey toward zero-emissions technology. The strategic partnerships provide customers access to on-hand inventory, hardware installation services and support resources focused on charger uptime. This is a key differentiator for Mack, as charging infrastructure components continue to be difficult to secure, plus installation and support services can vary. ■

## Jonathan Randall named President, Mack Trucks North America



Jonathan Randall has been named president of Mack Trucks North America

Randall joined Mack in 2016 as senior vice president – North American sales and served most recently as senior vice president – North American sales and commercial operations. He brings more than 25 years of commercial vehicle experience to the role, with original equipment manufacturer (OEM) leadership positions in truck sales, product marketing, truck leasing and aftermarket parts and service. ■

## Shop Mack online

Mack Trucks has relaunched its popular e-commerce site mackshop.com with new features to make it easier to find and purchase official licensed Mack® merchandise.

The updated site features advanced search filters for easier shopping, a customer-friendly account management system and an expanded product lineup, including an expanded women's line, a larger heritage collection and a specially curated collection of items made from eco-friendly materials.

"For 123 years, the Mack brand has represented American ingenuity, durability and a resiliency that few other brands can mimic," said David Galbraith, vice president of global brand and marketing for Mack Trucks. "Our long, storied heritage is the foundation for a large fan base, and the new MackShop.com delivers a multitude of products for Mack fans to proudly display their brand affinity."

Other functionality includes a dedicated customer support email, the ability to purchase and redeem digital gift cards and an updated thematic filter so users can quickly search and find their desired product based on price, color, gender and more.

The site has four core audiences and corresponding versions of the site: the retail customer, Mack employees, Mack dealers and Mack corporate customers. ■



# HEADLIGHTS



## Mack Trucks is official hauler for Skip Barber Racing School

Mack Trucks has signed a three-year partnership with Skip Barber Racing School (SBRS) to be its official hauler.

Mack will provide three Mack Anthem® models to Skip Barber Racing to support all divisions of the Skip Barber business, including the Race School, Race Series and Race Team. The Mack Anthem models will haul SBRS trailers containing up to eight vehicles, as well as racing support trailers that have a combination of office space, workspace, parts storage and additional space for cars.

"We are proud to support Skip Barber Racing. They are long-standing leaders in high performance racing and driving education and the Mack Anthem will meet their long-haul needs", said David Galbraith, vice president of global brand and marketing

for Mack Trucks. "Our focus is building efficient, reliable high-performance trucks, in perfect alignment with the SBRS brand."

All three Mack Anthem models are Viper Red 70-inch stand-up sleeper models with full aerodynamic fairings package including side, roof and chassis coverage for improved aerodynamics. They are powered by the efficient Mack® MP®8HE engine with 445 horsepower and 1,860 lb.-ft. of torque. Transferring that power to the wheels is a Mack mDRIVE™ 12-speed automated manual transmission.

"We look forward to seeing the Mack Anthems with the SBRS trailers on the road," said Galbraith. "We are confident the SBRS team will appreciate the durability, comfort and innovation built into the Anthems."

The SBRS fleet of Mack Anthem models is

equipped with Mack Command Steer, a variable steering-assist system that uses multiple sensors to receive more than 2,000 inputs per second, and subtly adjusts steering for the driver by producing additional torque to the steering shaft. Command Steer suppresses steering feedback from uneven terrain such as dips, ruts and potholes. The system reacts to those inputs by smoothing the steering feedback and reducing steering wheel "kicks." This results in a smoother experience and less fatigue for drivers.

The first Mack Anthem has been delivered to SBRS and can be seen hauling custom-wrapped SBRS trailers between tracks for the various racing events. The remaining two trucks will be delivered to SBRS in the second quarter of 2023. ■

## Mack names Ballard Truck Center 2022 North American Dealer of the Year

Ballard Truck Center of Tewksbury, Massachusetts, is the Mack Trucks 2022 North American Dealer of the Year. Mack named Ballard the winner during the recent Mack annual dealer meeting in Austin, Texas.

Mack presents the Dealer of the Year awards to dealers that exceed business targets for sales, parts and leasing, as well as those that continue to grow the business and score highly among customers for satisfaction.

"We're excited to announce Ballard Truck Center in Tewksbury as Mack Trucks North American Dealer of the Year," said Jonathan Randall, president of Mack Trucks North America. "They recently became the first Mack Certified Electric Vehicle Dealer in New England, and are an important partner in the region, selling and servicing the entire Mack portfolio. In addition to becoming certified for electric trucks in 2022, they grew their parts business in a challenging market and maintained their strong heavy-duty market share, earning the highest score of any dealer in the country in our scoring model."

Ballard Truck Center has seven locations in Massachusetts, New Hampshire and Rhode Island.

Mack Trucks also named 2022 winners for its regional sales divisions:

- **Northeast Region:** Ballard Truck Center, Tewksbury, Massachusetts
- **Southeast Region:** Nextran Truck Centers, Orlando, Florida



Pictured left to right are Dean Bestwick, Mack Trucks regional vice president – Northeast, Martin Weissberg, executive vice president of Volvo Group and president of Mack Trucks, Steve Grahn, president of Ballard Truck Center, Brian Buckley, vice president of sales for Ballard Truck Center and Jonathan Randall, president of Mack Trucks North America.

- **Central Region:** Housby Mack, Des Moines, Iowa
- **Southwest Region:** Bruckner's Truck and Equipment, Amarillo, Texas
- **West Region:** TEC Equipment, Portland, Oregon
- **Canada Region:** Vision Truck Group, Stoney Creek, Ontario

TEC Equipment of Portland, Oregon, was named U.S. Mack Financial Services Dealer of the Year and the Mack Leasing System Dealer of the Year. Nextran Truck Centers, Kansas City, Missouri, received the Mack Remarketing Dealer of the Year Award, and the Customer Satisfaction Dealer of the Year Award went to Interstate Truck Source of Romulus, Michigan. Vision Truck Group, Stoney Creek, Ontario was Mack Financial Services Canadian Dealer of the year. ■



Luke Yates (left) and Vince Lokers (right) with scale models in the Mack Design Studio.

# Design Studio centers on form plus function

## The process behind designing a new Mack® machine

Article by Carolyn Mason | Photos by Michael Vaughn

The design process behind current and future Mack® trucks is a fascinating combination of engineering, creativity, function and cutting-edge technology. Lead designers Vince Lokers and Luke Yates tap into their extensive industrial design backgrounds to create beautiful Mack machines with enduring aesthetics that

perform in a variety of applications. Visitors to the Mack Design Studio experience a sensory explosion of color, sound, touch, smell and sheer brilliance as the future of radically re-envisioned trucks takes center stage. Located on the Mack Trucks campus in Greensboro, North Carolina, the industrial design studio space

looks like a combination of showroom and a large test laboratory where every possible millimeter of a truck part is created, reconfigured, tested and challenged, while at the same time recognizing the essence of Mack's 120-plus-year heritage.

Yates, who has been a designer with Mack for 12 years, leads the team focused on the

truck exterior, while Lokers, with 15 years at Mack, currently heads up the team developing the interior design.

The two leaders collaborate with each other, so the interior and exterior reflect the overall vision and function. The day-to-day design work also incorporates brainstorming about the future while preserving the past design of all things Mack Trucks.

The overall design team are all specialists in their own fields and work in a highly confidential, closed-door environment. "We are on the front lines of development and are working three to five years ahead of production. That's why we must lead with a clear design vision that's also well connected to all parts of the business," Yates says.

