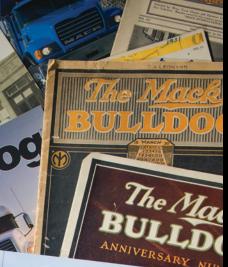






What moves you will always move us.





Celebrating 100 years of your drive.

Thank you for being a part of *Bulldog Magazine's* first century. Throughout our vast history, readers like you have shaped this magazine with your ideas, comments, stories and photos. While our trucks have changed over the years, our commitment to our Mack[®] family hasn't. And it never will. Let's see where the next century takes us!



Looking back at a century of Bulldog magazine

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Bigley Bros. Inc. featured in 1952 Mack *Bulldog* magazine

Back Cover

A salute to Bulldog's loyal readers



1920-2020 | 100 YEARS

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De Beradinis Heavy Haul



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VIEWPOINT

Ready for the next 100 years

D ne hundred years ago, in early 1920, this company launched a new tool to communicate with customers: *Bulldog* magazine. Mack Trucks was only 20 years old at that time, but it was already a major force in the rapidly growing "motor truck" business. *Bulldog*



was another way Mack showed its leadership by bringing authoritative in-depth information and details about its products directly to those most interested in knowing about them. That remains its mission today.

This may seem an odd time to celebrate the anniversary of a magazine. Obviously, the world has changed radically in the past few months with the impact of the COVID-19 pandemic. Society has been challenged in ways very few of us have ever seen or even imagined.

Mack and our people have survived wars, economic catastrophes and 12 decades of various natural disasters. We're ready to do whatever needs to be done today. *Bulldog* has been a constant for most of Mack's existence and has helped us deal with crisis through communications.

Meeting challenges like the pandemic is something the trucking industry excels at, and Mack has always done its part. Our customers are using Mack trucks to perform essential jobs, and we have to make sure we have their backs. The people who are behind the logistics, trucks and trucking companies are the extraordinary everyday heroes we need to move the goods, medical equipment, food and everything else required to fight the virus and keep the economy moving.

We do this as a team and Mack's dealers are our partners. Their service bays are open, our Uptime Center agents are on the job 24/7, and our parts distribution centers are open, so together we are supporting the national fleet that underpins our modern society. Mack has a heritage of navigating challenges, and we're in business now and for the future. We're working through the tough times and still planning for the future, after this crisis has passed, as it ultimately will.

We'll all get through this together, and *Bulldog*'s readers and our customers, along with the rest of the Mack family, can count on Mack Trucks to be there for them. They can also count on *Bulldog* magazine to keep them informed, today and in the next 100 years.

I hope you enjoy this special issue of *Bulldog* magazine and the stories it tells about our customers, our trucks and the history that we have shared as part of the Mack family. But even more, I hope that you, your families, your colleagues and your communities are safe and well. It's important that each of us do what's necessary to fight this virus. We all know what to do.

Martin Weissburg President, Mack Trucks

Bulldog magazine

Editor – Jim McNamara, Mack Trucks Content Director – Carolyn Mason Art Director – Richard Street

Mack Trucks COVID-19 roundup

Mack Trucks continues to support employees, dealers and local communities during the coronavirus pandemic

Donations to hospital, food bank

To assist those in the community and those on the front lines, Mack Trucks recently donated \$10,000 to the Second Harvest Food Bank of the Lehigh Valley and Northeast Pennsylvania, and also donated masks, gloves,



safety goggles and personal protective equipment to St. Luke's Hospital, Success Rehabilitation and Maxim Healthcare Services.

"Food insecurity as well as the critical need for medical supplies were identified to be two of the most pressing areas in which we could make a positive impact, so we took action to donate," says Jonathan Randall, Mack Trucks senior vice president of North American sales and marketing.

Mack Trucks parts availability remains strong

Mack customers and dealers can rest assured that we continue to have the critical parts available that keep trucks on the road rolling," says Jonathan Randall, Mack Trucks senior vice president of North American sales and marketing. "Mack distribution centers are running at full speed as normal, and we plan to keep our parts well-stocked for our customers."

Customers and dealers should order parts as they normally would and in a normal quantity, and Mack Parts Distribution Centers will continue to fulfill orders on a typical schedule. Customers can also use Mack[®] SELECT Part Store, Mack's 24/7 online program that enables access to dealer inventory, offers pricing information and allows for online orders. All information is secure, and visitors are given a unique ID and password. Mack SELECT provides a complete



order history, access to a VIN-specific catalog of parts and a variety of supplier catalogs and web links.

Mack Trucks continues to support its customers and dealers with strong parts availability during the COVID-19 pandemic.

HEADLIGHTS



Mack Trucks launched info.macktrucks.com/thankyou, an online resource offering useful information from government agencies, trucking industry experts and Mack to help navigate through the COVID-19 situation.

Mack launches webpage with COVID-19 resources

Mack Trucks launched the online resource info.macktrucks.com/thankyou on April 6, offering trucking companies a single destination to obtain information from government agencies, trucking industry experts and Mack to assist them in navigating through the COVID-19 situation.

The webpage is regularly updated and features a video expressing Mack's appreciation for customers, professional drivers, service technicians and dealers. Links to the #thankatrucker conversation on social media are also included on the page, as are posts from the campaign and the opportunity to participate.

"We wanted to express our sincere gratitude to the numerous trucking company employees, dealers, drivers and service techs across our industry who continue to step up, despite personal and economic hardships," says John Walsh, Mack Trucks vice president of marketing. "We're also doing our best to provide information helpful to them in getting the job done."

Resources available on the webpage include Mack-specific information such as details about ongoing 24/7 customer support from Mack[®] OneCall[™] agents, parts availability, production updates and a link to dealer locations. Links to the Centers for Disease Control and Prevention, World Health Organization, American Trucking Associations and the U.S. Department of Transportation direct visitors to sources containing the most up-to-date information available.

For more information, visit info.macktrucks.com/thankyou.

Free eLearning courses

n the time of social distancing, high schoolers and secondary technical education students can continue to participate in diesel technician training with 90 days of free access to a portion of the Technical Education Support (TES) online training, as well as with resources currently offered to diesel technicians.

"Recognizing that it's impossible for students to train in person at this time, the Mack Trucks Academy decided to work with Mack dealers to offer online training that is comprehensive," says Scott Behe, Mack Trucks Academy senior manager for training support.

TES90 Access will be provided though a local Mack dealer and will include training sessions related to engines, transmissions, vendor components and more.





Mack Financial Services offers finance programs during coronavirus

Mack Financial Services (MFS) is offering several enhanced and unique finance programs to help customers of all segments during the current coronavirus situation.

"We've always recognized how vital trucking is to society, but it's never been as evident to the general population as it is now," says Tom Guse, president of MFS in the U.S. "It's critical that deliveries are made and construction projects continue, so Mack Financial Services developed these enhanced finance programs to help our customers with their operations."

MFS is offering four finance programs, all of which extend the first payment date for qualified buyers. Programs are for model year 2020 and 2019 Mack Anthem[®], Mack[®] Pinnacle[™], Mack Granite[®], Mack LR and Mack TerraPro[®] models.

- The Let's Deliver finance program for Mack Anthem and Pinnacle day cab models extends payment for 60 days for qualified buyers. Overthe-road and regional haul customers who purchase an eligible day cab and finance with MFS receive engine plan and exhaust aftertreatment system (EATS) purchased coverage, competitive rates and no- to low-down-payment options.
- The Fully Loaded Highway Sleeper finance program is for Anthem and Pinnacle sleeper models and extends payment for 60 days for qualified buyers. Customers purchasing a new sleeper and who finance with MFS are eligible for engine plan and EATS purchased coverage, competitive rates and no- to low-downpayment options.
- For the Mack Granite model, MFS is offering the Let's Build America Finance Program, extending the first payment to 90 days for qualified buyers. Vocational customers who finance with MFS will receive engine and EATS purchased coverage, competitive finance rates and flexible payment options.
- The Trash into Cash finance program is for customers in the refuse segment desiring to purchase a Mack LR or TerraPro model. Qualified buyers will have 90 days to make the first payment and will receive chassis, engine and EATS purchased coverage, competitive finance rates and flexible payment options.

"Mack appreciates what our customers are doing on a daily basis to keep our stores stocked and our construction projects moving," says Jonathan Randall, Mack Trucks senior vice president of North American sales and marketing. "These programs will help customers manage cash flow and keep up with the current delivery demands."

For more information, please visit your local Mack Trucks dealer.

HEADLIGHTS

Mack Trucks donates Mack[®] Granite[®] model to Concrete Industry Management auction

ack Trucks donated a 2019 Mack[®] Granite[®] Axle Forward model to the 15th annual Concrete Industry Management auction. The auction took place on Feb. 5 during the World of Concrete 2020 at the Las Vegas Convention Center, and all auction proceeds go to the establishment and development of Concrete Industry Management programs across the nation.

"Mack is proud to help support future professionals within the concrete industry through our donation of a Mack Granite model to this year's CIM auction," says Tim Wrinkle, Mack construction product manager. "As a leader in the construction segment, Mack recognizes the value of CIM's programs in developing well-rounded, well-prepared leaders for tomorrow's construction jobs."

The program awards students a four-year bachelor's degree in CIM and is currently offered at Middle Tennessee State University; California State University, Chico; Texas State University; and the New Jersey Institute of Technology. More than 475 students are currently enrolled and pursuing degrees in CIM.

The donated Granite model was built on Mack's rugged Cornerstone[™] chassis and is powered by an 11-liter, 375-horsepower Mack MP®7-375C engine. Power is fed through Mack's 14-speed Mack *m*DRIVE[™] HD automated manual transmission with two low-ratio creeper gears and Mack proprietary axles. Mounted on the chassis is a McNeilus Bridgemaster Mixer featuring an



11-cubic-yard M80 Series drum, which was donated by McNeilus.

The winning bidder also received free delivery of the Mack Granite model to anywhere in the contiguous U.S., as well as a 60-month/250,000-mile Mack Engine Plan 2 extended warranty.

Mack[®] Granite[®] available with latest Bendix Wingman Fusion

Granite[®] model is available with the next generation of Bendix Wingman Fusion, improving safety for those on the road or traveling to a jobsite.

