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BPA WORLDWIDE BUSINESS

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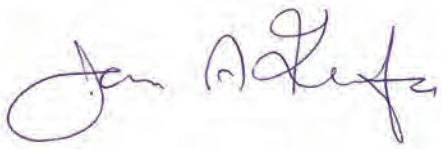
Since August of 2011, the business of the brown water, shallow draft, offshore, coastal and inland marine markets has been a part of my everyday focus. Last month marked my third anniversary at the helm of the industry's leading BPA-audited workboat b-to-b trade periodical. I mention that in context to the bigger focus in this edition: *Specialty Workboat Missions.* That said, I've been around the waterfront longer than that: more than 35 years, actually. Much of that time I spent at sea, primarily on bluewater, deep draft vessels. Over the last few years, however, I have truly come to appreciate the varied and multi-mission nature of the workboat industry itself. In this edition of ***MarineNews***, you will see why.

The range of missions performed by North America's workboats is remarkable. This month, we take you from the Arctic regions of Canada and back down to the harbors of New England, through the storied Erie Canal and beyond. In no less than three entries, we chronicle the myriad specialty tasks undertaken by these unique vessels, and the innovative ways in which they are powered. When it comes to workboats, it's not just about emissions and fuel economy. Sure, that's important. So, too, is the manner in which this machinery is fitted so as to maximize not only the utility of the vessel, but also its efficiency in the harshest of operating conditions. Turn the pages and see how.

This edition is also about inland waterways. I've said it many times within these pages, but it is worth repeating again: brown water operations are the heart of the American merchant fleet. It's been that way for a while, and the latest numbers issued by the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS) show that all but 214 of the nation's 40,735 commercial vessels are brown water vessels, involved in some shape or way in the workboat industry. This month's ***BY THE NUMBERS*** – all of it newly released data from BTS – reveals some interesting trends related to the domestic waterfront. It's worth a look.

All of this brings me full circle to a topic about which I remain passionate. Hence, New York State Canal Corporation Director Brian Stratton's take on the state of New York's 524 miles of historical waterways in this month's INSIGHTS feature is especially timely. That's because the challenges facing one of the nation's oldest inland canals sometimes mirror that which happen elsewhere in more high profile ports. The effort to maintain and in fact return the NY state canals to their former prominence as a major inland transport artery is very much alive and ongoing. Stratton's dialogue also reminds all of us that inland rivers and canals aren't just about transport. That workboat pushing 30 laden bulk barges down the Mississippi River also coexists with the need to foster flood control, renewable hydroelectric power and yes – recreation, too. The delicate balancing act continues. Count on ***MarineNews*** to keep you up to speed as it unfolds.



Joseph Keefe, Editor, keefe@marinelink.com

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BTS National Transportation Statistics Updated:

In July, the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS) updated National Transportation Statistics (NTS) – a web-only reference guide to national-level transportation data. NTS, updated quarterly, includes a wide range of national transportation information and consists of more than 260 tables of national data on the transportation system, safety, the economy and energy and the environment, of which 44 were updated today. These numbers tend to lag as much as 3-4 years behind in their capture and dissemination to the general public. It is hard work, apparently, chasing the digits. The next quarterly update is scheduled for October. This month, we took a closer look at the newest figures.

Table 1-2 listed the number of Air Carriers, Railroads, Interstate Motor Carriers, Marine Vessel Operators, and Pipeline Operators in these United States. We culled out the maritime numbers for inspection, and as expected the numbers tell a predictable tale. Despite steady growth in the 'non-self propelled' numbers, those numbers actually peaked in 1990. But, the size of these units has increased steadily over time; hence the total cubic capacity or deadweight in this category is probably up. No doubt the dip in the economy within the last five years didn't help, either. Ocean going U.S. flag tonnage steadily continues to decrease, although the BTS accounting lags 2014 data, and doesn't show the uptick in deep draft building over the last 24 months. The number of recreational vessels has simply exploded over the course of the last 5 decades. The dip shown in 2011 is likely the function of a deeply recessed economy still trying to recover. And, recreational boats tend to be luxury purchases.

Another interesting statistic maintained by BTS is the number of Passenger Miles recorded on Ferry Boats. Although some of this is no doubt recreational and tourism driven, we can only hope that the (slowly) rising numbers indicate an increase in America's Marine Highways and that folks are getting out of their car (at least for the commuter ride) and onto a boat for their daily trip to the office.

U.S. ton-miles of freight: this particular table clearly reflects the result of a contracting economy in the year immediately following the 2008 economic meltdown that gripped the United States. All categories – with the interesting exception of intraport transport – contracted during that time frame; some severely. We'd like to think it was a harbinger of an increased shortsea shipping program, but without some relief from the dreaded harbor maintenance tax on the intraport portion of water transport, that's unlikely to be the case. And, it goes without saying that the maritime share of domestic cargo – despite an environmental footprint that clearly eclipses its intermodal cousins – still lags badly in comparison. Your thoughts?

Table 2-45 outlines Waterborne Transportation Safety and Property Damage Data Related to Vessel Casualties. All deaths and Injuries cited result from Vessel casualties, such as groundings, collisions, fires, or explosions. The data is for all commercial Vessels under U.S. jurisdiction, including U.S. flag Vessels anywhere in the world and foreign flag Vessels within the jurisdiction of the United States (within 12 miles, or having an interaction with a U.S. entity, such as a platform within 200 miles, or a collision with a U.S. ship). Commercial fishing Vessels are included. In general terms, performance is mixed for these vessels, with the number of deaths and accidents trending downward. There is, as the table amply shows, a lot of room for improvement.

Table 2-3: For comparison, Table 2-3 shows Transportation Accidents by Mode. It's difficult to make an apples-to-apples comparison with these numbers, especially since the disparity in the number of vehicles versus boats is quite large. That said, about one-half of the highway accidents involve freight trucks. About 55 percent of waterborne accidents involve commercial traffic. In the years since 1970, the number of recreational boats on the water has more than doubled, hence the increase in accidents should, perhaps, not be unexpected. During the same timeframe, commercial hulls increased by almost 49 percent, while related accidents more than doubled. All modes reflect an increase in traffic and all modes could use considerable improvement in their safety records.

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TABLE 1-2	1960	1970	1980	1990	2000	2011
Non self-propelled vessels	16,777	19,377	31,662	33,597	31,360	31,498
Self-propelled vessels	6,543	6,455	7,126	8,236	8,202	9,023
Oceangoing self-propelled (1,000GT)	2,926	1,579	864	636	282	214
Recreational boats	2,450,484	5,128,345	8,577,857	10,996,253	12,782,143	12,173,935

Ferry Year	1960	1970	1975	1980	1998	2008	2010	2011	2012
Pass. Miles (millions)	U	U	U	U	280	390	389	389	402

U.S. ton-miles of freight	1980	1985	1990	1995	2000	2005	2009
TOTAL	**4,172,989**	**4,221,461**	**4,655,432**	**5,288,639**	**5,501,444**	**5,659,393**	**5,468,001**
Domestic water transport	**921,835**	**892,971**	**833,544**	**807,728**	**645,799**	**591,277**	**477,122**
Coastwise	631,149	610,977	479,134	440,345	283,872	263,464	196,290
Lakewise	61,747	48,184	60,930	59,704	57,879	51,924	33,509
Internal	227,343	232,708	292,393	306,329	302,558	274,367	244,995
Intraport	1,596	1,102	1,087	1,350	1,490	1,521	2,327

TABLE 2-45	1970	1980	1990	2000	2010	2011	2012
Fatalities	178	206	85	53	41	31	33
Injuries	105	180	175	150	172	131	141
Accidents	2,582	4,624	3,613	5,403	5,285	5,837	5,298
Vessels (number involved)	4,063	7,694	5,494	7,103	8,369	9,177	7,972
Property damage ($ millions)	U	U	U	180.5	436.6	71.9	100.4

TABLE 2-3	1960	1970	1980	1985	1990	2000	2010	2012
Air	4,883	4,767	3,818	2,935	2,388	1,985	1,505	1,539
Highway, total crashes	N	N	N	N	6,471,000	6,394,000	5,419,000	5,615,000
Railroad, total	N	N	14,053	15,803	14,108	14,024	10,031	9,457
Waterborne, total	N	6,385	10,137	9,676	10,024	13,143	9,889	9,813
Vessel-related	N	2,582	4,624	3,439	3,613	5,403	5,285	5,298
Recreational boats	2,738	3,803	5,513	6,237	6,411	7,740	4,604	4,515
Pipeline, total	N	1,428	1,770	517	379	380	590	570

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Director of Canals,

New York State Canal Corporation

Brian U. Stratton was appointed Director of the New York State Canal Corporation in April 2011, to oversee the operation and development of New York's 524-mile Canal System, including the historic Erie Canal. The canal system, a historic system of waterways that dates back almost 200 years, was begun in 1817. Opened in its entirety in 1825, the Erie Canal is widely considered the engineering marvel of the 19th Century. But the canal system spans much more than the Erie Canal. It's potential as an inland marine highway is undeniable. Today, it attracts both recreation and commerce to its waters.

