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ON THE COVER

The cover of this edition is a montage of images that collectively represent the myriad companies featured in our annual MN100 edition. Highlighted in the pages that follow, each of these firms represent the very best of the Workboat, Offshore, Inland and Coastal Marine markets.

Features

44 P3 Projects (with a Twist)
Private Partnerships, executed Perfectly – that's West Coast Boatbuilding in today's challenging business climates.

By Kathy A. Smith

50 Focus on Safety, Future, Drive Operator Success
The Right Stuff: Innovation, Customer Service, Crew Welfare

By Patricia Keefe

58 Engine Providers Power Marine Operator’s Profits
With an eye towards environmental compliance, operational efficiencies and the bottom line, these propulsion providers touch all bases.

By Joseph Keefe

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Specify FyreWrap® Marine Blanket Insulation for Superior Fire Protection for Marine and Offshore Vessels

The variety of hazard areas on a vessel that provide the potential for a fire to erupt present a serious challenge for fire protection. FyreWrap® Marine Blanket from Unifrax, a worldwide supplier of high temperature insulation, offers vessel builders and owners a proven, reliable passive fire protection solution that helps ensure life safety and protection of high value marine equipment.

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Choosing the right fire protection for your vessels is nothing to toy with
EDITOR’S NOTE

Over time, and unlike our blue water cousins, progress in brown water markets simply can’t be measured in terms of deadweight, LOA or other such linear units of measurement. That’s because when you are battling to find nine feet of available draft or perhaps trying to squeeze a 1,250 foot boxship into a berth originally built for T-2 sized tonnage using a pint-sized, but powerful assist tug, the old adage that ‘big things come in small packages’ is particularly apt for our market(s). The same thing can be said for this year’s MN100 list.

It is no secret that these are exciting, but also uncertain times for the North American workboat and brown water sectors. We use the word ‘exciting’ to convey the abundance of innovation that makes its way through the marine markets even as many sectors still struggle to find a rhythm in choppy waters. ‘Uncertain’ because no one really has a finger on the pulse of what will happen next, especially in terms of the price of oil and the ultimate long term impact of that metric on marine transportation and energy support sectors alike.

All of that said, a year has come and gone since our last MN100 edition – our annual look at the best of the Workboat, Offshore, Inland and Coastal Marine sectors and the stakeholders that make that engine run. And, no amount of ‘excitement’ and/or ‘uncertainty’ ever prevents the very best firms from rising to the top, continuing their quest for excellence, no matter what market conditions might present at any one time. That’s not likely to change. Similarly, MarineNews, the ultimate information authority for this sector for the past 26+ years, as always presents the ‘best of the best’ in this, our August print edition.

Also within this edition, we pay particular attention to boat builders, marine vessel operators and propulsion providers. That’s because these three sectors, in particular, represent the engine(s) that move us through the proverbial waters, while also providing a barometer of sorts for each niche as it exists today and a porthole into what’s just over the horizon. Within three separate feature articles, we highlight the achievements of the past year and what that means for the firms that collectively brought this innovation and operating excellence to market.

When it comes to the MN100 vetting and selection process, the buck stops at my desk, with just one important caveat: if you did not apply, you could not be considered. Applications for the MN100 continue to increase and this variable alone makes it that much more difficult to assemble the final list. Nevertheless, this is one of my favorite editions, if for no other reason than this exercise, which allows me to examine a wider swath of the industry, also gives me greater insight into where we might be headed next. Leveraging that process, we look to improve the focus and quality of our editorial product(s). Like our impressive MN100 lineup, those efforts are always ongoing – and never stop.

Joseph Keefe, Editor, keefe@marinelink.com
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THE COMPANY:

ABS, a leading provider of classification services to the global maritime industry, is guided by its mission to promote security of life, property and the natural environment. The organization offers support during initial concept design, design approval, construction and throughout a vessel’s lifecycle. ABS is built on a commitment to providing great classification services, being a recognized leader for new technology development and assessment, and serving as a trusted technical advisor to the industry. These three pillars have formed the foundation for the success of ABS for more than 150 years, and, more importantly, position the organization to provide the practical solutions needed to weather current and future industry uncertainties. Today, ABS operates in 70 countries around the world, allowing for its truly global network of surveyors, engineers, and technical specialists to leverage their collective experience at the local level. Across North America, the company has a presence in nearly 40 offices, covering every major shipping hub across the continent. Over the past several years, this commitment to North America has included an expansion of operations in Canada, the development of services specifically geared toward Subchapter M compliance, and new services and products developed to support the growing North American gas industry.

PRIMARY PRODUCT/SERVICE:

Classification is at the core of every product and service provided by ABS. The commitment to safety and environmental protection is in the DNA of the entire organization. The drive for innovation is leading ABS to redefine the role of class and proactively aide the maritime industry in solving its most pressing safety, regulatory, and environmental challenges. Beyond traditional classification, ABS offers a suite of technical services that help designers, builders, owners, and operators leverage the latest technologies and best practices in developing their projects. These services include:

- EEDI Verification
- Operational Profile Definition
- Propulsion System Evaluation
- Design Benchmarking
- Ballast Water Management System Evaluations
- Energy Saving Device Verification
- Vessel General Permit Services
- Techno-Economic Modeling
- Optimum Trim guidance
- Hydrodynamic Evaluation
- Hull Form Optimization
- EU-MRV Services

To help owners tackle the growing risks of cybersecurity in the maritime industry, ABS has launched the industry’s first risk-based management program to help owners and operators apply best practice approaches to cybersecurity. ABS CyberSafety can be applied from a single component or to a multi-system suite of assets and can be used with industry regulatory mechanisms to achieve a sustainable, measurable and secure asset condition.

THE CASE:

As a leading provider of global classification services, ABS is helping lead the North American maritime industry into the future by serving as a focal point of innovation. With cutting-edge services in safety, environmental stewardship, and regulatory compliance, ABS is working to develop the next generation of solutions, today.
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THE COMPANY:

Over time, the Blount shipyard has built more than 365 vessels. Today, Blount Boats’ clients include Fire Island Ferries, Casco Bay Island Transit District, Puerto Rico and Municipal Islands Maritime Authority, Spirit Cruises, Circle Line Statue of Liberty (Hornblower), South Ferry on Shelter Island, Long Island, and the Kwajalein Army Base on the Marshall Islands.

THE CASE:

Blount has been building high quality, innovative shallow draft designs for 66 years. Blount’s designs have created new industries such as dinner boats and mini-cruise vessels and also improved efficiency in the fishing and oil and gas industry. In April of this year, Blount Boats delivered the Atlantic Pioneer, America’s first U.S.-flagged Crew Transfer Vessel (CTV) for Atlantic Wind Transfers. It began service for Deep Water Wind Block Island at the end of May. The 21-meter aluminum vessel was designed by South Boats IOW (Isle of Wight), who has designed and built approximately 81 crew transfer vessels for the European Offshore Wind Sector servicing wind farms throughout Europe. In 2011 Blount Boats signed an exclusive licensing agreement with South Boats covering the U.S. offshore wind industry. The South Boats’ 21m is a twin hulled, all aluminum catamaran, dual certified to USCG Subchapter T (Small Passenger) to carry up to 47 passengers and subchapter L (Offshore Supply Vessel) to carry up to 16 offshore workers. Over the past three years, Blount has delivered 30 vessels, including a series of 16-meter aluminum crew boats, built under license with Damen.

THE COMPANY:

Bristol Harbor Group, Inc. (BHGI) is a full service naval architecture and marine engineering firm located on the harbor in Bristol, Rhode Island. BHGI has produced more than 50 unique designs to which more than 100 vessels have been built. Specializing in commercial vessel design and consulting, the firm’s experience spans tugs, barges, ATB’s, passenger vessels, dredges and yachts. The BHGI professional team hails from some of the best naval architecture schools in the country.

RECENT HIGHLIGHTS:

BHGI has been working on a number of projects through its second contract with the U.S. Army Corps of Engineers (USACE), Philadelphia District. One of the projects that BHGI is currently working on with the USACE is the design of a wicket lifting vessel for operation at the Olmsted Lock & Dam on the Ohio River. Extensive use of both Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA) was incorporated in the design process to ensure that the vessel is capable of performing the necessary operational and maintenance crane lifts. An Articulated Barge unit (ATB), the Gulf Carrier and the Gulf Venture, has recently been delivered to its owner, John W. Stone Oil Distributor. BHGI was responsible for the design and engineering of both vessels. Both vessels were built at Conrad Shipyard in Amelia, LA under ABS survey.

THE CASE:

BHGI is one of the leading naval architecture and marine engineering firms in the country. Constantly innovating and pushing their work product to the limits, BHGI has years of experience providing naval architecture, marine engineering, and project consulting services to the marine industry.
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ACR Electronics, Inc.

5757 Ravenswood Road
Fort Lauderdale, FL 33312
Tel: (954) 981-3333
Email: nichole.kalil@acrartex.com
Website: www.acrartex.com
CEO/President: Gerry Angeli

The Company:

The Case:
For 60 years, ACR Electronics, a Drew Marine Company, has designed and manufactured cutting edge rescue beacons and survival gear for commercial vessels, offshore workers, and boat builders. Drew Marine has acquired the Iridium tracking and communications equipment specialist in 2016. Adding new expertise and capabilities to the ACR team, the companies will continue to work together on new product initiatives in the Iridium tracking and communication sector. ACR safety gear remains the overwhelming choice of the US marine market, while ACR beacons have been activated to save thousands of people at sea.

All American Marine, Inc.

200 Harris Avenue
Bellingham, WA 98225
Tel: (360) 647-7602
Email: jhudspeh@allamericanmarine.com
Website: www.allamericanmarine.com
CEO/President: Matt Mullett

The Company:
All American Marine Inc. was founded in 1987 and specializes in the construction of custom tailored aluminum boats from 30 to 150 feet LOA. Today, the company has become a leading builder of high speed passenger catamarans, survey craft, and research vessels. AAM’s vessels feature the Teknicraft Design signature hull shape and hydrofoil technology, which aid in high speed travel with excellent fuel efficiency, producing lowest wake levels and minimal underwater noise. All American Marine has been given the exclusive construction rights within North America for Teknicraft designs and has constructed well over 30 Teknicraft Design vessels, including 28 foil-supported catamarans.

The Case:
AAM’s workboat, research vessel, patrol, and passenger catamaran hull designs feature hydrofoil-assist technology that provides for shallow draft, enhanced seakeeping ability, improved speed and fuel economy. Since its inception in 1987, All American Marine has built over 100 aluminum boats.

Alternative Marine Technologies

62 Ridgefield Avenue
Stamford Landing One
Stamford, CT 06877
Tel: (203) 969-5468
Email: rkunkel4@gmail.com
Website: www.alternativemarinetech.com
President: Robert Kunkel

The Company:
Established in 2007, Alternative Marine Technologies (Amtech) has been a leader in design and construction of alternative energy propulsion solutions aboard several series of vessels, built both domestically and abroad. With 23 employees, the firm continues to grow.

The Case:
Alternative Marine Technologies has been employed as the construction manager for myriad cutting edge marine technology projects. For example, AMT delivered the first Hybrid propulsion research vessel, is currently building the first LNG bunker vessel in the United States and is also now building six 25,000 chemical carriers (as design integrators) at Hyundai Mipo Dockyard. The delivery of the American Phoenix from BAE Shipyard and the delivery of the Hybrid Research Vessel ‘Spirit of the Sound’ are among AMT’s recent highlights. AMT Founder and President Robert Kunkel is a recognized subject matter expert on all things “propulsion.”
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The Company:

Conrad Shipyard was established in 1948 and is headquartered in Morgan City, Louisiana. The company designs, builds and overhauls tugboats, ferries, liftboats, barges, offshore supply vessels and other steel and aluminum products for both commercial and government markets. The company provides both repair and new construction services at its five Gulf Coast shipyards located in southern Louisiana and Texas. Widely recognized for innovation, Conrad has a separate business unit devoted to the construction, design and development of LNG projects including transport barges, dual-powered towboats and other LNG applications. Conrad has an experienced workforce and a management team sharply focused on customer satisfaction. The company has a deep commitment to the health, safety and personal growth of its employees and uncompromising standards of environmental consciousness. Conrad Shipyard was founded by Parker Conrad, whose founding principles were Quality, Craftsmanship, Integrity and Service. These principles have filtered down through every level of the organization, and are responsible for the company’s distinguished reputation as one of the Gulf of Mexico’s most respected shipbuilders. The firm operates five Gulf Coast Shipyards and has about 900 employees.

The Case:

Conrad Shipyard has a 68-year history of providing cost-effective solutions for new construction, repair, and conversion projects for both commercial and U.S. Government customers. Conrad’s five shipyards along the Louisiana-Texas Gulf Coast provide enclosed fabrication facilities, state-of-the-art manufacturing equipment, multiple drydocks, and an experienced workforce to meet the needs of its customers in an evolving market. Recent contracts include a Woods Hole Passenger Ferry, two ATB Tugs for Harley Marine Services and four Damen Stan Tugs for Young Brothers.

The Company:

CR Ocean Engineering LLC (also known as CROE) is a global leader in the design and supply of exhaust gas cleaning systems (scrubbers) offering a full range of systems customized to a client’s specific needs. With its installed base of more than 24,000 land based scrubbers since the 1960’s, CR Ocean Engineering LLC is the marine focused entity of one of the oldest air pollution control companies in the world. CRoe’s headquarters is located in Parsippany, NJ. The firm has 65 employees.

Primary Product / Service:

The CROE scrubbing system is designed to be lighter, smaller, more efficient and more cost effective than most competing scrubbing systems. It has very low backpressure, an all metal construction, requires no bypass, replaces the silencer and can run dry. Available in three standard configurations, it is customizable to the ship’s needs; Open Loop – using seawater on a once through basis; Closed Loop – a recirculating scrubber using fresh water and caustic; and Hybrid – a combination of both designs.

The Case:

CR Ocean Engineering (CROE) modified its well proven scrubbing systems to reduce emissions from vessels operating in the US/Canadian ECA. The CROE scrubbing technology has a small footprint, a very high efficiency and a low cost. This combination allows more vessels – indeed workboats – to use the scrubber option and save on fuel costs. In the past year, CROE supplied scrubbers for many vessels operating in the US/Canadian Great Lakes, US and Caribbean seas. All meet IMO ECA requirements, Flag State and Class requirements and also U.S. EPA and US Coast Guard requirements.
The Expanded Panama Canal is here. Doubling the cargo capacity of the existing waterway, the Expansion now welcomes new segments and Neopanamax vessels through the Canal, increasing connectivity and providing more efficient and reliable service to the international maritime community.

#PanamaCanalExpansion  thepanamacanal canaldepanama PanamaCanalOnline www.pancanal.com
**THE COMPANY:**

Brunswick has been in the business of building boats for commercial and military applications for more than fifty years. From its beginnings as an arm of the legendary Boston Whaler brand to now – part of Brunswick Corporation, the largest marine manufacturer in the world – they’ve focused exclusively on building the toughest boats for the toughest jobs. At Brunswick CGP, you’ll work with people who have been in your shoes - experienced professionals who know what needs to go into a boat so you get the most out of it. Whether you are in the market for an unsinkable fiberglass boat, a rigid inflatable or even an aluminum workboat, Brunswick has the platforms to support your mission. The firm employs about 100 in its Edgewater facility.

**PRIMARY PRODUCT/SERVICE:**

Boston Whaler Unsinkable Fiberglass: Cut a commercial Boston Whaler in half and not only does it not sink, you can still drive it. Even fully swamped, under the worst, repeated abuse – intentional groundings, punctures by submerged objects, and collisions in dense fog – this boat floats. Its foam-core Unibond construction gives the Whaler its unsinkability – up to two and a half times the flotation required by the U.S. Coast Guard.

IMPACT Rigid-Hull Inflatable Boat: The IMPACT’s air or foam-filled collars act as shock absorbers to mitigate damage during a collision or while tied alongside another boats or dock and gives the driver lateral stability and quicker recovery in stacked waves. All IMPACT models feature a molded one-piece fiberglass stringer system, adhered to the hull with a bond that is stronger than the fiberglass itself, and filled with polyurethane closed-cell foam for added strength and flotation. Sentry Aluminum Boats: Now offering aluminum cabin boats, BCGP’s Sentry line can withstand extraordinary abuse in rugged waters where submerged rocks and logs wreak havoc on lesser hulls. They resist fire and contaminated water – where you really don’t want to compromise on hull materials. Range from 30 to 40 feet in length, every model is designed for high performance.

**RECENT HIGHLIGHTS / DELIVERIES / CONTRACTS:**

Brunswick recently launched the newest iteration in its IMPACT RHIB line-up. The new hard-sided D-Collar RHIBs are available in 7.5, 8.5, 10, 11 and 12-meter models. The D-Collar models feature a hybrid air/foam-filled collar mounted to a solid fiberglass gunnel. This allows for more space on deck and added maneuverability and versatility for the crew. The D-Collar gives customers the best characteristics of a standard fiberglass hull with the benefits of a RHIB. This update also includes a molded fiberglass stringer system. Now, all IMPACT models will feature a molded one-piece fiberglass stringer system, adhered to the hull with a bond that is stronger than the fiberglass itself, and filled with polyurethane closed-cell foam for the added strength and flotation.

**THE CASE:**

Since the Vietnam War, Brunswick Commercial & Government Products has been providing the US Government with patrol and combat craft. Today, serving the Law Enforcement, Military, Rescue and Commercial Workboat industries, BCGP is carrying on that legacy with three distinct product lines: Unsinkable Boston Whaler fiberglass boats, IMPACT rigid-hull inflatable boats and Sentry Aluminum boats.
Rapid response means fast return to operation

When Jaime Sawyer, fleet manager at Truex Enterprises in Atlantic City, NJ, experienced a complete gear failure that destroyed the Volvo Penta D16 engine on his commercial clam boat, *Catherine Elizabeth*, he had to make a quick decision: rebuild or buy new.

With the help of Volvo Penta dealer Eckel’s Diesel, the clam boat was running again in no time after installing a new D16 engine — a product he knew required minimal maintenance based on past experience.

“The company’s excellent service and hard work, combined with instant engine availability from Volvo Penta, got the boat on the water two weeks earlier than rebuilding the engine.”

— Jaime Sawyer
THE COMPANY:
AME President Richard Merhige has pioneered the use of lasers in the marine industry.

THE COMPANY:
AMEsolutions.com is comprised of Advanced Mechanical Enterprises/AME and Advanced Maintenance Engineering/AME, comprehensive marine and industrial engineering services companies specializing in Predictive, Preventative and Corrective Maintenance for rotating machinery. Since 1992, AME has pioneered the use of the most cutting-edge technologies and state-of-the-art equipment to the diagnostics, maintenance and repair of rotating machinery, particularly for private and commercial vessels. AME offers 24-hour, worldwide service. AME is recognized as an external specialist for condition monitoring by the American Bureau of Shipping/ABS and is commissioned by clients the world over to solve complex vibration issues on everything from yachts to workboats, among other entities. AME is a proud authorized representative for Windrock and authorized distributor of Wartsila seals, and bearings for the state of Florida. The firm has 16 employees.

Baker, Lyman & Co., Inc.

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Metairie, LA 70006
Tel: (504) 831-3685
Email: sales@bakerlyman.com
Website: www.bakerlyman.com
CEO/President: Corinne Titus

THE COMPANY:
A wheelhouse favorite for generations, Baker, Lyman & Co. is the oldest NOAA & Admiralty Chart Agent in the United States. Baker Lyman has been provisioning vessels with nautical charts, electronic charting systems, publications, safety/educational materials, and various navigational gear & instruments since 1920.

THE CASE:
Baker Lyman provides and leads in best practice software solutions for record keeping, safety and charting. The firm has grown from a small paper based and compass company to an international electronic charting and software development company. The Baker Lyman ISM compliant Folio Management Service ensures charts & pubs meet the most recent updates. As the largest global distributor of Rose Point Electronic Charting System (ECS) for parties seeking commercial ECS solutions, the firm is also an exclusive distributor of the cutting edge Corsair Towing Vessel Record (TVR) software. Baker Lyman provides scalable, affordable, and flexible options which adhere to the new USCG Sub Chapter M rulemaking regulations.