"We don't follow trends. We look forward, ahead of the trends, to sketch a vision for the future," Yates says, pointing to an enormous, wall-sized video screen. It displays an artist rendering of a year-2050, freight-carrying concrete truck operating with not-yet-invented technology. With a keystroke, an animated, larger-than-life-sized 3D version

swirls on the screen.

"Designing for future solutions to problems not even identified today pushes the edges of creativity," Yates says.

### Inspiration

Yates and Lokers are immersed in what they describe as the essence of Mack DNA. When onboarding new designers, they often start with a book comprised of examples of Mack Design fundamentals. New team members view a collection of inspirational images directed towards the Mack brand. Some examples include photographs of bridges, motorcycles, buildings, dams, animals, construction equipment and airplanes, all featuring Mack identifiers they begin to recognize. It may be the edge of a building or the robust stance of prize fighter. It could be a powerful soaring eagle or the exposed components of a modern motorcycle.

After looking at enough examples, the new team members begin to understand how to

"When you view compelling works of architecture or bridges, you get a sense of timelessness and the feeling of stance, power and durability, attention to detail that we strive to associate within this Mack Machine design DNA."

**Vince Lokers, chief designer for Mack Trucks interiors**

identify characteristics that the team has internally described as the look and feel of the "Mack Machine."

"When you view compelling works of architecture or bridges, you get a sense of timelessness and the feeling of stance, power and durability, proportion to detail that we strive to associate within this Mack Machine design DNA," Lokers says.

Lokers and Yates find their own inspiration in a variety of places including music, construction machinery, architecture, motorcycles and aviation. "But inspiration can come from anywhere or anytime, such as a live concert, art, motorsports, to a massive earthmoving machine. It's also inspiring to reference the cool way a modular design comes together and apart for servicing or aftermarket," Lokers says.

### Starting the journey

The design studio is a buzzing, vibrant space with lots of moving parts but there is method to the madness that incorporates problem solving, inspiration, vision, themes and the actual building of new Mack trucks.

While each project is unique, they all begin with brainstorming solutions to current and future problems. This is achieved by fully experiencing, listening to, and documenting what customers are saying about current products, competitive offerings, and the state of the industry. Collecting and

# FEATURE

analyzing this data is an ongoing process and the benchmarking never stops until the truck rolls out the door. “It’s a constant process of refining every inch,” Lokers says.

Some of the challenges they consider include core issues such as emissions, electric vehicles, ingress, egress, autonomous trucks, last-mile delivery, vocational applications and other current and future problems. Once they establish the problems, each new project takes a different path.

“We may start with a project brief, a customer clinic that identifies a core problem or we may look at a competitive landscape and from there we begin sketching, modeling, creating. The design process is a journey that’s constantly changing, and they continue tweaking, refining and testing as the designs go through the production process.

“We receive an ongoing stream of data from the engineering team, manufacturing, management, marketing and suppliers and we collaborate with all of them to produce aesthetics that marry function,” Lokers says — or in a more common design term, “form follows function.”

“While we begin with a blank sheet of vision, it’s always grounded in Mack brand identifiers that go way beyond the logo. Every Mack product will invoke the Mack DNA through timeless attributes such as durability, reliability, and power,” Yates says.

## Vision to theme

Once the team moves from identifying the vision to sketching concepts, things start to move fast. The designers explore everything in 2D, looking to solve problems by creating

designs that are strong, iconic and timeless. Next, they start sketching 3D surfaces using software programs that can render designs as fast as a pen can make a line on a paper.

Over time the multiple designers begin to coalesce around a theme, all developing new ways to use the truck. Some themes may revolve around aerodynamics, technology, or various elements from the past and future, all with the Mack DNA. “In a single project we may have three or four themes that have a good bandwidth of design reach,” Yates says.

As they further develop into 3D, they begin integrating with engineering, project and brand teams and put each theme up against engineering and production processes to help identify where the challenges and opportunities exist.

The choosing of the final design comes from a design review with key stakeholders from each part of the business. This is where the designers and studio go all out with the models showing off as much detail as possible. Craftsmanship and accuracy are extremely important with these models as they project the vision for the brand. The designers will come out of that meeting with a balanced decision on a single theme to move forward with.

## The legacy of Mack Anthem

Lokers and Yates led the design teams for the Mack Anthem®.

“With the Anthem team, we learned to work without silos in the quest to make it to the market quickly and with maximum

impact,” Lokers says.

When the Anthem debuted in 2017, they revealed an over-the-road truck that sent shock waves through the industry and sharply expanded customer perceptions of Mack. Their brainstorming process began with the question, “How can we design an over-the-road truck that is ergonomic, comfortable for the driver, fuel efficient and powerful?”

The Anthem model pushed design boundaries with its signature driver comforts such as a flat-bottom steering wheel, ergonomic standup sleeper, doubled storage volume and quality metal driver touch points, all while leaving no doubt about its Mack DNA.

“We had to constantly evaluate how the exterior would impact the interior and design all the shapes and forms that checked the boxes and spoke to the Mack brand. In the end we want our customers to say, ‘That’s a Mack!’” Yates says.

## Moving from concept to touchable

Once the final design theme is greenlighted, Lokers and Yates work with their teams to create every millimeter of a new truck, both inside and out. While both interior and exterior share similar design processes, there’s more customer input with interiors, says Lokers. They may hold non-branded driver clinics where they review full-scale theme model prototypes. Drivers will verify the design from an ergonomic, visibility and feature usability lifestyle approach for both the driving and living environments.

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“Designing for future solutions to problems not even identified today pushes the edges of creativity.”

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### Luke Yates, chief designer for Mack Trucks exteriors

The exteriors are more anchored in design and brand alignment and typically are not part of user clinics. Both require constant refining along the way.

Designers will sketch hundreds of iterations of a single truck part. Simultaneously, user experience designers will evaluate visibility and ergonomics, review endless paint color samples, tactile experience, and overall ambiance of the interior. Graphic designers will create Mack-centric decals that reflect the theme and provide clarity and readability.

The next step, bringing the concepts to life with models, is now possible with hardware and software tools not even in play during the Anthem launch.

“We have so many new design tools available that make the process more efficient and less time consuming so we can move fast in a highly competitive environment,” Yates says.

All the programs, software and apps have evolved but several design tools such as virtual and augmented reality, and enhanced 3D printing are actual game changers.

## Virtual reality

During the design process, a member of the team can virtually view the interior of the cab. Wearing a virtual reality(VR) headset and operating a laser pointer, they can control where and how they experience the interior. The audience sees on a large screen what the designer is experiencing through the goggles.

They can review and change the color, materials and trim levels to quickly toggle through an array of options from base to premium levels. It’s possible to view the cab or the sleeper, indeed the complete vehicle, in and around different environments.

Lokers says virtual reality gives the ability to see the design from the inside out. Not only from the driver’s seat, evaluating the positive and negative impacts on the design



Physical Modeler Neil Tambini shapes a fender on a full-scale clay truck model.

direction, but they can analyze sightlines, visibility, reach and walk around the living environment all while respecting how it affects the drivers.

“Virtual reality also gives us the ability to quickly review trim levels. Identifying how through the design’s modularity a lower trim level can transform into a premium trim assembly. And probably most important within VR reviews, we can make changes to the CAD model in the early stages rather than costly tooling changes during production. It gives us confidence that the new design will not negatively impact drivers, but embrace it and make it better for new product lifecycle,” Lokers says.

Something that shines on a computer screen or works beautifully on a small rendering, may require unexpected changes once human hands touch it.

“That’s why we are constantly adjusting and making changes to the design. It may be beautiful, but it must also work in real life,” Yates says.

## Back to the future

The designers say they are not just looking at what a future truck may look like but also imagining how future issues around emissions, different levels of automation, electrification, revolutionary alternative fuels and labor trends may impact the entire logistics industry.