Stratton was appointed at the recommendation of Governor Andrew M. Cuomo, and serves as a member of the Governor's Cabinet. Prior to joining the Canal Corporation Stratton was elected Mayor of the City of Schenectady in 2003, and re-elected to a second term in 2007. During his tenure, he successfully identified and corrected the City's financial problems, returning Schenectady's municipal credit rating from the lowest in New York State to investment grade, including a sustained A- rating by Standard & Poor's. Also during his seven years as mayor, he worked with local leaders to attract more than $300 million in new private investment in the City of Schenectady, creating and retaining more than 2,000 jobs. As Mayor, Stratton also served from 2009-2011 as Co-Chair of the United States Conference of Mayors Water Council, leading mayors of more than 300 American cities in the discussion and national policy formation of issues impacting how cities provide safe and affordable water and wastewater services. His numerous awards include the National Association of Government Accountants (AGA) Distinguished Local Government Leadership Award in 2009 and the AGA New York Chapter Outstanding Achievement Award in 2008. Mr. Stratton received his Bachelor of Arts Degree from SUNY Oswego in 1980. Today, and as the chief executive of the New York Canal System, we work to ensure that commerce and recreation can exist side by side on the waterways and to improve infrastructure so that the system can realize its full potential, not only to the state of New York, but also to the nation's intermodal system. In August, we sat down with Stratton to discuss those efforts.

Give us a current situation report on the state of New York's Canal System.

The New York State Canal System encompasses 524 miles of navigation along four Canals, lakes, rivers and tributaries, providing a vital link for recreation and commerce, just as it has for nearly two centuries. As many mariners know, the Canal System suffered significant damage

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The history of the canal system is a rich one. Today, arguably, it is under-utilized from the commercial side, but recreational users abound. What is its biggest value to the state of NY at this time? Do you see any of that changing in the near term?

Interestingly, today's New York State Canal System is about much more than commercial and recreational navigation, though that remains our primary mission. The Canal System also functions as a crucial source of multiple benefits and services including hydroelectric power generation, drinking water, and water for mining, manufacturing, irrigation, and research and development. In fact, overall, the Canal System supports in excess of $6.2 billion annually in these non-tourism uses. When combined with the approximately $380 million generated annually through tourism spending along the Canal, one quickly sees that today's Canal System is a vital economic development component for all of Upstate New York. I would expect that the Canal System will continue to evolve, as it has for nearly 200 years, based on how the world around it evolves and the needs of our citizenry.

How much of the current canal system (524 miles) is currently navigable for commercial cargo transit? What's the maximum controlling depth at this time? What would you like it to be?

All of the 524-mile Canal System is available for commercial use, depending on the draft required. The transport of bulk commodities is really limited at this point to the Waterford-Oswego route, where we have +/- 10.5' available, and we are working steadily to provide a minimum depth of 12' along that route. Obviously, we would like the entire Canal System to be at full depth but with the extreme weather of the last few years and the associated levels of sedimentation, we are making the same hard choices relative to priorities, in much the same way as other waterway managers throughout the country.

Logistically, much of the attraction that commercial shippers should see in the NY Canals involves shortened routes, shortened delivery times for cargoes and the positive impact that all of that has on the environment. Give us an example where a shipper might benefit from your shorter route from the Lakes to the port of NY/NJ.

For most of its life, the NYS Canal System has served as a complement to, not a replacement for, alternate land and water-based transportation options. Seasonality and dimensional restrictions mean that shipping by Canal may not always be a viable option for certain commodities or certain customers. But the huge reduction in distance between the Great Lakes and Port of NY/NJ which can be achieved by utilizing the Canal System is one of those major factors which can make us an attractive option under certain circumstances. For instance, the travel distance between Philadelphia to Lake Ontario is only 536 miles via the Hudson River and NYS Canal System, but 1,884 miles via the outside ocean route.

What would be your vision for the future of the New York State Canal System in terms of freight, commerce, passengers and/or recreation?

I think the Canal System will see larger vessels with overnight accommodations for passengers, like you see currently on the rivers and canals in Europe. The cruise industry has just exploded over there, and I think the historic Canals of New York can offer a similar experience right here in the United States. I also think that we are on the cusp of a major resurgence in commercial utilization of the waterway. Of course, this will be dictated by markets and influences on trade patterns beyond our control, but I think the inherent efficiencies of water transportation have a lot of companies remembering why Grandpa built the factory next to the water. We will do everything we can to provide a safe, reliable, and fully navigable waterway to facilitate increased commercial use. And finally, we will continue to make the enhancements necessary to provide a world-class recreational boating network for our customers throughout, and well beyond, New York State.

When we think about the New York State Canal System, we think "shortsea shipping" and "America's Marine Highway." What can be done in the short term to increase tonnage and traffic along this vital artery? Where do you think the biggest untapped commercial freight opportunities exist?

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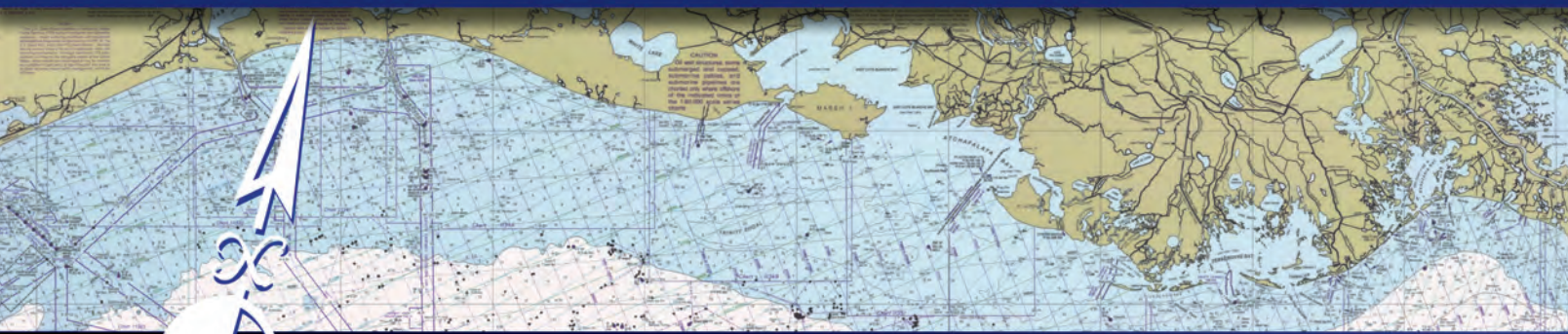

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the M-90 Marine Highway Corridor, and the Hudson River/ Champlain Canal as part of the M-87 Marine Highway Connector. MARAD has recognized what DeWitt Clinton and other pioneering New Yorkers did two centuries ago – that the Canal represents a vital link between the Midwest and the Eastern United States which is viable and competitive today. I actually think that some of the largest potential for utilizing the Canal commercially lies in goods, products, and technology manufactured right here in New York and exported to customers beyond our borders. This is what we call "originating cargo" and with New York enjoying a huge economic uptick through Governor Cuomo's Regional Economic Development Councils initiative and programs like Start-Up NY, New York is poised to once again put the "Empire" back in "Empire State" with the help of New York's original economic development program: the Erie Canal.

At its maximum capacity, New York Canals could remove a significant amount of traffic from the state's road and railways. What kind of 'intermodal' plan or blueprint is now in place in the Empire State and where does the canal sit within those plans?

Any comprehensive, effective and sustainable transportation strategy has to have at its core some multi-modal elements. Certainly, we know the Canal has limitations due to seasonality and dimensional restrictions. But we need to, as a State, identify what gaps exist that we can help fill, and what other modes of transportation we can best complement. Part of that is anticipating what impacts the expansion of the Panama Canal will have on cargo transportation throughout the eastern United States, and in New York in particular, and whether the time is right to introduce container-on-barge on the NYS Canal System. We had an excellent report – available on our website – prepared for us through a partnership with the NYS Energy Research and Development Authority in 2010. This report, authored by Goodban Belt, LLC had some very interesting things to say about containerization on the Canal System. So while we can anticipate the needs of the industry and logistics community – and prepare to the extent possible – the best thing we can do is to keep the Canal System in great operating condition for all who want to use it.

Your success at generating revenues, private investment and job creation in Schenectady is a great basis from which to do the same thing for the transportation system that you oversee. Can you shed a little light onto your management style and how you hope to move forward in a similar fashion for the NY state canal system?

Absolutely. The key to success in government or any other endeavor is in team building and utilizing your team members to the greatest effect. We have a tremendous team here at the NYS Canal Corporation and we have outstanding leadership. That leadership is Governor Andrew Cuomo – who has long been a champion on New York's Canals going back to his time as Secretary of Housing and Urban Development under President Clinton – to our Chairman, Howard Milstein – we are so fortunate to be empowered and given the resources to maintain this priceless resource.

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Safety is all About Culture

By Captain Terri Bernstein

We in the passenger vessel industry strongly believe in safety. We want our operations to be safe to ensure the well-being of our crew and passengers and the protection of our assets. We work hard to establish appropriate safety policies and programs and we train and drill crew to ensure that we are all aware of the need to be safe and to appropriately respond when an accident does occur.

But as we do these things, do we go far enough? Have we taken the steps necessary to develop an actual culture of safety within our organizations? We in the passenger vessel industry have vigorously embraced safety for many decades. We believe in the value of safety and we work to establish a culture of safety throughout our organizations. After all, our customers demand safe experiences and they certainly deserve no less.

The passenger vessel industry's stellar safety record over many years is evidence of an appreciation for the value of adopting a culture of safety. Safety culture deserves more than just a wink and a nod. It is actually a set of organizational principles which guides behavior and delivers results by reducing accidents. According to the U.S. Department of Labor, "Safety cultures consist of shared beliefs, practices, and attitudes that exist at an establishment. Culture is the atmosphere created by those beliefs, attitudes, etc., which shape our behavior."

Coast Guard safety statistics point to very few accidents aboard U.S.–flagged passenger vessels. While no injury or fatality is acceptable, this record is particularly significant, especially when you consider that the U.S. passenger vessel industry safely carries more that 200 million passengers each year. How did the passenger vessel industry develop such a record? The answer is simple; a broad recognition across all passenger vessel industry segments of the importance of safety, developing safety and training programs that work, and creating an atmosphere where all employees work toward a common safety goal.