Bendix Wingman Fusion is a camera- and radarbased driving assistance solution. Now in its second generation, Bendix Wingman Fusion offers Automatic Emergency Braking (AEB) upgrades, as well as enhanced lane departure warnings.

"Mack Trucks remains at



The versatile Mack[®] Granite[®] model is now available with the next generation of Bendix Wingman Fusion, improving safety for those on the road or traveling to a jobsite.

the industry forefront when it comes to offering technology that enhances the total cost of ownership for our customers," says Tim Wrinkle, Mack construction product manager. "Offering Bendix Wingman Fusion on our Granite model is just another example of Mack raising the bar by offering safety technology to help our customers mitigate the potential for accidents."

The next generation of Bendix Wingman Fusion features improved following distance alerts with up to 3.5 seconds of warning before impact and offers three levels of driver notification before the technology automatically applies the brakes using AEB. New detection feature upgrades also enable Wingman Fusion to reduce vehicle speed by up to 50 mph to help mitigate collisions.

Bendix Wingman Fusion also offers windshield-mounted cameras to warn the driver should a truck begin drifting outside the lane or off the road. If multiple alerts are needed at the same time, Bendix Wingman Fusion organizes them in order of importance, delivering only the most crucial alert to the driver to minimize distraction. At speeds above 37 miles per hour, the system also alerts the driver when unintended lane departure occurs.

A driver-facing camera is also available to monitor driver behavior. Along with a forward-facing camera, this feature can capture data for event recordings. The forward-facing camera can also detect highway speed limit signs and warn the driver if the speed limit is exceeded.



Mack Defense awarded contract from U.S. General Services Administration

ack Defense has been awarded an indefinite delivery/indefinite quantity contract from the U.S. General Services Administration (GSA) to supply the full range of Mack-branded products to federal agencies for a variety of applications. The one-year contract, which runs to January 2021, includes two additional GSA-optioned one-year extensions, which could push the contract through 2022.

"With this contract in place, fleet managers in more than 300 federal agencies have a one-stop shop where they can select commercial Mack vehicles and parts to address their needs," says Nicole Zelno, Mack Defense senior manager, contracts and bid/orders. "We look forward to working with the GSA to fulfill our contract with durable, reliable Mack trucks, all of which are assembled here in the U.S.A."

Mack Defense has been a GSA contract holder since 2015 and has supplied various federal government agencies with Mack Trucks products as part of these contracts.



Mack Trucks renews partnership agreement as Official Hauler of NASCAR®

Mack Trucks and NASCAR announced a multiyear extension of their partnership agreement continuing the designation of Mack as the Official Hauler of NASCAR[®]. Mack will continue to provide a dedicated fleet of customized Mack Anthem[®] 70-inch stand-up sleeper models to haul critical technology and equipment throughout the NASCAR season.

ack Trucks and NASCAR announced a multiyear extension of their partnership agreement continuing the designation of Mack as the Official Hauler of NASCAR[®].

"For the past several years, NASCAR has entrusted Mack to haul the critical technology and equipment needed to complete a successful race weekend – and we've delivered," says John Walsh, Mack vice president of marketing. "We're extremely pleased to announce the continuance of our partnership, providing a great opportunity not only to further demonstrate the capabilities of our products, but also to share our trucks, services and technology with customers and NASCAR fans each week."

As part of the agreement, which originated in 2016, Mack will continue to provide a dedicated fleet of customized Mack Anthem[®] 70-inch stand-up sleeper models spec'd to meet the needs of NASCAR's demanding schedule. Mack has also developed a unique activation and engagement program that provides a one-of-a-kind experience for customers at the track.

transportation solution that plays an integral role in our success every weekend," says Elton Sawyer, vice president, officiating and technical inspection, NASCAR. "With their partnership, we have developed a customized fleet of NASCAR trucks that has simplified our transportation logistics and in turn, help us remain focused on our events."

Tough jobs require not only tough equipment, but also highly dedicated and skilled people. Mack featured the men and women instrumental in pulling off the extreme coordination behind each race in an episode from the first season of its #RoadLife series.

Each of NASCAR's custom-spec'd Anthem models is powered by a 13-liter Mack MP®8 engine with 505 horsepower and 1,860 lb.-ft. of torque. That power is put to the ground through the industry-leading Mack *m*DRIVE[™] automated manual transmission, which helps improve fuel efficiency and productivity without sacrificing performance, and Mack proprietary axles that boost efficiency and deliver a smoother ride. The Anthem model, like all Mack trucks sold in North America, is built in the United States.

"Our relationship with Mack Trucks continues to deliver a

Mack launches driver-activated Over The Air updates, Parameter Plus package

ack Trucks announced the launch of driver-activated Mack[®] Over The Air updates on Feb. 20, enabling customers to activate their software updates on their own schedule while also improving uptime.

Mack Over The Air, the OEM's best-in-class remote programming solution, allows remote software updates and the setting of vehicle parameters through Mack GuardDog[®] Connect, Mack's fully integrated telematics solution. Driver-activated updates eliminate the need for coordination phone calls with Mack OneCall[™] agents, though agents are available 24/7. This new feature means most updates can be completed in fewer than 15 minutes. The service will be available at the beginning of the fourth quarter of 2020.

"Mack Over The Air was a game changer, allowing for remote programming based on the customers' schedules," says David Pardue, vice president of connected vehicle and contract services for Mack Trucks. "Driver-activated software updates are the next evolution of this solution, giving customers even greater control over how and when their updates occur and allowing for updates to multiple trucks at one time."

With this new feature, updates take less time and can be performed whenever and wherever it's most convenient. Approved fleet personnel can also now initiate onboard updates through the vehicle instrument cluster. Customizable notifications and password protection are available as options, as well.

Via Mack Over The Air, the Mack Parameter Plus package enables customers to make up to 50 parameter updates per 12-month period on all model year 2018 and newer Mack vehicles equipped with Mack GuardDog Connect. Previously, customers were limited to just two parameter updates per year as part of their Uptime contract subscription. There is no limit for Mack-initiated software updates used to continuously enhance product performance.

Along with setting the maximum road speed, other parameters include the shifting of the engine into economy mode or performance mode. Mack Parameter Plus also is available for previously purchased vehicles with Mack EPA 2017 engines.

For more information about Mack Over The Air and Mack Parameter Plus, please visit your local Mack dealer.

RoadLife uncorks Bronco Wine Co.



Mack Trucks recently released the sixth episode of its RoadLife 2.0 series highlighting Ceres, California-based Bronco Wine Company. Whether moving grapes from the vineyard, transporting bulk wine to bottling facilities, or cases to distribution centers and customers, Bronco Wine Company depends on its lightweight Mack Anthem[®] models to maximize payloads and keep its wine flowing. The episode is available on roadlife.tv.

ON BUSINESS

Are you prepared?

An emergency-action plan can help your business stand up to COVID-19 and other health and safety threats



f you needed a reminder why having an emergency-action plan is important – and most people and organizations did need one – it's definitely here now. Due to COVID-19 virtually every business and organization has entered uncharted territory.

While other businesses have slowed operations, the trucking industry, which is crucial in responding to COVID-19's public health threat, has ramped up. On March 13, the U.S. Department of Transportation suspended hours of service regulations for any interstate truck driver hauling loads related to responding to the COVID-19 outbreak.

Fleets are scrambling to support stressed supply chains as logistics from the global to the local level undergo profound shifts. Fleets, drivers and everyone else in trucking are more critical to society than ever before.

Making sure members of the trucking community remain healthy and avoid spreading the virus is an important responsibility. Below is information about how your organization can help in that effort as well as recommendations for setting up and activating an emergency-action plan that addresses other dangerous situations – such as severe weather – your company and employees could face.

Keeping drivers healthy

Pre-existing conditions increase risk of complications and death related to COVID-19. According to the U.S. Centers for Disease Control and Prevention, drivers have Type 2 diabetes at a rate twice that of the general public, and the American Diabetes Association has stated that people with diabetes have much higher rates of COVID-19-related serious complications and mortality than people without diabetes. More than 50% of truckers are smokers, according to the CDC, and because COVID-19 is a respiratory illness, a history of smoking could cause more severe symptoms and increase pneumonia risks.

On the positive side, most drivers spend the majority of their work days isolated in their truck cabs, and fleets can take the steps listed on the next page to further protect them and those with whom they come in contact.

COVID-19 and emergencyplanning resources

- **The following links can help** your organization stay informed and in line with best practices regarding stemming the spread of COVID-19.
- CDC travel information and advice: www.cdc.gov/ coronavirus/2019-ncov/travelers/index.html
- CDC guidance for businesses and employers: www.cdc.gov/ coronavirus/2019-ncov/community/guidance-business-response. html
- CDC hand-washing guidelines: https://www.cdc.gov/ handwashing/when-how-handwashing.html

 Directory of local health departments: www.naccho.org/ membership/lhd-directory

The following links can assist with development/use of emergencyaction and severe-weather-preparation plans.

- OSHA's Emergency Action Plan Checklist: www.osha.gov/SLTC/ etools/evacuation/checklists/eap.html
- Federal disaster-planning assistance: www.ready.gov
- The National Weather Service: www.weather.gov
- Storm Prediction Service: www.spc.noaa.gov

ON BUSINESS

- Use your company's communications channels such as social media, apps and your website to send tips to drivers. Provide a full list of tips and follow up with daily advice. (See examples in the driver tips sidebar and the CDC's personalhygiene recommendations in the resources section.)
- Learn your customers' policies related to COVID-19 precautions and communicate those protocols to drivers.
- When drivers come into your facilities, offer them hand sanitizer, tissue paper, disinfecting wipes and disposable gloves (for drivers to use when exchanging paperwork with customers, while inside truck stops and when handling cargo). Research shows COVID-19 can live on hard surfaces for days.
- Instruct drivers to stay home if they feel sick and to avoid returning to work until

they have been fever- and symptom-free for at least 24 hours.

- If multiple drivers use a single truck, thoroughly clean the cab before a new driver enters it. Disinfect door handles, the steering wheel, gear shifter, controls and other surfaces drivers often touch (see sidebar on page 9 for instructions).
- Instruct drivers and other employees to notify their supervisors immediately if they have had close contact with someone confirmed to have COVID-19.