Beier Integrated Systems

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Website: www.beieris.com
CEO/President: Karl Beier

THE COMPANY:
Beier’s integrated engineering department and installation team specializes in retrofit projects, providing custom-designed systems for clients, reducing vessel downtime, and achieving the highest level of performance on the open water. Beier Radio, LLC and its subsidiaries (Beier Integrated Systems, Sentinel & The Marine Training Institute), together with its combined 70 employees, are committed to total customer satisfaction by delivering quality products and services to the marine industry in a timely fashion.

THE CASE:
Beier Radio was founded in 1945 and continues to be a leader in the ever-evolving marine electronics industry today. Sentinel, a Beier Radio company, has designed and manufactured a new Rudder Feedback Unit (RFU) with many innovative features long sought by the marine industry. Having supplied DP systems for hundreds of vessels over the years, Beier Radio is recognized as a reliable provider of turnkey vessel control and navigation solutions.
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**The Company:**

David Clark specializes in providing communication solutions for high-noise environments. The firm’s noise-attenuating headset systems are used worldwide in applications where clear communication is critical. All products are made in the USA at a 250,000 square-foot manufacturing facility with over 300 employees involved in design, engineering, manufacturing and support. A quality assurance system is designed to meet the most stringent testing standards to ensure product excellence.

**Primary Products:**

David Clark marine intercom systems are at work on tug and tow boats, service vessels, fire boats, patrol and military vessels. These systems are designed to withstand the rigors of the harsh marine environment with marine-grade components that resist salt, spray, shock and vibration at sea. The Series 9100 Digital Intercom is their newest, most technologically advanced system, providing clear headset communication to unlimited numbers of users, radios and other devices, with each user being afforded 4 mode selections to program to their unique job criteria. As an IP based system, it can also accommodate a number of existing network ancillaries as well, resulting in a simple, cost-effective solution for all marine based critical communications.

**The Case:**

The new Series 9100 Digital Intercom System has recently been chosen by U.S. Customs and Border Protection to be the crew communication system on the new Coastal Interceptor Vessel program, building on more than a decade and a half of success stories. Series 9500 & 9800 Systems are in use worldwide by towboat companies, and the Series 9900 Wireless Intercom System provides a stand-alone wireless solution or an add-on to legacy systems to untether users from their static positions.

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**Dometic**

Dometic develops products that make life on the water more comfortable and productive. An engineering leader of innovative products for the global marine industry with the largest worldwide sales and service network, products include air conditioning, ventilation, air purification, water purification, and sanitation. Compact, modular, and shell-and-tube chillers are customized for up to 2.4 million BTUs of climate control. The firm has about 300 employees.

**Recent Highlights / Deliveries / Contracts:**

For a 72’ Signet tug boat, Dometic designed a custom chiller system with a compact, efficient, brazed-plate heat exchanger for the condenser. This was possible because this class of vessel uses a secondary heat exchanger (keel cooler) which keeps seawater away from the condenser. The design allows maximum performance at high condenser temperatures. Beyond this, the firm recently expanded the Pompano Beach facility to include an additional 33,000 square feet of factory floor space. The firm provides engineering and manufacturing of marine air conditioning systems (self-contained, split systems, and chillers), ship-wide ventilation and fire dampers, watermakers and water purification systems, in-duct air purification, and sanitation systems, including VacuFlush, MasterFlush, and RushFlush toilet technologies. Although Dometic has a broad range of products to fit many applications, custom engineering is also available.

**The Case:**

Expertise and experience: For more than 50 years, Dometic leads in the engineering of innovative and reliable products for the global marine industry. In 1960, Dometic pioneered commercial marine air conditioning, and continue to develop a variety of products that make life on the water more comfortable and productive.
THE COMPANY:

BlueTide is a leader in the provisioning, implementation, monitoring and support of satellite equipment. Combining the power of HUGHES proprietary managed network technology with people who fundamentally understand the power of connectivity under extreme circumstances, BlueTide services three of the top five largest OSV workboat companies in the world, as well as liftboats, crew boats, construction barges, and tug boats.

THE CASE:

Bandwidth has become a critical operational component for the marine industry but many times is misunderstood or managed inefficiently. BlueTide’s AMP app set the standard for baseline remote communications modality. The increased efficiency, reduced cost and additional controls made possible by the application equal more effective bandwidth use. BlueTide’s strength is building and maintaining a global satellite network and remote marine satellite equipment coupled with dedication to transparent, value-added resources that maximize networks. BlueTide was the first satellite communications company to give customers transparent access to and control over their bandwidth and usage.

Complete and Committed.

THE SCANIA MARINE SOLUTION.

Out there, confidence in performance, reliability and operating economy are the only things that count. With this in mind, we created the Scania marine solution: An array of flexible products paired with guidance and installation support from Scania. Whatever your specification, we will provide you with the optimal Scania marine solution.

Power at work, every inch of the way.
THE COMPANY:
Compliance Maritime was founded by Captain Katharine Sweeney in 2010 and has since provided over 400 International Safety Management (ISM) audits and more than 300 vessel security audits. Compliance Maritime is a certified Woman Owned Small Business (WOSB). Clients consist of several key players in the industry, however each and every audit is confidential, and treated as such.

THE CASE:
Compliance Maritime auditors are certified, insured and current USCG licensed Master Mariners with 150 years of combined experience on a large variety of vessel types. They are all certified American Waterways’ Responsible Carrier Program (AWO RCP) Lead Auditors as well as certified International Standards Organization (ISO) 9001 (Quality) and 14001 (Environmental) Lead Auditors, giving them an understanding of the foundation on which ISM and Subchapter M were based. Safety management is the game changer for the industry. Compliance Maritime provides internal and third party Safety Management System auditing by seasoned master mariners for towing as well as all types of vessels. Compliance Maritime auditors are committed to treating clients with respect and helping them to improve their businesses.

THE COMPANY:
Continental Underwriters, Ltd. is a national, multiline firm for all types of marine coverage. The firm offers both admitted and non-admitted products in 50 states with affordable, broad terms and conditions for even the most unusual and complex risks. Continental’s 45 years of success ensures that insured’s receive extensive access, and tailor-made coverage from experienced brokers and underwriters. Continental is part of the FGH family of companies.

THE CASE:
Founded in 1970, CUL is the nation’s largest brown water Marine Insurance underwriting firm. Expanding product lines and market leading capacity ensures quality service and security. CUL’s Master Port Risk Program provides commercial operators, mortgagees and other interested parties an economical way to insure their stacked equipment during difficult economic periods. Under the program, insureds have the opportunity to remove their vessels from a navigating policy at a greatly reduced cost. As the offshore industry retrenches in a challenging climate, the option provides OSV operators with new tools to save money in a responsible fashion.

THE COMPANY:
Cummins, Inc. is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Cummins has also created a dedicated Cummins Marine organization within the existing Engine Operating Segment. By consolidating its commercial and recreational teams, the Cummins Marine organization is better positioned to serve its government and commercial marine customers.

THE CASE:
Cummins has more than 90 years of experience in marine markets, and its marine organization combines Cummins expertise in a full range of marine products and vessel integration. Cummins offers a complete line of propulsion, generating set and auxiliary power solutions designed specifically for commercial marine applications, from inland rivers to offshore. Its products are supported at every major port with more than 1,500 locations worldwide.
A lifetime of experience.  
A family of services.

For more than 65 years, Ward’s Marine Electric has been the reliable source of power for the marine industry. Based in South Florida and servicing ABS-classified vessels around the world, we offer full engineering and installation services on control systems, switchgear, and power distribution systems. In addition, we have a wide array of parts and can perform fire, class certification, and electrical surveys, providing the highest level of expertise and efficiency.

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SALES | ENGINEERING | SERVICE & SURVEYS | PRODUCTION
THE COMPANY:
ClassNK is dedicated to ensuring the safety of life and property at sea, and the prevention of pollution of the marine environment. Bolstered by a workforce of more than 1800 engineers, surveyors and maritime professionals, ClassNK focuses on delivering the highest quality classification services while maintaining its totally independent third party, non-profit status. With more than 230 million gross tons on register, ClassNK is one of the world’s largest classification societies, helping to secure the safety of about 20% of the world’s ocean-going commercial vessels. The Society has more than 130 offices worldwide with 10 offices in the United States. ClassNK has developed and is constantly improving solutions for the U.S. Towing Industry to meet the standards of the recently published 46 CFR Subchapter M. ClassNK is approved and recognized by the U.S. Coast Guard to conduct surveys and audits of towing vessels as a Third Party Organization. The ClassNK America Group, which combines the capabilities of subsidiaries Safety Management Systems, LLC and Helm Operations with the renowned classification society, provides a market leading suite of compliance services and verification systems for towing vessels. With over 700 towing vessels included in ClassNK’s Register of Ships, the vision of this organization is to provide reliable and experienced people as well as proven resources in support of the U.S. towing industry. Additional 2016 significant milestones include the U.S. Coast Guard authorizing ClassNK to participate in the Alternative Compliance Program. ClassNK is the first classification society to enter an agreement with the AWO to conduct audits for the Responsible Carrier Program.

SERVICES & HIGHLIGHTS:
In addition to its classification survey activities, ClassNK conducts surveys on behalf of third parties including State administrations, offers technical services for offshore structures and onshore plants construction projects and verifies the safety management systems of ship-management companies and ships, in accordance with the International Safety Management (ISM) Code and International Ship and Port Facility Security (ISPS) Code. ClassNK offers a full range of auditing and surveying services for compliance with 46 CFR Subchapter M as a Third Party Organization. These services include audits of a Towing Safety Management System (TSMS), and the vessels to which the TSMS applies, to verify compliance with the applicable provisions of 46 CFR Subchapter M; issuance of TSMS certificates to the owner or managing operator who is in compliance with part 138 of 46 CFR Subchapter M; conducting surveys of towing vessels to verify compliance with the applicable provisions of 46 CFR Subchapter M, and; issuance of survey reports detailing the results of surveys, carried out in compliance with part 137 of 46 CFR Subchapter M. ClassNK has a working agreement with the American Waterways Operators to conduct Responsible Carrier Program audits.
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Website: www.elastec.com
CEO/President: Jeff Cantrell & Jeff Bohleber

THE COMPANY:

Located in Carmi and Fairfield, Illinois and Cocoa, Florida, Elastec manufactures water pollution control products specializing in oil spill recovery equipment. Established in 1990 with the invention of the ELASTEC Drum Skimmer, the U.S. Clean Water act inspired Elastec to expand its product line to include floating booms, turbidity curtains, vacuum systems, work boats and portable incinerators. Elastec’s new Omni Cat is a waterway maintenance catamaran designed to help municipalities comply with nonpoint source pollution. To control silt and sediment pollution during marine construction, Elastec also manufactures turbidity curtains. A recent project near the Golden Gate Bridge has earned Elastec an environmental award. The firm has about 110 employees.

PRIMARY PRODUCT / SERVICE:

Elastec manufactures and markets oil spill recovery equipment: drum, grooved disc and weir skimmers, oil boom, BoomVane, dispersant systems, response trailers and Hydro Fire Boom and American Fireboom systems. The company also manufactures work boats, such as the ELASTEC Omni Cat for waterway maintenance and landing craft response boats. ISO9001:2008 certified, Elastec has shipped products to 155 countries.

THE CASE:

In 2015, Elastec celebrated 25 years of manufacturing oil spill recovery equipment. As they look forward to the next 25 years, Elastec is developing new ways to keep our waterways clean from trash, debris, sediments, invasive aquatic weeds, as well as to recover oil spills. Elastec’s Hydro-Fire Boom and American Fireboom systems were deployed in the controlled burn operation during the Deepwater Horizon incident in the Gulf of Mexico. Elastec won the Wendy Schmidt Oil Cleanup X CHALLENGE with its patented Grooved Disc Skimming technology.

GE TRANSPORTATION
MARINE

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E-mail: cathy.heiman@ge.com
Website: www.getransportation.com
CEO/President: Jamie Miller

THE COMPANY:

GE Transportation is a global digital industrial leader and supplier to the marine industry. Established more than a century ago, GE Transportation is a division of the General Electric Company that began as a pioneer in passenger and freight locomotives. That innovative spirit still drives GE Transportation today. The firm employs about 10,000.

PRIMARY PRODUCT / SERVICE:

GE’s Marine Solutions is at the forefront of emissions reductions with its breakthrough technology that achieves optimal operational and emissions compliance in medium-speed diesel engines. The latest series of its L250 and V250 diesel engines are certified to EPA Tier 4 and IMO III without the use of exhaust after-treatment and urea injection. Available in 6 and 8 cylinder in-line engines and 12 and 16 cylinder V-type engines, our power range covers 1500 - 4700 kW at 900 or 1000 rpm. The GE diesel engines are easy to maintain, are highly reliable and have lowest fuel consumption in class.

THE CASE:

GE Transportation continues to invest in the marine industry to offer the lowest emission diesel engine technology, certified to EPA Tier 4 and IMO III, while maintaining the lowest cost of operating. GE engines are supported by a global network of channel partners providing 24/7 parts and service support to the marine industry. Recent orders and deliveries, to name a few, include: 5x 12V250 Oceaneering 2x 12V250 - Harvey Gulf 2x 12V250 - Reinauer Transportation 6x 8L250 - Ingram Barge 2x 12V250 – AMA.
TASMAN Sea T-2 | Reliable service, new modern controls

System Features:
- Small footprint, large volume production, from 6,720 to 23,775 gallons per day
- Radial axial pump - doesn’t require oil changes
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- User-friendly color touchscreen
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**THE COMPANY:**
Gibbs & Cox and Donald L. Blount and Associates (G&C/DLBA) comprise one of the world’s leading independent naval architecture and marine engineering design firms. The Company employs naval architects, engineers and designers from all of the ship-related engineering disciplines including propulsion, mechanical/auxiliaries, structural, electrical, software, and logistics. Since its founding in 1929, G&C has provided expert services to the entire marine sector. Engineering, design and support solutions offered by G&C play a key role in ongoing initiatives to integrate new technologies into our designs; and in the production and fielding of capable and affordable ships for the future. G&C’s depth of high performance commercial and military vessel skills were significantly augmented with the acquisition of Donald L. Blount & Associates. DLBA was founded in 1988 and specializes in the technical development of high-performance marine craft. The firm offers consulting services related to the design, evaluation, testing, and construction management of motor yachts, custom sport fishing boats, production boats, commercial, military and paramilitary vessels. For over 25 years, DLBA has participated in setting world records, worked with some of the marine industry’s most influential people, and been involved with the development of some of the most iconic vessels in the world. Collectively, the combined organization has 300 employees.

**THE CASE:**
Gibbs & Cox and its subsidiary Donald L. Blount and Associates is the largest independent Naval Architecture and Marine Engineering firm in the US. Best known for designing warships and high speed yachts, the firm also designs and engineers many complex and innovative inland and brown water vessels.

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**THE COMPANY:**
For more than 60 years, Gladding-Hearn Shipbuilding has built steel and aluminum commercial vessels. Located on 6½ acres on the deepwater Taunton River in Somerset, Mass., the family-owned and operated shipyard counts more than 417 vessels built as proof of its longevity and vessel reliability. A total of 38 customers own 120 Gladding-Hearn vessels. With in-house naval architecture and engineering capabilities and a cross-trained workforce, Gladding-Hearn is well-known for applying some of the most advanced shipbuilding techniques that rival many bigger yards, while still providing the personal customer service of a smaller yard.

**THE CASE:**
Since 1955, Gladding-Hearn has been synonymous with pilot boats, having built more launches operating in the United States than any other shipyard. In 1978, the yard joined forces with designer C. Raymond Hunt to build the first launch with a deep-V hull, soon to become the industry standard. In 1977, the shipyard delivered America’s first Z-drive tractor tug. An Incat Crowther licensee since 1987, Gladding-Hearn became the second shipyard in the country to build high-speed passenger catamarans and has built the majority of East Coast and Great Lakes fast ferries. In 2014, the shipyard built the first pilot boat application of Volvo Penta’s IPS drives in the United States. Nearly 90 percent of Gladding-Hearn’s business is from repeat customers. Recent high profile deliveries include Gladding-Hearn’s second Tactical Response Vessel to the NYPD, as well as a new generation Pilot Boat for Tampa Bay Pilots. Both feature the unique C. Raymond Hunt deep-V hull.
THE COMPANY:
DA WEST is a USA Woman Owned Small Business, manufacturing diesel powered equipment to a diverse client base. All products are listed on the GSA ADVANTAGE schedule. The firm provides products to the military, NOAA, Tug and Barge Companies and oil-spill response organizations. DA West builds portable diesel equipment solutions using only the best and toughest components. The firm manufactures diesel trash pumps, fire pumps, air compressors, generators and hydraulic power packs. All of their equipment can be built to meet tier 4 emissions standards.

THE CASE:
DA West manufactures quality pumps to ensure the safety of individuals and vessels. DA West’s pumps meet environmental regulations and fulfill the guidelines outlined in SubChapter M. The firm works closely with the marine construction and emergency spill response teams to build a variety of portable diesel equipment specific to those needs. Serving the Marine industry for over 40 years means that the firm understands the shallow draft market.
FloScan designs and manufactures Fuel Monitoring Systems for use on a wide range of diesel powered commercial vessels on every continent including ocean-going, harbor and inland tugs; oil rig platform, research and fishing vessels.

The CASE:
FloScan is a world leader in marine fuel monitoring systems and software applications for diesel engines up to 6000 HP. The firm offers solutions to improve fuel efficiency, reduce operating overhead, and simplify fuel tracking for individual vessels or across entire commercial fleets. FloScan’s FloNET systems has Geo-Fencing capabilities and is compatible with the DataLog Software. DataLog provides vessel fuel usage by engine and total, flow rates and temperature, fuel efficiency, GPS data and engine RPM. This data can be downloaded and sent via e-mail as an attached file to operations headquarters. The most recent advancement for inland fleet operators is the addition of a Geo-Fencing feature that tracks propulsion fuel consumed through various geographic areas for federal tax reporting purposes.

GPLink
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Email: dwebb@gplink.com
Website: www.gplink.com
CEO/President: Dan Webb

The COMPANY:
GPLink is the most capable remote diagnostic tool available for high horsepower systems. Globally, GPLink helps vessel owners and fleet managers by remotely plotting asset locations while also monitoring engines & critical systems. GPLink remotely monitors fuel consumption, idle time, engine hours, speed, engine load and more. Comprehensive reporting allows vessel managers to identify abnormal or wasteful behavior patterns. The firm has 15 employees.

The CASE:
Using dual band technology with both GSM and Iridium satellite networks, GPLink is an invaluable tool designed to help keep the world’s commercial boats on the water longer and increase their bottom lines. Whether managing a single vessel or a vast fleet, GPLink’s remote monitoring, support & notification system maximizes productivity round-the-clock. Commercial vessel and fleet owners can now reap the benefits of real-time vessel monitoring, tracking and support from GPLINK along with generating customizable reports for fuel consumption and engine operation helping to comply with SEEMP guidelines.

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Email: susanpaprcka@hobostrom.com
Website: www.hobostrom.com
CEO/President: John Bostrom

The COMPANY:
H.O. Bostrom provides seating solutions for marine, transportation, and other niche markets. The firm’s facility boasts 60,000 square feet of manufacturing space located on a 4.5 acre campus. The firm has about 85 employees.

Primary Product / Service:
The SeaPost family of pilot chairs and mechanical suspension seating for commercial marine vessels serves a valuable niche in the mid-range price segment of the global commercial vessel market. New product development in the SeaPost line has benefited the company’s portfolio of seating systems and accessories for the commercial marine vessel market.

The CASE:
With complete design, engineering, fabrication, and assembly of seating systems and components in the U.S. Midwest, the firm offers the advantage of single sourcing their seating requirements. The firm was the recipient of the 2016 Governor’s Export Achievement Award, which recognizes success in global business development. Nominees were evaluated on measurable export growth, innovation and contributions to Wisconsin’s economy and trade development. In 2016, the firm celebrates its 70th year as a family-owned and operated business.
WE’RE BUILDING
QUALITY VESSELS

VIGOR.NET MARINESALES@VIGOR.NET
Eastern Shipbuilding Group, Inc.