But, in the world of safety management, one must never become complacent or satisfied with the status quo. Accidents can occur, and it is imperative to keep moving forward with safety-related activities and programs that will deliver ever-improving results. Along these lines, and in an effort to go beyond regulatory compliance, reduce risk and seek continuous improvement, PVA has initiated development of a voluntary safety management system program called FLAGSHIP. This system is tailored especially for passenger vessel operators and is scalable for operations of all sizes. The goal is to achieve an enhanced level of safety and environmental compliance through a proactive culture of continuous process improvement. PVA's FLAGSHIP is a coordinated, comprehensive set of processes facilitating optimal management of safety and environmental operations and mitigating risk.

PVA's proactive efforts in creating Flagship have been recently acknowledged by the former Chairman of the National Transportation Safety Board (NTSB) Deborah Hersman. At a recent public Board meeting Chairman Hersman stated, "We have very often seen industry leadership actually surpass the regulatory environment, and if there is an opportunity here for PVA to be able to do that, I think that is important." NTSB is a proponent of safety management systems for all modes of transportation.

The passenger vessel industry faces the unique challenge of harmonizing best safety management practices across a variety of types of marine operations. Also, as an industry with a substantial amount of seasonal hiring, the need for management to embrace the tenets of a safety culture becomes even more sensible.

PVA is working to ensure that the passenger vessel industry continues its excellent safety record. Safety is about continuous improvement. It is also about establishing and nurturing a safety culture that underpins this improvement. And, it is a standard that we all must embrace if we are to significantly expand safety in the coming months and years.

***Captain Terri Bernstein** is the President of the Passenger Vessel Association for 2014 and Vice President of Operations of BB Riverboats, Inc. in Newport, KY. As a Coast Guard licensed mariner, she holds a 100 ton Captain's license.*

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In Support of Affordable Energy

By Michael J. Toohey

As its key mission, Waterways Council, Inc. (WCI) advocates for a modern and well-maintained system of inland waterways and ports. WCI's top issues areas include the implementation of waterways' improvement legislation in the recently enacted WRRDA; remembering Rivers (the Fourth "R") among Rail, Roadways and Runways; improving the reliability of the waterways system and properly funding its Operations & Maintenance; assuring navigation reliability during times of flooding and drought; and supporting a balanced approach to invasive aquatic species. But WCI has added another critically important issue to its portfolio: supporting affordable energy options.

American consumers deserve affordable options for electricity, including our nation's ever-abundant supply of coal. The nation's inland waterways transport more than 20% of the coal used in electric power generation, and coal moved on the Ohio River represents nearly 60% of the commodity tonnage.

But the Environmental Protection Agency's (EPA) greenhouse gas emissions plan to cut carbon pollution by 30 percent under the Clean Air Act could cost America's economy more than $50 billion annually between now and 2030, according to a U.S. Chamber of Commerce's Institute for 21st Century Energy report.

The legal wrangling has just begun, with the states of, Alabama, Indiana, Kansas, Kentucky, Louisiana, Nebraska, Ohio, Oklahoma, South Carolina, South Dakota, West Virginia and Wyoming filing a lawsuit in early August against the EPA for overstepping authority granted under the Clean Air Act.

The implementation of the EPA's new, stringent standards for the coal generated electricity industry threatens the livelihood of coal miners, producers, shippers and specific coal-producing states. And we could begin to see rolling electric power grid outages -- "brown-outs" – due to government imposition of this rule if it is allowed to stand.

Legislation has been introduced on Capitol Hill -- The Electricity Security and Affordability Act (S. 1905; H.R. 3826) by Senator Joe Manchin (D-WV) and Rep. Ed Whitfield (R-KY), respectively. That legislation seeks to ensure the viability of American coal as an affordable energy source. WCI supports this initiative that will help keep coal in an "all of the above" energy strategy. Access to affordable energy sources in all forms strengthens our nation's economy while sustaining American jobs.

In 2013, U.S. Department of Energy Secretary Ernie Moniz noted, "Coal and other fossil fuels provide 80 percent of the country's energy and 70 percent of its electricity." But due to fervent regulations like the EPA rule, domestic consumption of coal has been falling off and more coal is headed for export. Metallurgic and thermal coal is being exported to China, India and even to Japan, but weakness in the U.S. and overseas markets, coupled with depressed pricing and the heavy regulatory environment here are factors that are impacting U.S. coal producers. Closures of coal-fired plants or conversion of them to natural gas is already happening, with resultant job losses.

According to the U.S. Energy Information Administration, by the year 2040 world-wide coal consumption is expected to be 50% higher than 2010 levels. Much of that growth comes from non-OECD countries like China and India. Developing nations will continue to seek cheap, plentiful coal for affordable energy and that will continue to be the case whether or not the U.S. is the supplier.

In an August 3, 2014 Op-Ed to the *Wall Street Journal*, Rep. Mike Kelly of Pennsylvania wrote, "The EPA's war on coal has troubling economic implications for every American and U.S. business. As the new regulations take effect, Americans could see their electric bills increase annually by more than 10 percent – $150 for the average consumer – by the end of the decade, according to the American Action Forum. By keeping energy rates reliably low, coal helps give U.S. manufacturing its global edge against foreign competitors. On June 2 the National Association of Manufacturers warned that the EPA rule 'could single-handedly eliminate this competitive advantage by removing reliable and abundant sources of energy from our nation's energy mix.'"

Let's not have the war on coal become the war on American consumers.

WATERWAYS COUNCIL, INC.

With more than 30 years of federal government expertise, Mike Toohey serves as WCI's President and CEO.

Business, Bankruptcy, Bad Debt – and You

You forced your customer to pay an invoice and they filed for bankruptcy protection. Can you keep the funds?

By Larry DeMarcay

Everyone knows that doing business with payment terms providing for payment in the future poses a risk. Our clients often contact us asking us to write letters and file suits against customers who have either refused to pay or are unable to make payments on past due invoices. Unfortunately, on many occasions, you are not the only vendor that is hounding them for payment on a past due account.

On the bright side, the retention of a lawyer and the aggressive pursuit of the debt will often improve your chances of receiving payment. Once the legal pressure causes the customer to pay, there is usually a sense of relief knowing that you received payment when many other vendors did not.

However, if the customer is truly in a financial crisis and intends to seek bankruptcy protection from its creditors, this aggressively pursued payment may not stand. Specifically, if the customer files for bankruptcy protection and a payment was made within ninety days of the filing, the bankruptcy trustee may contact you and request reimbursement for that payment.

This request for reimbursement for the payment is called a "preferential payment." The United States Code, Title 11, Section 547, defines a preferential payment as:

- *The transfer of an interest of the debtor's property;*
- *To or for the benefit of a creditor;*
- *For or on account of an antecedent debt owed by the debtor before such transfer was made;*
- *The payment was made while the debtor was insolvent;*
- *The payment was made within ninety days of the filing of a bankruptcy petition; and*
- *The payment enables the creditor to receive more than what the creditor would have received in the liquidation proceeding.*

Essentially, this preferential payment scheme applies to your payment if it was made within ninety days of your customer filing a bankruptcy petition. If the bankruptcy trustee believes that the payment made to you falls within this category, the trustee will send you a notice demanding the return of the payment.

Not So Fast

Just because you receive a letter from the trustee does not mean that you necessarily have to return the money. There are several defenses that can be asserted to the request for repayment. The most common defense is that the payment was made in the ordinary course of business. The 'ordinary course of business' defense applies in scenarios where the debt was incurred in the ordinary course of business between the parties and was paid according to the usual pattern or pursuant to customary terms for that industry. For example, if you have a history of dealing with this particular customer where you invoice the customer immediately after the work was completed, and the customer always paid the invoice within thirty days of the issuance of the invoice, you can argue that the payment was made in the ordinary course of business and ask that the request for reimbursement be rescinded.

This defense protects creditors who are paid in a customary fashion. The overriding role of the preferential payment refund system is to keep creditors from moving up several rungs on the payment ladder by receiving payments before other creditors that may receive their payments in the normal course of the bankruptcy proceeding.

The second defense to the request for repayment applies if the payment was made as a contemporaneous exchange for new value. The Bankruptcy Code states that preferential payments must relate to an antecedent debt. Thus, if the payment is for something new and the payment is made contemporaneously with the delivery of new goods or services, the payment would not fall within the scope of the preferential payment system. An example of this would be if you had an ongoing business relationship with a customer and you became concerned about their ability to pay, because several invoices remain unpaid. You could change your business relationship and agree to only provide goods or services if payment is made at the time of the transfer. Thus, the payment is made contemporaneously with the provision of the goods or services and would be protected. However, any payments made on the previously issued invoices would not be exempt and the ninety day payment rule applies.

An 'additional defense' is referred to as the enabling loan exception. This defense can be utilized when a creditor obtains a purchase money security interest in property

acquired by the debtor. The payment made in return for the goods cannot be rescinded to the extent that the security interest secures new value that was provided by the signing of the security agreement.

A creditor can also assert a subsequent new value defense. This defense provides that the trustee may not rescind a payment if the creditor gave new value to the debtor such as a subsequent shipment of new goods after the payment was made. This defense only applies if these new goods are not protected by a security interest for the benefit of the creditor. Essentially, this exception allows for the payment of previously supplied goods when you have entered into a subsequent transaction for which you have not been paid or protected with a security interest.

Decisions, Decisions …

Now that you have an awareness of the system, and how it applies to your payment, the question remains, what should you do once you receive the notice from the bankruptcy trustee? Due to the uncertainties involved with bankruptcy litigation, we recommend that you hold on to the payment until forced to return it. Often, the first response is to do nothing. When an entity files for Chapter 7 bankruptcy protection, the trustee sends out notices to all of the entities that received payments during the ninety day window. These notices are usually sent out in the normal course of business and the trustee has usually not performed a cost benefit analysis or examined the payment closely. Thus, as the bankruptcy progresses, the trustee may find that reimbursement for your payment is not worth the time and attention that would be required to get it back. As such, ignoring the notice may be all that is needed to get the trustee to move on to other creditors.