Changing business operations to protect other workers

Protecting other employees, including



COVID-19 precautions for drivers

rivers spend much of their time secluded in their cabs, but they also interact with customers and go inside truck stops to eat, shower and purchase supplies. The following tips can help reduce their chances of contracting and spreading COVID-19.

- Use paper towels to lift fuel-pump handles.
- Wash your hands frequently, following CDC guidelines (www.cdc.gov/handwashing/ when-how-handwashing.html). If you need to clean your hands and soap/water aren't available, use hand sanitizer with an alcohol content of at least 60%.
- If you share a truck with others, disinfect door handles, the steering wheel, gear shifter, controls and other often-touched surfaces before handing off the rig to another driver. To be safe, follow the same procedures before operating a shared truck.
- While on the road, stay inside your truck as much as possible. Bring as many supplies from home as you can so you can limit trips into and time spent in truck stops.
- Wear disposable gloves when exchanging paperwork with customers, while inside truck stops and when handling cargo.
- Follow customers' COVID-19 policies related to shipments.

dispatchers and office personnel while keeping your company up and running could require modifications to your operations.

Halting nonessential business travel and mandating most employees work from home are essential steps fleets are taking.

See the CDC's guidance for businesses and employers at www.cdc.gov/coronavirus/ 2019-ncov/community/guidance-businessresponse.html.

Developing and implementing an emergency-action plan

Having a general emergency-action plan will help your organization deal with COVID-19 and other dangerous circumstances, including severe weather.

The federal Occupational Safety and Health Administration requires most workplaces with more than 10 employees to have a written emergency-action plan meeting the standards outlined in 29 CFR 1910.38. The agency allows smaller companies to communicate their plans orally.

The emergency-action plan should address all emergency situations your business and employees could face. For assistance creating general emergency-action plans, see OSHA's Emergency Action Plan Checklist (see link in resources box) and ready.gov/ planning.

Once you have a plan, review it with employees when it's put in place, at least annually thereafter, and whenever you update it. Company leadership should evaluate the plan every time it's enacted (and regularly even if it doesn't go into action) and make necessary changes. Ensure employees understand the entire plan as well as their specific roles in it. Give a copy of the plan to every employee, and make learning the plan part of new employees' training. Also put a copy of the plan in every company-owned truck.

A storm-emergency plan should be part of the overall policy. Drivers and someone in the office should be aware of weather forecasts in areas drivers are traveling through. They should know the names of all counties on a given route since severe-weather warnings are issued based on counties.

Develop a warning system to alert drivers when they should not be on roadways and thoroughly explain the warning system in your emergency-action plan. Employees and drivers can keep up with forecasts using NOAA weather radios, smartphone applications and vehicle radios. National Weather Service advisories, watches and warnings are available at www.weather.gov, and thunderstorm and severe-weather forecasts are also at spc.noaa.gov. ■



How to sanitize your truck's interior from Mack Trucks

Information from Mack Trucks on how to effectively and safely sanitize interior surfaces on Mack[®] trucks without damaging them.

Sanitizing guidelines:

In order to sanitize and also avoid damaging surface finishes in customer trucks, the following sanitizing methods are recommended. Please note, solution must be prepared according to the manufacturer's instructions. Products must not be applied undiluted or at concentrations outside of the manufacturer's instructions.

Contact time

Contact time is the amount of time the surface should be treated for. The surface should be visibly wet for the duration of the contact time, which varies widely by brand, product and application method (wipe versus spray).

- Ethanol wipes: 5 minutes
- Lysol® disinfecting wipes: 10 minutes
- Lysol® disinfectant spray: 10 minutes
- DS1 Signet[®] Neutral Disinfectant: 10 minutes

Soft surfaces

Soft surfaces (cloth, vinyl, leather and nonwovens) must be cleaned with ethanol ONLY. Ammonia based cleaning solutions (for example Lysol® brand nonbleach disinfectant wipes or ready to use spray) and hydrogen peroxide must NOT be used to sanitize soft trims.

Hard surfaces

Ethanol ONLY must be used on:

- Painted/surface treated plastics: e.g. deco trims, chromed accents, controls like knobs and buttons
- Mold-in-color plastic surfaces: e.g. A/B pillars, non-leather steering wheels, plastic grab handles

Ammonia based cleaning and/or ethanol may be used only on the following:

- Painted metal or enameled metal surfaces: e.g. exterior door handles
- Unpainted metal surfaces: e.g. exterior metal grab handles

• Exterior decals: e.g. window blackout film DS1 Signet® Neutral Disinfectant may only be used as directed on the manufacturer's label on washable hard, nonporous surfaces.

- glass surfaces
- laminated surfaces
- metal
- stainless steel
- plastic such as: polycarbonate (PC), polyvinylchloride (PVC), polystyrene (PS), polypropylene (PP)
- chrome
- vinyl (hard plastic ONLY DS1 is NOT to be used on vinyl-covered upholstery: seats, walls, IP or DP parts, or mattresses/ cushions)
- enameled surfaces
- Formica[®]

Never use

Bleach in any form or white spirit/paint thinner should NOT be used as a sanitizer. Doing so will damage most surfaces.

Sanitizing methods for surface treatments

OK

ETHANOL OK for all hard and soft finishes, including:

- Fabric
- Vinyl
- Leather*
- Nonwoven
- Hard deco trims
- Painted plastic

• Molded in color plastic *Isopropyl alcohol (rubbing alcohol) must never be used on real leather.

DS1 Signet[®] NEUTRAL DISINFECTANT

OK for washable hard, nonporous surfaces including:

- glass surfaces
- laminated surfaces
- metal
- stainless steel
- plastic such as: polycarbonate (PC), polyvinylchloride (PVC), polystyrene (PS), polypropylene (PP)
- chrome
- vinyl (hard plastic only DS1 is not to be used on vinyl-covered upholstery: seats, walls, IP or DP parts, or mattresses/cushions)
- enameled surfaces
- Formica[®]

AMMONIA-BASED

(Lysol[®] or similar) for limited surfaces only. If in doubt, use ethanol.
Painted or enameled metal



- Unpainted metal
- Exterior decals

NEVER OK BLEACH, WHITE SPIRIT/PAINT

THINNER



NEVER OK — Doing so will damage most

surfaces. Bleach will will discolor and damage surfaces, even in dilute solution.

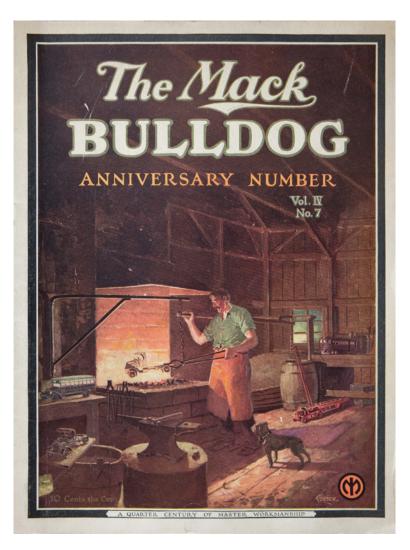
DS1 Signet[®] NEUTRAL DISINFECTANT

DS1 may not be used on the following:

- Fabric
- vinyl upholstery including seats, walls, IP or DP parts, or mattresses/cushions
- seat leather
- steering wheel leather
- nonwoven or carpet
- on or around electronic controls like knobs and buttons
- on or around touch or display

COVER STORY

Celebrating 100 years of *Bulldog* magazine



By Jim McNamara

century ago, Mack Trucks was a growing 20-year-old company which had already made a big name for itself through its durable, reliable products. Mack had even acquired a public personality — the tenacious Bulldog — based on the performance of its trucks during World War I. Here is the story.



Early days

In 1920, the motor truck industry was still very young. The conversion from horses and steam engines to internal combustion was underway, but the technology was in its early stages. Intercity roads, much less highways, were few and far between, and those that did exist were mostly primitive. Mack was leading the way with innovative design and engineering, and quality manufacturing. If you were ambitious and believed in the future, then the motor truck business — and specifically Mack Trucks — was a good place to be.

There was a lot of information to share. Customers, employees and salespeople needed details about the products, how they worked, what design worked best for each job and more.

The company's solution was to launch a magazine dedicated to these topics. As Zenon C.R. Hansen, one of Mack's best-known leaders, wrote several decades later: "I know no better single means in this respect than a good company magazine. This is the mission of the MACK *BULLDOG*."

What else would you call this magazine?

A 100-year-old magazine has obviously covered a lot of history, more than can be contained in one special issue. So this issue of *Bulldog* will attempt to merely give the flavor of what the magazine has been like over much of its span and how it has always reflected its time and the challenges faced by truck operators. We've also included a gallery of covers and other pages from over the years as a gatefold in this issue.

One thing that comes through clearly from the beginning is that *Bulldog* had a sense of humor, a sense of fun and a sense that even the important business of making and operating trucks could be enjoyed. It used "Burma Shave" style cartoons in the margins at the bottom of pages to call out the benefits of buying a Mack[®]. It had a cartoon about the adventures of a Mack salesman, named Sellemfast, and how he would convert a skeptical prospect into a loyal customer with the facts.

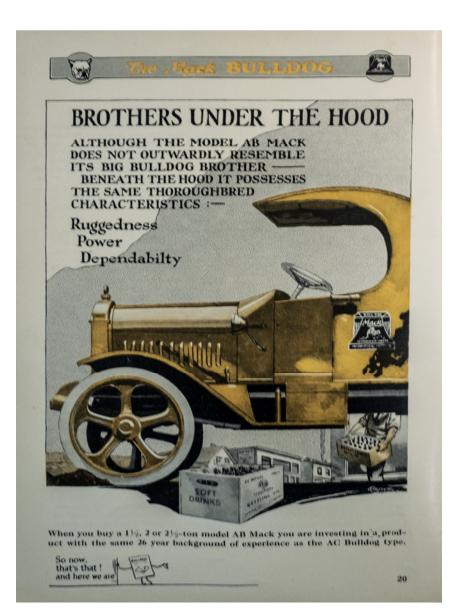
The magazine also spotlighted customers and products. Early *Bulldog* issues had a wide a variety of customer profiles and application articles, including snowplow fleets, walnut farming, transporting bulk wool, fire departments and coal hauling, just to name a few. The profiles focused on how the trucks helped make the operator successful, something *Bulldog* still strives to do today.