2200 Nelson Street
Panama City, FL 32401
Telephone: (850) 763-1900
E-mail: sberthold@easternshipbuilding.com
Website: www.easternshipbuilding.com
CEO: Brian R. D’Isernia
President: Joey E. D’Isernia

The Company:
Eastern’s original shipyard was established in 1976 for the purpose of constructing commercial fishing boats for the company’s founder and President, Brian R. D’Isernia. By 1980, 26 commercial fishing vessels had been constructed and delivered. Building on his passion for boats and the sea, Mr. D’Isernia decided to diversify Eastern’s reputation from a ‘Fishing Vessel’ shipyard into a shipyard that could fulfill any type of custom vessel request, large or small. In 1981, Eastern’s diversification began with the delivery of its first Offshore Supply Vessel. Today, Eastern’s history includes a portfolio of over 350 vessels and Eastern is one of the most diverse vessel construction companies as a result of its state of the art production line and fabrication process. Eastern has built everything from Offshore Supply Vessels to Tugs, Inland Towboats, a SWATH Vessel, Passenger Vessels, Ro-Ro/Passenger Ferries, Inland Transport Vessels, Barges, Fireboats, Research Vessels, Offshore Construction Vessels, Dredges, High Speed Passenger Vessels, Fishing Vessels, and more. Eastern’s proven successful shipbuilding record stems from the fact that they are willing to accept any new challenge and are confident that they can successfully build and deliver any type of vessel that our Client’s require, both on time and on budget. As Eastern moves into the future, they look forward to the continued diversification and growth of our portfolio of vessels which brings new challenges and ultimately grows the company. At Eastern, each employee starts and ends the day with the same goal in mind: work safe, work smart, and prove to the shipbuilding industry, clients, and themselves that you can’t do any better than an Eastern built vessel.

Primary Product / Service:
Eastern has built everything from Offshore Supply Vessels to Tugs, Inland Towboats, a SWATH Vessel, Passenger Vessels, Ro-Ro/Passenger Ferries, Inland Transport Vessels, Barges, Fireboats, Research Vessels, Offshore Construction Vessels, Dredges, High Speed Passenger Vessels, Fishing Vessels, and more. Eastern’s proven successful shipbuilding record stems from the fact that they are willing to accept any new challenge and are confident that they can successfully build and deliver any type of vessel that our Client’s require, both on time and on budget. As Eastern moves into the future, they look forward to the continued diversification and growth of our portfolio of vessels which brings new challenges and ultimately grows the company. At Eastern, each employee starts and ends the day with the same goal in mind: work safe, work smart, and prove to the shipbuilding industry, clients, and themselves that you can’t do any better than an Eastern built vessel.

The Case:
Eastern Shipbuilding is a global diversified shipbuilder located in Panama City, FL USA. During the time period between 2006-2016 Eastern has contracted and delivered (33) 300’ ABS Class DP PSV/AHTS/ MPSV/ATB Tugs for the offshore market and (93) inland towboats and Z-drive tugs for the near coastal/inland market. Over this 10 year period Eastern has contracted and delivered on time and on budget a total of 130 vessels of all types averaging 13 per year. Today, the firm boasts two (2) Facilities; the Allanton and Nelson Street yards, totaling 326 acres. A total of 19 vessels are currently under construction and/or contract.
**The Company:**

With offices in the US, Brazil, Chile, China and Germany, GPA developed into an independent, full-service naval architecture and marine engineering company that since 1979 has helped vessel owners and shipyards navigate through complex newbuild, retrofit and repair projects. Its extensive design portfolio includes hundreds of offshore vessels, workboats, passenger vessels and fishing vessels constructed for commercial owners worldwide and governmental institutions. The GPA team consists of over 60 professionals, including naval architects, marine engineers, mechanical engineers, electrical engineers and administrative support.

**The Case:**

GPA’s extensive portfolio includes various innovative, award-winning designs and some of the largest vessel series worldwide. With more than 36 years of innovative naval architecture, GPA’s story and successes are marked by innovation, relationships and hard work, following the motto, “ideas engineered into reality.” GPA accompanies clients throughout the entire design process and during construction beyond the delivery of every vessel to ensure successful project closure. Professional services and capabilities cover all phases of ship design, including Feasibility Studies, Conceptual and Preliminary Design, Bid Packages and Regulatory Design, Scientific and Engineering Analysis, Production Engineering, as well as Construction Management and Owner Representation. Significant engineering achievements include being one of the world leaders in implementing diesel-electric propulsion configurations. Today, over 140 GPA-designed offshore vessels are equipped with such systems. GPA’s diesel-electric developments heavily influence the industry and have been adapted by various designers and operators worldwide.
HYDROCOMP, INC.

13 Jenkins Court, Suite 200
Durham, NH 03824
Tel: (603) 868-3344
Email: sales@hydrocompinc.com
Website: www.hydrocompinc.com
CEO/President: Jill Aaron

THE COMPANY:
HydroComp, Inc. was established in 1984 to provide powering analysis services to naval architects and shipbuilders. Best known for its award-winning NavCad software, HydroComp is regarded as the premier source for performance prediction software, consulting, and knowledge. The firm’s offerings include NavCad, NavCad Premium, PropCad, PropCad Premium, PropElements, PropExpert, SwiftCraft, and SwiftTrial software. The firm has 8 employees.

THE CASE:
Sometimes the least sophisticated vehicle is the hardest to analyze. With respect to resistance, this is definitely the case with barges. NavCad software offers resistance prediction for barge systems, including barge geometries, barge train arrangements and connections, effective “unit” representation for ITB tug and barge, and hydrodynamics of box-like vessels. The firm reports recent collaboration with Friendship Systems; specifically, “Optimized AUV Design by Coupling CAESES and NavCad” and “Real Cost Savings for a Waterjet-driven Patrol Craft Design Using a CAESES-NavCad Coupled Solution” and Collaboration with Nautican “Using Detailed Operating Data to Identify Energy Savings Strategies.”

JAGCO INDUSTRIES

5245 Old US 45
Paducah, KY 42003
Tel: (270) 554-2626
Email: jagco@jagco.net
Website: http://www.jagco.net
CEO/President: Joe Gill

THE COMPANY:
Jagco Industries is a manufacturer of Flexible metal hose assemblies for automotive, Inland Marine, industrial, trucking & Rail. It also manufactures “UNI-FLEX” exhaust couplers for cars & trucks. More familiar to workboat clients, the firm also manufactures Expansion Joints, Pump Connectors, and Exhaust Assemblies for Marine, Industrial & Rail. Manufacturer of metal flexible line assemblies for Industrial

THE CASE:
Jagco produced the first USA Made aftermarket flexible exhaust coupler for cars & trucks. Their equipment is sold through a network of warehouse distributors across the nation. The firm has served the Inland Marine Industry and other industrial sectors with quality flexible metal hose assemblies for over 25 years. Notably, the firm’s expansion joints, pump connectors, and metal flexible line assemblies have been employed by engine OEM’s on countless new engine installations and rebuilds alike, for Inland Marine Industry workboats. The firm lists Jensen and Crowley Marine Solutions among their marine customers.

KARL SENNER, LLC

25 W Third Street
Kenner, LA 70062
Tel: (504) 469-4000
Email: Chris@karlsenner.com
Website: www.karlsenner.com
CEO/President: Ralph Senner

THE COMPANY:
Karl Senner, LLC is the exclusive North American distributor and service provider of Reintjes Marine Transmissions, Steerprop Azimuth Thrusters and EPD Electrical Systems. The firm supplies robust, industry-proven marine propulsion systems; all backed by an experienced factory-supported technical team, resulting in superior service. Karl Senner, LLC recently delivered Steerprop Azimuth Thrusters for the largest Z-drive inland towboats built in North America to date (for SCF Marine).

THE CASE:
The inland waterways have always been a major focus of business since the company’s inception in 1967. Karl Senner prides itself in knowing what it takes to support inland customers, from sizing the appropriate equipment, to stocking spare parts, and providing quick service turnaround. They know the demands of the river, and how to support customers accordingly. Family owned and operated, the company provides both the flexibility and personal approach in order to respond to market demands quickly and effectively. The firm has extensive experience in Z-drive systems and technology – both in the offshore and inland markets.
SERVING THE MARINE AND OIL INDUSTRY
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THE COMPANY:

Glosten is an employee-owned full-service consulting firm of naval architects, marine engineers, electrical engineers, and ocean engineers. Founded in 1958, the firm specializes in commercial and public sector vessels including research vessels, passenger/car ferries, tugs, barges, dredges, and special purpose platforms. Consulting and design services include hull, structural, mechanical, and electrical systems design. Glosten has a staff of 77 associates, including 36 professionally licensed engineers, supported by other engineers, marine designers, and production staff. In 2015, Glosten acquired Massachusetts-based Noise Control Engineering, LLC (NCE), an acoustical and structural engineering consultancy specializing in noise and vibration measurement and control for marine and military applications. That firm has 93 employees.

THE CASE:

Upon the National Science Foundation’s selection of Oregon State University (OSU) to lead the design and acquisition of the new Regional Class Research Vessels (RCRVs), OSU enlisted Glosten to develop the functional design documents. The Glosten team is working collaboratively with OSU and a broader group of stakeholders throughout the design spiral. For over 55 years, Glosten has delivered innovative marine solutions rooted in a comprehensive understanding of all things marine. With solutions ranging from an ice-capable research vessel design to a cutter suction dredge repower, Glosten consistently pursues new and better ways to solve clients’ most challenging problems.
setting a course
6-9 sept 2016
hamburg

visit smm-hamburg.com/trailer to watch the SMM trailer

- 5 sept  maritime future summit
- 6 sept  global maritime environmental congress
- 7 sept  international conference on maritime security and defence
- 8 sept  offshore dialogue
- 9 sept  maritime career market

Hamburg Messe
**Kohler Marine**

444 Highland Drive  
Kohler, WI 53044  
Tel: (920) 457-4441  
Email: william.bussler@kohler.com  
Website: www.kohlerpower.com/marine  
Managing Director: Joseph Raats

**The Company:**

Kohler Marine generators are produced in the United States and distributed globally. Kohler Marine sales as well as aftermarket sales and service activities are globally organized. Kohler’s USA, EMEA, Singapore, India, China, Australia and Brazil offices all have dedicated Marine personnel supporting a network of regional, authorized Kohler distributors. Kohler Power Systems, a division of Kohler Co., provides complete power systems, including generators (residential, industrial, mobile, portable, and marine), automatic transfer switches, paralleling switchgear, monitoring controls, and accessories for emergency, prime power and energy-management applications. Kohler Power Systems has delivered energy solutions for markets worldwide since 1920.

**The Case:**

Since the 1920s, KOHLER commercial marine generators have been engineered to perform in the most rugged and demanding conditions. More recently, the company developed the world’s first commercial marine generator with factory-installed, pre-tested paralleling controllers and automatic voltage regulators — making everything automatic and easier to use than ever before.

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**KRAL-USA, Inc.**

PO Box 2990  
Matthews, NC 28106  
Tel: (704) 814-6164  
Email: sales@kral-usa.com  
Website: www.kral-usa.com  
CEO/President: Christoph Tschepp

**The Company:**

KRAL has been manufacturing pumps and flow meters for the marine industry since 1950. KRAL is well renowned for high quality, durable and rugged solutions suitable for harsh marine environment. KRAL is quality, innovation and quick response anytime and anywhere. Pump packages, pump skids and compact double pump stations are often custom made to meet customer requirements. KRAL looks far beyond its own product portfolio to gain a full understanding of the customer’s requirements, applications and strategic plans.

**The Case:**

KRAL provides innovative cost saving solutions for the marine industry. KRAL offers for accurate, real time fuel consumption measurement and monitoring to reduce operating and maintenance costs. Several years ago KRAL was the first company that launched a complete flowmeter series based on the screw-spindle principle. Furthermore, KRAL was the first manufacturer that introduced a hermetically-sealed, magnetically-coupled 3-screw pump.

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**Laborde Products**

74257 Highway 25  
Covington, LA 70435  
Tel: (985) 892-0107  
Email: ccerullo@labordeproducts.com  
Website: www.labordeproducts.com  
CEO/President: Brian Laborde

**The Company:**

Laborde Products is an engine distribution company focused on the commercial markets along the gulf coast and inland river systems. Laborde represents Mitsubishi, Yanmar and Steyr commercial marine engines. Laborde is also preparing to launch the OXE Diesel Outboard engine throughout the Gulf Coast. They also represent several commercial industrial engines including FPT, Yanmar, Mitsubishi, Hatz and PSI. Laborde provides support out of its locations in Covington, LA and Houston, TX and through a comprehensive service network. Laborde has 45 employees.

**The Case:**

Laborde is the fastest growing new engine provider in the market, providing its loyal customers with old school simplicity of mechanical engines with the environmental benefits of current EPA emissions. Laborde additionally provides the only mechanical USCG Class 1, Division 1 barge power units on the market. Laborde recently delivered its 800th Mitsubishi engine into service in the US marine market. The launch of the new OXE Diesel Outboard is an exciting new venture for Laborde.

August 2016
<table>
<thead>
<tr>
<th>Month</th>
<th>Ad Close</th>
<th>Slugs</th>
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<tbody>
<tr>
<td>JANUARY</td>
<td>Dec 14</td>
<td><strong>Passenger Vessels &amp; Ferries</strong></td>
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<tr>
<td></td>
<td></td>
<td>MARKET: Training &amp; Education</td>
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<td></td>
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<td>TECHNICAL: Thrusters &amp; Inland Propulsion</td>
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<tr>
<td></td>
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<td>PRODUCT: Interior Design, Outfitting &amp; HVAC</td>
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<td>REGIONAL FOCUS: U.S. West Coast</td>
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<td><strong>PVA Maritrends:</strong> January 22-26, Washington, DC</td>
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<td>MARCH</td>
<td>Feb 15</td>
<td><strong>Pushboats, Tugs &amp; Assist Vessels</strong></td>
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<td></td>
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<td>MARKET: Fleet Optimization &amp; Navigation Software</td>
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<td>TECHNICAL: Marine Coatings/Corrosion Control</td>
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<td>PRODUCT: Water Treatment &amp; Technology</td>
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<td>REGIONAL FOCUS: U.S. East Coast</td>
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<td><strong>CMA Shipping 2016:</strong> March 21-23 Stamford, CT</td>
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<td><strong>Port Security Operations:</strong> March 17-19, Tampa, FL</td>
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<td><strong>NACE Corrosion:</strong> March 8-10, Vancouver</td>
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<td>MAY</td>
<td>Apr 15</td>
<td><strong>Inland Waterways</strong></td>
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<tr>
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<td>MARKET: Barge Building &amp; Outfitting</td>
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<td>TECHNICAL: OSV &amp; Offshore Vessel Trends</td>
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<td>PRODUCT: Cordage, Wire Ropes &amp; Rigging</td>
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<td>REGIONAL FOCUS: Inland Waterways</td>
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<td><strong>Inland Marine Expo:</strong> May 10-12, St. Louis, MO</td>
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<td>JULY</td>
<td>Jun 13</td>
<td><strong>Propulsion Technology</strong></td>
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<td>MARKET: ATB’s</td>
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<td>TECHNICAL: Safety &amp; Fire Protection</td>
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<td>PRODUCT: Shafts, Seals &amp; Bearings</td>
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<tr>
<td>SEPTEMBER</td>
<td>Aug 15</td>
<td><strong>Offshore Annual</strong></td>
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<td>MARKET: Barge Loading &amp; Offloading Equipment</td>
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<td></td>
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<td>Technical: Push Boats &amp; Barges</td>
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<td>Product: Winches, Ropes &amp; Cranes</td>
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<tr>
<td>NOVEMBER</td>
<td>Oct 14</td>
<td><strong>Workboat Annual</strong></td>
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<td>MARKET: Outfitting the Modern Workboat</td>
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<td>TECHNICAL: Pumps, Pipes &amp; Valves</td>
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<td>PRODUCT: Deck Machinery/Cargo Equipment</td>
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<td>REGIONAL FOCUS: Gulf Coast</td>
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<td><strong>Workboat Show:</strong> Nov 30 – Dec 2, New Orleans, LA</td>
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<td>OCTOBER</td>
<td>Sep 13</td>
<td><strong>Salvage &amp; Spill Response</strong></td>
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<td>MARKET: Market: Special Purpose Workboats</td>
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<td>TECHNICAL: Arctic / Cold Weather Operations</td>
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<td>PRODUCT: CAD/CAM Software</td>
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<td><strong>SNAME:</strong> November 2-4, Providence, RI</td>
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<td><strong>Arctic Technology Conference:</strong> October 24-26, St. John’s Clean Gulf</td>
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<td><strong>Clean Gulf:</strong> November, New Orleans, LA</td>
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<tr>
<td>DECEMBER</td>
<td>Nov 14</td>
<td><strong>Innovative Boats of 2016</strong></td>
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<tr>
<td></td>
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<td>MARKET: Fire, Patrol &amp; Escort Craft</td>
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<td></td>
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<td>TECHNICAL: Emissions Control / Compliance</td>
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<tr>
<td></td>
<td></td>
<td>PRODUCT: Pumps, Pipes &amp; Valves</td>
</tr>
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THE COMPANY:

HMS Global Maritime is an internationally respected, full-service marine management company, with the resources and experience to deliver tailored, cutting edge solutions, management, and support to clients of all sizes through four divisions - anywhere in the world. HMSGM was founded in 1995 in San Francisco, California as Hornblower Marine Services. In 1998, it relocated to the Louisville, Kentucky area, basing its headquarters in New Albany, Indiana, to be more centrally located and closer to the riverboat casino market, a fundamental operation service in the early stages of the company. The company is now the leading U.S. provider of a range of contract marine services, both domestically and internationally, and has extensive marine experience operating passenger/car ferries, riverboat casinos, excursion vessels, and High Speed Craft. HMSGM has a record of successful relationships with U.S. Coast Guard, the U.S. military, and the U.S. Maritime Administration (MARAD) among others. The Ferries and Consulting divisions are rooted in the early skills and aims of the company, and still hold a significant presence in the overall strength of HMSGM. Seaward Services was purchased by the company in 2010, providing a government services focus and significant growth to HMSGM. In 2012, American Queen Steamboat Company (AQSC) was formed with the purchase and inaugural cruise of the flagship vessel, the American Queen, entering the company into a then diminished overnight river cruising industry. Because of the success of the American Queen, the company purchased and began sailing a second vessel in 2014, the American Empress. AQSC continues to lead the industry's revitalization and is currently the largest area of growth and opportunity for HMSGM.

RECENT HIGHLIGHTS / DELIVERIES / CONTRACTS:

In the past year, HMS Global Maritime has recognized several major accomplishments. Seaward Services has gracefully moved to serve as a large company for possibilities to bid on many new and different government services opportunities. Additionally, the company secured a two-year high-speed ferry contract for operations from Portland, ME to Yarmouth, Nova Scotia. HMS Ferries successfully navigated the initial operations for two seasonal ferry contracts and has created and implemented a safety management system throughout the division. American Queen Steamboat Company has reached sales and reservations records for the company in the past year. The American Empress sold out 18 back-to-back cruises at the end of 2015, while the American Queen carried its largest volume of passengers in 2015. This year, both vessels have already surpassed their revenue goals, making 2016 the largest and most profitable year yet. Additionally, the company launched The Steamboat Society of America, a customer loyalty program, and special Commodore Services that provide first-class butler service, priority check-in, private dining with the Captain, and other personal services and amenities to owner and luxury suite customers.

THE CASE:

The HMS team of maritime professionals has grown the company into one of the premier vessel management firms in the nation, with annual revenues in excess of $116 million, 15 operating locations and over 730 employees. Average annual growth for HMSGM has been 300% per year over the past 14 years.
THE COMPANY:

Since 1973 Larson Electronics has manufactured industrial lighting and power distribution products. On LarsonElectronics.com we offer a wide range of products including explosion proof lighting, portable hazardous location lighting, high powered LED lights, hand held 12/24 Volt lighting, light towers and portable power distribution panels with large KVA transformers. Our products are used by manufacturing facilities, refineries, military bases, paint spray booths, oilfield operations, shipyards and food processing plants around the world. Larson Electronics continues to develop custom solutions while maintaining an extensive inventory of established products for immediate shipping. The firm employs about 50.