If the trustee continues to pursue the claim for reimbursement, it is a good time to ask the trustee to prove that the payment is actually a preferential payment covered under the Bankruptcy Code. Under the Code, the trustee has the burden of proving that the payment was preferential and should be returned. This request will

make the trustee look at the matter closely and, if the trustee finds that a valid argument does not exist, the trustee may abandon the claim. If the first two responses are not effective, you can then assert your defenses.

If all of this fails, and the bankruptcy trustee continues looking to recover your payment, don't give the money back quite yet. It is important to remember that you are not the only creditor from whom the trustee is seeking reimbursement and that you are in a good position to try to negotiate a compromise. As long as you are still holding on to the funds, you can try to negotiate a compromise that is acceptable to the trustee. A settlement will allow you to keep a portion of the funds. If you return the funds, you will not be in a position to negotiate as you are simply put back into the pool of creditors that will be paid based upon your priority in the bankruptcy system.

Now that you have an overview as to how a preferential payment will be handled, you are in a better position to make a decision as to how to avoid getting onto such a predicament in the first place and respond once you receive such a notice from a trustee. Furthermore, knowing how this system is administered, you can structure your future payment terms and collection efforts to try to avoid being caught in bankruptcy limbo.

Mr. DeMarcay *is a partner in the law firm of Fowler Rodriguez Valdes-Fauli. His areas of practice include Commercial Litigation, Admiralty, Personal Injury, Transportation, Real Estate, Construction and Corporate Law. Prior to attending law school, Mr. DeMarcay served on the Washington based legislative staff of Congressman Jimmy Hayes. On the WEB:* ***www.frvf-law.com***

Skip, Skip, Skip to the Loot

Options abound for operators to make timely payments and maintain access to funding.

By Richard Paine

There are many different operating models in the commercial marine universe. Some businesses operate 24/7/365, while others operate seasonally. Driven by the low temperatures and inclement weather of late autumn, winter and early spring, snow and ice dictate their schedules. For those operators in our colder climes, this seasonality affects not only operating conditions, but more critically, revenue.

For businesses which carry term loans on their equipment, or still have overhead which is not recompensed by income, the off-season can truly be cruel. Options for keeping the doors open until spring that and the return of revenues are varied. Some rely on additional borrowing, others on variable payment schedules.

Revolvers

Revolvers are short term loans which are generally used to supplement waning revenue or as a temporary substitute for operating capital. Once the amount has been approved by the lender, the borrower may draw down up to the maximum amount of the facility, and repay any number of times. It is sometimes known as an "Evergreen" loan as it really has no term limit. Interest accrues on the funds withdrawn and can be capitalized from available funds or paid down to maintain the greatest availability of funds. In concept, think of this option as a "credit card."

Fees involved may include an initial approval fee, a per draw fee and be accompanied by restrictive covenants, like any other loan. The revolver is usually secured by collateral. In our industry, that collateral often takes the form of unencumbered marine vessels. The requirement that the collateral be "free and clear" of any loans, liens or other claims can only be waived if the primary lender allows another lender to take a second position subordinated to the first. But rarely will a primary or secondary lender waive their rights through subordination as it complicates the quality and security of the loan. The interest rate charged on the drawn funds will float with a specified index such as prime, libor, swaps or treasuries, as the draws occur at various times.

An annual "clean-up" in which the borrower brings the outstanding funds to zero dollars may be required. A variant is known as a "revolver bond." This financial product allows a borrower to pay interest only until the maturity date of the bond at which time all principal plus any accrued interest must be paid.

Skip Payments

A better strategy might be, as the Boy Scout motto states, "Be Prepared." You know your business better than anyone. You know when it is the annual feast and when it is the annual famine. If there is true seasonality in your operation, it may make sense when you first make your loan or lease arrangements, to ask your lender/lessor for either skip or seasonal payments.

Skip payments are just that, your lender will allow you to skip a fixed number of loan payments each year for the term of the loan. The lender will compute the balance of your payments to include the principal and interest that you have skipped. For example: you own a vessel located in a port that is subject to freeze-up every winter. Barring global warming, you cannot move your vessel from its dock without help from an icebreaker. Obviously, if there is no vessel movement, there is no vessel work, and no vessel income, and consequently, no loan payments. Hardship in the off season may be severe and could include layoffs, layups and other cutbacks.

To keep in good stead with your lender, loan payments must continue come hell or high water. If there is any deviation from normal principal and interest amortization, it must be specified in your loan agreement. If you take it upon yourself to skip a couple of payments, the results may be dire.

Seasonal Payments

Seasonal payments are another method to smooth out your revenue stream for debt service. You might ask your lender for interest only payments for some period during your yearly payment cycle. Although you continue to pay interest on the outstanding principal each month, your remaining payments will include a prorated share of the principal that was not paid during the interest only period. To avoid late payments penalties and negative credit re-

ports, make seasonal payments a part of your original loan request and get them approved by your lender.

Refinance

Should none of the aforementioned payment options be attractive to you, and you have satisfactorily serviced your debt to this point, you might consider refinancing the vessel. If you are halfway through your term, let's say the fifth year of a ten year loan, you have paid off about 60% of your loan principal. You can cut your monthly payments substantially by refinancing the remaining principal (plus take out some equity) for another ten year term. Given market rates at this time, your interest rate will probably be less than when you entered into the loan further dropping your monthly payment. Inasmuch as your vessel may have appreciated over the past five years, your equity in the vessel may actually have increased giving you the ability to increase the principal amount should you choose to. If you have historically paid as agreed and your credit is in good shape, there is no better time than now to consider refinancing your loan and incorporating skip or seasonal payments as part of the package. But as with anything financial or legal, consult with your financial advisor and legal counsel before making any decisions.

Richard J. Paine, Sr. *is the National Marine Sales Manager for Signature Financial LLC. He can be reached at* **rapine@signatureNY.com**

The No-Emissions Workboat (Really!)

There's no debate about LNG in New York. ELCO, New York State Canals team up to retrofit 86-year old tugboat with an electric motor.

By Joseph Keefe

In June, Governor Andrew Cuomo announced the launch of an all-electric dredge tender work boat on the Erie Canal in the Utica area of New York. The project, a partnership with the New York State Energy Research and Development Authority (NYSERDA) and the New York State Department of Transportation (NYSDOT), utilized an electric motor supplied and installed by Elco Motor Yachts, LLC, of Athens, New York. Significantly, the New York State Canal Corporation collaborated with Yorkville-based New West Technologies, LLC, in order to determine how best to transition the State's work boat fleet to a cleaner propulsion system.

Like any 'green' initiative, funding and support has to start from the top. This project was no different. "By partnering with the private sector, New York State is transforming an 86-year old tug boat into a cleaner, greener and more modern zero-emission vehicle," Governor Cuomo said. "Projects like this demonstrate our commitment to protecting the environment and show how this continued dedication is laying the groundwork for a clean energy economy of tomorrow." And, depending on the metrics and data that comes out of this effort, the State of NY and its storied canal system could see more of this sort of clean propulsion.

Something Old; Something New

The project made use of a 1928 tug boat, now in service as a dredge tender, buoy removal and other canal workboat missions. Previously running off a 1980s-era diesel engine, the *"Tender 4"* operates eight hours every day, now running on a battery-powered all-electric powertrain system. As a further cost saver, the tug runs using the same prop as before. Joe Fleming, Chief Engineer at ELCO, told *MarineNews*, "With the older diesel, there was always a lot of leakage. The electric motor is simpler, quieter, easier to maintain. Operational costs are much less and, of course,

no fuel is needed." Moreover, the all-electric system eliminates exhaust emissions and the potential for fuel spills, while reducing noise. The result: a more environmentally- and economically-sustainable solution.

The Canal Corporation partnered with New West Technologies, LLC (New West) to evaluate and help determine a clean propulsion transition path for its work boat fleet. The initial Phase 1 feasibility study completed through this partnership validated the energy, economic, and environmental benefits of electric propulsion for Canal Corporation's work boats. Phase 2 includes the ultimate goal of evaluating the tender's operational and maintenance data to support the goal of transitioning the long-term sustainability of New York's fleet. New West is now collecting operational data from both the all-electric boat and a standard diesel boat to analyze the real-world performance benefits for the Canal Corporation. Other entities considering the use of all-electric or hybrid-electric marine powertrains are no doubt watching closely from the riverbank, as they do.

Workboat Ready: Electric Power

The electric powertrain was manufactured by Elco Motor Yachts, LLC (Elco), located in Athens, NY. Elco developed the system that tightly adapts two electric motors into a robust powertrain configuration that could be applied to the dredge tender. Particularly impressive with its modular design, this powertrain design allows it to be easily configured for other dredge tender boats with more or less electric motor power and more or less battery capacity, as needed.

Elco electric motors are known for their safe, efficient operation, simplicity, reliability and ease of installation. Elco's twin EP-10000 motors allow the tender to work silently with zero exhaust emissions and without contributing to water pollution.

Any downside of electric propulsion today will eventually be eclipsed by evolving technology tomorrow, says Elco's Fleming. For example, in terms of the 'pound for pound' energy content of lead acid AGM batteries verses

"Battery technology and energy storage in general is improving at a rapid rate, and when it equals that of diesel fuel, electric propulsion will overtake diesel power since it is lighter, more reliable, requiring less maintenance."