The writers and editors over the years have provided encouragement to truckers and even a bit of philosophy for the growing motor freight industry to help guide it beyond the day-to-day struggles to see a larger purpose (for a good example of that, see the 1923 column by company vice president Norman Halliday which has been reprinted here).

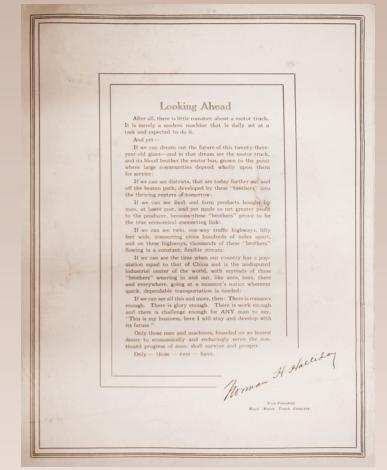
You could argue that Mack Trucks played a role in establishing the trucking industry — not just via its products, which helped define exactly what a modern truck should be — through its advocacy of the industry's purpose and promoting an esprit de corps among fleet owners and operators.

Part of that promotion was to show many different applications being handled by Mack trucks in many different locations, such as Puerto Rico, California, Boston and Portland. Occasionally an article would spotlight a fleet which had made the transition from horsedrawn wagons to motor trucks (such as the profile of Bigley Bros. on page 24 of this issue). And there were articles about the role of trucks in society, including a reflection on the role trucks played in the Great War, World War I.

Bulldog has always had an educational mission, to provide in-depth articles on technical subjects that Mack felt would be useful for customers. An educated customer would be a successful customer, and a successful fleet would purchase more Mack trucks, after all. From 1920s articles examining chain drive versus shaft or the benefits of splines on drive shafts all the way to present-day deep dives into telematics and alternative powertrains, the writers presented detailed information geared toward helping Mack customers understand their equipment.



As seen in the 1923 Bulldog magazine



Looking Ahead

fter all, there is little romance about a motor truck. It is merely a modern machine that is daily set at a task and expected to do it. And yet—

If we can dream out the future of this twenty-three-year-old giant—and in that dream see the motor truck, and its blood brother the motor bus, grown to the point where large communities depend wholly upon them for service:

If we can see districts, that are today further out and off the beaten path, developed by these "brothers" into the thriving centers of tomorrow:

If we can see food and farm products bought by man, at lower cost, and yet made to net greater profit to the producer, because these "brothers" prove to be the true economical connecting link:

If we can see twin, one-way traffic highways, fifty feet wide, connecting cities hundreds of miles apart, and on these highways, thousands of these "brothers" flowing in a constant, flexible stream:

If we can see the time when our country has a population equal to that of China and is the undisputed industrial center of the world, with myriads of these "brothers" weaving in and out, like ants, here, there and everywhere, going at a moment's notice wherever quick, dependable transportation is needed:

If we can see all this and more, then: There is romance enough. There is glory enough. There is work enough and there is challenge enough for ANY man to say, "This is my business, here I will stay and develop with its future."

Only those men and machines, founded on an honest desire to economically and enduringly serve the continued progress of man, shall survive and prosper. Only-those-ever-have.

Norman H. Halliday Vice-President

Mack Motor Truck Company

COVER STORY

World events and Bulldog magazine

The world has been a busy place over the past century, and the world occasionally intruded on the magazine. Publishing was interrupted at various times, including during the Great Depression and WWII, but *Bulldog* still maintained a presence. A memorable article in 1942 explained how the U.S. Army Quartermaster Corps gave a Mack 6x6 prime mover the nickname "Superman" for its strength and prowess. The article was illustrated by an official Superman comic strip showing the Man of Steel breaking up a Nazi plot to make drivers to abuse their trucks to damage the war effort. Another article described Mack's efforts to help train the new mechanics the Army had drafted, while war bonds were always a topic.

Bulldog returned in 1947 as the nation was moving full speed back into civilian life. The magazine had a strong focus on technology, manufacturing and explaining the importance of the trucking industry as the railroads angled to restrict highway freight growth.

The rails versus highways storyline persisted for years as Mack, the industry leader, played a prominent role in opposing the railroad lobby's influence. In 1950, *Bulldog* detailed Mack's extensive grassroots campaign on behalf of trucking.

This was part of a broader theme *Bulldog* has always promoted: the critical role of trucks and motor freight in U.S. society, and in this case, as the post-war economic boom heated up. Of course, this was another way Mack supports its customers, and *Bulldog* assisted this noble goal.

A key topic of technology articles during this time was the shift to modern diesel engines which were becoming more widespread. *Bulldog* highlighted Mack Trucks' nationwide effort to educate fleets about the new engines, called, "Can I Use Diesels?"

continued after insert



Special Feature "Can I Use Diesels?"



Quartermaster Corps Christens Big Mack Prime Movers "Superman" In Recognition of Outstanding Strength and Size

Big 6-ton, 6x6 prime mover trucks serving the U. S. Army have received a signal distinction from the Quartermaster Corps. From now on these huge trucks will be known as "Superman" in recognition of their monster size and tremendous power. According to a recent issue of the Quartermaster Review which carried the story together with a picture of one of the big Mack 6-ton prime movers, the christening took place at the Holabird Motor Base at Baltimore, Md. Present at the ceremonies were ranking officers of the Quartermaster Corps and as a special guest, Harry Donnenfeld, president of Superman, Inc., who directs the manifold enterprises connected with the famous comic strip character. To quote the Quartermaster Review: "Superman is the largest and strongest truck supplied to the Army by the Motor Transport Service. It was known in the Army only by the designation of 6-ton, 6x6 truck until the christening ceremony, after which it took its place in popular nomenclature of army vehicles as Superman along with that well-known vehicle, the Jeep."

To further popularize the new designation, the creators of Superman are currently featuring the big truck in their widely syndicated strip, which is avidly read by thousands of entranced youngsters and grown-ups, too, we suspect, from cost to coast.

The plot as it is now unfolding in the "Comics" starts at the Holabird Quartermaster Base, where Clark Kent, shy, bespectacled reporter, learns that the train bearing the "Superman" truck has been mysteriously delayed. Suspecting foul play, Clark makes his familiar change-over to the identity of Superman and sets out to determine what's cookin'. In the second installment we find that a gang of saboteurs have hi-jacked the train and have driven off with the "Superman" truck. Being a bunch of no-good guys, they have furthermore bound the train crew and left them in the path of a speeding express. It looks like a bang-up, head-on collision, but just as the express thunders around a curve, Superman ... Mack BULLDOG

flashes through the air and with a mighty tug yanks it back in the nick of time. After the trainmen are released, they explain that the big truck has been stolen, and once more Superman takes to the air in pursuit of his six-wheeled namesake.

At the moment or writing, this is all we can report, but you can rest assured that we are anxiously awaiting further developments. If you share our interest, you might consult your youngsters. They very probably have all the latest details.



Big Mack 6-ton, 6 x 6 prime mover as illustrated in a recent issue of the Quartermaster Review. "Superman" is the Army's new designation for these monster trucks.













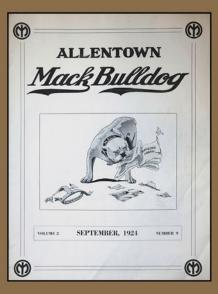
Bulldog Magazine 1920-2020



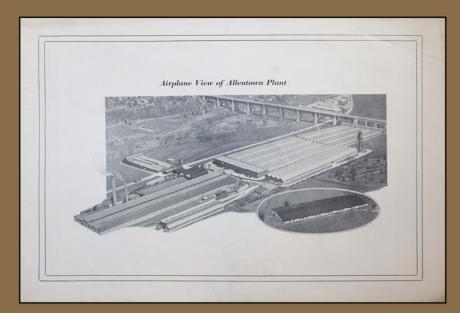




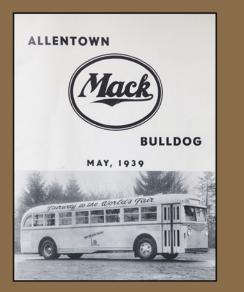










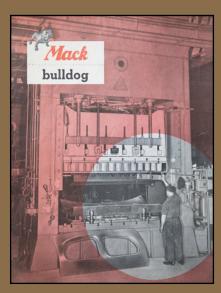


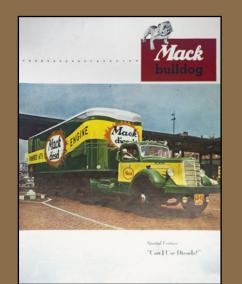


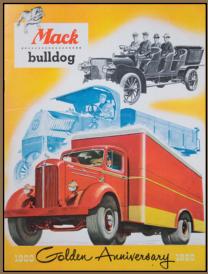








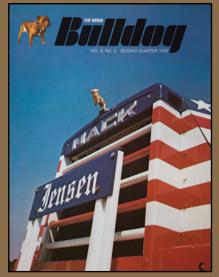


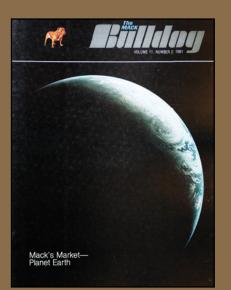


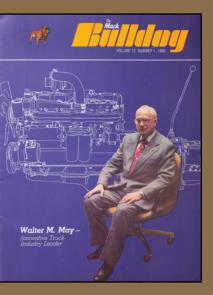


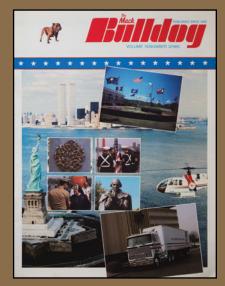






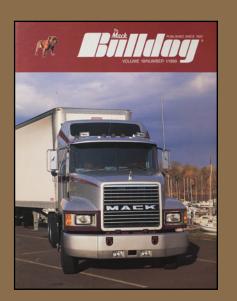


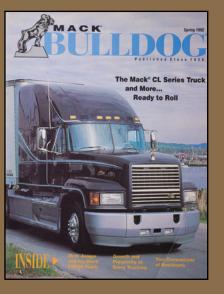




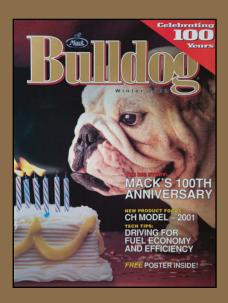




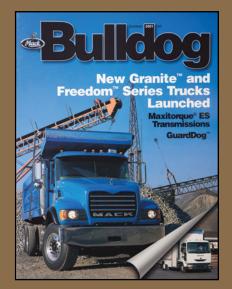


















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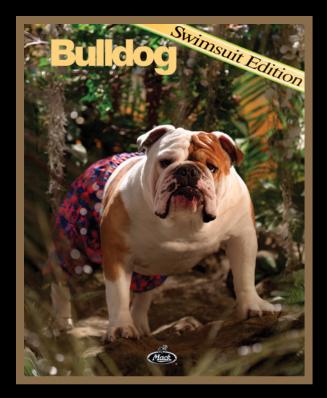
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A century of Bulldog