THE CASE:

Larson provides Explosion Proof Lighting, Heavy Industrial Lighting, and Mobile Power Distribution and the firm is a leading supplier of work boat lights for hazloc ships and general work boats.
**Horizon Shipbuilding, Inc.**

13980 Shell Belt Road  
Bayou La Batre, Alabama 36509  
Telephone: (251) 824-1660  
E-mail: illemcool@horizonshipbuilding.com  
Website: www.horizonshipbuilding.com  
CEO/President: Travis Short

**The Company:**

Horizon Shipbuilding, Inc. is located on the Southwestern coast of Alabama, about 30 miles from Mobile. Designing, building and repairing ships, boats, and barges up to 300’ in length and 1500 tons, Horizon’s customer base includes tug and barge operators, the offshore oil industry, cruise and diving industry, and specialized craft for domestic and foreign governments. The firm has 250 employees and has annual sales of $40,000,000.00

**Primary Product / Service:**

Horizon was founded in 1997 by a father-and-son team who bring more than 60 years combined experience in ship design, construction, operation, maintenance and repair. The combined Horizon facilities include 30 fenced acres, with additional 3 acres for parking adjacent to 150’ wide, a 20’ deep waterway and a 180’ X 50’ X 20’ deep slip for launching and retrieving vessels with 660-ton Travelift. Seven steel buildings for fabrication and construction are complemented by 12 overhead cranes. A turning basin for compass and electronic adjustments adjacent to shipyard is situated just minutes from the Gulf of Mexico.

**The Case:**

Horizon Shipbuilding continues to add contracts. Several tow-boats are under construction for Florida Marine Transporters, continuing this nearly decade-long business relationship, along with a multi-unit build of ship assist tugs for McAllister Towing. Steel will be cut for an additional vessel shortly and repair jobs continue to keep the shipyard busy. Horizon developed management software, Gordhead, to improve efficiency in shipyard projects. Not only has productivity significantly improved, schedules are being shortened, resulting in on-time deliveries. Gordhead has won two innovation awards and is now available for sale to other manufacturers.

---

**Hydrex**

Haven 29  
Antwerp, Belgium 2030  
Telephone: +32 3 213 53 00  
E-mail: hydrex@hydrex.be  
Website: www.hydrex.be  
CEO/President: Boud Van Rompay

**The Company:**

Hydrex offers turnkey underwater repair solutions to shipowners wherever and whenever they are needed. Hydrex’s multidisciplinary team will help you find the best solution for any problem encountered with your ship below the water line. Hydrex provides a complete range of high quality underwater repair and maintenance services. These are performed on-site to avoid costly unscheduled off-hire time or a drydock visit. The firm immediately mobilizes its diver/technicians to any location around the globe to carry out necessary repair work without the need to drydock. All projects are engineered and carried out in close cooperation with the customer and any third party suppliers. These operations are permanent, class approved and provided at any location. Headquartered in the Belgian port of Antwerp, the firm has offices in Rotterdam, Tampa (USA) and Algeciras (Spain). The firm employs about 40.

**Recent Highlights / Deliveries / Contracts:**

Last month a team of experienced Hydrex diver/technicians performed underwater thruster operations on two vessels simultaneously in Coatzacoalcos, Mexico. Repairs were carried out on both azimuth thrusters of an FPSO while the thruster seals of a heavy load carrier were replaced. Both vessels are managed by the same company and both were suffering from leakage problems on their propulsion system. Both repairs were effected in one operation, giving the customer the advantage of only one mobilization for both vessels and kept the cost within budget.

**The Case:**

With over 40 years of experience, Hydrex has the know how to offers turnkey underwater repair and maintenance solutions to vessel owners. Large and multidisciplinary teams can solve any problem encountered below the water line. Diver/technicians carry out any necessary repair work without the need to drydock.
Massachusetts Maritime Academy

101 Academy Drive
Buzzards Bay, MA 02532
Tel: (508) 830-5012
Email: blima@maritime.edu
Website: www.maritime.edu
President: RADM Fran McDonald

The Company:
Massachusetts Maritime Academy offers seven undergraduate Bachelor of Science degrees and two graduate Masters of Science programs. The regiment of cadets is comprised of students from around the globe. The academy operates a training vessel used to acquire sea service for the cadets. Two tugs (Alert and Hercules) and a barge support the Mate of Towing program. The Academy has a vast array of simulators used for undergraduate and professional mariner training. The engineering program has a live steam plant with a condensing turbine used for training along with multiple live and static machinery including diesel, gas turbine and steam turbines.

The Case:
Massachusetts Maritime Academy has been training deck and engine licensed seafarers since it opened 125 years ago. The academy now brings in a class of 500 cadets of which fully one-half are USCG license track students. Massachusetts Maritime Academy also offers professional seafarer training through a variety of 22 USCG approved courses offered under the Division of Continuing Education.

www.marinelink.com
Private Partnerships, executed Perfectly – that’s West Coast Boatbuilding in today’s challenging business climates.

By Kathy A. Smith
Partnerships: no, we’re not talking about infrastructure funding. But, in our P3 version, boatbuilding in the Pacific Northwest and Alaska is alive and well, because of it. Long-standing enterprises and relative newcomers are all experiencing an uptick in projects. Here, as part of our annual MN100 top company profiles, we take a look at how three organizations have either merged and/or partnered with complementary companies to expand skills, capabilities, employees and market reach.

Nichols Brothers Boat Builders
Nichols Brothers Boat Builders (NBBB) is a complete new-build shipyard and full-service repair facility with over 50 years of experience on Whidbey Island in Washington State. Founded in 1964, NBBB specializes in steel and aluminum vessel construction, repair and major conversions.

NBBB has a 15-acre shipyard and a growing workforce of over 300 skilled tradespeople. In fact, many employees have been with the company for more than 20 years. These employees are training the next generation of boat builders. NBBB also has an in-house, state-recognized apprenticeship program that ensures its personnel meet and exceed NBBB expectations and regulatory demands. “The training program runs every Tuesday and Thursday night for our apprentices,” says Matt Nichols, Executive Vice President. “It’s very advanced, and about 30 young men and women are going through it right now.”

NBBB’s diversity in skill enables it to provide a wide variety of vessels to customers, such as lightweight, aluminum high-speed catamarans, small cruise ships, ferries, tug boats, ATBs, and most recently, a 140’ x 38’ x 13’ Cargo/Passenger containership for American Samoa. The company has also built boats with Z-drives, Voith Schneider propellers, water jet propulsion and working paddlewheels.

Facilities include 11 “big top” portable buildings, each 40’ x 85 wide and 55’ high that can be constructed as needed, in addition to the permanent administration building, engineering, warehouse, electrical, pipe, carpenter and paint shops.

“We use a lot of local naval architects here to design a lot of what we build,” explains Nichols. We also have engineers on staff. I think we’re about as modern as you can be. We try to keep materials in front of the people and design staff and have the equipment necessary for them to work with and be safe and clean at the same time.” Besides constructing vessels from scratch, NBBB has also partnered with Vigor on several ferry projects for Washington State ferries that involved building massive 375-foot-long, five-story high superstructures. “We always have an open mind

“I think we have a great crew. I always say to them, there are three things in sales: price, delivery and quality. I only have two things to worry about because your quality is always excellent.”

– Matt Nichols, Executive Vice President, Nichols Brothers Boat Builders
“We’re reducing the production costs of the boats and getting the quality up. Our warranty claims have dropped to almost nothing. And we have very robust sea trial and QA processes.”

– Keith Whittemore, Vigor EVP of Business Development

and think outside the box when we’re approached with new projects,” says Nichols.

Recent workboat deliveries include two 10,000 HP 136’ x 44’ x 19’ ATBs for Kirby Offshore Marine, LLC. Also for Kirby, NBBB is currently building two new 120’ twin screw LineTow tugs. The tugs are expected to be delivered in May and November of 2017.

Boat building is accomplished using the most environmentally-conscious practices. All vessels are cocooned before being blasted and painted. Additionally, an award-winning advanced storm water runoff treatment system deals with anything that hits the ground. Looking at safety, NBBB has its own Emergency Response Team (NBBB ERT). All members are trained in firefighting, EMS, Rescue, and Hazmat/Spill Control. The NBBB ERT responds to all fire, medical, rescue, and or hazmat responses within the facility. The team regularly trains with the local Fire Department and Hospital; Island County Fire District #3 and Whidbey General Hospital EMS, as well as performing in house drills on a monthly basis.

“I think we have a great crew,” says Nichols. “I always say to them, there are three things in sales: price, delivery and quality. I only have two things to worry about because your quality is always excellent.”

Vigor

Vigor, headquartered in Portland, Oregon, has long been a staple of shipbuilding, ship repair and complex fabrica-
tion in the Pacific Northwest and Alaska. In the Marine sector, 45 percent of Vigor’s business is in ship repair and 40 percent in shipbuilding. The company has not only grown its own expertise, but it has also merged with other companies to create even more value to its customers. Vigor now boasts 12 locations and approximately 2,500 employees.

In the past two years, Vigor merged with Kvichak Marine Industries and Oregon Iron Works (OIW). While Vigor proper began building barges, it now has a very diverse North American market, providing ferries, fish boats, hovercraft, aluminum pilot boats, patrol boats, and oil skimmers to various customers. In addition, Vigor has been expanding into overseas markets as well. And the partnership with OIW has led to Vigor dominating the high performance vessel market for defense and maritime security customers.

When Kvichak became part of the Vigor family, it was 35 years old. It is still run and managed by one of the original owners, Brian Thomas. Keith Whittemore and Jim Meckey have taken on broader roles within Vigor, lending their expertise throughout the various marine teams within the company. “Kvichak is as good of an aluminum workboat builder as anybody in the world and probably anybody in the Americas,” says Whittemore, EVP of Business Development. OIW, now called Vigor Works, has been building boats in Clackamas, Oregon for 30 years. “Where Kvichak is very high tech and has been building by standard practices, Vigor Works takes it to a whole new
level of fine-tuned complexity,” adds Whittemore.

Vigor Works’ specialty is high performance vessels; anything from variable ballast vessels to autonomous vessels to an autonomous sub chaser that was built for DARPA, which is the US Navy’s Research and Development arm. “The pride right now of that group is the Combatant Craft Medium, which is 62 feet long and is faster than 50 knots (the actual speed is classified). “We already have a lot of inquiries from overseas from other countries interested in the craft,” says Whittemore.

Kvichak has also helped make advances in overall production capabilities and production organization due to their three existing facilities. “After this merger, all of the business development is done centrally in Harbor Island, the engineering work is being done together and the Kvichak cutting facility is cutting Combatant Craft Mediums for Vigor Works and prefabricating work,” says Whittemore. “It makes for a more efficient workforce. We’re reducing the production costs of the boats and getting the quality up. Our warranty claims have dropped to almost nothing. And we have very robust sea trial and QA processes.”

Recent workboat deliveries include 180 patrol boats for different US Coast Guard agencies, two 54’ Fast Response Boats for the City of Portland, two 19m pilot boats for the Port of Duqm, Oman, a 45’ Response Boat Medium-C for the New York Police Dept Harbor Unit, two 83,000 BBL tank barges and an ATB tug for Harley Marine Services. “Putting these three companies together is a huge plus,” says Whittemore. “We’re sharing people, talents and knowledge. For us, this is a dream come true. All sides couldn’t be happier.”

“We listen to our customers and collaboratively design a boat to final specifications with them. Out of that comes good ideas and the need for increased performance of the boats.”

– Mark Stott, Moose Sales Engineer
Moose Boats

Moose Boats, Inc., based in Petaluma, California was founded in 2000 by Roger Fleck who began with a 34’ aluminum catamaran design, the 340C, propelled by twin diesel water jets. The company is known for building high-quality aluminum catamaran and monohull vessels and its market focus has been the US Navy and several top tier law enforcement and firefighting agencies throughout the United States.

The US Navy Combatant Craft Division (CCD) recognized Moose Boats in 2002 and the design was further enhanced to meet military specifications. “After 9/11, the Navy started looking for domestic builders to build small craft,” explains Mark Stott, Sales Engineer. Subsequently dozens of Moose Boats 340C catamarans, and its M2 successor, were delivered to CCD fulfilling submarine escort and harbor patrol roles.

In the early 2000s, Moose Boats began tapping the firefighting market after successfully implementing firefighting equipment into sheriff’s boats. There are over 100 Moose Boats vessels in service, and more than 20 are their firefighting workboat design. “We’ve managed to get in with the right kind of agencies like, for example, the New York Police Department, the New Jersey State Police, the Los Angeles Police Department and many of the Bay area agencies,” says Stott.

In 2007, Moose Boats delivered a larger M1-44’ catamaran to the New York Naval Militia. The M1 has continued to be a success in both law enforcement and firefighting applications as a command and high-volume fire suppression platform. In 2011, Moose Boats developed its first mono-hull, the M3, as a smaller, more maneuverable platform aimed at tactical and interdiction applications, completing its current product line up.

Like Vigor and Nichols Brothers, Moose Boats looked outside its yard for synergy and added value. To that end, Moose recently merged with Lind Marine, a 110-year-old tug and barge company which operates a shipyard adjacent to the 440-foot Dry Dock 4, along with 2,000 linear feet of pier at the site formerly known as Mare Island Naval Shipyard. Moose is moving its Port Sonoma operations in the early fall into the 20,000 square-foot facility co-located adjacent to Lind Marine’s shipyard, which will consolidate production into one place, allowing for production automation such as in-house water jet cutting. Dedicated rigging bays will mean that multiple boats can be outfitted simultaneously with rigging crews able to access tools and equipment readily from the deck level of the vessels. Moose will also have access to a 137-ton portal crane. “Occupying the space and sharing the shipyard will take us into the realm of being able to design and build 60-plus-foot crew boats as well as tug boats and survey boats, so there will be a big shift in what we’re building over the next 10 years,” says Stott.

Moose Boats expects to expand the company’s workforce alongside the new operations facility. “It’s a good place to attract skilled workers because it would be a welcome industry move there,” adds Stott. “There are a number of industries already operating on the Mare Island Naval Shipyard.”

With access to a deep-water channel, Moose Boats can now offer boat maintenance and repair, in conjunction with Lind Marine. “This is where the blend of two skill sets come together,” says Stott. “Lind Marine is very familiar with the larger-scale equipment they run with their tugs and barges, and Moose Boats has very in-depth knowledge of electrical, electronics, mechanical installation and interior outfitting, along with our aluminum welding capabilities. We listen to our customers and collaboratively design a boat to final specifications with them. Out of that comes good ideas and the need for increased performance of the boats.”

Beyond Boatbuilding: Planned Partnerships with Purpose

With each new vessel project, these boat builders are fine-tuning their output and procedures, according to customer expectations, changing technologies and regulatory demands. While competition between companies is the natural state of affairs, this new breed of strategic partnerships appears to be helping bring more diversity, market share and revenue to all involved. And that adds up to a greener bottom line – and, a “P3” model of a different kind.

Kathy A. Smith is a Victoria, BC-based maritime writer who has penned over 100 published trade articles.
The hallmarks of a successful vessel operator are the same whether they are carrying liquid, physical or human cargo: A laser focus on safety, a twin commitment to customers and crew, and the vision to embrace and invest in the future. However obvious the bar, it is not easy to meet.

“I don’t think there is any magic formula,” says Rob Grune, senior vice president and general manager, petroleum services, Crowley Marine Solutions. “The difference is that everything we work on regards providing a high quality of service to customers, pays off. In a rising market, it’s easy to do well. When the market is struggling, if you don’t need a vessel, you don’t need one. But in the long run, [because of] that great relationship, that high level of...
service, we tend to stay employed.”

Safety also drives success. From Crowley’s “safety card” authorizing workers to stop unsafe activity to Bouchard Transportation Co., Inc.’s unyielding focus on zero incidents, to Hornblower Cruises & Events integrated management system that emphasizes safety, this bottom-line priority has produced award-winning safety records for these top-draw operators. “This is a tough industry that demands a high level of safety, and I will accept nothing less,” says Morton S. Bouchard III, president/CEO of his namesake company.

The feature companies of this year’s vessel operators’ category in the annual Marine News 100 – Crowley, Bouchard and Hornblower – have much in common. Crowley and Bouchard represent a maritime heritage dating back to nearly 100 or more years, run by generations of a single family, surviving in great part by constantly preparing for the future and staying close to clients. In the case of Hornblower, a willingness to explore new opportunities through constant product innovation and entering new markets has propelled the cruise and event company in its first 36 years to the top.


www.marinelink.com
Crowley Maritime Corp.

Founded in 1892, Crowley is the largest marine transportation and logistics company in the world, and one of the largest independent operators of petroleum tankers and barges in the U.S. It earned 2015 revenues of approximately $2.2 billion, and has 5,300 employees, and a fleet of more than 200, including RO/RO (roll-on/roll-off) vessels, LO/LO (lift-on/lift-off) vessels, articulated tug-barges (ATBs), tankers, tugs and barges.

It has expanded into a wide range of marine services and locations under the consistent helm of three generations of Crowley leadership, including current CEO Thomas B. Crowley, Jr., striving to fulfill the company motto, “Innovative solutions done right.” The foundation of that motto is integrity, a core Crowley value, according to John Hourihan, Jr., senior vice president and general manager, Puerto Rico. “When we say ‘do it right,’ we mean ‘right’ in all aspects.”

It helps that Crowley “can bring a lot of expertise to bear on any issue pretty quickly based on the diversity of the business,” according to Mike Golonka, vice president, government services. That’s because Crowley not only operates vessels, but through its subsidiaries, it designs, builds, docks, salvages, services and supplies them with fuel and cargo through a network of warehouses, terminals, trucks, tank farms, containers etc..

Safety is paramount. Beyond the standard training, equipment and daily meetings, Crowley goes a step further, addressing crews’ fear of speaking up if something is wrong. All personnel carry a card from the CEO authorizing them to stop any unsafe activity.

In the petroleum business, the overriding objective is to provide safe, reliable transportation to the customer, says Grune. “Safety is not just a word on the front of a brochure; it’s what we live and work every day.”

August 2016
Crowley also won’t shy away from a good fight or a challenging situation, as evidenced by its testimony in April before a Congressional hearing on efforts to lift the Jones Act the mainland and Puerto Rico, where Crowley has maintained a presence for 60 years. Crowley general counsel Michael Roberts told the committee that Jones Act detractors “have offered no credible proof that such a change would help Puerto Rico, and we are confident it would do more harm than good for both Puerto Rico and for the country generally … with no offsetting gains.”

Crowley should know. It transports about half of all products produced in Puerto Rico to the U.S. mainland, and is the dominant provider in liner service to the island. At a time when the competition is scaling back or pulling out due to the island's economic crisis, Crowley has committed more than $500 million to new terminal, pier and vessel construction to expand and improve service to the island. “Our investments look to the future, not to today or tomorrow,” says Hourihan.

It has spent $69.5 million on improvements to, and expansion of, its Isla Grande terminal, including new piers, gantry cranes, a seven-lane terminal exit gate and dredging in preparation for the summer 2017 delivery of the first of two LNG-powered combination container roll-off-roll-on (ConRo) ships. They will replace Crowley’s triple deck barge fleet in the south Atlantic, and will offer the most cubic cargo space available, in a faster, environmentally-friendly service. “Our investment in these new ships – the first of their kind in the world – is significant on so many fronts,” says Chairman and CEO Tom Crowley III. “We named them the Commitment Class because they represent our commitment to the people of Puerto Rico, the environment, the Jones Act and the U.S. maritime industry. Without the Jones Act, these ships and all the other associated investments do not get made. What we are doing is truly transformational, not only from an environmental standpoint, but after 60-plus years of providing a very reliable tug and barge operation, we are moving to a high-speed container ship service. When combined with our growing logistics operation ... we are able to offer a complete supply chain solution ... We think it is a real game changer.”

Crowley has been working to add some 3,000 pieces of cargo handling equipment to its fleet, including $58 million in containers and chassis this year. On the tanker side of the business, Crowley is building “LNG-ready” vessels that can be converted to LNG for propulsion, and in May, took possession of the third of four such tankers. The final tanker is slated for a third-quarter delivery.