– Joe Fleming, Chief Engineer at ELCO

diesel fuel, batteries today are over ten times the weight of diesel for the same amount of energy content. This relates specifically to run time. Fleming adds, "Battery technology and energy storage in general is improving at a rapid rate, and when it equals that of diesel fuel, electric propulsion will overtake diesel power since it is lighter, more reliable, requiring less maintenance."

In general terms, Elco's rule of thumb is that the volume/weight of electric propulsion (without batteries for electric propulsion, or fuel tank, plumbing, etc for the diesel) is approximately 30% to 50% lighter and approximately 30% less costly, especially considering the EPA standards for diesel that are coming into play. And, it is here in the empire State that the electric motor makes particular sense, especially given that New York probably has a higher renewable energy content to its power grid than most other states because of hydropower from Niagara Falls and the Erie Canal.

Commercial operators watching from the cheap seats will probably want hard data on how much money the state could save by making the switch to electric power. At this early stage, hard numbers have not yet been gathered, but

Elco's new workboat display

Elco says that gathering this information is what this project is all about and it will take a year or two to unfold.

For example, the difference in cost between the each power charge and conventional diesel bunkers will be an interesting comparison, when it is all said and done.

And, while typical power generation in New York is arguably cleaner than that produced in other states, the question of whether an electric connection merely moved the carbon 'burn' further downstream remains to be answered. Early indicators point to combined savings from reduced energy costs, maintenance costs, environmental impact, and other variables will eventually yield a breakeven ROI in two to three years, after which there are (significant) annual cost savings to be experienced.

Real World Performance, Logistics

Outlets for recharging the boat's batteries are positioned at key spots on the canal, but the 'Tender 4' can also charge from barge or dredge gensets that it is pushing. On board the Tender, batteries are located port and starboard, readily accessible and charging is a convenient event. The workboat consumes about 55kw of energy on average, so the batteries were designed to provide 66kw – a safety factor of 20 percent, just to make sure any and all anticipated energy needs are met. About 10 hours of battery power in one charge – 6 to 8 hours – is achieved utilizing a standard shore connection, single phase 208v – 240v input. That said; in reality, the tug can go and "bunker" at any marina and plug in. Hence, what might seem as a geographically limited workboat is, in reality, anything but.

In the water, an electric engine provides instant response time and full torque immediately. In comparison to a similar powered diesel engine, the electric engine is smaller, lighter, and does the same work. Bollard pull, in this case, is rated at 3,500 pounds. And the old fuel tank? Fully washed and cleaned – it is still on board. The tug can use that as necessary, for ballast purposes.

"Elco developed the system that tightly adapts two electric motors into a robust powertrain configuration that could be applied to the dredge tender. The electric powertrain is particularly impressive with its modular design. This design allows it to be easily configured for other dredge tender boats with more or less electric motor power and more or less battery capacity, as needed."

Elco: Then and Now

Anything but a newcomer to the green propulsion game, Elco Motor Yachts is a pioneer in electric propulsion with a history that includes introducing the first marine electric motor at the Chicago World's Fair in 1893, where electric boats shuttled more than one million passengers to and from the Fair. The company was later acquired as a subsidiary of the Electric Boat Company and produced submarine chasers during World War I and PT boats for the U.S. Navy during World War II. After the war, Elco merged with the Electric Boat Company, which decided to focus its operations on government contracts for submarines. In 1987, Elco once again became a privately owned company, and today it provides environmentally friendly electric propulsion systems for recreational and commercial vessels of up to 85 feet.

Today & Tomorrow: Future of Electric Motors

The electric motor concept is not a 'one horse' concept. Beyond being involved in this niche business for the last 121 years, Elco is advancing any number of other applications. These include:

- *passenger vessel applications, including one of their larger vessels, a 66 foot passenger cruise boat in Canada;*
- *10 water taxis with another 54 orders that the firm hopes to close on before the end of the year;*
- *Two dinner boat (repower jobs); and*
- *a 40' boat in England running on a serial hybrid-electric system (108 vdc battery bank, powered by an EP-7000).*

To date, the largest all-electric boat that Elco has repowered is the 66' launch in Canada, and the largest by power is the New York State Canal Corporation tug boat (two tandem EP-10000 systems with a bollard pull of approximately 3,500 lbs). Elco's Joe Fleming adds, "We are quoting vessels in the 100' range at the present time and

expect orders for these sizes in the near future." Today, the NYS tug boat works daily on the Erie Canal with an electric propulsion system and serves the same purpose as a harbor tug pushing and pulling larger ships. And Fleming adds, "Today, we can repower tugs of up to 50' and 4,000 lbs. bollard." Back in Albany, NY Canal Corporation Director Brian Stratton backs the project enthusiastically. "With the help of our partners in the private sector, we will continue to find innovative ways of adapting our century-old infrastructure to provide cleaner and more efficient service to our customers and neighbors along New York's Canal corridor."

Unlike West Coast, so-called 'hybrid' tugs – which typically motor to their assignments in electric mode and then switch to conventional power for the actual pushboat work – Elco's repowered "Tender 4" stays in electric mode 24/7. Looking ahead, it is likely that in the near future, electric-powered harbor assist tugs will be able to do the exact same thing. When that happens, Elco will no doubt be there.

Specialty Workboat Missions Propelled by *Innovative Engines*

Volvo Penta allows operators to save on fuel, cut emissions and most importantly – get the job done, in a wide array of conditions and mission sets.

By Susan Buchanan

Volvo Penta of the Americas is delivering fuel efficiency, reducing emissions and raising performance as it powers U.S. and Canadian vessels with modern diesel engines, Jens Bering, product management head of the Virginia-based operation said last month. The company, a supplier of marine and industrial engines, is part of Volvo Group in Stockholm, Sweden. Volvo Penta has the flexibility of a specialty firm while Volvo Group's technical and financial strength helps the unit generate new products. Gearing up in a big way for the North American commercial workboat sector, the firm has already made big inroads on this side of the pond.

Massachusetts Patrol Boat Outfitted by VP's IPS

The *Thomas Paine*, which joined the Massachusetts Environmental Police or MEP in July, is a new 50-foot aluminum patrol boat and the first North American commercial vessel powered by Volvo Penta's Integrated Propulsion System (IPS). MEP, headquartered in Worcester, Mass., protects the state's natural resources.

Built by MetalCraft Marine Inc., based in Kingston, Ontario and Cape Vincent, NY, MEP's versatile new vessel is equipped with twin Volvo Penta D11 510 hp marine diesel engines, driving IPS650 steerable units. For this project, New England Power Products in Connecticut, a

designated Volvo Penta Power Center, supplied the propulsion system and oversaw installation.

For the *Thomas Paine*, Volvo Penta's IPS consists of a steerable underwater drive unit, with two forward-facing counter-rotating propellers. In this way, the drive units pull, rather than push the boat through the water, increasing efficiency. "Compared with traditional inboard shaft drives, Volvo Penta IPS drives provide 40 percent higher cruising range, 20 percent greater top speed, 30 percent better fuel economy, 30 percent lower CO2 emissions and 50 percent less noise," Ron Huibers, president of Volvo Penta of the Americas, said last month. He added, "The individually steerable drive units, with joystick docking, make a dramatic difference in maneuverability. And the dynamic positioning system, or DPS, automatically holds the boat's position and heading steady on station, regardless of winds and currents."

Like most municipal customers, MEP has its eyes both on performance as well as its budget. Massachusetts Environmental Police decided to install the IPS instead of traditional shafts in its new boat to benefit from lower fuel consumption and extended cruising range, Chris Baker, MEP's acting director, said last month. This allowed the vessel to be constructed with a smaller fuel tank, saving space and weight. "Because the boat idles a lot on station, the automatic DPS was a critical factor in deciding to go with the Volvo Penta IPS," Baker explained.