Fun with Mack 🖉 Swimsuit and Reality Show special editions

Celebrating 100 years of *Bulldog* **magazine**

continued from page 12

Bulldog has always reflected the times it was in. In 1950, the Cold War led to articles on the topic of industrial dispersion (moving manufacturing outside of urban centers) in case adversaries dropped the "A-Bomb" on the U.S. Mack was well-prepared for this, according to company officials of the time.

In August 1969, *Bulldog* made it to the moon, just a couple weeks after the Apollo landing, with the cover showing a Bulldog in a spacesuit striding across the lunar surface with a Mack lander in the background (although the module does look a bit like an R Model).

The Mack family

Bulldog kept its eye on the Mack family: employees, dealers, customers and fans. In addition to being a platform for communicating to the public, the magazine has maintained communication with employees. At various points over the past century, the magazine was

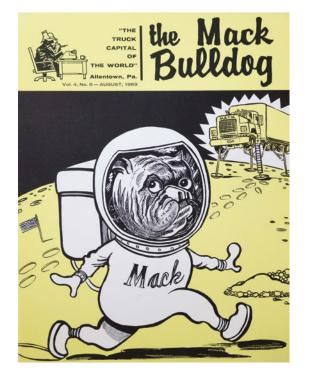


published for employees, including versions for the different production centers in Allentown, Pennsylvania, and Plainfield, New Jersey.

The Mack family really does include family: An early issue of the employee Allentown *Bulldog* had a two-page photo titled "Mack Kiddies" which showed off some mad photo editing skills, as the images of 76 infants and toddlers of Mack employees were inserted onto a photo of a Mack log truck.

In the mid-1960s, *Bulldog* related how 8-year-old Patti Lee Mehallick, daughter of a machine operator at the Hagerstown engine plant, won the grand prize in the *Bulldog* coloring contest. The prize included a flight to Allentown on the corporate jet, where she met her new real live bulldog, Maxi. Patti later became a Mack employee, as did her daughter. September 1948 had an article about 13-year-old Richard Schumacher, who loved Mack trucks as only a 13-year-old boy can and would frequently get Mack drivers to pull over so he could photograph their trucks. A copy of the article — signed by Richard in June 2002 was later sent to Mack Trucks and is now in the archives of the Mack Trucks Historical Museum.

One thing *Bulldog* magazine has demonstrated time and again over the past century is how important a committed company is to those who rely on its products and support, and its people; and that there is fun to be had, even while learning something useful. On behalf of Mack Trucks and *Bulldog* magazine, we look forward to the next 100 years with you.





entry in the Buildog Coloring Context as Treat Section 1998 (1998) (1999) (199





AT WORK



Pennsylvania, is a reflection of the economy that surrounds it and the family that runs it.

"Each family dinner would start with us looking at the underside of the ketchup bottle," John Morrow, president of Pleasant Trucking, remembers with a laugh. If they saw the logo of Anchor Glass, which had a factory in Connellsville, the Morrows knew the ketchup on their table had been hauled by one of the family's trucks. The glass bottles were fired up in a factory at the edge of town, and the Heinz ketchup was made in Pittsburgh.

Western Pennsylvania's economy has changed since those days 30 years ago. Pleasant Trucking no longer hauls glass bottles, and Heinz hasn't made ketchup in Pittsburgh in almost two decades. When Anchor glass left Connellsville, the city rallied

Pleasant Trucking by the numbers

Location: Connellsville, Pennsylvania

- **Transports:** Styrofoam, cosmetics, antifreeze
- **Truck drivers:** 48 company drivers, 10 owner-operators
- Equipment: 52 trucks, including 25 Mack trucks

and diversified, and Pleasant Trucking did the same. Its cargo still reflects Pennsylvania's manufacturing heritage. And now its fleet does, too.

In 2015, the company began transitioning to Mack[®] trucks, made in Pennsylvania's Lehigh Valley, and today, Mack Anthem[®] and Pinnacle[™] models comprise half of Pleasant Trucking's 52-truck fleet, with more Macks to come as older equipment ages out of service.

Driver response

Pleasant Trucking drivers are cheering the switch to Mack trucks, both out of Pennsylvania pride and out of gratitude for the trucks' dependability and driver-comfort features.

"The drivers have a lot of pride in their Macks," Morrow says.

Pleasant Trucking driver Jen Holmes, 52, is all in on the Mack brand, right down to her pure-bred bulldog, Princess, who accompanies her in the cab most days. She hauls Styrofoam on a flatbed trailer to construction sites across the northeast states as part of a permanent crew Pleasant Trucking devotes to the product.

Holmes began driving a decade ago as an owner-operator of a Pinnacle model and has come back to Mack as a driver for Pleasant Trucking. Holmes says uptime is now woven into the daily fabric of her workday.

"My Mack truck is more dependable than any other truck," Holmes says. "It doesn't let me down. As a general rule, I don't have any breakdowns."

She also praises her current ride, a Mack Anthem, as being a veritable home away from home.

"They really did their homework as far as driver comfort – the little extras like heated seats, heated steering wheel and memoryfoam mattresses," she says. "And the way they redesigned the cupboards is amazing."

Drivers also value the Mack models' handling when space is scarce.

"There isn't a tight spot that that truck can't get out of," says Pleasant Trucking driver Dave Berg.

An investment that pays for itself

Adding Mack trucks to the fleet has served as a powerful recruiting tool, Morrow says.

"That is a nice selling feature for a new hire," says Marcie Morrow, John's sister and Pleasant Trucking's co-owner. "They see our trucks and are impressed."

The $mDRIVE^{TM}$ transmission, she says, is a strong selling point because many younger hires don't know how to drive a manual transmission. "The kids just want to get in a truck and drive," Marcie says, and the mDRIVE makes that happen.

Morrow says the Mack trucks are improving the bottom line as well. "As we buy new Anthems, we get better fuel mileage," he says. Fuel economy during Pleasant Trucking's pre-Mack-trucks era averaged 5.91 mph. Since switching half the fleet to Mack, that number has risen above 7 mph. Over time, converting the entire fleet to Mack is an expense that will pay for itself, Morrow says.

Dealer relationships

Mack's cutting-edge uptime solutions and the attention of its dealer network also saves Pleasant Trucking time and money.

Due to Connellsville's location close to several cities, Morrow has cultivated relationships with multiple dealers.

"Usually when John calls and needs something, like we do with every customer, we work them in and get the truck back on the road as fast as we can," even if that involves after-hours efforts, says Jason Hain, director of sales for Legacy Truck Centers, the largest Mack Truck dealer in Pennsylvania.

In addition to the *m*DRIVE and GuardDog[®] Connect, Hain says Mack's 6x2 liftable pusher axle has really increased their fuel economy. "The suspension automatically determines payload to lift or lower the pusher axle as needed. It saves weight over standard 6x4 configurations, too," Hains says.

Loyalty and competition

Pleasant Trucking's 20-acre terminal is in an unlikely spot, located high on a bluff 20 miles from the busy Pennsylvania Turnpike. Pulling up stakes and moving to New Stanton, by the turnpike, would make a lot of economic sense, but that would take the company out of Connellsville and force some employees to drive farther to work,

Morrow says.

Lamenting the loss of "mom-and-pop" businesses, he vows to hang on in Connellsville as long as the economy will allow.

In many ways, Pleasant Trucking mirrors Connellsville. Both have survived economic punches and have a sense of pride

in their ability to do so. Pleasant Trucking thrives on loyalty and pluck, and so does Connellsville.

"It's so hard to compete with the massive fleets," Morrow says. "So we really don't try to. We can fill in the gaps that others don't want and won't take."

"There are enough crumbs left over for us," Marcie adds.

Those "crumbs" are automotive fluid, antifreeze, motor oil, cosmetics and Styrofoam. The company has a dedicated fleet of flatbed trailers to haul Styrofoam. The secret to survival, the Morrows say, is diversifying and not relying too much on any one client. That way,



Pleasant Trucking runs an unusually broad mix of Mack models, from Anthems, to Pinnacles, even to Granite[®] dumps, reflecting the fleet's willingness to fill any niche.

Right: Siblings John and Marcie Morrow carry out their father's and founder's vision of a trucking company that takes care of one another and their customers.

if there is economic pain, it is compartmentalized and contained.

Spreading the Pleasantness

The trucking company's name comes from a golf course outside of Connellsville. John Morrow Sr., who founded the firm in 1983, loved golf as much as trucks, so he named the company after his favorite course — Pleasant Valley. But the name has taken on new meaning over the years.

"People will tell us that our drivers are so pleasant," says Marcie, who explains the company culture instills drivers with a mission to take care of clients.

While Connellsville is home, Pleasant

Over time, converting

Mack is an expense

that will pay for itself.