These massive investments, much of it in new technologies, across several markets makes one thing clear – modern-day Crowley is living up to the incorporating motto of the Crowley Launch and Tugboat Co. in 1906, “Anything, anytime, anywhere on the water.”

“It’s not real sexy, and it’s easy to say, but it’s pretty tough to make it a reality. ‘Safety’ is not just a word on the front of a brochure; it’s what we live and work every day.”

– Rob Grune, senior vice president and general manager, petroleum services, Crowley Marine Solutions

“When we say ‘do it right,’ we mean ‘right’ in all aspects.”

– John Hourihan, Jr., Crowley senior vice president and general manager, Puerto Rico
Bouchard Transportation Co., Inc.

It takes a tough man to run a tight enterprise. At least that’s the way an unapologetic Morton S. Bouchard III sees it. “I do not like being characterized a tough to work for, but the results show.” Indeed they do. Bouchard Transportation Co., Inc., the nation’s largest independently owned, ocean-going petroleum barge company, dates back to 1918, with President/CEO Bouchard III representing the fourth generation at the helm. It was the first to adopt ATB technology.

The company’s operations span all four U.S. coasts, operating a fleet containing 26 barges ranging from 35,000 barrels to 260,000 barrels and 25 tugs ranging from 3,000hp to 10,000hp. Its employee count fluctuates between 500 and 600.

Born out of heroic acts during a colossal safety incident, when founder Capt. Fred Bouchard went to the aid of vessels involved in the Black Tom Explosion involving WWI munitions, it’s not surprising that safety is Bouchard’s top priority. “You cannot be profitable in the petroleum transportation industry unless you are safe. As a company we still have one goal: Zero spills, zero injuries and zero damages. Nothing short, period,” says CEO Bouchard III. That linkage drives a no-excuses commitment to safety, early adoption of new technology and a willingness to embrace new trends and requirements. Successful application of these tenets fuels Bouchard’s success.

For example, in the early 90s, Bouchard was the first Jones Act company to build double-hull ocean-going ATB barges with Intercon, and added hot oil systems to its barges to reduce downtime and product loss while increasing efficiency. Bouchard recently completed a five-year modernization effort that produced four flat-deck, double hull ATB tugs and two barges, all with clean water ballast systems, bringing its ATB fleet to 20. These include two 6,000hp Twin Screw Articulated (ATB), Intercon-equipped tugs, the M/V Frederick E. Bouchard and the M/V Morton S. Bouchard Jr., as well as two 150-ft, 10,000hp, Intercon-equipped double-hulled, Dual Mode ATB Units, the M/V Kim M. Bouchard and M/V...
Donna J. Bouchard.

The International Maritime Hall of Fame induction of Bouchard III in 2013, describes him as a “maritime visionary who exemplifies . . . futuristic thinking.” Bouchard says it all comes back to a belief in his responsibility to continue his forefathers’ “tradition of reinventing in the best and most modern equipment possible.”

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Hornblower, Inc.

Hornblower may be the industry leader in charter yachts, dinner and sightseeing cruises, but co-founder and CEO Terry MacRae says he is really in the business of “creating amazing experiences.” That singular focus has enabled him to take the purchase of a two-yacht charter business and grow it over 35 years into a 70-plus fleet of entertainment and hospitality vessels catering to tourism, dining, corporate and special events in a dozen cities. The company employs more than 600 and had sales of $208 million in 2014.

To continually be ‘amazing’ requires openness to new ideas, new technologies and change, which can in turn open the door to new business opportunities. For example, Hornblower stoked its growth by moving into the ferry market via a sister company, HMS Global Maritime, now the largest private operator of high-speed passenger/vehicle ferries in the U.S., with operations in nine cities, and the nation’s only fleet of hybrid ferries.

Hornblower scored a huge coup in March, when it won a five-year, $30 million, up to 20-vessel contract to run Citywide, New York City’s first citywide ferry system in more than a century. MacRae expects the contract will

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– Terry MacRae, CEO, Hornblower Cruises & Events

“We are just one component of that transit journey helping to make all those connections possible.”

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grow his company by 20%. Slated to launch in 2017 and be fully operational by 2018, the service will connect 21 neighborhoods across five boroughs via six routes to various points in the city, lifting some out of a “transit desert.” For the price of a subway ride, the service will traverse some 60 miles of waterway and carry 4.6 million passengers via 900,000 landings annually. The long-term goal is to tie the ferry service into the larger transportation network of buses, trains and subway.

Citywide will “revolutionize” the way New Yorkers live, work and play, says MacRae. The growing communities on underused waterfronts are often far from transit connections. “It is so hard to get a bridge, tunnel or new subway built, and the cost is outrageous. But it’s not hard to get a boat built and manned with great mariners,” says MacRae. Moreover, municipalities want a turnkey system run by one operator, leaving them with a single number to budget for. “They want predictability, they want to lower their risk profiles, and there aren’t many companies that can deliver this turnkey model,” he adds.

Hornblower is building 18 handicap-accessible ferries for citywide using two almost completely interchangeable designs for maximum flexibility as the system evolves. Capable of carrying at least 149 passengers, the cutting-edge vessels will offer WIFI, and feature narrow, elongated hulls designed to reduce drag, limit wakes and maximize fuel economy. Motore Baudouin’s M26.3 engines will help reduce noise and emissions, and offer interchangeable parts between engine models. The extent to which recycled materials are worked into the interior is also unique.

Hornblower will continue to navigate new opportunities by keeping its eyes on the prize: “While technology may be different tomorrow, and values will change over time, the core mission will stay the same whatever the price point or part of us that touches you – an amazing experience from the customer perspective,” says Cameron Clark, Vice President & General Manager of Hornblower New York.

Patricia Keefe is a veteran journalist, editor and commentator who writes about technology, business and maritime topics.
Engine Providers Power
Marine Operator’s Profits

With an eye towards environmental compliance, operational efficiencies and the bottom line, the MarineNews top propulsion providers touch all bases.

By Joseph Keefe

Sitting down to select the best engine and propulsion manufacturers in the workboat marine space isn’t necessarily the easiest task in the world. Nor is it a linear exercise. On the other hand, these MarineNews featured firms – Caterpillar Marine, Volvo Penta and Yanmar – all have more in common than you might think. With a laser focus on their collective customer’s bottom lines and addressing that concern through technology, environmental compliance and economical but powerful performance, each satisfies the niche in its own particular fashion. See if you don’t agree.

Caterpillar Marine

Caterpillar Marine Power Systems brings together all the sales and service activities for Cat and MaK branded marine products within Caterpillar Inc. This organization provides premier marine power solutions and customer service from a single source for commercial and pleasure craft markets. Caterpillar offers a comprehensive marine diesel power range and a complete, continuously evolving product line. The result is one source for total power solutions on board, providing electronic marine engines, gensets, and vessel controls.

Caterpillar research and development efforts represent the commitment to affirming its position as a global leader in the marine power market. The Caterpillar network is comprised of 182 locally owned businesses, 1700+ dealer branches, and leverages more than 100,000 employees. The worldwide dealer organization has the local expertise, specialists, and extensive spare parts inventory for every customer, no matter where the vessel travels.

The Caterpillar line includes Cat and MaK Marine Engines, High Performance Propulsion Engines, Marine Generator Sets, and auxiliary power. From tugs and container vessels to yachts and sport fishers, Cat and MaK engines have demonstrated their efficiency countless times. Cat marine engines include innovations such as ACERTTM
Technology and Caterpillar Common Rail. Additionally, they are MIL-E Qualified (NVR) and MIL-S-901 Shock Qualified. Continual advancements in electronic engine technology mean Cat marine engines satisfy worldwide emissions regulations and still deliver a surge of adrenaline whenever and wherever required.

Closer to home, long time U.S. workboat stalwart (and MarineNews 2016 MN100 honoree) Crowley Maritime is now testing Caterpillar Technology for Vessel Monitoring & Diagnostics. Calling it “the next logical step in marine technology,” Crowley Maritime Corporation is installing Cat Asset Intelligence software on one of its vessels.

The tugboat Guide, a ship-assist vessel operating out of Seattle, has been fitted with a custom vessel monitoring and diagnostics solution, which will keep watch over its main engines, generators, thrusters and critical systems 24/7. While completely automated from data capture through analysis and advisory recommendations for each piece of equipment, the Caterpillar Marine Asset Intelligence team will provide advisory and management reports including recommendations for individual equipment, as well as additional ways Crowley can save money and incrementally improve operations.

“It’s a robust system that does all the key monitoring and analysis we need,” said Bill Metcalf, Vice President of Strategic Engineering for Crowley Maritime. “We’re looking at it as the next level of management and optimization, and we want to see how it can help us increase reliability, safety and efficiency onboard our vessels.”

But, this application goes far beyond simple collection of data. Unlike technologies that only monitor engine performance, Cat Asset Intelligence services provide monitoring and diagnostics for an entire vessel, including many of its critical operating systems. Dedicated Fleet Advisors then use the aggregated data and automated analytics to provide customers, such as Crowley, with actionable advisories to increase vessel productivity and improve equipment management.

The scalable and customizable technology will monitor and analyze anything, and not just Cat products. With the software monitoring and analyzing Guide’s key systems, Crowley Maritime ultimately expects to see value in a number of areas. For example, on smaller vessels like Guide, which operate with a limited crew, Cat Asset Intelligence software’s remote monitoring capabilities play a critical role. Assuming that the technology proves its mettle, Crowley could expand vessel monitoring and diagnostics to other ships in its fleet.
Volvo Penta of the Americas

Offering a full range of Tier 3 compliant diesel engines designed to power profits in the inland and coastal North American commercial market, Volvo Penta’s successful push into the commercial markets gained considerable momentum in the past 12 months. Leveraging 3,500 dealers in more than 130 countries, the firm manufactures IACS type approved engines for commercial vessels, leisure boats and industrial markets. Volvo Penta’s product line includes 3-16 liter diesel engines, gensets, sterndrives and IPS pod drives, developed for a broad range of commercial marine applications, including Coast Guard and patrol boats, short-sea and river transport, supply vessels, passenger transport and sightseeing vessels, workboats and tugs.

The past year brought much in the way of good news for Volvo Penta. For example, in June of 2016, the firm hosted a preview of its latest lineup of engines, drives and controls at its headquarters in Sweden in June 2016. Products introduced at the event included the new D8 diesel engine, designed to fit in the product offering between the D6 and D11 models for applications that require low weight with high power, and a new IPS15 which mates with the D8 engine. In addition, Volvo Penta highlighted its comprehensive integrated solutions, including heavy-duty controls, docking mode, dynamic positioning, glass cockpit and the interceptor trim tab systems from Humphree, a marine company recently acquired by Volvo Penta.

Ten years after the launch of its original D16 marine diesel engine, Volvo Penta also released an updated version during the past year. Available in power ratings from 368 to 551 kW, the D16 is the largest marine diesel engine in Volvo Penta’s product portfolio and is type-approved by DNV GL.

Before that, in November of 2015, Volvo Penta showcased a new range of custom barge pump systems based on its Tier 3 diesels. Allemand Industries, a Volvo Penta Power Center in Harvey, La., has built a barge pump using a Volvo Penta D13 auxiliary engine, and Pacific Power Group, a Volvo Penta Power Center in Seattle, has developed a barge pump system that includes two radiator-cooled 400 hp D13 MH engines, which drive vertical pumps to transfer cargo off the vessel.

Beyond the new product offerings, Volvo Penta also announced a new extended service interval for its commercial marine diesel engines. Owners can double the maximum oil change interval to 1,000 hours for many Volvo Penta marine engines by meeting certain requirements, including a Volvo Penta oil analysis. Volvo Penta maintains a history of all oil analysis reports for each engine to facilitate tracking the wear of the engine over its lifetime.

Over a wide range of workboat offerings, Volvo Penta stepped up its game over the past year. That said; the real winners are its many commercial customers who have benefited from the introduction of new technologies, programs and more efficient engines.

Yanmar America Corporation

Operating out of a corporate facility in Adairsville, GA, Yanmar boasts 500,000 square feet of manufacturing, warehouse and office space, and employs over 200 professionals. In addition to its own branded products, Yanmar has been selected to be the power of choice for hundreds of industry-leading diesel powered brands sold throughout the globe. YANMAR manufactures marine transmissions and drives and commercial engines from 39 hp to 1,800 hp. YANMAR backs them up with a superior engine warranty and world class local support.

YANMAR has provided quality, purpose-built marine engines for more than 60 years. Notably, YANMAR in 1933 became the world’s first manufacturer to develop a practical small diesel engine. More recently, with the intro-
duction of the fully mechanical 6AYA engine, with Smart-Assist technology, YANMAR has combined mechanical reliability with electronic convenience. The 6AYA also meets EPA Tier III without any electronic control. More importantly, this longtime manufacture of marine engines also utilizes today’s technology to provide even more value to its growing list of marine customers.

Back in December 2014, YANMAR America introduced its first EPA Tier III compliant commercial marine diesel, the 6AYAM-ET. Rated at 755 mHP and 1900 RPM, the 20.38 liter engine uses a fully mechanical control system for easy servicing and reliable performance. The engine also offers low fuel consumption and a continuous rating suitable for river pushboats, tugboats, trawlers and other applications with uninterrupted operations or load cycles. To comply with emissions regulations, the 6AYAM-ET uses an internal exhaust gas recirculation (EGR) system. This design does not require any external control devices or significant engine structure changes, while producing more power and lowering exhaust emissions and fuel consumption.

Installed and on the water, Yanmar’s 6AYA-ET engines are already providing value on the U.S. Gulf Coast. This fully mechanical engine is anything but low-tech. The Sherrry L, a twin screw, steel 61’ Pushboat owned by E Squared Marine Services, LLC from Texas and re-powered by Laborde Products, now operates even more quietly and with better fuel consumption thanks to its new 6AYAM-ET engines. That’s only part of the story, however.

YANMAR’s unique SmartAssist (SA-R) technology allows the engine to be monitored remotely to ensure ideal operating conditions. And, when it’s time for maintenance, the system will send out a reminder, so that maintenance can be completed on the boat’s schedule to make sure it stays in operation the maximum amount of time possible. YANMAR tracks the engine’s operating condition using SA-R, as well as visiting the vessel periodically to confirm the engine and SA-R are working correctly. SA-R can track Location (GPS), Engine Speed, Boost Pressure, Exhaust Temperature, Cooling Water Temperature, and Lubrication Oil Temperature/Pressure. Collecting data based on the parameters every .01 seconds and sending the average for a two minute time period via cellular service to the YANMAR Remote Monitoring Center, YANMAR then analyzes the data, and if a defect or warning is found, YANMAR America is then alerted.

With an operating performance of 755 mhp at 1,900 rpm and 20.38 liters of displacement, this 6AYAM-ET 6 in-line cylinder mechanical engine is well positioned to become a familiar workhorse on the United States waterways for years to come. Key features of this engine include a 500-hour service interval, torque characteristics for stable cruising, a purpose built marine design and an internal exhaust gas recirculation system that doesn’t require any external control devices.

Competing, Together on the MN100 List

In a fiercely competitive commercial marine propulsion market, these three OEM’s provide a lot more than just engines. Beyond this; what sets each of them apart is also the same thing that finds all three – Caterpillar Marine, Volvo Penta and Yanmar – residing on the same list of excellence.
THE COMPANY:
Kirby Corporation is a premier tank barge operator in the United States, transporting bulk liquid products throughout the Mississippi River System, on the Gulf Intracoastal Waterway, along all three U.S. Coasts, and in Alaska and Hawaii. Kirby’s service includes the transporting of petrochemicals, black oil products, refined petroleum products and agricultural chemical products by tank barge. Kirby’s diesel engine services segment is a leading after-market service provider for medium-speed and high-speed diesel engines, reduction gears and ancillary products for marine and power generation applications. Kirby also serves as a distributor and service provider for high-speed diesel engines, transmissions, pumps and compression products, and manufactures and remanufactures oilfield service equipment.

THE FLEET:
The Kirby Inland fleet of 912 active tank barges and 251 active towboats has a total liquid cargo capacity of 18.5 million barrels. Kirby Offshore Marine is the nation’s largest tank barge operator, with 70 coastal tank barges, or approximately 26% of the nation’s coastal fleet. This fleet represents the broadest capabilities in the marine inland tank barge industry to satisfy customers’ diverse needs. Kirby’s inland tank barge fleet represents approximately 25% of the U.S. inland tank barge capacity, as well as being one of the youngest fleets in the U.S. coastal trade, transports refined petroleum products, petrochemicals and black oil along the East Coast, West Coast and Gulf Coast, as well as Alaska and Hawaii. Kirby’s coastal tank barge fleet consists of 72 tank barges with 6.0 million barrels of capacity and 73 tugboats. Kirby also operates six coastal dry-bulk barge and tug units transporting coal and limestone rock across the Gulf of Mexico, and dry sugar products between Florida and the East Coast.

THE CASE:
Kirby Inland Marine, through a centralized dispatching system, can minimize repositioning and power costs. Kirby Inland Marine brings these operating efficiencies to best serve its customers. Kirby Inland Marine seeks opportunities where it can add value to the transportation services it provides. Kirby’s safety record is exemplary, as recognized by the U.S. Department of Transportation and U.S. Coast Guard in awarding Kirby the first William M. Benkert Award in 1995. The operating segments comprising Kirby Inland Marine have been certified to the ISO 9002 standard. Kirby Inland prides itself on having the best-trained crews and support staff in the industry providing both formal classroom and hands-on instruction at the Kirby Training Center in Houston, Texas. Beyond this and since 2008, through Kirby’s inland tank barge construction program, the average age of Kirby’s inland fleet has declined from 23.9 years to 15.2 years today. For example, during 2015, Kirby continued to reinvest in its inland tank barge fleet with the delivery of 36 new tank barges, adding 489,000 barrels of capacity at a cost of approximately $71 million. In early 2015, Kirby acquired six inland pressure tank barges with a total capacity of 97,000 barrels for $41.3 million. Today’s slightly smaller fleet features more deadweight and cubic capacity – all on younger vessels: the quintessential definition of reduced risk.
**THE COMPANY:**
Master Marine has provided excellent marine repair and new construction services for over 55 years to all marine sectors. Equipment includes one 750-ton floating dry-dock (152’ x 46’) inside the wing walls and one 220-ton Marine Travel lift for servicing inland and offshore commercial companies, Federal and State governments, fishing vessels with projects in steel and aluminum. The firm provides custom designed vessels, with 95 experienced employees on its 7 acre Bayou La Batre location.

**THE CASE:**
Master Marine has constructed over 333 commercial vessels of all types including tug boats, push-boats, barges, offshore and inland support vessels, passenger ferries along with hundreds of repairs to all types of vessels. Leveraging 30 years of government repair project experience, the firm prides itself in working closely with agency contracting and engineering officers, while helping to bring constructive, timely and practical solutions to any engineering changes. Supervisory staff have been with Master Marine for more than 25 years. Master Marine is presently completing a series of 11 z drive towboats for an inland waterways operator.

www.marinelink.com
THE COMPANY:

As one of the largest inland vessel management companies in the United States, Inland Marine Service (IMS) offers services to keep vessels crewed with seasoned, highly skilled mariners. With over 700 employees, IMS is able to serve customers across the Western Rivers, East Coast, and the Gulf Intracoastal Waterways. These crews enjoy a reputation for getting the job done on time and within budget. With 30 years of experience on the river, dedicated safety practices, and highly trained crews, IMS is committed to providing customers with secure, reliable, timely and cost effective solutions. IMS also offers first dollar insurance coverage, wherein, IMS assumes all liabilities associated with daily operations of each vessel. As the first 2016 AWO approved marine management company, IMS is also proud to lead the industry in compliance excellence. IMS’s mariner-friendly compliance programs are immediate, approved and certified in the changing regulatory worlds of the Responsible Carrier Program, TMSA2, and SIRE. The company’s services include vessel management, planned maintenance, compliance management, harbor services, liquid operations and shoreside tankering services, as well as river cruise line operations. IMS is based in Hebron, Kentucky, with operations in Paducah, KY, St. Louis, MO, New Orleans, LA and Houston, TX.