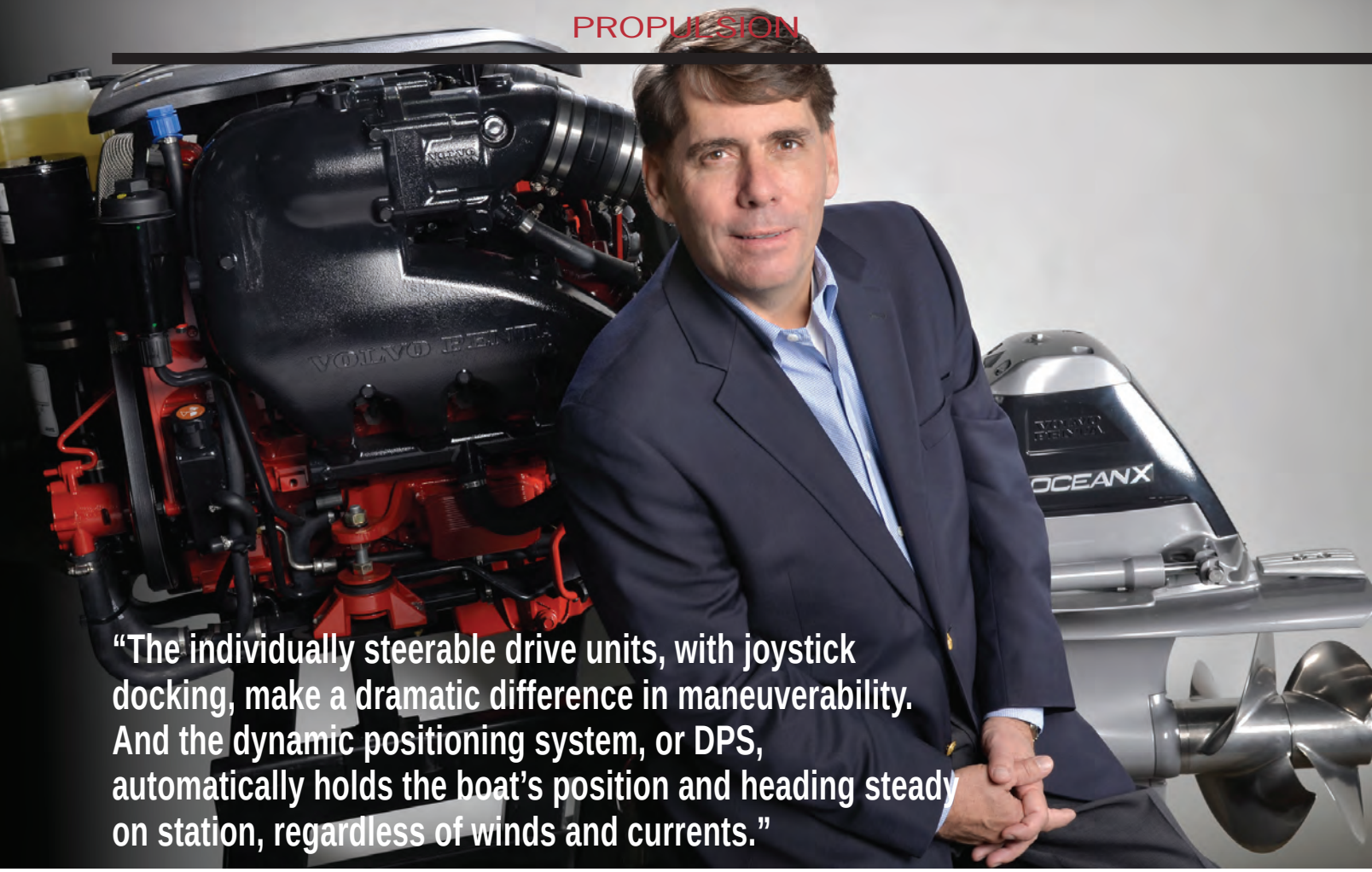
The *Thomas Paine* is the latest addition to MEP's fleet. The state's Coastal Enforcement Bureau patrols over 4,000 square miles of water. It enforces boat registration and titling, investigates illegal fishing and marine thefts, and mediates disputes between commercial and recreational anglers. Beyond this, the MEP force provides security patrols for LNG tankers and tall ship parades. It's a wide array of mission sets, demanding a versatile propulsion system. In this case, MEP got just what it was looking for.

Separately, Huibers said interest in Volvo Penta's IPS has grown as commercial builders and boat operators recognize the system's advantages. "Volvo Penta IPS is ideal for fast work boats, patrol boats, passenger ferries, pilot boats and wind-farm support vessels up to 30 meters, at speeds of up to 45 knots."

Sugloo Equipped with Twin Volvo Penta Turbo Diesels

Sometimes, workload and operating conditions dictate the choice of marine propulsion. Such is the case in Canada's Northwest Territories. There, Sugloo Marine, a unit of Northwind Industries Ltd. in Inuvik, is using workboats powered by Volvo Penta diesels. The mission is simple – but it is not easy: Sugloos carry cargo and supplies to remote Arctic communities in the Mackenzie River Delta and the Beaufort Sea. Sugloo Marine's operation is likely the northernmost work boat operation in North America. Operating above the Arctic Circle, reliability is paramount and downtime is totally unacceptable. Enter Volvo Penta into the equation.

The Sugloo 46-foot aluminum landing craft are powered by twin Volvo Penta D6 330HP turbo diesels, and cruise at 22 knots when empty. Each vessel is powered by two Volvo Penta 330 hp D6/DPH stern drives. Sugloos, built by EagleCraft of Daigle Welding and Marine Ltd. in Camp-



"The individually steerable drive units, with joystick docking, make a dramatic difference in maneuverability. And the dynamic positioning system, or DPS, automatically holds the boat's position and heading steady on station, regardless of winds and currents."

– Ron Huibers, president of Volvo Penta of the Americas

bell River, British Colombia, were launched in 2011. With a load capacity of about 20,000 pounds, these are true workhorses in Canada's Pacific Northwest.

Since Sugloos operate more than twelve hours a day in the region's short summer, transporting people, supplies and equipment, reliability is essential, Volvo Penta's Jens Bering said. Inuvik has an average 56 days of continuous sunlight each summer and 30 days of polar night every winter.

Northwind Industries, founded in 1997 by President and Owner Kurt Wainman, operates from its Inuvik headquarters, along with a satellite office in Edmonton, building highways, bridges and oil platforms north of the Arctic Circle. The company performs long distance, heavy hauling to and from Inuvik.

Bering said the Sugloo's Volvo Penta D6-330 is a commercially rated, six-cylinder diesel engine, with a common rail fuel injection system, double overhead camshafts, four valves per cylinder, a turbocharger and aftercooler. "Together with a large swept volume and state-of-the-art Volvo Penta Electronic Vessel Control, the D6 engines provide excellent torque and acceleration, even at low RPMs--with very low fuel consumption," he said. Moreover, the Sugloo's D6 engines comply with International Maritime Organization limits on Nox, or nitric oxide and nitrogen dioxide, and U.S. Environmental Protection Agency Tier 3 emission requirements.

Volvo Penta provides Sugloo's entire propulsion system, from props to helm and everything in between, Bering said. "This means the engine, drive train and controls are perfectly matched and designed to work together," he added. Beyond this, Sugloo Marine can deal with a single VP

supplier for installation, maintenance, service and warranty coverage for full propulsion systems.

Reflecting the workhorse nature of Sugloo's business, the Sugloos' features include 6,000-pound capacity Hiab cranes with a 20-foot reach; front-loading ramps, operated using two Pullmaster hydraulic winches; and 20 kw Northern Lights diesel generators, with power take-offs to run the hydraulics.

Northwind's customers include major oil and gas drilling companies, environmental remediation firms and the federal and territorial governments. Northwind employees are trained local residents, supplied with protective equipment for frigid weather survival. "As a 100-percent Inuvialuit owned and operated company, Northwind benefits from our employees' experience in dealing with harsh conditions," Wainman said. "We've been building and maintaining the highway system north of the Arctic Circle for over 15 years, and we're the premier ice-road builders in the Mackenzie Delta."

The Inuvialuit are the Western Canadian Inuit people. In July 1961, the government-built town of Inuvik was opened to replace the settlement of Aklavik, which was threatened by flooding and erosion. Inuvik is the largest Canadian community north of the Arctic Circle, with an economy dependent on nearby oil and gas exploration.

According to EagleCraft, all of its vessels manufactured

in Campbell River are built to withstand tough northern weather. And, that's why the company uses Volvo Penta propulsion in Sugloos and other boats.

VP Powered Fleets Include Ferries and Shrimp Boats

Volvo Penta's marine diesel systems reach is far wide and gets favorable reviews from workboat fleets across North America because of their power performance, fuel economy, low emissions and durability, Jans Bering said last month. The False Creek Ferries fleet, started in 1982 and owned by Granville Island Ferries in Vancouver, mostly runs on Volvo Penta diesels. Several of those ferries have more than 30,000 hours on them so far, Bering said. "And we've seen impressive results in fuel consumption from shrimp boats equipped with our engines in the Gulf of Mexico," he said. In fact, Zimco Marine in Brownsville, Texas projected annual fuel savings of $68,000 annually per engine after it repowered two of its trawlers with new-generation Volvo Penta diesels in July 2013. Extrapolating those results over the breadth of the full range of domestic workboat applications would yield significant environmental improvements, while consuming much less in the way of fuel.

Special Engines for Special Missions

Today's Volvo Penta's engines have advantages that were unknown ten years ago, according to the company. The environmental benefits of VP's IPS drive include 30 percent higher fuel efficiency and lower exhaust emissions and noise.

Most VP engines have electronic fuel injection, greatly increasing fuel savings. And no additional fuel is required for cold-weather starts, keeping emissions in check.

Volvo Penta has entered the North American workboat market and, it looks like they are here to stay. That's a good thing.

Moose Boats' Fire Rescue Catamaran

Specialty workboats redefined: versatility, value and multi-mission capabilities, all rolled into one affordable hull.

By Joseph Keefe

In a world where small to medium sized municipalities and port authorities have to make every dollar go a long, long way, any opportunity to leverage just one hull over multiple mission sets grabs a lot of attention. Nevertheless, Job 1 on that set of requirements is arguably the need to provide robust firefighting capabilities. Sure, everyone would like to have the ability to pump 15,000 gallons per minute (gpm), but at the same time, not everyone can afford it. Nor does everyone have the available draft to support such a (larger) platform. For those narrow work parameters, limited budgets and long list of mission requirements, there is, quite simply, the Moose Boat Fire Rescue Catamaran.

Firefighting 101

Traditional firefighting vessels typically couple the firepump to one of two engines. When that happens, these monohull designs lose about one-half of their design speed, power and stationkeeping ability when they drop one engine to pump water. Moreover, at this point in the emergency, the risk of loss of redundancy in terms of what happens if the boat loses an engine, is very real. In that scenario, the response vessel would either lose control or, conversely, the ability to fight the fire. Of course, the vessel could also tie up to the pier and pump water ashore if the emergency involved a land-based fire, but that option isn't always available.

The ideal firefighting scenario, therefore, involves a vessel that can maintain full control and redundancy, with shallow enough draft to get into the toughest spots, all with a robust water output for the size of the vessel employed. That hull should also be able to double as a rescue vessel and be able to perform several other municipal response missions, as well. In a nutshell, that's the Moose Boat M2 Fire Rescue Catamaran.

The Moose Solution

During discussions with prospective clients in 2011, Moose Boats recognized that the key vessel requirements for firefighters with marine responsibilities, given the diverse range of scenarios they encounter, were mostly present in their existing designs. Moose Boat's Mark Stott explains, "Our client's ideal boat was a compact, multi-mission craft with high water flow capacity, exceptional maneuverability, recessed decks with minimal level changes, lateral stability, shallow draft, beaching and heavy weather capabilities. Our already proven M2 diesel/water-jet propelled catamarans met all of the criteria with the exception of sufficient firefighting water flow." Moose Boats, he said, realized the challenge was to exceed the firefighting requirements without sacrifice to deck layout, performance or maneuverability.