“Maybe trucks won’t have drivers or even cabs or resemble anything close to the way they look today. Loading and unloading freight may be completely touchless with aviation style moving floors. Innovations in production processes will continue to advance. All this requires a visionary look at the big picture,” Lokers says.

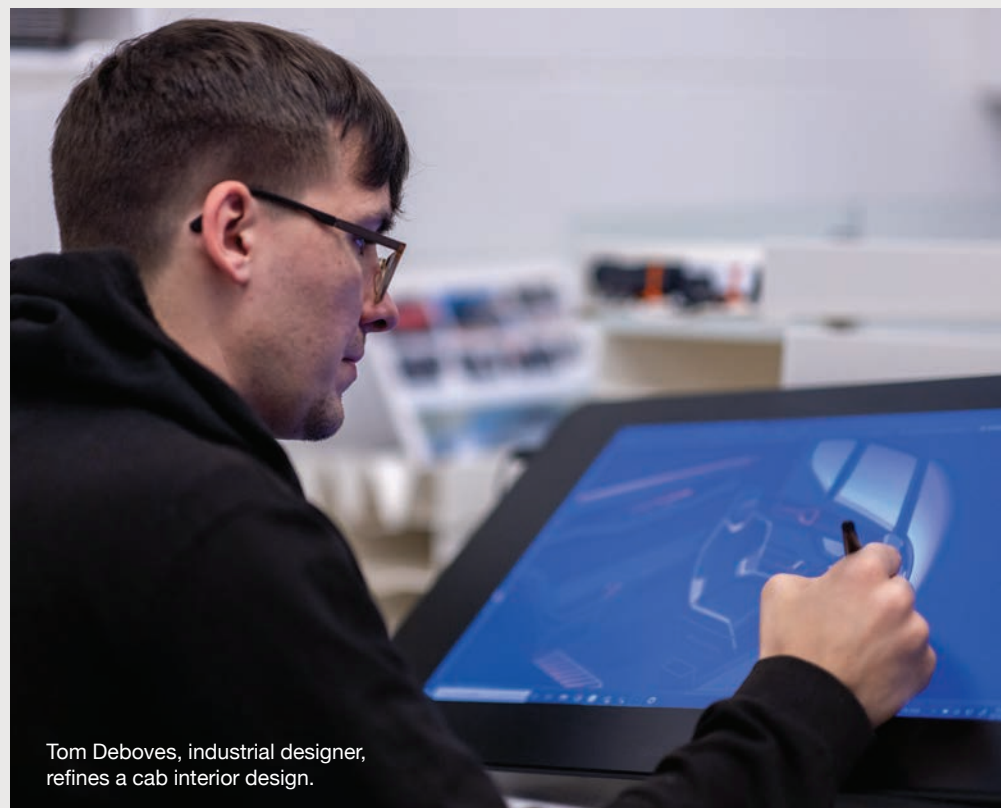
Who knows what a Mack truck will look like 50 years from now? But one thing is certain, its DNA will make sure it looks like a Mack. ■

# The law of industrial design

Architect Louis Sullivan’s quote, “form ever follows function,” is widely embraced by industrial designers. The full quote:

*Whether it be the sweeping eagle in his flight, or the open apple-blossom, the toiling work-horse, the blithe swan, the branching oak, the winding stream at its base, the drifting clouds, over all the coursing sun, form ever follows function, and this is the law. Where function does not change, form does not change. The granite rocks, the ever-brooding hills, remain for ages; the lightning lives, comes into shape, and dies, in a twinkling.*

*It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function. This is the law.”*



Tom Deboves, industrial designer, refines a cab interior design.



# Mack Trucks unveils the MD Electric medium-duty truck

Mack's second BEV adds zero emissions to MD Series' strong reputation



The highly successful Mack® MD series now includes electric drivetrains. The medium-duty Mack MD Electric becomes the second zero-emission battery electric vehicle (BEV) in the Mack lineup, after the LR Electric, which began production in 2021.

The MD Series was introduced in 2020 and has since gained a reputation in the truck industry for continuing Mack Trucks' heritage of toughness and durability while bringing all-day comfort to drivers. It has also earned success through its versatility and ability to mount an array of truck bodies.

The MD Electric is important for Mack's push to decarbonize and build a more sustainable future. The company says it will continue its investments in technologies that will benefit the environment and society.

The MD Electric will be available in both a Class 6 and 7 truck. The Class 6 model has a gross vehicle weight rating (GVWR) of 25,995 pounds, and the Class 7 model has a GVWR of 33,000 pounds.

The MD Electric is offered with either a two-battery or three-battery drivetrain, with a maximum range of 140 miles for the two-battery system and 230 miles for the three-battery system. The MD Electric can be charged with AC or DC charging units, increasing the flexibility for operators, while its regenerative braking system helps recapture energy from the multiple stops vehicles make each day.

Its electric drivetrain provides impressive power and response, with peak 260 hp and 1850 lb-ft of torque. It also delivers lower emissions, less noise and reduced maintenance costs.

Similar to the diesel-powered Mack MD Series, Mack matched the bold look and styling of the Mack Anthem®, Mack's highway model, as a basis for the MD Electric grille and hood design. The Mack MD Electric will be supported by Mack dealers, many of which are already Mack Certified Electric Vehicle (EV) dealers.

Jonathan Randall, president of Mack Trucks North America, says the MD Electric will help Mack customers meet their sustainability goals without sacrificing durability, reliability and total cost of ownership.

The MD Electric is also supported by Mack's electromobility infrastructure and integrated offering designed specifically for the needs of BEV operators, including:

- The five-year Ultra Service Agreement, Mack's most comprehensive 5-year, bumper-to-bumper protection plan.
- Vehicle as a Service (VaaS), an all-inclusive lease that allows fleet operators to ease into eMobility without large upfront capital investments. VaaS provides the ability to choose your level of commitment with full lifecycle financing options and renewable five-year terms.
- Infrastructure as a Service (IaaS) takes guesswork out of infrastructure upgrades with turnkey solutions including design, installation, and all-inclusive financing up to a 60-month loan. Both models are exempt from the 12 percent Federal Excise Tax (FET). Initial availability of the new Mack MD Electric is expected in late 2023. ■



# Driving with dashcams

## In-cab video recorders increase fleet safety

Article by Carolyn Mason | Photos by Cody Gantz

It's been more than a decade since fleets began using in-cab video recorders to improve safety, compliance and assistance in day-to-day operations. In the early days, driver pushback was a frustrating obstacle, especially in a tight labor market. Today, many fleets utilize both outward- and inward-facing video recorders and driver acceptance has improved as fleets have become more transparent and proactive in how they manage the recorded data. The benefits include risk reduction, improved driver behavior, accident documentation, insurance incentives and cost efficiencies.

Josh Seiferth, Product Manager for Mack Trucks Low Cabover Engine, says Mack

makes it simple for fleets to install dashcams in their trucks and many large fleets today choose to include that option. "Mack's mission is to support our customers and to support a safe community. From a fleet perspective, it's important to know how drivers are operating, in order to coach them on best safety practices," Seiferth says. By offering a prep kit for a streamlined installation process, more fleets choose to install cameras.

### Driver acceptance

Craig Bennett, director of safety for Texas-based WM, says they were on the leading edge of deploying in-cab recorders and have

seen driver acceptance evolve over time.

"In our experience, two things have really impacted driver acceptance over the last decade. The first has been our efforts to actively share when a driver has been exonerated in our fleet or when drivers exhibit positive behaviors. The second change is the increase in adoption of this technology industry-wide since we started our program. This has led to this type of technology being 'part of the job' for drivers across the industry," Bennett says.