THE CASE:

IMS is one the largest inland vessel management companies in the United states. IMS is an industry leader and constantly diversifying - having launched a new tankering and plants service company, expanded into the river cruise industry, and was recently the first marine vessel management company to meet the new AWO/RCP requirements.

THE COMPANY:

For over 130 years, AkzoNobel’s Marine Coatings business, International, has pioneered the development of market-leading coatings for the shipping industry. The firm prides itself in its commitment to innovation, continual investment in research and development and a resolute focus on solving the increasing challenges our customers face. Understanding the changing dynamic of the marine industry is at the heart of product development, aligned with a focused and unrelenting dedication to driving as much efficiency into customers’ operations as possible while improving performance and increasing profitability.

PRIMAR Y PRODUCT / SERVICE:

AkzoNobel’s marine coatings business, International, has worked hard to create the first approved carbon credit methodology in the marine industry. Through this, vessel operators can be rewarded for investment in cleaner technologies through the generation of carbon credits. To qualify, a vessel needs to be converted from biocidal antifouling to International’s Intersleek during routine drydocking. Additionally, AkzoNobel’s marine coatings business, International has introduced Interline 9001, a new Bimodal Epoxy coating for the cargo tanks of chemical tankers. With enhanced cargo resistance, zero absorption for many cargoes and fewer cycling restrictions, Interline 9001 simplifies the carriage of a wide range of liquid cargoes, optimizing vessel earning potential. Interline 9001 is designed therefore to deliver greater efficiency and flexibility in the operation of chemical tankers, easily switching from one cargo to the next with minimal downtime.

THE CASE:

Owned by AkzoNobel, International Paint is among the world’s largest coatings suppliers. Additionally, International paint holds a leading share in the marine coatings market.
**THE COMPANY:**

John Deere Power Systems manufactures and markets industrial, marine and generator drive diesel engines, as well as drivetrain components for use in a variety of off-highway applications. The full line of propulsion and gen-drive PowerTech marine engines – 4.5L, 6.8L, 9.0L, 13.5L – that range in power from 60 kW to 559 kW (80 –750 hp), meet IMO Tier II, EPA Tier 3, and EU Recreational Craft Directive emissions requirements, while offering low noise, low vibration and excellent fuel economy. The entire lineup is also ideal for repowering commercial vessels, due to their exceptional reliability, durability, fuel economy and performance. Engine package sizes allow for easy installation without major modification to vessels.

**RECENT HIGHLIGHTS:**

John Deere recently introduced a full line of radiator-cooled, dry-exhaust manifold industrial diesel engines that are U.S. EPA Marine Tier 3 certified. These engines are ideal for powering vessel auxiliaries including pumps, winches, cranes and hydraulics. The new lineup features a range of choices to keep marine operations productive.

PowerTech Tier 3 auxiliary engines are available with displacements from 4.5 to 13.5L and power ratings from 99 to 600 hp, including constant- and variable-speed ratings. They provide reliable and cost-effective solutions customers expect from John Deere — on the job site or in the water.

**THE CASE:**

John Deere is one of the few manufacturers that build engines exclusively for off-highway applications. This specialization has given John Deere unparalleled experience in developing and packaging marine propulsion and generator drive engines. John Deere engines deliver performance, power, reliability, ease of installation and emissions compliance to both boat builders and end users.
THE COMPANY:
Klüber Lubrication is one of the world’s leading manufacturers of specialty lubricants, offering high-end tribological solutions to virtually all industries and markets worldwide. Most products are developed and made to specific customer requirements. During its more than 80 years of existence, Klüber Lubrication has provided high-quality lubricants, thorough consultation and extensive services, which has earned it an excellent reputation in the market. The company holds all common industrial certifications and operates a test bay hardly rivaled in the lubricants industry. The firm employs 170.

PRIMARY PRODUCT / SERVICE:
This year, Klüber Lubrication continues its commitment to the marine industry by launching three new greases to address specific operational requirements onboard vessels. Klüberbio LG 39-701 N is an NLGI 1 open gear lubricant designed for automatic lubrication of jack-up pinion drives used in the offshore oil and gas, wind installation, and marine construction markets. It is also approved for use in ship’s steering systems requiring this NLGI grade of grease. Klüberbio BM 32-142 provides a high performing general purpose biodegradable bearing grease for deck applications. Klüberbio AM 12-402 is specifically developed for articulated tug and barge coupling systems and meets VGP requirements while improving the performance of current greases on the market.

THE CASE:
Klüber Lubrication develops efficiency-boosting marine lubricants to help vessel operators achieve organizational objectives in cost reduction, improved safety, improved environmental compliance and increased operational uptime. These lubrication solutions maintain their performance characteristics in the demanding marine environment while significantly extending maintenance intervals and the service life of components.

THE COMPANY:
Krill Systems Inc. was founded as a software development company focusing on accurate vessel fuel consumption measurement and efficient data transmission. In 2011, identifying demand from Commercial Marine markets for accurate, reliable, fuel management and emissions control technologies, Krill became a ‘system integrator’ with the ability to supply a broad spectrum of fuel flow meters and other accessory components. Commercial clients also encouraged Krill to provide solutions to accurately measure and report Bunker fuel on vessels and measurement of bunker flow at on-shore facilities. In the process, in addition to the normal Single Flow measurement of bunkers, Krill developed a ‘Dual Bunkering’ system that provides simultaneous measurement and display of bunkers at different oil density levels. Unique to Krill’s systems is that there is never any ongoing periodic charge for data usage. All data belongs to the client.

RECENT HIGHLIGHTS / DELIVERIES / CONTRACTS:
Krill’s continuing activity in this market follows a history of successful installations and satisfied clients, including Hornbeck Offshore, Tidewater Marine, GulfMark, Seacor Marine, Harvey Gulf. Other clients of note include Washington State Ferries, NOAA, Hydriovas do Brazil, Seaplan, Island Towing and MexMar, among others. Krill’s success stems from having a highly flexible platform and complete dedication to client satisfaction and after-sale support.

THE CASE:
From start-up to world leadership in 5 years, Krill’s Vessel Fuel Management Systems (VFMS) and Emissions Control technologies represent the finest in software design, flexibility and performance. Backed with complete system integration and a no-compromise approach to installation and customer support, Krill Systems, Inc. delivers performance at the highest level.
**The Company:**

MetalCraft Marine Incorporated is a fully integrated designer and manufacturer of custom high performance fire, rescue, patrol, research, and other specialized work boats. The company is the North American industry leader in the design and manufacturing of high speed aluminum waterjet propelled craft. MetalCraft Marine designs and builds custom and semi-custom aluminum workboats, provides engineering and analysis using computer aided design, fit out of marine mechanical, hydraulic, electrical and navigation systems, as well as powering with jet drive, inboard, sterndrive, pod drive or outboard propulsion. Refits include repowers and repairs on small and large workboats including dry-docking and crane services. The firm also provides service contracts for maintenance on workboats in service. The firm has about 100 employees.

**The Case:**

MetalCraft Marine has experienced a record year with some significant U.S. Navy and U.S. Coast Guard contracts. New York City also purchased a state of the art high speed fire/rescue boat to protect the NYC Harbor.
THE COMPANY:

From the design of barge accessories and deck fittings to the day-to-day commitment to customer service, NABRICO is one of the most highly respected names in the water transportation industry. NABRICO started building bridges in 1902 and built its first piece of floating equipment for the U.S. Corps of Engineers in 1915. More than nine decades of experience, engineering and nautical expertise go into every piece of equipment built today. NABRICO is a major supplier of marine deck hardware on the river system as well as the offshore industry.

THE CASE:

NABRICO produces Constant Tension Winches and other special winches using state-of-the-art electric motors and controls. In addition, NABRICO offers a complete line of hatches, castings (bitts, kevels, chocks, D-Rings, Panama Canal chocks, etc.), watertight doors, and tank barge fittings (expansion trunks, drip pans, warning signs, small tanks, etc.). NABRICO has the capability to meet the needs of almost any customer’s deck fittings requirement.

THE COMPANY:

Since 1935, MOPS Marine License Insurance has defended the USCG licenses of mariners operating in every maritime sector in the United States. Its network of over 80 maritime law firms, representing almost 200 experienced maritime attorneys, provides MOPS policyholders with personal legal representation from the marine casualty to final disposition. MOPS provides Unlimited License Defense, Full or Partial Income Protection, Civil Legal Defense, Civil Penalty Defense, Criminal Defense, Professional Liability, and Professional Equipment/Instruments Protection. The firm has 12 employees.

THE CASE:

MOPS, selected as one of the 2016 MarineNews 100 Leading Companies Serving the North American Shallow Draft Market, has provided license defense, income protection and a variety of optional civil, criminal and professional liability insurance coverages to USCG-licensed merchant marine officers, pilots and certified tankermen working in the inland marine and OSV sectors. In 2016, MOPS celebrates its 80th consecutive year of protecting the licenses, livelihoods and professional reputations of American mariners.
THE COMPANY:
MAN Engines and Components develops, produces and sells a wide range of efficient diesel and gas engines for extremely varied applications in many industries.

PRIMARY PRODUCT / SERVICE:
MAN offers a wide range of high-speed four stroke diesel engines for commercial shipping. For heavy operation – with unlimited operating hours and working up to 100% full load (tugboats and other workboats), MAN Truck & Bus provides a range of outputs from 190 kW to 735 kW (258 HP up to 1,000 HP). All MAN engines excel through their high power development even at low speeds with low fuel consumption. The advantages of V-engines in the power range from 662 kW to 1,397 kW (900 HP to 1,900 HP) lie in their outstanding power efficiency and compactness. The engines are delivered ready for installation, designed for optimum performance in various operating conditions. Introduction of the MAN V12-1900 is the most powerful high-speed four-stroke diesel engine of MAN Engines to date. The twelve-cylinder V engine provides 1,397 kW (1,900 hp) and was designed for luxury yachts of over 100 feet. The first engine is installed and running.

THE CASE:
Every single engine is tested via cold or hot test; the cold testing procedure saves approximately 1 million liters of fuel and 3,000 tons of CO2 per year. The Atlantic Pioneer, operated by Atlantic Wind Transfers and built by Blount Boats, is the first US flagged crew transfer windfarm vessel. The 21m aluminum catamaran is equipped with twin MAN D2862 LE466 medium duty engines rated at 2,100 rpm. With an output of 1,400 hp per engine the vessel reaches a top speed of 31 knots while burning 140 gallon per hour, total for both engines.
THE COMPANY:
Metal Shark is a leading shipbuilder specializing in the design and production of boats and ships for military, law enforcement, fire rescue, and a wide spectrum of commercial applications. At its facilities in Franklin and Jeanerette, Louisiana, Metal Shark manufactures vessels in aluminum, steel, and fiberglass. In addition to the diverse lineup of models designed by its in-house team of naval architects, Metal Shark has partnered with Damen Shipyards to offer the proven and globally supported range of Damen vessels up to 80 meters. These are produced at its Franklin, Louisiana shipyard where they are easily launched into the Gulf of Mexico. Metal Shark also works with leading naval architectural firms to offer passenger ferries and other specialized vessels. The Metal Shark story is one of careful, calculated growth driven by continual reinvestment in the company’s people, facilities, and technology.

Today, Metal Shark fields a workforce of over 250 employees spread across two facilities, with nearly 1,000 vessels in service worldwide. Each component of every Metal Shark vessel is digitally designed, router cut, and assembled to precise tolerances utilizing industry-leading technologies and construction methods.

THE PRODUCT LINE:
Metal Shark offers purpose-built vessels for defense and security, law enforcement, fire rescue, pilot associations and port operators, passenger ferry and excursion boat operators, and many other commercial markets. In addition supplying to boats to the U.S. Armed Forces, Metal Shark provides vessels for a growing list of state, local, and municipal law enforcement and fire rescue agencies. For example, and billed as a dual-purpose custom fireboat, Command & Control and Multifunction Port Security Boat, the Metal Shark 75 recently built for the port of South Louisiana is powered by twin Caterpillar C-18 diesel inboards with a conventional straight shaft drive system. The 75’ Endurance can also be equipped with straight shaft inboards, water jets, or pod propulsion systems. Incorporating the latest technology to support fire rescue missions, command and control (C2) operations, and around-the-clock port security efforts, the vessel can be custom-configured to suit a wide range of mission profiles including dive support, fire rescue, port operations, law enforcement, and defense. For firefighting, twin dedicated drive engines channel up to 6,000 total gallons per minute through an oversized water main where electronic valves divert water to three RF-controlled monitors. Four additional 2.5” hydrant connections and a 400-gallon foam reservoir provide maximum flexibility across the full spectrum of firefighting needs. And, with a roomy pilothouse featuring 360-visibility, and bunking capacity for multiple crew, the 75 Endurance is ideal for multi-agency coordination. The latest version is equipped with a positive-pressure Chemical, Biological, Radiological, Nuclear, and high-yield Explosive (CBRNE) ventilation system for crew protection.

THE CASE:
Well established as a producer of welded aluminum boats for military and law enforcement, Metal Shark has significantly expanded its capabilities with its new Franklin, Louisiana shipyard now operational. The company has expanded into several commercial markets and now offers aluminum, steel, and fiberglass vessels up to 250’. Its facilities include a 15-acre production facility in Jeanerette, Louisiana, and a 25-acre waterfront shipyard in Franklin, Louisiana.
THE COMPANY:

Founded in 1958, Northern Lights manufactures marine power generation, propulsion and air conditioning and refrigeration systems. The company’s products are distributed through a global sales and service network of over 340 dealers in more than 40 countries. Northern Lights manufactures marine generator sets from 5-500kW, designed to meet all current US EPA marine regulations. In April 2016, NLI opened its fifth branch office in Kenner, LA. The branch will warehouse marine, industrial and commercial series products and cover New Orleans, Houston, Pensacola and Paducah. Rick Stinson has been appointed NL Gulf Branch Manager.

THE CASE:

Northern Lights is the only US manufacturer of both power generation and climate control systems, also offering fully customized and integrated systems of all these critical components. Northern Lights offers US EPA Tier 3 compliant marine generator sets in 5-500kW configurations, including commercial solutions in the 20-500kW range. Along with the Technicold brand of climate control, Northern Lights provides complete component solutions.
**The Company:**
Nautican engineers and manufactures hydrodynamic solutions that increase power and maneuverability, while significantly reducing fuel use and maintenance needs. Nautican offers Integrated Propulsion Units, High Efficiency Nozzles and Propellers, high aspect ratio Triple Rudders, Pre-Swirl Stators, and also Hydralift Skegs for barges. Founded in 1972, and for more than 40 years, Nautican units have shown proven performance gains on a variety of vessels, including tugs, ATBs, barges, and other vessels.

**The Case:**
Nautican holds nine patents for their innovative designs. In 2003, Nautican developed the Integrated Propulsion Unit, which combines the High Efficiency Nozzle, Triple Rudders, Stators, and Propeller in a fully assembled, ready-to-install unit. In 2015, many significant vessels, built with Nautican units, were launched. These include the Michele Foss – Foss Maritime’s first of three arctic class tugs. Additionally, Nautican was also involved in several ATB designs, including two for Bouchard at Halter, two for Kirby at Nichols Marine, and several Reinauer ATBs at Senesco.

**Omnithruster, Inc.**
Omnithruster’s line of waterjet bow thrusters are optimized for shallow draft operation. The Omnithruster 400HP thruster operates at a draft of less than 2 feet – something no other in-hull thruster can boast. An OmniThruster bow thruster produces thrust continuously with nozzles in or out of the water; in rough seas, strong currents, while pitching, yawing, rolling, or heaving. An OmniThruster can even produce thrust while the vessel is underway at several knots, a condition in which conventional propeller tunnel thrusters are subject to cavitation and do not effectively produce thrust, if at all. The firm has five employees and annual sales of $1.2 million.

**The Company:**
For over 30 years, OmniThruster has been a world leader in the development of waterjet bow thrusters and maneuvering systems. The unique, patented designs, which provide diverse maneuverability and auxiliary propulsion, have been the installation choice on vessels worldwide. The Omnithruster line of waterjet bow and stern thruster extends from 200 to 2,200 HP.
**The Company:**

Founded in 1992, UA Business Solutions was a pioneer in the field of Enterprise Resource Planning (ERP) and an early Microsoft Partner. The ERP evolution into the maritime industry found UA developing industry-specific solutions for marine clients. These UA marine solutions became commercially available in 2007 under the UA proprietary brand, MarineCFO. UA Business Solutions, along with the MarineCFO brand, was purchased by VerticaLive in 2013. A reimaged MarineCFO emerged from this acquisition at the forefront of SubChapter M solutions, maritime Machine Learning technologies, and competitive R&D opportunities. The firm employs about 20.

**Primary Product / Service:**

MarineCFO Enterprise is a full Workboat Resource Planning tool which includes Crewing/Personnel, Preventative Maintenance, Compliance & Safety, Work Orders & Purchasing, General Ledger, Document Management, Dispatch, and Dry Dock/Survey Modules. Marine CFO interfaces with a variety of 3rd Party accounting and management solutions. Local or Hosted Environment and scaled to operators’ specifications. MarineCFO Endurance (SaaS) The Software as a Service version of MarineCFO Enterprise features Microsoft Azure hosting with web-portal access. This is a traditional Workboat Resource Planning tool without the IT hardware or IT staffing requirements.

**The Case:**

In August 2015, the firm entered into a partnership with RINA & TBS and in June of 2016, the firm launched Vessel 365. MarineCFO is a trusted technology partner in the maritime industry with expertise in cutting edge Fleet Optimization Solutions and Maritime Predictive Analytics. The first partner to offer a Commercialized Condition Maintenance Model, it offers new generation maritime technologies supported by highly skilled staff. This is Technology developed by mariners for mariners.

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**The Company:**

Mascoat was founded in 1995 to provide a thermal barrier solution that has revolutionized how many vessel and ship manufacturers prevent condensation, radiant heat gain, and unwanted vibration. The company is a Thermal Barrier Coating manufacturer that has independently validated its coatings’ abilities so that potential customers would have confidence in choosing a relatively new technology. Mascoat’s coatings are now widely accepted as a viable alternative to conventional thermal barrier and sound control methods in many areas of a vessel. Mascoat is currently offered in over 70 countries around the world. Mascoat provides coatings that protect industrial, commercial, marine, and automotive substrates around the world. Mascoat does not produce a “one-size-fits-all” coating, but instead engineers and manufactures a product line that fulfills market-specific needs. Today, the firm has 45 employees.

**The Case:**

With 20 years in the business, Mascoat is the sole manufacturer of its products. The company has more marine approvals than any other company in the field of thermal barrier, anti-condensation and sound damping coatings. As a solutions provider, the unique combination of Mascoat’s technology, application history, and extensive testing provides the best coatings available for thermal protection, condensation protection, and sound control. The Mascoat proprietary blend allows for dramatic sound reduction of 12-15 dB with only 2.0 mm applied. Vessel owners all report dramatic reduction of structure-borne sound after application. Both coatings have obtained major approval societies to include USCG, ABS, DNV, RINA, NK and Lloyds Register under IMO rulings.

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www.marinelink.com
**Pacific Power Group**

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Website: www.pacificpowergroup.com  
CEO/President: Tim Price

**THE COMPANY:**

Established in 1958, Pacific Power Group has been a trusted partner for the marine power needs of the Western U.S. for more than 50 years. PPG provides premier propulsion systems that offer cost-effective and best-in-class propulsion solutions for a variety of fields. The firm has 300 employees. PPG powers numerous defense vessels, equipping mission-critical operators like the U.S. Coast Guard, City of Portland Fireboats, just to name a few. PPG has also developed groundbreaking propulsion systems for vessels such as the San Francisco Bay WETA ferries, which will be built with an in-house engineered propulsion and exhaust treatment system that will make the ferries the cleanest-operating in the U.S.

**THE CASE:**

PPG has powered hundreds of vessels with innovative propulsion solution systems that are at work on the West Coast and around the world. As a trusted partner for propulsion system design, engineering and supply, PPG is dedicated to driving marine propulsion forward and providing next-level customer support.