Partnering with Logan Clutch and Cummins to 'co-engineer' a solution, the application was designed and eventually approved. The collaborative effort, as it turned out, was a 'win-win' for everyone. Moose got the multi-mission, robust designs that their clients were seeking and the design arrangement has since been crafted by the engine and power suppliers to their client in a myriad of other applications, including fishing vessels, for example, that typically require a lot of hydraulic power for winches, etc.

With the requirement of a fire pump engagement with the option of simultaneous propulsion from both Hamilton jets to maintain maneuverability, Moose Boats decided that a FPTO (Front-end Power Take Off) from each Cummins QSB6.7 425hp engine to drive two individual fire pumps was the only viable option within the relatively narrow catamaran demi-hulls. Identifying Logan Clutch Corporation as the manufacturer of the pneumatically actuated clutch to interface the engines and fire pumps, Moose sought approval of the previously unavailable FPTO application from Cummins engineers. The project came to life in 2012 in a joint meeting that included Cummins, Logan Clutch, Moose Boats and West Pierce Fire and Rescue, the agency to take delivery of the first Moose Boats M2-37 Fire Rescue Catamaran to implement the application in 2013.

Engine compartment showing the sea chest on the inboard side and the clutch shroud forward. The fire pump is under the deck forward in the compartment.

Mark Stott describes the unique arrangement, saying, "Cummins, Logan and Moose collaboratively engineered the now proven FPTO design, which employs two Hale fire pumps 'manifolded' together to achieve 2,750 Gallons per minute of flow while maintaining full maneuverability. The ability to maintain sufficient thrust via both of the (Hamilton) propulsion jets is essential in firefighting scenarios for maneuverability and station-keeping while counteracting considerable nozzle reaction in tight marinas or in open water. The M2 catamaran is also capable of supplying water to land based apparatus while dockside with the propulsion disengaged, or while holding station with propulsion engaged. The fully independent fire pump engagement and dedicated sea chests for water supply offers firefighting redundancy with a single pump flowing over 1,500GPM." In general terms, the Moose engineered solution increases water delivery capacity from 900 to 2750 gpm, for this size of vessel.

Value and Utility

Larger industrial ports, with expanded CAPEX budgets and better access to federal port security grants – the nexus of many fireboat acquisitions – have the need for larger hulls with pumping capacities that can and do approach 15,000 gallons per minute. But, not every municipality can afford the price tag, nor do they need the capacity or a vessel that is outsized for the local purpose. On the other hand, the Moose Boats M2-37 Fire Rescue Catamaran appeals to smaller agencies that need a multi-mission hull, shallow draft, a rescue system and one that can get to places where there is no hydrant.

Marina fires often present particularly difficult challeng-

Moose Boats M2 Fire Rescue Catamaran at a glance ...

LOA: 38'-10"	Air Draft: 13-4" (including typical antenna arrangement)
Beam: 13'-6"	Weight: 19,500lbs (dry)
Draft: 23"	Cruise speed: 28 kts
Max speed: 36 kts	Range at cruise speed: 280NM

es for a larger boat to maneuver and apply water flow to the source of ignition. And in places like West Pierce, Washington, the need to beach the boat in obscure areas is a necessary option. Delivering robust water flow to a land based firefighting assignment, the boat takes suction from the stern area, which remains unfouled and on the offshore side. According to Stott, 2,750 gallons per minute is "middle of the range" water output for a firefighting boat, but, he says, "For the size of the 38' craft, it is quite robust."

On the water today, there are, in truth, not too many catamaran firefighting vessels. But, the wide separation between two propulsion units in the twin hulls, coupled with the jet propulsion, offers unmatched stability, full redundancy, and two completely separate firefighting systems. If one fails, then another is available. A typical equipment list might include a navigation and electronics suite comprised of Furuno NavNet3D, L3 Secure Maritime AIS, ICOM, Motorola and Firecom Communications and FLIR Thermal Imaging equipment.

In the end, the stable Moose catamaran design employs twice the equipment and is a more expensive way to build the boat, but at the same time, provides 'best in class' firefighting performance at this size of boat. Unlike some monohull arrangements, there's simply no need to drop one engine from propulsion to provide firefighting capabilities to keep the same performance. Finally, all of that capacity, equipment and capability doesn't affect crew capacity and cockpit configuration. Stott adds enthusiastically, "All machinery is below deck. If you are using the vessel for rescue – you want that deck unencumbered – this design does that."

In the Water & Building More

Subsequent to West Pierce delivery, Moose vessels with similar arrangements have been delivered and are currently in service with Sandwich Fire in Massachusetts and Richmond Fire in California. Another is currently under construction for Bellingham Fire in Washington. Beyond this, Moose Boats is reportedly in discussions with several other firefighting agencies nationwide regarding both its M2 design, as well as the larger M1 (4,000gpm) Fire Rescue Catamaran.

Looking beyond the fireboat market, Moose Boats also builds unique, functional, rugged boats ranging from 33 to 46 feet (LOA) for a wide range of uses including commercial, law enforcement, firefighting and government markets. All welded aluminum construction provides a strong, lightweight, as well as corrosion and impact resistant hull, exhibiting exceptional stability and superior sea keeping capabilities. When it comes to firefighting boats, however, this isn't their first 'rodeo.'

Moose has constructed numerous fire fighting vessels for agencies throughout the United States including Richmond Fire Department, Tiburon Fire Rescue District, San Francisco Fire Department and Humboldt Bay Harbor Recreation and Conservation District in California, Old Saybrook Fire Department in Connecticut, Lewes Fire De-

partment in Delaware, Anne Arundel County in Maryland, Massport Fire Rescue at Boston Logan Airport and Sandwich Fire Rescue in Massachusetts, Northport Fire Department in New York, New Jersey State Police, North Kingstown Fire Rescue in Rhode Island and West Pierce Fire Rescue in Washington.

For the smaller fireboat niche, Moose combines quality, robust pumping capacity, a stable platform, multi-missioned hull(s), and affordability for small municipalities. Mark Stott says simply, "That really is the core of the concept and it has been well received. Everywhere we've delivered a boat, several more opportunities have arisen." For many municipalities, as previously described, the well equipped M2 Fire Rescue Catamaran retails for under $1 million. Summing it all up nicely, Stott adds, "The M2 is a high powered boat for that price point."

Rope & Wires:

At the Forefront of Technology

The Teufelberger Group's global reach, research and development and 220 years of combined experience is helping to change the way the maritime industry looks at 'rope.'

By Joseph Keefe

It hasn't been too long since industry icon Tom Crowley, Jr. offered that the one technology that had the biggest impact on the safety and efficiency of [his company's] maritime operations was, in a word: ROPE. The reasoning was simple. Today's lighter, stronger synthetic strands have gone a long way in helping to reduce back and other related lifting injuries on deck. He stands by that answer today. So does Teufelberger, especially when it comes to the innovative products that they bring to the waterfront today.

Established as a premium cordage manufacturer more than 220 years ago, Teufelberger produces products across its three distinct business divisions at its six locations around the globe. The Teufelberger Group's more than 850 employees specialize in collaborating with numerous business partners to find the product solutions across a broad array of markets and applications.

Teufelberger produces steel wire ropes for cranes, ropeways, off-shore platforms, and for numerous other 'non-maritime' applications. Most notably, 1,000 meters of Teufelberger's Evolution TK16 wire rope was used in the rescue efforts of the 33 trapped Chilean minors in 2010. Delivering on short notice to customers in need is a Hallmark of this firm.

Always at the forefront of technology, Teufelberger's STRESSLESS DATA fiber optics technology facilitates the simple and well protected flow of data across aerial cableways and aerial passenger ropeways throughout the life of the rope. Likewise, and although Teufelberger is generally recognized throughout the world as a manufacturer of wire rope, the company's fiber rope division also produces rope using the highest quality raw materials, through innovative design and engineering. Teufelberger's fiber ropes are used in a multitude of applications including: marine for commercial and recreational vessels, industrial and utility, and fall protection. Specifically, Teufelberger Fiber Rope Corporation, the US Division of the Teufelberger Group, is at the forefront of fiber rope technology vastly expanding its operational capabilities in recent years to include the production of large diameter 12-strand lines known throughout the industry as Endura 12. These lines are comprised of 100% Dyneema fiber and are used across all of Teufelberger's markets in some capacity in numerous very diverse applications. For example, these lines are present on towboats, barges, and help scientists to explore our ocean's floors.

Endura 12 is exceptionally strong, extremely low stretch, lightweight, and very durable, representing the ideal wire rope replacement because it requires much less manpower due to the fact that it is so lightweight. It does not corrode or rust, results in less injuries, such as cuts on hands and contusions, and does not sacrifice one bit of the strength that steel wire rope provides. The Commercial Marine product line is specifically engineered to provide the strength, abrasion resistance, and elongation characteristics necessary for the majority of Commercial Marine operations.

One of the Teufelberger Group's latest fiber rope innovations was the development of their brand new STS stronger than steel technology. STS stronger than steel ropes are all manufactured in the United States and are made of Dyneema fiber that is heat-treated under tension at temperatures exceeding 212 degrees Fahrenheit. At a microscopic level, this process causes the molecular chains of the fiber to be oriented in the same direction to ensure that the rope's load is both evenly balanced and has the ability to bear more weight. Overall, the heat-set process greatly increases the rope's overall strength and virtually eliminates constructional elongation. An additional user benefit includes the ability to use a smaller diameter line that yields the same or greater amount of strength than a larger non-heat-set line of the same fiber type. Workboat operators no doubt will find this attribute extremely useful.