While it was initially a hard sell to convince drivers to accept this initiative, it has proven positive for them and for the company. The results have been remarkable.



"The fact that they showed a dramatic decrease in alerts created the positive results they continue to experience," says Bryan Hoggan, Savage Vice President, Safety, Health and Environmental. "The increased coaching, tracking metrics and an overall culture of positive reinforcement went a long way toward increasing driver acceptance. Communicating exonerations, something that happens nearly every day, hit home. Word spread among drivers as many of them experienced firsthand the power of video proof."

When fleets are fully transparent with the benefits of dashcams to both the fleet and the drivers, there is more buy-in among drivers. Here are some of the benefits that directly impact drivers and fleet owners.

### Exoneration

Accidents not caused by the truck driver fall into two categories: unfairly accused drivers and fraudulent claims involving insurance scams.

With a "he said, she said," situation, drivers may be accused of causing the incident when in fact, most accidents are the fault of passenger vehicles. According to the American Trucking Associations, (ATA), about 80% of truck accidents can be linked to a car driver's mistake rather than the truck driver, and National Highway Traffic Safety Administration (NHTSA) puts the numbers at closer to 90 percent caused by negligent motorists. Some of the leading accident causes include cars driving in the truck's blind spot, turning left in front of a truck and unsafe merging. And then, there is the enormous issue of distracted driving, both by motorists and truck drivers.

The most startling statistics come from the numbers of motorists driving while texting and the National Safety Council reports that cell phone usage while driving leads to 1.6 million crashes each year. When an onboard video camera records the events, the costly time involved in an investigation to exonerate drivers is reduced. Since WM began using

video event recorders, they have been able to exonerate drivers in hundreds of incidents. "The ability to validate the facts surrounding an incident quickly and accurately, helps keep our drivers behind the wheel," Bennet says.

### Driver training

Dashcams have evolved to include real time opportunities for coaching. Again, driver acceptance comes from rewarding good driving behavior along with coaching for improvement. Recorded events used in training new drivers can show rather than tell drivers how to drive proactively and highlight best safety practices. "WM has used video event recorder clips to train about the program and to train drivers about the 'why' our safety defensive driving system methods are so critical to safe operation. The use of these video events makes the training 'more real' and relatable to our frontline employees and helps employee acceptance when they see how the program benefits them," Bennett says.

### Driver coaching

With the help of cloud-based platforms and mobile apps, fleet managers can easily access and review video footage, which enables them to monitor their fleet remotely and make decisions accordingly. The dashcam data enables safety managers to use metrics to reward top performers and to identify those that need more coaching.

Tackling distracted driving is one area where coaching with metrics makes a huge difference. Dashcams and associated driver safety software can issue in-cab alerts to drivers in the moment and drivers can self-correct and and/or be tagged for manager review and intervention.

Reporting software can analyze driver performance trends, issue progress reports and reinforce safe driving behavior.

Savage, a global provider of supply chain infrastructure and services, installed Netradyne's Driveri devices in more than

1,000 of its vehicles, including its fleet of approximately 500 Class 8 Mack® trucks. The advanced fleet camera safety platform uses vision-based edge computing and AI (artificial intelligence) to reward positive driving behavior and coach drivers in need of improvement.

The system generates audible in-cab and external alerts to help identify risks, such as distracted driving, drowsy drivers and potential external hazards, thereby allowing drivers to self-correct. Savage says it chose the Netradyne system as a result of its ability to track driver progress, reward positive driver behavior and help reproduce those behaviors with other drivers.

The company accesses video footage remotely in real-time using cellular networks or Wi-Fi, which eliminates the need for a physical card or older footage being overwritten. Savage began installing the cameras in its medium- and heavy-duty trucks in late 2020.

### Positive performance

Software tracking drivers operating in the "green zone," where they drive safely and professionally, generate positive feedback as those drivers are rewarded with recognition and incentives.

As video technology continues to drive the data in targeted, meaningful ways, the greatest benefit is the change in behavior, not just with the drivers but the overall company commitment to safety.

"We're always focused on the safety of our team members, customers and communities and finding a better way to move and manage materials with less risk across our customers' supply chains," said Savage VP of Risk Management Michelle Hollingsed. "We're taking our risk management to the next level with increased visibility, quick access to video footage, smart recognition technology and real-time, distracted driving notifications for our drivers. The cameras also integrate with our fleet safety management system so we can coach drivers based on what we're seeing and reward safe driving behaviors."

### Fuel efficiency

In-cab cameras combined with customized coaching not only impacts safety, but also results in more fuel-efficient driving practices. Fuel is second largest expense after labor and every tenth of a mile makes a huge economic impact. The good news is that the safest driving is also the most economical. Coaching drivers to avoid harsh braking, drive in the right gear and adhere to speed limits pays off in fuel savings.

As technology evolves to include advanced, cloud-based software, additional cameras on the truck's exteriors and even integration with distraction busters such as vibrating seats, the benefits outweigh previous obstacles. Positive coaching and corporate buy-in to dash cams will improve the company's safety culture. ■





# Shifting sands

## Mack Granite® powers Commercial Ready Mix Products operation

Article by Carolyn Mason | Photos by Ed Simmons, Transource

When truck driver Cliff Davis hauls ready-mix concrete for Commercial Ready Mix Products Inc., he's likely to encounter famous Corolla wild horses, sea birds and swirling sand obstacles as he travels along 12 miles of exposed beaches in the northernmost part of North Carolina's Outer Banks. The remote route is only accessible by boat or AWD vehicle, and when the tide comes in, it is even narrower. "I can't afford a breakdown or mother ocean may take ownership of the truck," Davis says.

That's why CRMP Vice President Tim Newsome says the company depends on the reliability and toughness of the four all-wheel-drive 6x6 Mack Granites® with 445 hp MP®8 engines they recently added to their fleet. The company started operating the new equipment in fall 2022, and Newsome says they have been impressed with the visibility,

stability and comfort of the new Granites.

"Operating on soft, crawly sand is tricky terrain that requires the right equipment for reliable, on-time delivery. We've been really pleased with the stability, fuel economy and enthusiastic response from drivers like Cliff," Newsome says.

"I hauled 32,000 pounds of concrete, or eight yards, on the beach and got up to 20 miles per hour. That's one tough truck," Davis says.

Strength isn't the only thing operators are noticing about the new Granites. CRMP drivers have been giving rave reviews to their Granites' maneuverability and tight turning as well as the sloped hood and large windows that provide enhanced visibility. And the interior is equipped with Mack Co-Pilot, a full-color, easy-to-use digital monitor that displays real-time vehicle information.

"The drivers love the comfortable seats and flat-bottom steering wheel," says Tom Sawyer, Outer Banks area manager for eight years. "The all-wheel drives are rugged enough to drive on sand and sturdy enough to handle inclement weather and high winds," Sawyer says.

While the truck is sturdy and powerful enough to haul the mixer, it's still light enough to balance the productivity ratio. Mixers are not known for getting great fuel efficiency, but Sawyer says he's been amazed at how much better mileage they are getting than some of their other models. "Fuel economy is extremely important to our bottom line, and we spend a lot of resources training drivers to drive efficiently," Sawyer says.

Both Newsome and Sawyer say they have a great relationship with Roy Horton, salesperson for TranSource Truck & Trailer

Center in Greensboro, North Carolina. "He was with us every step of the way as we spec'd the trucks," Newsome says.