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**Reintjes GmbH**

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Hamelin, Germany 31785  
Tel: 49 5151 1040  
Email: info@reintjes-gears.de  
Website: www.reintjes-gears.de  
Managing Director: Klaus Deleroi

**THE COMPANY:**

Founded in 1979, Reintjes GmbH is an independent propulsion technology company that manufactures thousands of gearboxes annually. More than 90,000 units have been supplied to customers worldwide. Over time, Reintjes has expanded its product portfolio of marine gearboxes for engine ratings from 250-30,000 kW. Its maritime applications include dredging gearboxes and step-up gearboxes as well as complex system solutions such as pod drives and hybrid drives.

**THE CASE:**

The company is positioned in all major markets globally through sales and service networks, wholly owned subsidiaries, liaison offices and global partners on all continents. The firm designs, develops, and manufactures marine gearboxes for all manners of workboats. Products are sold through a sales and service network, and subsidiaries worldwide. It’s gearboxes are trusted by myriad North American inland operators. The cutting edge Reintjes Hybrid System offers flexibility and economy for today’s operators, utilizing proven Reintjes technology. The most commonly built inland towboats fall within this horsepower range.
**McAllister Towing**

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Chairman: Captain Brian A. McAllister  
President: B. Buckley McAllister, Esq.

**The Company:**  
McAllister Towing & Transportation operates a fleet of more than 75 tugboats, crew boats and barges in 17 locations along the U.S. East Coast from Portland, ME to San Juan, PR. The fleet consists of 28 Z-Drive/Tractor tugs, 11 Tier II compliant tugs, 20 plus vessels involved in coastal towing and 35 ABS load line classed vessels. In each port, McAllister is engaged in ship docking, general harbor towing, coastal towing and bulk transportation. The firm has recently welcomed 3 new Z-Drive/Tractor tugs as it continues to upgrade its already formidable fleet. McAllister also owns and operates the Bridgeport & Port Jefferson Steamboat Company that runs three passenger-car ferries, each capable of carrying 1,000 passengers and 100 automobiles, between Bridgeport CT, and Port Jefferson NY.

**The Case:**  
McAllister Towing is one of the oldest and largest family-owned marine towing and transportation companies in the nation. Founded in 1864, the company has served the maritime community continuously, earning a reputation for excellence. Today, the company operates a balanced and extensive fleet of tugs, barges, and ferries in the major ports on the U.S. East Coast and in Puerto Rico. Captain Brian A. McAllister is the President and a great-grandson of the founder, representing the fourth generation of McAllisters at the helm. Five McAllisters of the fifth generation are also employed by the company. The Massachusetts Maritime Academy’s 2015 annual salute to the ‘Maritime Person of the Year’ most fittingly highlighted the McAllister family; specifically Brian McAllister, Buckley McAllister and Eric McAllister.

**McDonough Marine Service**

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Telephone: (504) 780-8100  
E-mail: pstant@marmac.net  
Website: www.mcdonoughmarine.com  
CEO/President: Patrick Stant

**The Company:**  
Bernard P. McDonough created the company in 1945 by leasing barges from his construction company into the marketplace. Through a series of new and used barge additions, McDonough forged his company, expanding from the Ohio River to the Gulf of Mexico and eventually to the East Coast. His company was modeled around his fundamental philosophy of surrounding good equipment with very talented people. This recipe has yielded more than seven decades of dedicated service to its valued customers’ marine transportation requirements. After 70 years, McDonough Marine Service continues Mr. McDonough’s legacy as a talented, family owned organization, serving exceptional clients with one of the largest fleets of inland and ocean spud, shale, hopper, and cargo barges in the United States. McDonough Marine Service core services are barge bareboat chartering, tugboat time charters, lump sum Project Cargo movements, and logistics management. These services are carried out by a modern fleet of 600 barges and five tugboats, dispatched from 15 fleeting locations. The firm has offices in New Orleans, Houston, and Norfolk and has 41 employees.

**The Case:**  
McDonough Marine Service has been the leader in the deck, spud, and material barge chartering market in the United States for 70 years. The firm operates a fleet of more than 600 barges with 15 fleeting locations within Gulf of Mexico, Upper Rivers and East Coast.
THE COMPANY:
The Schottel Group is one of the world’s leading manufacturers of propulsion and steering systems for ships and offshore applications. Founded in 1921, the company develops and manufactures azimuth propulsion and maneuvering systems, complete propulsion systems with power ratings of up to 30 MW and steering systems for vessels of all types.

THE CASE:
Since the 1950’s, Schottel has propelled inland vessels with Z-drives and individually fitted thruster concepts. The firm’s expertise is well represented by strong pushboats in Brazil, river cruise vessels in Europe and at home on U.S. inland rivers. Schottel now offers even more robust Rudderpropellers thanks to optimized coating processes. The result is maximum corrosion protection due to optimized resistance to abrasion and greater adhesive force in combination with thicker coats of paint. The environment benefits because paints contain lower quantities of volatile organic compounds and are harmless to aquatic organisms. The smooth surface inhibits adhesion of marine organisms, thereby contributing to improved durability and efficiency. If requested, a self-polishing, antifouling final coat can be applied.

THE COMPANY:
Scienco/FAST is an original equipment manufacturer specializing in marine sewage devices, environmentally-friendly cleaners and other industrial water management technologies. These MSDs treat sewage and ensure compliance with ever-changing regulations. Scienco/FAST has several different models to offer, depending on physical footprint, weight of operating unit, access for retrofit installations, and price. Every system is functionally tested before shipping to ensure performance and eliminate service issues.

THE CASE:
Scienco/FAST’s commitment to environmental stewardship is providing superior sewage and water management systems that lessen the impacts of wastewater in waterways. Since the first installation in 1969 on board the M/V Missouri Tugboat, MarineFAST Sewage Treatment Systems have been installed on myriad workboats and offshore facilities to provide total sewage treatment, pretreatment, and (in some cases) water reuse opportunities. Scienco/FAST takes pride in the fact that these certified, Type II Marine Sanitation Devices (MSD) and Systems are installed on some of the ‘greenest’ ships in the world.
THE COMPANY:
The Patterson Company provides a full product line for an array of industries – from winches to ratchet turnbuckles to tensors and beyond. Every day, Patterson seeks out new ways to improve its products through innovative teamwork with customers and partners throughout every market sector they touch. Patterson’s winches, turnbuckles, and tensors are designed and manufactured with an eye toward innovation.

THE PRODUCT LINE:
This year, the company that brought the inland towboat industry the patented YoYo Winch, now comes out with not one but two new, equally revolutionary products in the form of Patterson’s Thru-Deck Capstan and Right Angle Capstan. Just as the YoYo standardized safety and slowly eliminated the need for the ratchet when making barge connections, the Patterson Thru-Deck Capstan promises to keep inland firms up and running for years to come with little to no maintenance, minimizing downtime, all while saving money. The Patterson Right Angle Capstan was designed only after thorough evaluation of issues common with capstans: gearbox failures, oil leaks and moisture problems.

THE CASE:
The Patterson Manufacturing Company began operations in 1858 on the banks of the Monongahela River in Pittsburgh. In the beginning, Patterson made just a few sizes of winches, but now offers winches with capacities from 20 tons to 90 tons and in three operating formats: manual, electrical, and hydraulic. For more than 100 years, Patterson has been designing, building and innovating for the North American shallow draft market, always listening and trying to understand better this market to provide safer, easier and faster products to service it.

RIBCRAFT designs and builds safe, durable, performance oriented rigid inflatable boats (RIBs) that fulfill the most demanding military and professional applications. With over twenty-five years experience, RIBCRAFT provides high quality professional grade RIBs and inflatables for military agencies, law enforcement, safety professionals, tour operators, private industry, and other marine professionals. As an American owned RIB manufacturer, RIBCRAFT is committed to providing organizations with excellent service and extremely well constructed RIBs built to withstand hard, offshore 24/7 commercial use. RIBCRAFT has delivered thousands of RIBs worldwide. The firm has 25 employees.

PRIMARY PRODUCT / SERVICE:
RIBCRAFT designs and builds safe, durable, performance oriented professional grade rigid inflatable boats (RIBs) starting at 15’ that fulfill a variety of missions from patrol and rescue to interdiction and military operations. Every boat is built to industry recognized standards featuring commercial grade fiberglass hulls and heavy duty multi-chambered tubes. Designed for professional applications, a RIBCRAFT RIB with a deep V hull and heavy duty tube provides unparalleled performance regardless of the sea conditions.

THE CASE:
RIBCRAFT is building several USCG Certified Sub Chapter T boats for tour operators throughout the United States and Islands. RIBCRAFT continues to fulfill its five-year contract with the United States Navy to provide 7-meter rigid inflatable boats (RIBs) that will serve as deployable ready service lifeboats for search and rescue missions. Built to order in the United States, RIBCRAFT is the only manufacturer who specializes exclusively in building RIBs; serving all commercial markets from military agencies, safety professionals, state and local governments, and private industry.

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THE COMPANY:
With about 82 employees, Robert Allan Ltd. is Canada’s most senior consulting Naval Architectural firm, established in Vancouver, B.C. in 1930. The company has earned an international reputation for innovative, successful designs for a wide range of ships and has been a leader in creating cost-efficient vessels for service in the marine transportation industry.

PRIMARY PRODUCT / SERVICE:
Ship Design Robert Allan Ltd. has an experienced, professional staff of Naval Architects and Engineers capable of handling any type of ship design, but the company is best known for tackling the innovative and unusual design problem. Starting by working with our clients to develop a clearly defined statement of operational requirements, design drawings and specifications are prepared to suit the client’s specific vessel and construction requirements and budget. The scope of services can range from concept outlines, through complete design documentation for contract bidding and Classification Society approval, to construction working drawings. Use of the latest in CAD facilities expedites and improves the accuracy of every aspect of the ship design process. Marine Engineering analysis services are offered in a wide range of subjects, as well.

RECENT HIGHLIGHTS / DELIVERIES / CONTRACTS:
Robert Allan Ltd. and Sanmar have introduced the new VectRA series of Voith tractor tugs. The new and innovative VectRA 3000 Class Tug is a high performance VSP Tractor tug designed by Robert Allan Ltd in close collaboration with Turkish ship builder Sanmar and Voith Turbo Propulsion. Performance has been verified with extensive model tests at the commencement of the design cycle. The unique propulsion arrangement features high speed diesel engines connected to the Voith units via reduction gearboxes with integral clutches. With a bollard pull of 70 tonnes, the VectRA 3000 form can generate escort steering forces in excess of 100 tonnes. In early 2015, Robert Allan was awarded a contract to provide 4 customized versions of its distinctive RAzer series designs of ASD tugboats to the Indonesia Port Corporation, PT Pelabuhan Indonesia III (Persero), commonly known as Pelindo III. While Robert Allan Ltd. had long been very active in the Asian market, these designs were its first specifically designed for an Indonesian client in one of the largest tugboat markets in the world.

THE CASE:
Robert Allan Ltd. is a world leader in innovative Naval Architecture and Marine Engineering, with a particular focus on the Tug and fireboat sectors. Robert Allan Ltd. has won many awards for their design work from a variety of publications.
**R.W. Fernstrum & Company**

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Website: www.fernstrum.com
CEO: Paul Fernstrum
President: Sean Fernstrum

**THE COMPANY:**

R.W. Fernstrum & Company set the standard in marine heat exchangers over 65 years ago, building a reputation focused on innovation. Today, its commitment is to continual improvement, ensuring that customers have quality, reliability, and the latest in cooling technologies on your side. Over the years, R.W. Fernstrum & Company has grown into a worldwide organization with more than two dozen representatives across 6 continents. Focusing exclusively on marine cooling, this third-generation, family-owned business has built a respected reputation throughout the industry for exceptional quality and service.

**THE CASE:**

R.W. Fernstrum & Company, a global leader in engineering and manufacturing keel cooling technologies, came to fruition in 1945 when Robert W. Fernstrum patented the first rectangular tube keel cooler with an angled header for the United States Army and Navy. During World War II, the U.S. Navy encountered engine cooling problems with their landing craft and required a new closed circuit cooling system. After intense research, Mr. Fernstrum developed the basic keel cooler design that is still used today. The GRIDCOOLER Keel Cooler has evolved over the years into a line of keel coolers that offers nearly limitless variations to fit a particular application. R.W. Fernstrum today has more keel cooling related patents than any other company. In the workboat and brown water sector, Fernstrum applications and solutions can be found on a myriad of platforms, including ATB’s, Barges, Dredges, Escort/Specialty Tugs, Inland River Boats, Landing Craft, OSV’s, Passenger Vessels & Ferries, Pilot Boats, Push Boats and many other hull forms. Fernstrum is also active in the Repower markets.

**Schoellhorn-Albrecht Machine Co., Inc.**

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Website: www.schoellhorn-albrecht.com
CEO: Bob Pavlisin / President: Brian Pavlisin

**THE COMPANY:**

Schoellhorn-Albrecht is an industry leader in the design and manufacture of Mooring Equipment and Systems including Capstans, Anchor Windlasses, Deck Fittings and Vessel Access Systems. In addition to standard products, the firm specializes in designing and manufacturing castings, fabrications, and specialized machinery. Products can be designed and certified to ABS, LLOYDS, MIL, ISO, NAVSEA, ASTM, JIS, OCIMF, and NVR as required. The firm has 35 employees.

**RECENT HIGHLIGHTS / DELIVERIES / CONTRACTS:**

Schoellhorn-Albrecht has engineered and implemented a Programmable Control System designed for mooring and positioning into dry docks. The system can be applied to existing Capstans or Winch control systems. The company also develops Roller Fairleads and Panama Chocks that work in conjunction with synthetic mooring lines. Polished stainless steel rope surfaces and high strength composite rollers and sheaves provide non-abrasive rope surfaces which will extend synthetic rope lifespan.

**THE CASE:**

Schoellhorn-Albrecht has expanded its’ product line again in 2015. Highlights from the Deck Machinery Division include a new Low Profile Capstan design and an enhanced Drive Control System for both Capstans and Winches. The new Low Profile Above Deck Capstan was developed in response to customer’s limited space below deck. It offers high efficiency planetary gearing, allowing for a smaller footprint, lower horsepower, lower power consumption, while providing tremendous pulling power. Schoellhorn-Albrecht also expanded its Vessel Access Systems with several aluminum Gangways and Accommodation Ladders. Recent deliveries include a telescopic accommodation ladder deployed by a Schoellhorn-Albrecht winch built for a US Navy Vessel and a fully self-stowing accommodation ladder with davit, tripping winches and related stowage equipment for a PSV.
**THE COMPANY:**

SENNEBOGEN has been a leading name in global material handling for over 60 years. Stanley, North Carolina-based SENNEBOGEN LLC offers a complete range of purpose-built machines to suit virtually any material handling application. Since 2000, SENNEBOGEN LLC has become a leader in specialized equipment solutions for recycling and scrap metal yards, demolition, barges, port operations, and log-handling. A network of SENNEBOGEN distributors throughout North America includes more than 50 service locations on the Ohio and Mississippi River systems.

**THE CASE**

SENNEBOGEN provides purpose-built solutions for primary port operations, transloading barges and ships. Modular engineering supports built-to-order manufacturing that matches the needs of each facility. SENNEBOGEN machines allow fast duty cycles to move more material at the lowest operating cost. Waste Management chose an electric-drive SENNEBOGEN 875 R-HD to unload contaminated sediment from the river off barges at its remediation project in Seattle’s Lower Duwamish Waterway. When the project slowed down, the SENNEBOGEN worked to speed up the off-loading of clean back-fill material from trucks onto barges.

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**THE COMPANY:**

A leading US maritime consultancy established in 1996, SMSLLC provides practical risk mitigation solutions for vessel operators and stakeholders. Clients include a broad range of operators including Genesis Marine, American River Transportation Company, Seabulk Towing, Military Sealift Command and others. Primary services include, Regulatory Advisement, Internal Auditing, Risk Management, and the creation of Management Systems.

**THE CASE:**

SMS LLC has been in the business of bringing practical safety management solutions to the marine industry for 20 years. ClassNK acquired SMSLLC in 2013 based on its commitment to build business in the US domestic towing industry. Recent business highlights include a Towing Safety Management System development for a major inland operator with fleet of 90 vessels. SMSLLC was an active contributor to AWO RCP Working Group for alignment with Subchapter M.
THE COMPANY:
Sherwin-Williams Protective & Marine Coatings is a global provider of protective and marine coatings, offering a complete line of time-tested, high-performance coatings technologies to combat corrosion, protect assets, enhance personnel safety, and improve aesthetics. From more than 4,000 company-owned distribution points worldwide, Sherwin-Williams experts use market-specific knowledge to evaluate, recommend, and deliver the highest-performance coatings and linings to protect customers’ assets.

PRIMARY PRODUCT / SERVICE:
From acrylics to zincs, Sherwin-Williams Protective & Marine Coatings offers high-performance corrosion control products and unmatched corrosion control specification expertise to meet virtually any customer’s needs. The broad product portfolio features a full line of marine and specialty coatings, including topside, ballast, and hull coatings for all areas of a ship. Sherwin-Williams offers innovative technologies and logistics systems to protect every inch of vessels and keep maintenance and new build programs running smoothly. The goal is to improve customers’ profitability and productivity by ensuring they always get the right coating, at the right location and on schedule.

THE CASE:
From stem to stern, Sherwin-Williams Protective & Marine Coatings offers a complete line of high-performance coatings that protect shallow draft marine assets from corrosion and wear. This includes a semihard, anti-fouling coating with a moderately high concentration loading of cuprous oxide to inhibit algae and other plant growth. Specifying coatings for marine and offshore requires experience and knowledge due to widely varying corrosive environments and specific conditions unique to your industry. Sherwin-Williams’ NACE-certified experts provide the assistance our customers need regarding surface preparation and selecting the correct system to extend their coatings’ service lives.

THE COMPANY:
The Superior-Lidgerwood-Mundy Corporation (SLM) is the result of the combining of three companies who were engaged in similar activities. Over time, Lidgerwood purchased the Superior Iron Works of Superior, Wisconsin and Mundy Hoisting of Newark, NJ. Now all manufacturing and administrative activities of Superior-Lidgerwood-Mundy are accomplished at Superior, Wisconsin, which has over 65,000 sq ft of manufacturing and warehouse space. Today, SLM has evolved into a highly diversified small business engaged in the manufacture of hoists, winches, capstans, and a wide array of contract manufacturing of mechanical sub-assemblies and equipment. This allows a unique combination of design, fabrication, machining, assembly, and painting services all under one roof. SLM’s historical commitment to the advancement of mechanical design and manufacturing is well documented. It continues today as the Company embraces and integrates the most advanced automated design techniques and manufacturing processes in support of its clients. SLM stands ready to meet the demands of the 21st Century, and its clients, through the appropriate utilization of technology and human ingenuity. The firm has 55 employees. The firm’s primary products are S-Series Winches and Hoists, M-Series Capstans M-Series Gypsy Winches, USACE custom built hoists and winches and Military grade winches and pumps.

THE CASE:
The company has been servicing the marine industry for well over 140 years. With recent breakthroughs in Barge Haul and Breasting Winch Technology, SLM is poised to improve the safety, reliability, and efficiency of marine equipment on the inland waterway system.
THE COMPANY:
Thrustmaster builds a complete line of Z-Drive azimuthing thrusters from 500 HP to 4,000 HP for the inland towboat industry specifically designed to endure the demanding conditions when operating in brown water. Using Z-Drives on towboats results in substantially improved fuel efficiency, shorter trip times, decreased maintenance downtime and higher customer satisfaction when compared to traditional shaft and rudder installations. All thrusters are developed in-house by a complete engineering department for mechanical, hydraulic, electrical and electronic design. Tooling includes machining and measuring equipment, CAD, vessel resistance and propulsion, 3D modeling and ANSYS Finite Element Analysis. The application of modal analysis, stress and strain analysis as well as rotor dynamic analysis of drive trains and transmissions are fundamentals towards the reliability and quality of Thrustmaster’s products.