John Morrow, president

of Pleasant Trucking

the entire fleet to

Trucking's corps of pleasant drivers takes the company's culture wherever the need arises. "We had to be

open to where the work is," Morrow says. "I have a driver in Mississippi who I only see once a year," Morrow says. Other Pleasant Trucking remote workers operate out

of Allentown and York, Pennsylvania, Zanesville and Columbus, Ohio, and Chicago.

"We had to get out of the mindset that we can operate only out of Connellsville," Morrow says. "We had to go where the freight was." The Morrows consider these off-site

employees to be ambassadors for the Pleasant Trucking brand.

All in the family

Pleasant Trucking is a family business, and those who aren't family are treated like relatives. Marcie oversees human resources and the office while Morrow handles the trucks. Employees have been known to pinch-hit and take care of each other's children when parents have been sick. It's not uncommon for co-workers to show up at weddings and funerals. The annual company Christmas party is more like a family reunion. Employees are cross-trained so if one person is unable to perform a job, someone else can step in. Drivers bring their dogs to work and are free to grab a dog treat from a big jar on a desk in the main office.

Approximately 20 front-office employees in Pleasant Trucking's terminal help support the fleet and drivers.

"We cater to our drivers, and, in return, they care for us," Morrow says, adding that he has drivers who readily pull up stakes and settle wherever the routes are.

The sense of family breeds intense loyalty from employees, Morrow says. And with the arrival of Mack, employees apply the same loyalty to their home-state truck brand.

"Everyone at Pleasant knows one another," Holmes says. "I worked for a big company when I started, and they didn't know who I was or know my name. I was a truck number. This is a small, family company, and they take care of their employees. I won't go anywhere else."

Richard Taylor has been with Pleasant Trucking for 28 years. As the father of eight children, he praises the company's flexibility when it comes to family life.

"I've not missed a single one of my children's school activities," Taylor says. "They will always work with drivers here to make sure they have time for their family."

Looking toward the future

The strength of Mack Trucks matches the strength of the economy right now, Hain says. "Our jobs and economy have picked up," he says. "Customers need more trucks to haul more freight."

And that's good news for Pleasant Trucking, which is well positioned to continue its active presence in Connellsville and beyond. ■

AT WORK

McNeilus Eteel, Inc.

MACK

PAS1223

Heavy-metal masters McNeilus Steel helps build the heartland

Story and photos by Jim McNamara

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merica's heartland relies on steel – it's practically made from steel. Steel for manufacturing, energy, transportation and construction, for making machines and structures of all types, and basically everything else. Today's steel goes through several stages of handling and fabrication between the mills and the final user. And it primarily travels by truck.

Glenn Sylvester of McNeilus Steel has seen all of this over the past three decades. McNeilus Steel, of Dodge Center, Minnesota, has been a steel distributor since 1948, receiving wholesale rail shipments of steel plate, rolls, coils, bars or rods, along with smaller quantities of aluminum and other metals, and delivering them by truck to manufacturers across the upper Midwest. The business has become more sophisticated and value added in recent years.

"We're getting more downstream in the fabrication process of laser forming, now doing some welding and painting," Sylvester says. "But metal distribution is the main focus."

For that you need trucks, and the trucking aspect of the company has also become more sophisticated and impressive, too. The company has approximately 150 heavy-duty trucks, all of which are Mack Anthem[®] or Pinnacle[™] models.

"Mack is, we feel, the best quality truck on the road for what we're doing," Sylvester says. The fleet standardized on Mack in the 1990s and has remained a partner with the brand ever since.

Sylvester is chief operating officer of McNeilus Steel, a family-owned company. It has four locations: Dodge Center; Fargo.

N.D.; Fond du Lac, Wisconsin; and Morristown, Tennessee. The million-squarefoot Dodge Center facility contains massive bays full of huge coils delivered by rail. The coils are unrolled, stretched, given new thicknesses by enormous rollers and cut to size as huge sheets of steel. Powerful lasers slice through thick steel using digital templates to create components for customers. Automated welders precision join fabrications. And all of the resulting pieces are stored in a large warehouse with massive overhead cranes and indoor drive-through loading docks, so trailers can be loaded out of the elements, with maximum attention to quality and safety.

"We touch pretty much every piece of steel that comes here. We're not in the business of reselling coil product. Everything is value



Specs at a glance

- 150+ Class 8 trucks, exclusively Mack
- Latest models are Anthem
- Most are day cab tractors, plus three 56-inch flat top sleepers and two 70-inch stand up sleepers, two Pinnacle straight trucks and four Granite roll offs for the company's recycling division
- Mack Anthem specs include MP[®]8 445 horsepower engine, *m*DRIVE 12-speed AMT, air ride suspension
- In-cab and exterior camera systems

added," Sylvester says. "People want us to

their inventory on our floor and make sure it's

there when they need it." That's where their

The transportation side of the company

runs 24 hours a day, six days a week. They

take next-day orders from customers until 4

p.m. each day and stage loads as the orders

come in. After drivers return trucks at the end

of the day, a night crew loads the next day's

deliveries. Many loads are multistop runs, so

the trucks must be loaded in the correct

sequence of material. Each delivery is bar-

coded and scanned to ensure quality and

as 3 a.m., depending on their first delivery.

ers to keep the product dry and protected

from elements. Sylvester notes this makes

operations more efficient, safer, higher quality

and easier on drivers. Another benefit is that

safety inspectors are more confident in their

Having a quality tractor is also a big plus.

the Anthem." Drivers love it, especially the

"We've had nothing but positive feedback for

dash layout, driver environment and the look of the truck itself, Sylvester says. Plus, the

operations when they do get stopped.

precise delivery. Drivers will come in as early

The flatbed trailers all have retractable cov-

hold their inventory rather than hold the inventory on their floor. It's our job to keep

Macks come in.

Mack mDRIVETM automated manual transmission has become a big hit with drivers.

"Once they get the automatic transmission, they love it. It's a change that takes some adjustment. They usually fight it at first, but after driving it a while, they love it." *mDRIVE* gives the fleet more flexibility with drivers who have less experience, too, an important consideration since the labor pool is smaller in the rural areas where McNeilus operates.

Running in the winter in the upper Midwest and the Great Plains of North Dakota is hard service for trucks. When storms come, "We do the best that we can do. We never put a driver in harm's way on the road, it's whatever he's comfortable with." Sylvester says their customers know if they can't get it there one day, they get it there the next.

Even though many of their vehicles are day cabs, the fleet's trucks cover a lot of ground, with drivers averaging 500 miles per day. The Macks stay in operation for 900,000 to 1 million miles. "If the truck runs well, they keep it longer," he says.

The Anthems' fuel economy is another positive for the fleet, along with maintenance costs. McNeilus does most of its own maintenance in-house, with 12 technicians under the direction of Shop Manager Todd Aarsvold. They can send out their own repair truck if they have a vehicle off road, and

COVID-19 update

"We are operating under the CDC guidelines. We sanitize all high touch points several times a day and continually educate employees on safe practices while also supplying them with what they need to stay healthy.

"Our business has only decreased minimally. We are in daily contact with our customers, checking on what is happening in their market. We are optimistic moving forward and believe that while business may be slower for a few months, essential items still need to be produced. Also, if the infrastructure bill gets passed, it will be a huge boost to construction equipment manufacturers."

- Glenn Sylvester, chief operating officer of McNeilus Steel

smaller issues can be brought back to the shop and repaired overnight so they are ready to go the next day. The Dodge Center location has seven full-time mechanics operating on two shifts so they can handle issues when the trucks are returned.

TOP: McNeilus Steel Chief Operating Officer

manifest to make sure materials are in order

BELOW: A McNeilus driver checks his

and complete for delivery inside the company's drive-through loading facility.

Center, Minnesota.

Glenn Sylvester, left, and Shop Manager Todd Aarsvold on a typical January day in Dodge

Sylvester says the main reason for the emphasis on in-house maintenance is for customer service, making sure any truck issue doesn't prevent them from delivering the product their customers need. Making the delivery on time is so important the fleet even has standby trucks.

The fleet enjoys very good relations with its "exceptional" dealer.

McNeilus Steel has been a fleet customer of Nuss Truck & Equipment, Rochester, MN, for more than 30 years and share many of the same values as both are multi-generational, family-owned businesses, according to Bob Nuss, president of the dealership.

"We have a very close relationship with McNeilus Steel from the shop technicians to top management," Nuss says. "We value our customers and team members like family."

The last 10 years have been good for McNeilus Steel. Employment has more than doubled to over 700 employees and the fleet has grown by 50 trucks.

The trucking operation is completely integrated into the company. "It's part of who we are." The drivers are salespersons who works with the customer, which Sylvester considers a big advantage.

The growth has been both a benefit and a challenge, he says. The family-owned environment helps them keep new employees, but finding them to begin with is sometimes a challenge.

The keys to success for the company have been a combination of positive factors, including continued reinvestment into the company. But he also says it's more than that. "We have good partners for steel, trucks and equipment." ■



Experience matters De Beradinis Heavy Haul is a young fleet with old Mack roots

Story and photos by Jim McNamara

ne man's economic downturn is another man's opportunity. In 2006 Lou De Beradinis started Central Florida Landscape Materials, delivering rock, stone, sand and other materials to landscapers in the Orlando area when he was only 18 years old.

De Beradinis noticed that customers frequently asked him to move and deliver their own equipment to and from jobsites. In fact, his trucks were soon spending more time moving other people's supplies and equipment than supplying materials. This business picked up during the Great Recession when other companies got rid of their own trucks to save money.

"We were good at it, and it was profitable, and that's when we decided to shift gears and change into a transportation business," De Beradinis says.

In 2011, the company changed its name to De Beradinis Heavy Haul. De Beradinis's fleet specializes in heavy hauls, often over 200,000 pounds gross vehicle weight rating, and moves everything from skid steer loaders to 140,000-pound excavators and drill rigs. "Pretty much anything equipment-wise that someone needs hauled, we're capable of doing it."

He's a third-generation trucker. His grandfather owned McFadden Express, a New England common carrier, in the 1940s and 1950s, while his father drove a dump trailer for a period, before moving to Orlando and starting a successful ready mix and materials company (both had operated fleets of Macks and were fans of the brand).

From the start as an 18-yearold, De Beradinis knew he wanted to have his own fleet and all the experience that comes with it.