### Challenges met

Hauling ready-mix concrete comes with unique challenges. The pours are scheduled around weather and temperatures, and truck drivers must adjust to the variables. "While there's no overnight hauls, it's not an 8-to-5 job. In the heat of the summer, pours may occur at midnight or early morning to beat the temperatures," Newsome says.

As with any industry, it can be challenging to recruit and retain good drivers. However, he says they have many long-time employees and much of their new hires are from word-of-mouth. "CRMP is fortunate to have an excellent dedicated team," says Newsome.

CRMP was started in 1975 by Newsome's parents, Bob and Jane Newsome. In the nearly 50 years since, CRMP has grown to employ 275 people and operate more than 100 mixers and 40 haul units. The company started in Cofield, North Carolina, and in 2003 moved to their current headquarters in Winton, North Carolina. They now have 11 permanent concrete batch plants in Northeastern North Carolina, the Outer Banks and Southeastern Virginia. They also operate three portable batch plants for onsite projects and own and operate two state-of-the-art sand and gravel operations located in North Carolina.

They pride themselves on their fleet of



Driver LaVelle Jenkins

sparkling clean ready-mix trucks that are "rolling billboards" for the high-quality professionalism they bring to the industry. The bright red trucks and white mixers are known for being the best, newest and most well-maintained equipment in the marketplace.

Newsome also credits the excitement around the trucks as a valuable tool for recruiting and retaining good drivers. "The drivers comment on how much more ergonomically things are laid out. And how sturdy the trucks are."

Current projects range from residential and commercial to N.C. Department of

"The all-wheel drives are rugged enough to drive on sand and sturdy enough to handle inclement weather and high winds."

**Tom Sawyer,**  
Commercial Ready Mix Products,  
Outer Banks area manager

Transportation and VDOT work including concrete for the Marc Basnight Bridge and the Jug Handle Bridge in Outer Banks. In Virginia, projects include the High Rise Bridge and the HRBT Tunnel expansion, among many others.

In recent years, the company faced supply chain and labor issues as they navigated through the economic effects of COVID-19. But Newsome says 2022 was a strong year and they look forward to further growth in 2023 as supply issues have eased and labor is back on target.

The future is bright for CRMP, and Newsome says he credits his father's work ethic for setting the tone of the company. "CRMP's solid reputation for reliability comes from operating a family-owned business. We keep our word to our customers and do what we say we will do," Newsome says. ■



Pictured left to right  
Ron Swanson, Blanca Patino,  
Saul Prado, and Johnny Dip.

## Savage uses reliable Mack Anthem® and strong dealer support to keep Los Angeles freeways moving

Article by Jim McNamara | Photos by Paul Hartley and Savage

Every day, the drivers and the rest of the team at the Wilmington, California, operation of Savage face a daunting, unending challenge. Most of the refineries serving Southern California depend on the Savage team and their blue Mack Anthem® fleet — with its distinctive silver and orange stripe and silver trailers — to safely and reliably transport product from the refining process, helping ensure an uninterrupted flow of refined fuels for consumers in the region. “We’re really helping to power the lives of the motoring public in California,” says Adam Thompson, vice president of Savage’s Western Production Services Unit. “We can’t

do that without Mack tractors.” The Wilmington fleet transports petroleum coke (“petcoke”) from the refineries to the Ports of Los Angeles and Long Beach, where it is shipped to other markets. Petcoke is the last residual product of the petroleum refining process. It can cause refineries to stop producing if it isn’t regularly hauled away. “We move about five million tons of product every year out of nearly every refinery in the Southern California Basin,” Thompson says. “We perform similar work in the Gulf Coast region and other locations in Texas. The Los Angeles-area refineries are landlocked, so the only option is to truck petcoke to the port, so

that’s what we do. Refineries have to get it out of their [system] or they can’t function. “The refineries operate non-stop, every hour of every day of the year,” Thompson adds, “so Savage does too. It’s essential that we’re moving this product on a very reliable basis. If our customers need 100 loads of petcoke moved in 12 hours, we’d better have 100 loads moved in 12 hours, spaced out accordingly.”

**The truck matters**

It helps to have a truck that is easy to drive in Los Angeles congestion and on high-pressure freeways. That means excellent



visibility, a good turning radius and Mack’s *mDRIVE*™ automated manual transmission, plus a great driver’s environment. There’s a lot of competition for good drivers, and Anthems help attract and keep them. “Drivers really like the trucks. They’re comfortable,” Thompson says. “They also appreciate the [integrated] hood mirrors. A confident driver is usually a safer driver, and part of that comes from visibility, comes from ease of driving the tractor.” “Most people appreciate the distinctive front-end look, the bold stance,” he adds. “It’s a stance that’s undeniably Mack.”

### Partnership

“Our mission is to be indispensable to our customers,” Thompson says. “That’s the goal of what Savage does everywhere.” Mack is Savage’s partner in this mission, delivering reliable and durable trucks spec’d for the job at hand and backed by an industry-leading service network. Savage Wilmington’s Mack dealer is TEC La Mirada. “The partnership between Savage and Mack is also strengthened by the dealer network here in California that allows us to keep moving and has kept us going exclusively to Mack,” Thompson says. “We’re not their biggest customer, but they make us feel like their most important customer.” Helping make sure Savage’s trucks are up and running is an important part of that relationship. “The trucks have to be dependable. There’s a revenue aspect of it, but there’s also an expectation from the refineries that our trucks are running all the time, moving petcoke for them. That speaks to where your dealer comes in,” Thompson says. “Every truck is going to have anticipated repairs or breakdowns, so when you do have a breakdown or something unexpected, you need a partner who’s going to execute timely repairs. If you can’t move a refinery’s product,

## A focus on innovation and growth

Savage, based in Midvale, Utah, is a global provider of industry infrastructure and supply chain solutions, started by the Savage family in 1946 with a single truck. Tyler Flynn, the director of equipment projects and mobile equipment at Savage, says the privately owned company has kept its values-based culture as it has grown into a large company with about 4,000 team members in over 200 locations. Savage is always looking to improve and innovate, he says, and to stay close to and better serve its customers. Plus, the company has used that focus to grow into new business areas. “We use the technology available as tools to put ourselves in the driver’s seat to get to where we need to be to make our own destiny,” Flynn says. “We call this relentlessly seeking improvement. Every day, we’re asking the questions, ‘What can we change? What can we improve?’” Savage has approximately 500 Class 8 units, with major trucking operations in California, Utah, Texas, Michigan and West Virginia, along with dozens of other locations around the world. Savage’s fleet is overwhelmingly Mack and primarily day cabs, with a limited number of sleepers. Most Savage truck routes are local, so its drivers are able to be home every day. The company has two main business areas. The first is what Flynn calls “infrastructure,” which is hauling products like coal and petroleum coke, liquid sulfur, chemicals, crude oil and cement. “It’s very diverse, and we have lots of irons in the fire,” Flynn says. Other operations for the company are agricultural-based, with food-grade grain hauling and milling. Mack Trucks is part of Savage’s drive to excellence. Flynn leads a team of six people with oversight of equipment purchases for the entire company. “We consider ourselves a resource broker and subject matter experts for the enterprise,” he says. “But we rely on collaboration with Mack to bring us the new product offerings and suggestions.” “Mack is at the top of the list as far as the relationship we have and the assistance we get,” Flynn says. “It’s definitely helped to make Savage successful.” He notes that the company’s local Mack dealer, Mountain West Truck Center in West Valley City, Utah, and its dealer principal, Ronnie Johnson, have been important to the fleet’s success over the years. He also said Mack’s executives, including Jonathan Randall, president of Mack Trucks North America, have a close relationship with the company. One thing that is a big help to Savage is driver acceptance of the Mack Anthem®. Flynn says a comfortable truck is more important than ever for attracting drivers. “The small things, even additional insulation for the drivers—that’s a discussion we weren’t having 5 to 10 years ago,” Flynn says. “But I think it all adds up and is good for their quality of life.” Flynn also appreciates the Anthem’s driver environment. “Anthem cabs are quite roomy,” he says. “The Anthem has been great in improving a lot of those areas, [such as] the digital dash and the control layout.” Savage also highly values safety, followed by reliability and uptime, and Mountain West Truck Center supports their fleet by assisting with spec research. “We’re a very safety-oriented company,” Flynn says. “We won’t purchase a tractor without collision mitigation or, really, any of the new safety components. These are vital to us. We rely on Mack to inform us about new safety decisions. We try to stay on the forefront of technology to make sure our fleet is safe and reliable.” Mack’s Command Steer electronic driver assist technology is something Flynn sees as a new technology that helps both safety and driver comfort, and it’s something the fleet is now spec’ing in its trucks. Reliability and uptime are subjects Flynn’s team spends a lot of time on as well. “Mack does a lot to support our uptime,” he says. “We have a dedicated uptime contact, and we’ve had dedicated parts support over the years. We have a reliability team we bring into specification discussions.” Mack’s leadership in uptime technology plays a role, especially the GuardDog® Connect telematics platform. “Telematics is a big part of what we do,” Flynn says. “We’ve had Mack uptime folks out here to collaborate. We’re looking to widen the ability to communicate between our systems and GuardDog Connect.”