THE CASE:
Thrustmaster’s products are built in the United States. A total of 289 employees produce results for customers in a facility that spans 200,000 square feet. This year’s highlights include Thrustmaster’s announcement that they had signed a service agreement with McGinnis Inc. – National Maintenance & Repair. This agreement extends Thrustmaster’s service centers to six locations in the U.S. Thrustmaster of Texas, Inc. Service Locations now include South Point, Ohio, Paducah, Kentucky, Hartford, Illinois, Harahan, Louisiana, Houma, Louisiana and Houston, Texas. Thrustmaster’s new capacities enables the firm to provide a new level of service, with even faster response times to customer requests. With Thrustmaster’s new service sites and 24/7 service hotlines we are available for our customers anytime and anywhere.

SUNY MARITIME COLLEGE
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THE SCHOOL:
Combining classroom and lab learning with summer sea terms aboard the training ship and industry internships, SUNY Maritime prepares students to be leaders in all sectors of industry, the military and government. Education and training are comprehensive and use state-of-the-art simulation centers and facilities. The college has expanded to include more than 20 buildings and the training ship Empire State VI, a 565-foot ship that gives mariners-in-training the knowledge, skills and sea time necessary to join the maritime industry. The Bouchard Transportation Company Inc. Tug and Barge Simulation Center opened in 2015 and includes a full-mission bridge and two class B tug assist simulators for students to practice maneuvers.

THE CASE:
SUNY Maritime College produces more licensed mariners than any other U.S. institution. Fully one quarter of these go on to work in the brown water industry, providing nearly a third of its licensed mariners. The college is involved in STCW compliance and helps professional mariners maintain their credentials through training.
**THE COMPANY:**
TPG Marine Enterprises, LLC ("TPG Marine") is an operations, logistics and consulting company that specializes in all aspects of cargo movement on the Inland Waterways System. The firm owns and operates eight facilities in the Midwest and has about 200 employees. TPG Marine has interests in terminals servicing the Ohio, Green and Illinois Rivers along with a shipyard in Chicago.

**THE CASE:**
TPG brings innovation, efficiency, professionalism and harbor service/shipyard infrastructure (new dry docks, new cranes, new boats, and SOTA cleaning equipment to inland rivers facilities. Offering unique access to both the Great Lakes and inland rivers, TPG is adding a third full size dry dock to its Chicago Dry Dock operation which -- in tandem with another large dry dock -- will allow full dry dock repair of 300-foot tank barges without having to go all the way to Sturgeon Bay, WI or Cleveland, OH. TPG continues to expand its harbor service operations (including harbor management software) and through maritime construction.

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THE COMPANY:
Tube-Mac Piping Technologies, founded in 1977, specializes in “non welded piping systems” for lubrication and hydraulic lines. The corporate headquarters is based in Stoney Creek, Ontario, Canada with a 55,000 SF (5100 SM) component manufacturing and pipe fabrication facility. The firm employs three basic products exist for joining high-pressure pipe or tube. The PYPLOK method works with mechanically attached fittings that are installed cold, in seconds, by swaging the fitting on the pipe with a hydraulic hand held tool. The 3 step installation process is fast and simple: 1.) Mark the Pipe; 2.) Pressurize the tool; and 3). Inspect the joint.

THE CASE:
Tube-Mac Piping Technologies is a dynamic company internationally renowned for their “Non-Welded” Piping Systems and Components as well as their problem solving and design services. Tube-Mac embraces the challenge to explore and develop improvements over traditional installation methods of piping.

THE COMPANY:
Tri-State Coating And Machine Co., Inc. began operation in March 1987 with the goal of producing long-lasting parts to service the coal mine industry while creating jobs for a depressed economy. The company is located along the Guyandotte River just 15 miles south of Huntington, West Virginia. Opportunity opened in the marine industry. The hard-coated tail shaft sleeves were very much in demand but very competitive. Eventually, the firm became one of the world’s largest producers of hard-coated liner sleeves. They sustained this business by maintaining the materials in stock which allows them to manufacture sleeves in the time frames required while the vessels are dry docked for short periods of maintenance. The firm employs about 70.

THE CASE:
Tri-State Coating and Machine has become one of the world’s largest producers of hard-coated liner sleeves. TSC knows that the abuse that workboats, push boats, and tug boats endure from dirty, brackish, and corrosive salt water; calls for liners that are a cut above the rest.
THE COMPANY:
The Shearer Group, Inc. (TSGI) designs inland towboats and barges, with a focus on the inland sector. Inland barges built to TSGI designs number in the thousands, along with a myriad of towboat, dry dock and other specialty designs. TSGI provides naval architecture, marine engineering, marine surveying and technical support to clients worldwide. Commercial vessel designs include towboats, inland barges (liquid cargo, dry cargo, crane) and miscellaneous vessels such as dry docks and casinos. The firm has 10 employees.

PRIMARY PRODUCT / SERVICE:
TSGI offers a wide range of design and engineering analysis services, using state of the art computer modeling and design tools. TSGI provides technical support and consulting services to vessel owners, charterers, and operators. TSGI have many years of hands on experience, both aboard vessels and in shipyards. This practical experience allows TSGI engineers to better understand both operational and technical issues.

THE CASE:
TSGI has led the industry with several significant z-drive towboat designs as well as LNG based projects. TSGI is close to completing the detail design phase of a 2,700m³ double hull liquid petroleum gas (LPG) bottle barge for Sociedad Fogas of Brazil. The ABS classed Inland Waterway barge will meeting all NORMAM requirements from Brazil and the International Gas Carriers (ICG) code (as applicable). The vessel has been designed to carry all LPG products. TSGI is also participating with Pittsburgh Region Clean Cities (PRCC) and Clean Fuels Clean Rivers (CFCR) to conduct a marine air quality study centered on the conversion of an inland towboat to dual fuel diesel/LNG to reduce diesel emissions in marine vessels.

THE COMPANY:
Sea School prides itself on remaining ahead of the competition with over 36 years experience in dealing with Coast Guard Licensing, Regulations, and Maritime Education. The school employs U.S. Coast Guard approved instructors with extensive knowledge and experience in commercial vessel operations and instruction. The school offers online education and has offices across the U.S. and in the Caribbean.

THE CASE:
Classrooms are located near all major cities on the East and Gulf Coasts as well as the Caribbean location. SeaSchool Online provides USCG approved courses catering to the professional, military, recreational and law enforcement mariners. Successful completion of all programs concludes with your passing our exam at one of over 400 test proctoring sites throughout the U.S. and the Caribbean. It’s never been easier or more convenient. The diverse locations make it easy for students to attend courses and the quality of instruction reflects the credentials of a dedicated staff.
THE COMPANY:
The company provides marine organizations, boat builders and equipment manufacturers with relevant subject matter expertise plus an independent overview of how this sector is rapidly changing. For OEM boat builders and equipment manufacturers, Shock Mitigation addresses strategic product development requirements regarding high speed craft, marine and special projects. The aim is to work with new and experienced clients to develop new technologies, products and processes relevant to the end user. For professional maritime organizations operating fast boats Shock Mitigation delivers expertise to increase efficiency, reduce injury and reduce the risk of damaging litigation. The objective is to maintain the operational performance of boats and equipment, while improving the overall approach to crew safety. Following the introduction of global emissions regulations in 2015 the company has developed ‘The Hour Of Power’ hybrid concept, combining diesel - battery - electric, which has the potential to reduce fuel consumption and vessel emissions across all maritime sectors worldwide. Shock Mitigation founded the RIB and High Speed Craft Directory as an open access online resource that brings together specialist boats, equipment and new technology for maritime professionals. RIB & HSC eNews and eArticle give insight to significant issues for the fast boat sector worldwide.

PRIMARY PRODUCT / SERVICE:
Shock Mitigation brings together market analysis, communication, training and specialist online resources that link manufacturers and international decision makers in the sub IMO sector (sub 80 feet / 24 meter). Consultancy and strategic product development services are delivered to provide rapid clarification of problems and to identify solutions to overcome them. Typical clients include the owners and operators of SME companies, established blue chip companies and venture capitalists seeking to enter new sectors. The company delivers accelerated knowledge transfer by conferences, workshops and specialist in-house events that are designed to engage with various groups. Relevant stakeholders include boat operators, boatbuilders, engine manufacturers, mechanical and electrical engineers, naval architects, the defense sector, government bodies and maritime legislators. Next generation solutions include the utilization of hybrid power and propulsion. The aim has been to identify the potential of various technologies for specific sectors. Viable solutions include combined diesel / electric / battery systems for workboats, wind farm support vessels, pilot boats, patrol craft, survey vessels, superyacht tenders and unmanned craft. During 2015 and 2016 Shock Mitigation brought together an international group of experts armed with the latest knowledge to assist the professional sector to develop optimal power and propulsion systems that reduce costs and increase efficiency for fast craft worldwide. ‘The Hour of Power’ is a simple and effective concept that could reduce fuel costs and emissions by around 20% in the professional maritime sector worldwide.

THE CASE:
Shock Mitigation combines next generation innovation with the delivery of practical solutions across various maritime sectors around the world. Specialist knowledge gained in government and professional sectors is utilized to create viable working practices that improve efficiency and reduce costs in the commercial sector. Shock Mitigation MD, John Haynes, won the prestigious Seawork award – Maritime Professional of the Year 2016.
**THE COMPANY:**
United States Marine Inc. (USMI) has been in business for over 30 years delivering high speed interdiction craft and other products to US DoD agencies, including but not limited to US Navy, USSOCOM and NAVSEA, and foreign navies. USMI designs, manufactures, delivers and provides post delivery/logistical support to craft built from aluminum and composite materials using an out of autoclave resin film infusion process. USMI has delivered and supported craft up to 90’ in length. To-date USMI has delivered over 700 of these types of craft worldwide. USMI also has another location in Chesapeake, VA to assist with East Coast maintenance and repair contracts. USMI is has the resources, capabilities and experience in-house to accomplish most programs without the need of subcontracts.

**THE CASE:**
USMI has produced the majority of combatant craft to Naval Special Warfare including NSWRHIB, SOCR, and CCA. USMI has in place long term maintenance contracts with NSW for all of these craft. USMI supplies craft through the FMS to numerous nations. The firm has 175 employees.

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CEO/President: John F. Malloy

THE COMPANY:
Victaulic is the originator and has been the world’s leading producer of mechanical pipe-joining solutions since 1919. In the maritime industry, Victaulic grooved piping products are used on a wide range of vessels, including tugs and workboats. Victaulic systems offer a number of advantages for newbuilds, retrofit and repair services, as they reduce system downtime and time out of service.

THE CASE:
Victaulic’s line of grooved mechanical couplings and grooved-end valves, fittings and accessories are Type Approved by IACS members. Approved for applications such as ballast and cooling water systems, bilge systems, vent lines, firefighting systems, deck drains, fuel and oil systems, Victaulic does not require hot work permits and Victaulic systems reduce installation time required for piping projects by a minimum of 30 percent. Victaulic valve assemblies are 58 percent lighter and couplings have a smaller profile than flanged components and allow 360 degrees of rotation, easing installation and maintenance in tight spaces, reducing the size of wall and deck penetrations.

VIKING SYSTEMS INTERNATIONAL, INC.

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CEO/President: Lars Henriksen

THE COMPANY:
Viking Systems International is a worldwide leader in the advanced design, analysis and 3rd party verification of structures, focusing on the offshore oil and gas industry, commercial ship business, and the military and defense community. Viking executes advanced structural design, analysis, 3rd party verification and FEA engineering services. Viking Systems’ core structural assessment software, SAGA, integrates regulatory body requirements by applying world class state-of-the-art software, managed within one program suite to reliably assess vessels and structures based upon client and project needs. The firm has 30 employees.

THE CASE:
Viking Systems has solved many structural problems for the brown water and workboat industry. Examples include cranes, winches, ATB analysis, cable and pipe laying vessels, accommodation barges, engine lifting brackets, and repair vessels. Clients in this industry include Bay Shipbuilding, Bristol Harbor Groups, Corn Island Shipyard, Gunderson Marine, Halter Marine, Moran Towing Corporation, NETSCo, as well as OGI.

WEST KENTUCKY COMMUNITY & TECHNICAL COLLEGE

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THE SCHOOL:
West Kentucky Community & Technical College is a SACS accredited college with an annual enrollment of 6,500 traditional and 2,897 online, long distance students that has achieved the ASPEN Institute Award on three occasions. The school is recognized as one of the leading colleges in developing and teaching degree programs through online technology to long distance learners and working from one main campus and 7 satellite campuses.

THE CASE:
This school’s Marine Technology and Logistics program is designed to be taught in an innovative environment. This provides opportunities to working adults who haven’t the ability or time to juggle job, family, and trips to a traditional campus classroom – the classic definition of today’s inland mariner. A new satellite campus houses the “Inland Logistics and Marine Institute” for the Marine Technology and Logistics programs. This year, the school began to offer an online Associate in Applied Science degree for Marine Technology in four tracks. Tracks offered include Marine Culinary Management, Marine Logistics Operations, Wheelhouse Management, and Marine Engineering.
**THE COMPANY:**

Nearly 85 years ago, Tidewater pioneered commercial transportation on the upper Columbia Snake River system and opened up one of the nation’s most isolated regions to global markets. Today, Tidewater Holdings is comprised of Tidewater Barge Lines, Tidewater Terminal Company, and since 2014, Tidewater Environmental Services, Incorporated. Tidewater Terminal Company works in conjunction with its Barge Lines, using key intermodal connections to railroads, highways and pipelines. Tidewater’s Environmental Services serves the marine and industrial business markets by providing on and offshore cleaning and waste transportation services. Almost 300 employees oversee Tidewater’s fleet, which includes 16 towboats and 150 barges. The firm has facilities in Vancouver, Pasco, and Wilma, Washington, as well as Boardman and Umatilla, Oregon.

**PRIMARY PRODUCT / SERVICE:**

Tidewater transports a wide range of commodities: grain, refined petroleum products, ethanol, liquid and dry fertilizer, cargo containers, wood products, and project cargo. Tidewater’s operating area spans 465 miles on the Columbia and Snake River systems. The company’s barge service is a critical part of the regional surface transportation system that helps offset rail and highway congestion.

**THE CASE:**

Tidewater’s services on the Columbia Snake River system link shippers, ports, and communities to the global market, while providing quality family sustaining jobs. Tidewater is the largest and most experienced inland marine barge transportation provider west of the Mississippi River, handling 85% of the waterborne cargo along the CSR. In the fall of 2013, Tidewater awarded a contract to build three new towboats to Vigor Fab in Portland, Oregon. The first new tug, Crown Point, was delivered on April 20, 2015.

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**THE COMPANY:**

Founded in 1958, self-lubricated polymer bearings and bushings manufacturer VescoPlastics produces a proprietary range of bushings, bearings and wear plates that operate in dusty, dirty or wet conditions and last longer than other products on the market. VescoPlastics has warehouses in South Africa, the UK, the US, the Netherlands and New Zealand, with stocking distributors in Argentina, Australia and Singapore. VescoPlastics is the oldest operating manufacturer of engineering plastics materials in Africa. The development of its product, Vesconite, was initiated by a need to find a bearing material suitable for use in ultra-deep mines – mines that extract gold up to 3.5 km (2.2 miles) below the surface, under exceptionally harsh conditions. The firm has 71 employees.

**PRIMARY PRODUCT / SERVICE:**

VescoPlastics produces a range of thermoplastics that require no lubrication, are wear resistant, environmentally friendly, have high dimensional stability and do not swell. While the company supplies the marine industry with rudder bushings and stern tubes, it also supplies the hydropower, agriculture, pumps, rail and mining sectors with a range of products made specifically for the requirements of these industries.

**THE CASE:**

VescoPlastics supplies Vesconite and Vesconite Hilube stern tubes and rudder bushings globally. It does this directly and through resellers in large shipbuilding and repair hubs in North America, Europe, the Middle East, South America, Asia and Africa. Its proprietary thermoplastics offer performance superior to that of nylon and bronze, with lower life-cycle maintenance and operational costs. Resellers report that 27 boats annually are fitted with Vesconite and Vesconite Hilube rudder bushings and stern tubes.
**The Company:**

ZF Marine supplies propulsion system components for yachts, defense craft, high-speed ferries, workboats, and commercial vessels, in a power range from 10 to 14,000 kW. The product portfolio includes a comprehensive range of transmissions (reversing, non-reversing, and hybrid), propellers, POD-drive systems, steering systems, and CANbus-compatible, electronic control systems, azimuth thrusters, tunnel thrusters, bow thrusters, and sail drives.

**The Case:**

ZF Marine is a global leader in marine propulsion technology. ZF Marine is a leader in the integration of azimuth thruster or “Z Drive” technology with the brown water fleets. Early adopters have found performance gains, significantly increased maneuverability, and reduced fuel consumption with this technology. In order to continue to be successful with innovative products, ZF annually invests about 5% of its sales in research and development.

**The Company:**

XL Group plc through its subsidiaries and under the XL Catlin brand, is a global insurance and reinsurance company providing property, casualty, and specialty products to industrial, commercial, and professional firms, insurance companies, and other enterprises throughout the world. The firm employs 7,000 and has sales of $9,300,000,000 annually. XL Catlin’s insurance segment provides commercial property, casualty, professional liability, environmental liability, aviation and satellite, marine, product recall, political risks, surplus lines, and other coverages. The Reinsurance segment provides casualty, property risk (including energy and engineering), property catastrophe, marine and other specialty reinsurance.

**The Case:**

XL Catlin is a leading provider of marine insurance and risk control to vessel owners and operators. Our underwriters are renowned in the industry both by our broker representatives and our assureds for providing innovative solutions. We provide a broad portfolio of marine insurance products, including but not limited to Hull, Protection and Indemnity, Marine General Liability, Piers, Docks, and Wharves, Recreational Marine, Cargo, Property, and Inland Marine.
THE COMPANY:
Viëga was founded in Germany in 1899. By 1901, the company began to manufacture home plumbing products, growing and expanding internationally. In 1999, through the purchase of an interest in a U.S. company, Viëga expanded its product offering to North America. Today, the innovative products of the Viëga group of companies are produced at six international locations and distributed worldwide. Viëga LLC, a privately held subsidiary, is the expert in the manufacture and distribution of plumbing, heating and pipe joining systems for customers in residential, commercial and industrial markets throughout North America. The firm has 400 employees.

PRIMARY PRODUCT / SERVICE:
With more than 16,000 products and systems offered worldwide for plumbing, heating, cooling and pipe joining applications, all Viëga systems are highly engineered, making them fast, easy and safe to install. Viëga offers its flagship Viëga ProPress line for marine systems in copper, stainless steel and copper nickel. The systems are designed to perform in the harsh environments of the open sea. Viëga ProPress systems are best suited for fresh water systems while Viëga SeaPress is specifically designed for corrosive seawater environments. Viëga ProPress, Viëga MegaPress and Viëga SeaPress can be used in a variety of applications from potable water to fuel and fire main.

THE CASE:

THE COMPANY:
Voith Turbo specializes in the design, manufacture and servicing of high performance driveline equipment. From drive components to electronic drive systems, technology from Voith Turbo impacts a wide variety of markets, including ship technology. Voith Turbo is a member of the Voith group of companies, a nearly 150-year-old German business that is one of the largest family-owned companies in Europe. The firm has annual sales $5,000,000,000 and has 20,000 employees.

PRIMARY PRODUCT / SERVICE:
The Voith Water Tractor is the perfect vessel application when compact design, high maneuverability and precise steering are essential. One of the world’s most agile maritime vessels, it offers outstanding maneuverability, safety, and reliability. The Voith Schneider Propeller is a unique system generating stepless thrust in all directions with precision and speed. Propulsion and steering are combined in one unit, allowing unmatched maneuvering capability – from full speed ahead to full speed astern in three seconds. The Voith Linear Jet is a new propulsor combining the best properties of conventional propellers with the best properties of conventional waterjets. This combination makes the low maintenance propulsion the ideal solution for ships with mixed operating profiles up to 40 knots. The Linear jet is a fully submerged, custom shaped deceleration/acceleration nozzle with a stator section aft of the rotor.

THE CASE:
Combining innovation and experience, Voith sets standards in advanced maritime solutions. Focused on technology that makes maneuvering more precise, safer and faster, Voith develops custom-made propulsion systems and collaborates with customers to develop design concepts, such as the Voith Water Tractor or the Voith Bow Steering Module.
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