"I got to call shots, I got to lose my ass, I got to make some money, I got to do it all. A lot of good experiences, some bad experiences, but the end result was that down the line we became pretty successful at what we were doing. We found what worked."

It took some time and experimentation to find what worked.

One bit of experience was the benefit of operating Mack® trucks, especially the reliability, durability, toughness and fuel economy. De Beradinis shifted to Mack after running competitor trucks for a couple of years.

"I was a young guy, thinking you're going to do heavy haul and you need the 600 horses and 18-speeds and all the gauges and the stuff that an owner-operator wants."

That's where the experience factor comes in. "You have a different idea of what you want as an owner-operator and as a fleet

> owner," De Beradinis says. "Ten years later, going from a one-truck operation to owning four or five trucks and buying more, we had to decide what route we wanted to go."

Part of the experiment was to buy two used Mack Granite® models, each five to six years old at the time with between 300,000 to 400,000 miles. The only real difference was that one was an axle forward and one an axle back, so he could evaluate which worked better

for his operation. De Beradinis was also interested in how the Mack exhaust aftertreatment systems (EATS) performed in "mature" trucks.

"We found out that they both did the job very well. We were pleased with both models." The axle position difference "really just came down to driver preference," while the EATS was "pretty much issue free."

He also is a fan of Mack's integrated powertrain design and manufacturing. "Everything's built to work together. Nothing's overspec'd or overbuilt for the next component. When go out on a job site, you don't have to worry about breaking axle shafts because that truck was designed from bumper to bumper by Mack.

"When we deliver a 200,000-pound rig and we have to leave the road, you have to know that whatever's under the hood, that you're

COVID-19 update

"Our employees are doing well. We follow the social distancing guidelines including use of face to sanitize the cabs as needed. We never slip seat trucks so the chances of our drivers spreading the virus that way is not an issue.

"We are very optimistic that our economy will come back by the end of Q4, and be stronger than ever. There's too much heavy civil work that needs to be finished not to."

- Lou De Beradinis, owner and president of De Beradinis Heavy Haul

Lou De Beradinis, owner and president of De Beradinis Heavy Haul, Orlando, Florida.



going to put it all to the ground. You can't afford to have any kind of slippage." And that's a 13-liter MP[®]8 delivering that special permit load, too.

Mack's ruggedness and higher ground clearance are another plus. "Macks have never left us stranded on the job site anywhere. It's a rugged work truck. They're bulletproof."

In the past two years, De Beradinis Heavy Haul disposed of its non-Mack trucks and doubled the size of the fleet to 10 trucks. One of the new trucks is actually a model year 2018 Titan by Mack that he traveled to Alberta last year to pick up from the dealer. That was a "holy grail truck" for a Mackfanatic heavy hauler, he says.

He also acquired two new Mack Granite triaxle tractors, with 505 hp MP8 engines, 18-speed Mack transmissions, 52,000-pound capacity Mack rear axles and double frame rails. These frequently are matched to 13-axle lowboys. He said one of these combinations weighs 90,000 pounds — unloaded.

"We spec'd those exactly how we wanted them. When you build the right truck for the job, and it has the right spec, full-locking axles and rear ends, it's definitely the right way to go."

The fleet also operates several rollbacks and flatbeds.

"A lot of the job sites can be treacherous very demanding on the trucks and trailers. Every time we move a drill, there could be 10 to 15 loads of support equipment that goes with that drill to move the whole operation. It's not your typical pallets or palletized material. This is stuff that's complicated and specialized, items that you have to think about how you're going to strap it, chain it, load it."

Can't have too many Macks

Id trucks are seductive. The soul of an old machine can call out to those who live daily with the modern version and create a counterpoint to the computer-controlled wonders of today's highways. For Lou De Beradinis of De Beradinis Heavy Haul, they are also a way to connect to his father and honor his grandfather's trucking legacy.

"It's cool to look at trucks that my grandfather would have driven or my dad drove. I feel like we're historians, preserving trucks, and bringing trucks back that would've gotten cut up by a torch."

De Beradinis restores old Macks as a hobby and currently has several antique Macks that they are rebuilding.

"It's a passion, it's a hobby ... it's become an addiction. One turned into two turned into three." He says he's always on the hunt for the next one. Once finished, De Beradinis uses them for advertising and parades. "It gives us something to do outside of work."

De Beradinis and his family rebuild trucks from the bare frame up. He says they're not afraid to strip trucks down and put them back to good use. All the restoration work is done in-house. "Every project has its own set of skills. You definitely have to learn all sorts of skills." For instance, he learned how to use hot rivets to replicate a dump body on a 1929 Mack AK, including building the forge.

There was a learning curve before the riveting was acceptable. "What I can tell you about hot rivets is that even if they're not pretty, they're a great mechanical fastener," he joked.

"We don't believe that trucks and trailers are disposable. That's another reason Macks are such a good fit for us — with a little bit of love, you can give them a second life."

His first Mack was a 1969 R model single axle dump truck that his dad bought for him to start his landscape material business. Other vintage Mack trucks he has include:

- 1941 Mack FJ
- 1939 Mack FK
- 1969 Mack R600 steel nose
- 1937 Mack AC4
- 1929 Mack AK (finished)
- 1987 Mack R686 tandem axle tractor (finished)
- 1991 RD822SX
- 1992 RD888

De Beradinis driver Garth Isaacson prepares tie-down chains to secure his load, a large excavator.

This requires drivers with the right experience, training and attitude. "The guys really have to be in the game at all times."

Once the trucks are in operation, the fleet works hard to keep them on the road. "We do the majority of our maintenance in house, preventative maintenance and we are meticulous on inspections, tires and simple repairs." More intensive repairs are handled by his local dealer, Nextran Orlando, and the service manager Luciano Ramirez, who De Beradinis praises for customer service. "He gave me his cell number to call anytime."

"Our uptime on the Mack is great — we hardly have any downtime, and if we do, our local dealer is very focused on getting our trucks in and out. They understand that we're a small company and that every day we have a truck in the shop is lost revenue. We are very lucky to have that relationship."

The attention to detail pays off.

"I know a lot of the customers that we work for use us because they know that our trucks are reliable. They know that when we say we're going to be somewhere, that we're there, and that when we pick up that piece of machinery, that we're going to make it from point A to point B. Our track history proves that we know what we're doing.

"If our fleet's not reliable, then we're not reliable." ■



A 1937 Mack AC4 in early stages of restoration at the De Beradinis shop.

De Beradinis says restoring them is only part of the habit. Caring for them can be even more time consuming.

"There's a lot of dedication in taking care of them as well. You have to preserve them, you have to wash them and wax them. The tires go bad before you ever use them because they just lay around. You have to transport them to shows. You have to maintain them. It's really a labor of love.

"Anybody can go buy a truck and restore it. Sharing that history is the important part."

ON EQUIPMENT

Mack continues its 120-year tradition of axle excellence

85,000-pound S852 tandem drive axle is newest addition to product line

ack's long, rich history of engineering and manufacturing its own powertrain components has been leveraged to develop the 85,000-pound S852 tandem drive axle.

This new rating "fits with our philosophy that components designed to work together simply work better," says Roy Horton, Mack Trucks director of product strategy.

"The new 85,000-pound rating opens up a new market for us," adds Tim Wrinkle, Mack Trucks construction product manager. "The biggest one is heavy-duty mining trucks. With this axle's higher capacity, we are able to serve that market effectively."

The S852 axle, like other axles in the Mack[®] product line, features a cast ductile iron axle housing. "A lot of other manufacturers weld their axles together, but by having a cast housing, the axle has extra durability and strength," Wrinkle says.

The new axle also has a creep rating of 105,000 pounds for when the truck is off-road and operating at very low speeds.

Low-traction situations can be a challenge for truck drivers and can impact productivity. To address this issue, Mack offers standard interaxle and optional interwheel power dividers on its axle line. These power dividers automatically distribute up to 75% of torque between the slipping and nonslipping axle. "This elegant engineering solution is proven and reliable and requires no intervention from the driver," Horton says.

All Mack axles are engineered with a double-reduction design and use Durapoid bevel and helical gears, whose design helps eliminate localized stress and loading on the gear tooth end while also providing enhanced strength and longer gear life. Frictional losses are reduced with this gear design, allowing Mack axles to deliver up to 1.5% improved fuel efficiency. Mack's first drive axles were found on the original Mack bus model built in 1900 by the Mack Brothers Company. In 1920, Mack introduced double-reduction architecture to its

axles. This major design advancement reduces the speed from the drive shaft before transmitting torque to the axle shaft, as well as helping spread and balance loading over two gear sets.

Today's Mack axles still feature that double reduction design as well as other design advances that have resulted from the company's continuous research and development efforts.

Mack axles feature a top-mounted carrier design that is less prone to main seal leaks but also provides two inches of additional ground clearance for improved maneuverability on construction sites and in other off-road applications.

The top-mounted carrier design improves driveline angles between the drive axles. A typical prop shaft angle is 3.5 to 8 degrees, but Mack's prop shaft angle is just 1-2 degrees. "This leads to longer u-joint life," Wrinkle says. "If you have a 5.5-degree angle in that joint, you are going to reduce joint life by 50%."

All Mack proprietary axles are built in the United States. For 120 years, Mack has been making proprietary axles to meet its customers' needs. Wrinkle says the proprietary axles deliver the performance demanded across a wide range of tough applications.



Left: Mack inter-axle power dividers automatically distribute up to 75% of torque to the axle with traction to provide power where it's needed. Right: Mack inter-wheel power divider provides increased driveablity in poor traction situations.

ON EQUIPMENT

Build for the base of the base

to the medium-duty market

eventeen years after exiting the medium-duty market, Mack is back in with its new Class 7 Mack[®] MD7 model and the Class 6 Mack MD6 model. "It's good to be back," says Jonathan Randall, Mack Trucks senior vice president of North American sales and marketing.

Randall says medium-duty customers could be traditional Class 8 customers who don't want to split OEMs as well as the new customers from an expanded customer base.

Medium-duty markets include dry van and refrigerated, dump and tank vocations, pick-up and delivery businesses and private fleets.