Continued on page 18...



“We’re really helping to power the lives of the motoring public in California. We can’t do that without Mack tractors.”

**Adam Thompson,**  
Vice President of Savage’s Western  
Production Services Unit

they’ll find someone who will. It’s just that simple.”

It’s a very demanding application. In fact, Thompson compares it to a stop-and-go refuse operation in terms of equipment stress, and he emphasizes that equipment reliability is huge. “You can’t build reliability without a very structured and comprehensive preventative maintenance program. So we have a team of 12 mechanics who collectively work 24/7 because the trucks are running 24/7.

“Our trucks work about 11 hours a shift, two shifts every single day, 24/7. They only stop to swap out drivers, fuel or to do pre- or

post-trip maintenance. High demand, high usage, lots of start and stops. On one route, I calculated a driver would start and stop his truck 40 times in a shift. We drive them hard.”

And the refineries use them hard, too. The refineries can load 26 tons in about 12 seconds. And Savage is “fighting for every ton of payload,” Thompson says, which makes the lightweight Anthem even more attractive.

### Safety first

Safety is also a key consideration. After all, Savage operates around the clock on the freeways and surface roads of Los Angeles and Southern California, which aren’t always the calmest or easiest roads to drive. In-depth and extended driver training by the company is just the beginning.

“We have a very comprehensive safety program,” Thompson says. “We have forward-facing cameras, and we have rear-facing cameras. We use them to do accident investigations, and we’ll use them for driver coaching. So they not only record what the driver does, but they record us going through intersections. Our trucks go through over 200,000 intersections with stoplights in a month, so if our cameras record a violation, we can bring the driver in for coaching and improvement.”

Other onboard safety systems include blind spot detection and lane departure



notifications. “We need every technical advantage we can get to help keep our drivers and the motoring public safe,” Thompson says.

And of course, to help Savage do their part to keep the refineries open and product moving. “It’s California—we’ve got around 14 million cars, and they’re all supported by the refineries in the basin.”

It’s no small job, but Savage is up to the task with their Mack Anthems. ■



## Next-gen tech meets old-school tough.



Estimated Range  
**230 Miles**

Horsepower  
**260 Peak HP**

Max Payload  
**19,400 Lbs**

Available in Class 6 or 7 configurations, MD Electric combines medium-duty capability with Mack’s legendary durability.

# MD ELECTRIC



## A Bulldog retrieves cars

### Mack® MD provides reliable roadside assistance to Québec City motorists

By Eric Berard | Photos by Sonya Messier

People visiting Québec City for the first time often say they feel like they're in a piece of Europe within North America, with the remains of fortifications and the steep, narrow cobblestone streets.

For the towing and recovery specialists at Larouche Remorquage, however, this is home, and the narrow streets can be quite a challenge when the time comes to maneuver a tow truck and help a stranded motorist.

"You need a tight turning radius," says Pierre-Paul Larouche, compliance manager at the family business founded in 1979 by his father Jean-Paul and where his sister Anne-Marie is operations manager.

The need for a highly maneuverable truck means that the business depends on medium-duty trucks. But these trucks still need to be strong to do the job at hand. And it was the reputation for strength that first

attracted them towards the Mack® MD, Larouche Remorquage's first Bulldog-branded truck.

They picked a Mack MD twice in fact, because after taking delivery of their first one in July 2021, they ordered another one and received it only a few weeks later.

"Mack's return in the medium-duty is rather recent," Pierre-Paul says. "In our field we never had the opportunity to try a Mack because our tow trucks are smaller" than Mack's traditional heavy-duty models.

Thanks to its air suspension, the Mack MD is also lower than many other medium-duty trucks, which is a great asset for Larouche Remorquage.

The company does a lot of roadside assistance on behalf of car makers and is also a subcontractor for the Canadian Automobile Association – the equivalent of

the AAA in the U.S. – which means that they often have passengers climbing into their trucks. Entry and egress has to be easy for these "civilians."

"Since our goal is to be as low as possible, the MD's air suspension allows us to lower an additional 3-4 inches," Pierre-Paul says.

And there's plenty of room in the MD to welcome customers. "It's a real truck cab, kind of like a big truck cab on a medium-duty vehicle. It looks good, too. It's not embarrassing for us to welcome customers aboard," Pierre-Paul says.

Driver satisfaction was also key to the decision to purchase the MDs, as they still feature Mack's renowned driver comfort and ergonomic controls in a medium-duty truck.

François Chabot is one of Larouche Remorquage's drivers, and the company's first MD is his dedicated truck. "When I

The Mack MD has "torque, even when heavily loaded. It takes whatever you ask it to. And it's just the right size, not too big and not too small."

**François Chabot, driver, Larouche Remorquage**



learned that this would be my next truck, I was thrilled. It's a great-looking machine, and the visibility is superb," Chabot says, adding that power is always available.

"It's got torque, even when heavily loaded. It takes whatever you ask it to. And it's just the right size, not too big and not too small. It's a good puppy."

That kind of satisfaction is music to Pierre-Paul's ears, as the towing and recovery industry is facing a severe driver shortage, just like the trucking industry in general.

"You have to have nice trucks for the guys to stay," Pierre-Paul says, well aware that the job can be tough.

#### Tough job

Being a tow truck operator is not your average trucking job. Operators spend almost half of their time outside the truck, crawling on the ground to attach and winch cars in weather conditions that can be harsh, particularly in Canada.

When we spoke to the Larouche family members, Québec City was just recovering from its first snow storm of the year. There had been a lot of cars to recover and tow after the owners lost control because winter tires hadn't been installed yet, and the company was very busy.

Luckily, the two Mack MDs are equipped with underlift arms – or wheel lifts – in addition to the usual deck. The telescopic device can be deployed and placed under the wheels of a car so operators can move two of them at once.

"Often when a road collision occurs, instead of having to send two tow trucks, a single one is capable of clearing the highway or other wreck site and bringing back the two cars involved," Pierre-Paul says.

Time is definitely a factor on an accident scene as well. "You need to be fast and efficient. When there's a major accident on a highway, you don't want traffic to be clogged during two hours in Québec City," Pierre-Paul adds.

The biggest challenge is that every towing situation is different. Cars to be towed aren't always on a straight line with plenty of space to work around, so the tow truck operators often need to think outside the box and find creative solutions.

"When a car's 50 feet into the woods, there's a lot of head scratching going on," Pierre-Paul says.

Anne-Marie gives the example from the previous weekend when a car had gone through a metal mesh fence that fell back on it afterwards and made the operation much more complicated.

"It's the same thing with guardrails. When cars go over them, we can't just pull them back on their tracks. We are equipped to get them back up and over the guardrail again and then back on the pavement," she says.

#### Clean chassis

All that equipment – tilt deck, underlift arms, winch and more – runs on hydraulics driven by the engine's PTO and are a crucial part of a complex body system. So it's important that the MD's clean chassis design and short BBC makes the body builder's work easier and also allows installing a longer body.

"We have hydraulic cylinders, tanks, toolboxes to put on. There's a lot of equipment to install all around the vehicle so it's important that you don't have components in the way. Mack offers that," Pierre-Paul says.

Their Mack dealership, Mack Ste.Foy, performs any repair under warranty, but Larouche Remorquage takes care of the routine maintenance itself. Dependability is vital when you are the roadside assistance, and Mack delivers that additional peace of mind for the company.

#### Thousands of calls per year

When Larouche Remorquage was founded 43 years ago, Jean-Paul Larouche ran the business with a single truck. Today the company's fleet is made up of 35 trucks and could easily be bigger. "The demand [for our services] is there; it's the workforce that's lacking," Jean-Paul says.

It's not unusual for the company to answer more than 100 service calls a day. That's thousands of calls every year.

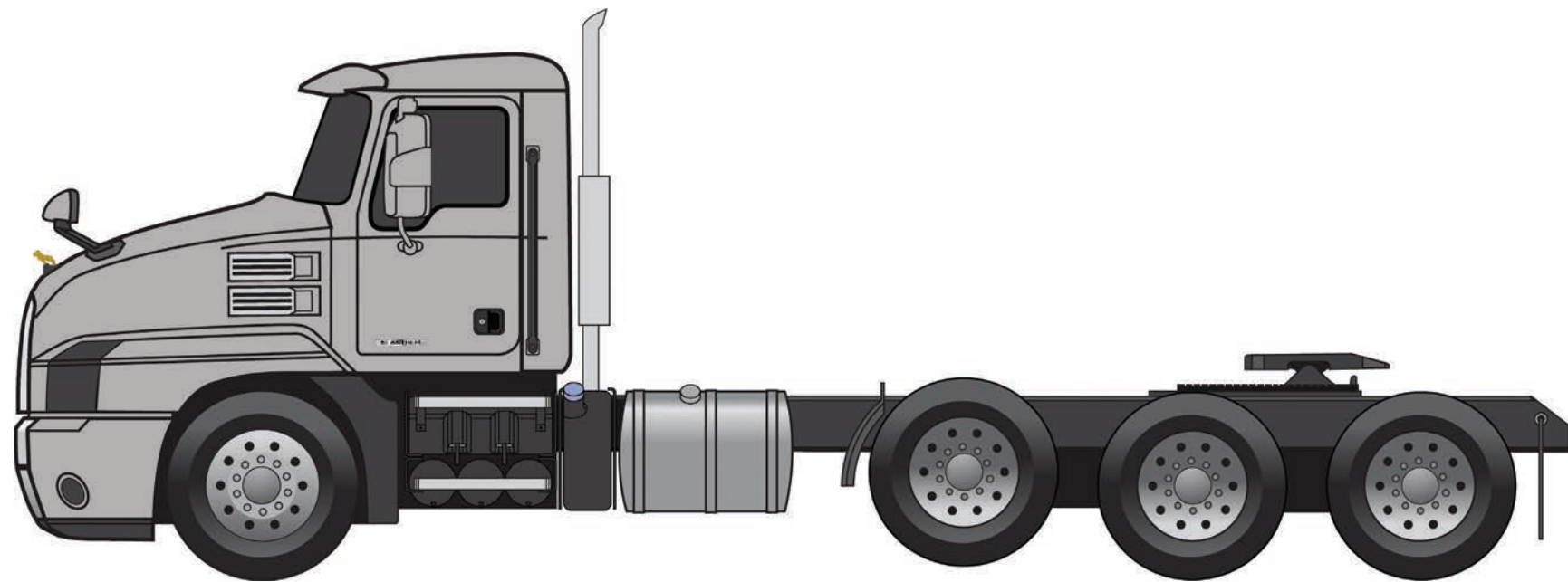
"It's really 24/7," Pierre-Paul says. "We don't even have a key to lock the door anymore," he says with a laugh.

Over the years, the company's success has relied a lot on service quality. "We developed a niche in the towing and recovery market years ago when the industry was known to be a little 'Wild West.' We decided to go towards professionalism, courtesy and honesty," Jean-Paul says, adding that it's probably why many police departments call them on accidents.

Diversifying activities also proved to be a winning strategy. Larouche Remorquage now also does heavyweight towing and even hauls general freight in more conventional trucking operations.

Those require class 8 trucks. And guess what? They are considering a Mack as their next big rig. ■

# Lift axles aid the push for greater efficiency



One thing that sets Mack® trucks apart from the rest of the competition is the way Macks can be customized for specialized operations, both through factory spec'ing and aftermarket customization. For years, one popular aftermarket customization has been the addition of a liftable "pusher" auxiliary axle, which is positioned in front of a tractor's tandem-drive axle to enhance weight distribution when the trailer is loaded and reduce fuel spend and tire wear when it's running empty.

Starting in this year's second quarter, however, Mack customers will no longer need to turn to the aftermarket for the addition of pusher axles, as Mack will factory-install several models of Hendrickson single pusher axles on Mack Anthem®, Pinnacle™ and Granite® tractors. Available will be a 13,500-pound and a 20,000-pound-capacity steerable axle as well as a 20,000-pound-capacity fixed axle.

"Mack dealers and customers have been putting on pusher axles for greater flexibility, and now they'll be available from the factory, which means there will be no additional work needed and these axles will be covered by our chassis warranty," says Stu Russoli, Mack's senior highway product manager.

## A trio of liftable axles

The specific models selected by Mack are the Hendrickson Compositite EXS 13,500- and 20,000-pound rated steerable axles and the Hendrickson Toughlift FM 20,000-pound rated fixed (non-steering) axle. All three liftable axles have outside-mounted regulators and are lowered or raised by the truck driver via switches mounted on the dash.

"Factory-installing these axles adds further value by saving our customers time and money after their tractors are delivered."

**Stu Russoli,**  
Senior Highway Product Manager,  
Mack Trucks

"Much of the rise in interest for these liftable axles stems from trucking operations in the Pacific Northwest," Russoli explains. "Regulations in that region allow for a 105,000-pounds gross combination weight rating (GCWR) for over-the-road tractors when a pusher is added at the proper axle spacing."

He points out that the 13,500-pounds rated pusher axles are also used in other states and provinces for applications that are dependent on weight and axle-spacing regulations.

"The 20,000-pounds rated pushers are used across the U.S. and Canada and are typically added to tractors handling heavy hauls, such as those pulling lowboys, flatbeds and log trailers," he says. "They're also on tractor-trailers that are commonly used to haul large pieces of equipment, heavy industrial loads or agricultural loads."

Given that there are many pusher axle

spacings used, Russoli advises that truck owners "make sure to check the regulations in the areas that the tractors will be operating in." For instance, in the Pacific Northwest, pusher axle spacings vary from 60 inches from the center of the front drive axle to the center of the pusher axle all the way out to 91 inches, with many steps in between.