As hauls have shortened and consumer service level expectations have increased, the growth and stabilization of the medium-duty market created opportunity for Mack. "Mack's dealer network has been asking for a return to medium duty for years, and we listened," Randall says. He says initial response has been positive and customers say it hits the mark from a style and usability standpoint.

"With the Mack MD Series trucks, Mack now offers a complete lineup of Class 6 to 8 vehicles, which will enable us to meet the needs of those customers desiring Mack's legendary durability in a lighter weight gross vehicle weight rating configuration," Randall says. The new models will be available later this year, and a commercial driver's license is not required to operate the MD6 model as long as the payload is nonhazardous.

The Mack look and feel

The exterior of the medium-duty models was inspired by the Mack Anthem[®], Mack's highway model, matching its bold look and styling through the grille and hood design. The driver-focused interior of the Mack MD6 and MD7 models incorporates a comfortable, wrap-around dash with ergonomic features from Mack's Class 8 truck models; a tilt and telescoping steering column with flatbottomed steering wheel; power windows and door locks; cruise control; and driver airride seat. These driver comforts ensure a quiet ride for drivers much like the ones Class 8 drivers enjoy.

Offering a sharp wheel cut for enhanced maneuverability in tough urban settings, the MD6 and MD7 cabs feature an industry-best bumper-to-back-of-cab measurement of 103 inches. The MD Series also offers a clear back of cab and top of frame rail to accommodate a multitude of body configurations and make it easier for body builder adaptations.

Eight wheelbase lengths are offered with the Mack MD Series, supporting typical bodies ranging from 10 to 26 feet. The vehicles come standard with 22.5-inch wheels or optional 19.5-inch wheels. The Mack MD Series will be supported through Geotab Go, offering access to Mack OneCall[™] agents, available 24/7 at the Mack Uptime Center based in Greensboro, North Carolina.

Mack recently announced that the MD Series will be built at a new facility located near Roanoke, Virginia, with production slated to start later this year.

"As we continued to look at the strength of the market and the surge of last mile delivery, hub and spoke, we see a lot of stability versus the ebbs and flow of traditional long-haul. There's a huge chunk of businesses such as beverage and furniture pickup and delivery that love the Mack brand and appreciate the 400-plus dealer network and support of a company that's been building trucks since 1900," Randall says. "Interest has been high and dealers are accepting orders now."

Go to macktrucks.com for detailed specs about the new Mack MD Series. ■



ON EQUIPMENT

Mack® Command Steer

Mack eases driver effort on highway, jobsite with Command Steer for Mack Anthem[®] and Mack Granite[®]

Mack Trucks is making the job of the highway truck driver easier with the introduction of Mack[®] Command Steer, the latest in driver-assist technology, in Mack Anthem[®] models.

MACK

ack Trucks is making the job of the highway truck driver and the heavy-duty construction operator easier with the introduction of Mack[®] Command Steer for the Mack Anthem[®] and the Mack Granite[®] axle back. Mack Command Steer, the latest in driver-assist technology, will be available for order on Anthem and Granite models later this year.

On highway

A highly advanced active steering system, Mack Command Steer adds an electric motor to the existing hydraulic steering to help reduce driver effort up to 85% and improve driver productivity and comfort.

"Even with the all-day comfort provided by the Mack Anthem model's ergonomic interior, driving a heavy-duty truck remains a highly physical task," says Stu Russoli, Mack highway product manager. "With Mack Command Steer, we're helping reduce driver fatigue and muscle strain by up to 30%, improving safety and productivity as well as helping to protect the truck's most valuable asset: the driver."

Russoli says driver reaction from earlier test drives shows that drivers are amazed at how well the new steering system works. "When they are driving across the country and the wind is blowing hard on one side, they report relief over not having to fight the wheel. The drivers I've talked to say they are a lot less fatigued, it makes it much easier to keep the truck in the lane," he says.

Mack Command Steer provides variable steering assist based on the driving situation. Multiple sensors throughout the truck monitor road conditions, driver inputs and even environmental elements, and the system relays those observations more than 2,000 times per second. The system's electric motor then applies additional torque as needed to the steering, making it easier to keep the truck on the desired path.

"The additional torque, or steering force, provided by Mack Command Steer means drivers no longer have to 'fight the wheel' while driving on poor roads or in difficult weather conditions," Russoli says. "This helps drivers maintain greater control and keep their focus on what's ahead, enhancing safety for everyone on the road."

Another unique capability of Mack Command Steer is a return to zero feature that automatically returns the steering wheel to the center or zero position, helping simplify maneuvers in tight spaces, whether going forward or in reverse.

"It's not just a motor that helps you steer easier, it's a really smart brain that monitors terrain, driver inputs and environmental elements for increased driver safety and comfort," Russoli says.



Construction jobsites

)

Mack is also making operating a heavy-duty construction truck easier and safer, by bringing the benefits of Command Steer's active steering system to the rigors of jobsites.

"Driving a fully loaded, heavy-duty construction truck is a physically demanding task, especially when you add the uneven terrain common to most jobsites," says Roy Horton, Mack Trucks director of product strategy.

In addition, Horton says that to significantly reduce steering effort at slow speeds, Command Steer also helps filter out uneven terrain such as the holes, dips and ruts common to most jobsites. When such an irregularity is detected, the system reacts to counter the steering force, smoothing steering feedback and reducing the possibility of steering wheel "kicks."

"The system will also compensate for situations like strong winds and crowned roads, helping drivers maintain greater control so they can focus on the task at hand," Horton says.

Mack Command Steer's return-to-zero feature helps simplify tight maneuvers, such as backing a trailer or positioning a dump or mixer to unload. ■

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TAILLIGHTS

Bigley's big babies

Bigley Bros. Inc. featured in 1952 Mack *Bulldog* magazine

hen William and Bernard F. Bigley Sr. first started Bigley Bros. Inc. in 1912, they used horses to haul specialized loads across the New York City area. By 1918, the company operated 142 horses and specialized in hauling jobs that other teamsters couldn't handle. In fact, it took 52 horses to haul a single girder before the massive power of a Mack truck was at Bigley Bros.' disposal.

In 1921, the company upgraded to operating Mack[®] trucks and the horses were sold at a public auction, except for the oldest horse which was retired to a New Jersey farm. For 50 years, Bigley Bros. Inc. was a standout company for specialized hauls located in Hoboken, New Jersey, with additional offices in New York City and Washington D.C. Between 1912 and 1962, the company transported steel that built cities, turnpikes and buildings, including the United Nations building. They did so largely with Mack trucks, and the strong partnership between the two companies — which factored into Bigley Bros.' success — was featured in a 1952 article in Mack's *Bulldog* magazine.



MEDALLION 3 2199

While Bigley's business was eventually sold, the family's affinity for all things Mack Trucks lives on.

Special thanks to Joe Bigley for alerting *Bulldog* to his family's rich Mack history. ■

As seen in the 1952 Bulldog magazine story about Bigley Bros.

hile many companies may consider twenty-ton loads as large cargo, it's small stuff for Bigley Bros. The company can pull a load size up to 300 tons with each of their 71 tractors, most of which come from Mack Trucks. Completing the equipment lineup are 16 stake body trucks, 32 flatbed trucks with winches, 35 heavy duty trailers, 60 platform trailers, 38 pole and girder trailers and 15 pickups.

Quite a bit of work goes into shipping and delivering before the drivers ever get on the load. The firm first checks existing roads for sharp corners, overhead wires and low bridges. It's not beyond Bigley Bros. to create its own roads across fields, meadows and swamps, as was the case for transporting the huge steel girders for the New Jersey Turnpike. Special wire mats are also used on a route with uncertain terrain.

The company's transportation of especially

long girders serves as a testament to the skill of its drivers. Two Mack diesels and a "jeep," a specially made trailer similar to a dolly that is situated in the center of the load and distributes the weight across additional wheels, work together to deliver the girder, with one Mack driving backward and the other going forward.

Another big haul no match for the company was transporting all of the structural steel for the newly constructed United Nations Headquarters across New York City to the East River site.

The reason the company uses Macks is because, despite the beating they take during service, they still outlast the competitors.

The equipment is not only the best of the best, but the drivers are too. Bigley Bros. recruits its men from groups of experienced drivers. One of the best drivers that the company ever had was a man with one arm who drove for them for almost 30 years.



Back in the day when Bigley Bros. was first starting, they used horses instead of Mack trucks. The photo above the headline shows a team of horses hauling a girder.

Bigley Bros. has achieved national recognition for the ability to take on unique loads. Whether they carry long girders or special machinery, the skills and experience of the company drivers stand up to the challenge. If it's big, it's Bigley's baby.

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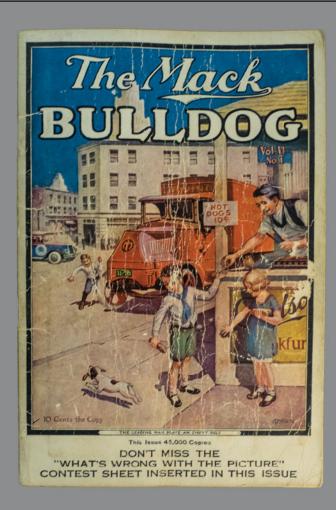
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A salute to Bulldog's readers

hen planning the special Centennial issue of *Bulldog* magazine, we asked our readers how *Bulldog* has affected them over the years. We received a number of letters and emails. One was from Linda and Bill Schooley of Hamburg, New York, who graciously loaned us their copy of *Bulldog* from 1926.

"We have enjoyed every [*Bulldog*] issue over the years and have often shared some 'Built Like a



Mack Truck' phrases. We enjoy thinking of the old days of hauling materials to job sites around western New York with our own Mack dump trucks. Congratulations on your 100th!"

Our thanks to Linda and Bill and all the others who contributed to this issue. And thanks to all of our loyal readers.

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Stay up to date with all things Mack by subscribing to *Bulldog* magazine. *Bulldog* has been informing Mack customers and fans for 100 years and counting, and is more useful than ever. Each issue is free and contains the latest news about Mack, its trucks and services, plus useful information for anyone in the trucking industry. Go to macktrucks.com/community/bulldog-magazine to subscribe online and don't miss an issue.

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