"Those spacings can vary according to the trailer used and its axle spacings," he continues. "For heavy-haul pushers, the most common setup is to match or be close to the tandem drive axle spacing, so 50 inches or 52 inches are common pusher axle spreads. Again, be sure to check the regulations, because wider spreads are also used, even up to 101 inches in some parts of Canada."

## Bridge to efficiency

Russoli says the purpose of opting for a pusher axle on a tandem-drive axle comes down to gaining efficiency by "taking a bridge-law approach to spec'ing." In the U.S., the Federal Bridge Formula enables a vehicle to run at a higher GVWR, for greater load capacity, when there are more axles and/or there is more distance between the axles to "spread out" the weight of the load carried. Pusher axles make meeting the bridge formula possible while also saving fuel and tire life when the trailer is unloaded.

"The payback of putting Hendrickson pushers on Mack tractors is to legally haul greater loads and save fuel and tire wear when a heavy-haul trailer is unloaded," Russoli says. "Factory-installing these axles adds further value by saving our customers time and money after their tractors are delivered." ■



John Paglia III and Mack.  
Photo by Sonya Messier.

# Pets partner for the ride

## Mack launches Giving Tuesday campaign to benefit ASPCA

Pets play a big part in enriching the lives of Mack truck drivers and owners. To celebrate the trusted partnership drivers have with their pets Mack has created the Partners for the Ride campaign, a Giving Tuesday effort that includes a \$100,000 donation to the American Society for the Prevention of Cruelty to Animals.

"The Mack Trucks brand has over 100 years of heart and soul built around the bulldog," said Rich Million, Mack Trucks senior vice president of strategy and business development.

As part of the "My Dog is My Co-Pilot"

social campaign, Mack customers are encouraged to post photos of their pets and truck online. Photos of dogs, cats and even birds have showed the impact pets have had on the drivers' lives.

"Many of our owners have animals, and they bring them on the road for companionship. We want to support organizations that are important to our customers and our employees. The ASPCA is a perfect example," Million said.

"Giving Tuesday is a great opportunity to turn compassion into action, and the ASPCA is excited to be working with Mack Trucks to

celebrate the human-animal bond and help vulnerable animals," said Matthew Carroll, Senior Manager, Cause Partnerships & Events, ASPCA.

Giving Tuesday was created in 2012 as a day that encourages people to do good. Since then, it has grown into a global movement that inspires hundreds of millions of people to give, collaborate and celebrate generosity. Mack has donated \$100,000 as a matching fund for Giving Tuesday and plans to continue the campaign for a minimum of two years. ■

## Making of the Mack calendar

Article by Jim McNamara

There is something for everyone between the covers of the annual Mack Trucks calendar. The calendar showcases customers' Mack® trucks from all over the United States and Canada. It has dump trucks, mixers, refuse trucks, pumbers, long-haul and city delivery. Brand new Macks and proud old Bulldogs grace the pages. This year even saw the tallest fire truck in North America on the front cover.

Bulldog® magazine highlighted these winners last summer after they were selected through the Mack Calendar Contest, an online contest that lets customers nominate their trucks for others to vote on. The top vote-getters in each category appear in the calendar.

The contest is just the start. Winners have to be contacted, photographers hired and locations scouted. Finding the right location for each truck is critically important. Does it have the right light? Will the sun be too bright? What time of day works best? Does a property owner have to give permission? Those and many other questions have to be answered before photography can even begin.

The 2023 calendar was shot across North America, from the Great Plains center of the U.S. to the shores of the Atlantic, Pacific, Gulf of Mexico and Great Lakes. Mack trucks were found on farms surrounded by hundreds of hungry calves in Nebraska and in fields of asparagus in Ontario. They were in sand pits in Pennsylvania, steel plants in Indiana, and Four-century-old neighborhoods in Quebec. Mack trucks were under Spanish moss in central Florida and on the shore of Tampa Bay, as well as in refineries and in bustling commercial ports in Philadelphia and Southern California. They even traveled through old industrial neighborhoods in Kansas City and low country Charleston, S.C.

The best part of the calendar process for those involved is meeting the owners and drivers of the featured trucks. Everyone has a Mack story, and each truck has a backstory. The passion for Mack and everything about the Bulldog is front and center.

The 2023 Mack Trucks Calendar was wrapped up and distributed late last year, but the memories last longer than 12 months for those in it.

Meanwhile, time marches on, and the contest for the 2024 calendar wrapped up on April 30. All entries can be viewed for a limited time at [contests.macktrucks.com](https://contests.macktrucks.com). ■



March



June

### The winners for the 2024 Mack Calendar are:

#### Granite® Category (2 winners)

- Tas Trucking, Inc., Kitchener, ON
- Silverline Group, Inc., Thorold, ON

#### Mack Anthem® Category (2 winners)

- Growmark FS, Manson, Iowa
- McNeilus Steel, Inc., Dodge Center, MN

#### Mack® Category (2 winners)

- Fogel's Fuel Service, Bangor, PA
- Solid Waste Applied Technologies (SWAT), Inc., Statesboro, GA

#### Pinnacle™ Category (2 winners)

- Marty Kissick, owner-operator with Northwest Tank Lines, Calgary, AB
- Scott Schappaugh, Schappaugh Trucking, LLC, Hannibal, MO

#### Mack LR Category (1 winner)

- Amwaste, LLC, West Point, GA

#### TerraPro® Category (1 winner)

- Cyclone Trucking, The Colony, Texas

#### Legacy Category - Old Bulldogs Still Hard at Work (2 winners)

- Coastal Trucking, Ladysmith, BC  
1987 Mack RW713 tractor
- Rosemar Construction, East Moriches, NY  
1987 Mack Superliner dump

The next issue of Bulldog in 2023 will have more information about the 2024 winners. Congratulations to all.

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## Building a different type of Anthem

Mack Trucks Australia builds a truck from LEGO bricks

The team at Mack Trucks Australia are rolling up their sleeves to build the world's "largest truck made with LEGO bricks" to celebrate 60 years of building trucks in the western corridor of Brisbane.

Ben Craig, "the Brick Builder," will be Mack's expert on the job, using close to a million pieces of LEGO to achieve the Guinness World Record build of one of the company's famously loved trucks, the Mack Anthem®.

A Mack Anthem takes eight days to be built in the company's Wacol factory, while the LEGO brick version will take around two months to create at Craig's Burleigh Heads warehouse.

The LEGO brick Mack Anthem will then be transported and activated at South Bank Parklands for the Brisbane Truck Show (18-21 May) and Australian Made Week (15-21 May). The activation will



encourage community involvement as the final pieces are built in preparation for official Guinness World Record adjudication on May 19.

Vice President of Mack Trucks Australia, Tom Chapman, said big kids and little kids love Mack Trucks and building a LEGO version on home soil is a fun way to celebrate being Australian made for over six decades.

"The culture at Mack is one of pride and passion; our Australian Made certification is one we wear as a badge of honor," he said.

"Every Mack truck you see on the roads in Australia has been made in the western corridor of Brisbane. Designing and engineering our Mack trucks locally means we can meet and exceed the demands of customers, focusing on application excellence, providing reliability and

durability."

Craig said the opportunity to create a Mack Anthem made from LEGO bricks is a dream come true.

"Mack Trucks are iconic and have a loved cult following. I spend a lot of time on the road and no other truck has the same appeal as a Mack truck and its iconic bulldog," Ben said.

The final piece of the build will be a LEGO brick version of the famous Mack bulldog, which will be added to the hood of the Mack Anthem on May 19. ■

## Want more Mack?

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