Teufelberger's quality standards are reinforced through their adherence to ISO 9001 standards.

According to Teufelberger, whatever your need, they have a line for it. Operating with a philosophy of partnering with customers to find innovative solutions to real world problems, Teufelbeger's lines are tested and trusted by countless industry professionals and their global manufacturing and engineering capabilities make it easy to provide comprehensive product solutions to customers – on time and on budget. www.Teufelberger.com

HydraWrap:
not Just a Temporary Repair Anymore

Many vessel operators that experience leaks to piping, pipe fittings, and bulkheads have, in recent years, turned to the HydraWrap system. Used to repair leaking pipe systems and prevent downtime, the HydraWrap system, manufactured by HydraTech Engineered Products, LLC in Cincinnati, OH, utilizes high strength carbon fiber fabric and high strength epoxy resins to restore the structural and/or pressure boundary capacity of shipboard piping, bulkheads and equipment. In a nutshell, HydraWrap is a low cost alternative to traditional weld repairs.

Ashore and in the industrial sectors, the practice was for many considered a long term repair. That said; global classification society American Bureau of Shipping (ABS) viewed HydraWrap as a temporary fix and recommended that the repaired area be replaced with a like for like repair at the earliest convenience. Until now.

Thomas Harvey, Chief Engineer on the MODU Q4000 – Helix ESG, recently said of the product, "We have made a successful repair using your ABS design approved HydraWrap repair kit. We experienced a leak at a 5" to 3" reducer elbow. The pipe was carbon steel SCH40 with 150# ANSI welded flanges, and part of a HVAC condenser using sea water as the cooling medium at approximately 40 PSIG. This was an easy-to-apply and very effective product."

Another application for the same vessel produced similarly satisfactory results. In this case, the Hydratec CFRP repair kit was used on the number 3 Main Saltwater Pump suction. Chief Engineer Harvey explains, "The product has once again performed as advertised and is working flawlessly. The system medium is as before mentioned (salt water) and was placed on a 12" SCH80 hot dipped galvanized pipe with operating pressure at approximately 40 PSIG. We used the 6" fabric with four continuous wraps."

Armed with positive feedback from maintenance crews that the product is a viable solution to certain challenges of leaking pipes aboard maritime vessels, HydraTech recently obtained ABS renewal of the design assessment of the HydraWrap product line. The renewed design assessment permits HydraWrap repairs to be evaluated by the attending surveyor to determine the allowable service life of the repair, providing maintenance and operators more flexibility and options. This is good news for operators who, in the

past, were restricted to replacing the repair in sixty days.

Every HydraWrap Kit is furnished with the necessary application tools and installation instructions. Surface preparation for the HydraWrap applications requires, as a minimum, a clean surface; one that is free of debris, scale and foreign substance. Once the surface is prepared, the epoxies are mixed for the product to be applied. Most applications take less than an hour and the system can be back in service in less than 24 hours. The HydraWrap system is designed per the American Society of Mechanical Engineers (ASME) recommendations, and repairs can be designed to accommodate high pressure applications.

The HydraWrap System is available in various pipe repair kits to address defects and/or leaks of various pipe sizes. The pipe repair kits are available in four different HydraWrap Systems; Standard, Acid, High Temperature, and SubSea. The Standard Kit is suitable for many common chemicals and applications including seawater. The Acid Kit is formulated for more aggressive reagents and acids. The High Temperature Kit is utilized on elevated temperature applications, and the SubSea Kit is designed to cure underwater or on damp surfaces.

Several operators have used the HydraWrap system for various applications from repairing pin-hole leaks and corrosion defects on main cooling water systems to rehabilitating oil lube piping. Applications on various piping materials, including copper nickel, have enabled maintenance to extend the service life of piping systems and avoid emergency repairs. Still other operators report using the HydraWrap system on portions of critical operations, where preventing system failure is a priority to reinforce the piping system to prevent bursting.

HydraWrap, now recertified, is no longer just a temporary fix. Instead, it can constitute a cost-effective solution that extends service life, reduces maintenance and eliminates downtime.

www.hydratechllc.com/marinehydrawrap.html


Jaenichen


Alfultis


Fuhrmann


Keever


Walters


Schuhmann

Paul "Chip" Jaenichen was confirmed by the U.S. Senate as Administrator of the U.S. Maritime Administration (MARAD). Jaenichen has been Acting Administrator since June 2013. He has been with MARAD since July 2012, when he was appointed Deputy Maritime Administrator. Capt. Jaenichen was a career naval officer, retiring after serving 30 years as a nuclear trained submarine officer. His final assignment was as Deputy Chief of Legislative Affairs for the Department of the Navy.

Dr. Michael A. Alfultis, a retired U.S. Coast Guard captain, and the director and chief administrative officer of the University of Connecticut's Avery Point campus, was named as the next president of the SUNY Maritime College.

Chad Fuhrmann was named Business Director, Americas, of the Scottish marine specialist Maritime Assurance & Consulting (MAC). He will focus on developing MAC's business in the Gulf of Mexico. Fuhrmann, a graduate of the United States Merchant Marine Academy, spent 10 years at sea as an engineer, both internationally and in the Gulf of Mexico.

Scott Keever has been hired by Hornblower Cruises & Events as Manager, Special Projects. After graduating from the California Maritime Academy with a Bachelor's degree in Marine Transportation, he began a sea-going career with Chevron Shipping.

James A. Walters was elected by the Georgia Ports Authority to serve as chairman. Appointed to the GPA board by Gov. Nathan Deal in 2012, Walters previously served as vice chairman.

The Landing School has announced that **Richard J. Schuhmann, Ph.D.**, currently a Senior Lecturer and Program Manager at MIT, will this month begin as The Landing School's next President, Dr. Schuhmann joined MIT in September 2012 and supervised graduate hydrologic research at MIT, assisting the Red Cross in the development of a flood early warning system for residents in the Manafwa River Basin in Uganda.

Seakeeper has announced the appointment of three new regional sales managers. In the U.S., **Mark Taiclet** and **Grant Haugen** will oversee the Southeast and West coast areas, respectively. **Tanja Lutz** will handle sales in Northern Europe.

Darlene Crowder has been appointed Vice President for Human Resources at Foss Maritime. Crowder brings over 25 years of experience to Foss. Previously the top HR leader at Swedish Medical Group, Crowder oversaw the complete restructuring of all HR processes, positions and technology platforms.

Glenn Gros was named General Manager of Danos' Fabrication Division. In addition to the day-to-day management duties, Gros will also be responsible for establishing the company's new, waterfront fabrication yard.

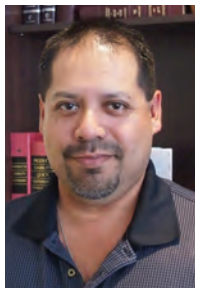
T**ammy Emerson**, W&O Senior Account Executive, has been elected as vice president of programs of the Jacksonville Propeller Club. Emerson's election is part of a larger historical event for the Jacksonville Propeller Club, as this marks the first time in club history that there is an all-female Executive Board.

Ray Ruiz was hired by The American Equity Underwriters (AEU) as Loss Control Manager. Ray has extensive safety expertise including five years at a large shipyard in Port Arthur, Texas, where he implemented management systems, conducted incident investigations, oversaw safety inspections and conducted shipyard safety training for supervisors and employees in both English and Spanish. He has numerous certifications from OSHA and the Texas Department of Health and an Associates of Applied Science Degree in Environmental Safety and Health from Texas State Technical College.


Crowder


Gros


Emerson


Ruiz


Baden


Kennedy

Chris Baden has joined the Chesapeake Bay Maritime Museum (CBMM) as a shipwright apprentice. Baden begins his apprenticeship working on the 1889 sailing log-bottomed bugeye, Edna E Lockwood.

Baden recently attended The Landing School's wooden boatbuilding program in Arundel, ME, where he mastered the fundamentals of constructing both traditional and contemporary wooden boats.

Steve Kennedy was named as Head of Corporate Property and Inland Marine Claims by Allianz Group's specialist corporate insurer, Allianz Global Corporate & Specialty (AGCS). Kennedy brings over 23 years of experience handling commercial property claims and over 14 years managing and training claims professionals. He joins Allianz from Zurich North America. He previously served at Allianz from 1998 through 2010 in a variety of senior management positions.

Governor Bobby Jindal appointed **Laney J. Chouest** to the Board of the Commissioners of the Port of New Orleans. Chouest will serve a five-year term. Chouest joined Edison Chouest Offshore in 1983 and served in all aspects of company operations including design, construction and operation of various offshore support vessels. Chouest earned his undergraduate degree from Louisiana State University in 1974, and served in many industry roles over the course of his career, notably as chairman of OMSA, the boards of directors for the National Ocean Industry Association and the U.S. Coast Guard's NOSAC.

Stephen Martinko will be the new executive director of the Port of Pittsburgh Commission (PPC). Since January, 2013, Martinko has been the deputy staff director of the U.S. House of Representatives Transportation and Infrastructure Committee and previously served as chief of staff for U.S. Congressman Bill Shuster (R-PA). Martinko was instrumental in the development of the WRRDA bill that was signed into law by President Obama earlier this year.

Amy Adams was named by Cummins Inc. as Vice President and General Manager of Cummins Emission Solutions. Most recently Adams has served as the General Manager of the Global On-Highway business for Cummins Emission Solutions.

Obituary
AJ Halavacs, ZF Marine


Halavacs.jpg

ZF Marine Propulsion Systems Miramar LLC announced the passing of **AJ Halavacs**, Pleasure Craft Product Line Manager, North and Central America. Halavacs had been fighting an illness for a number of years. Halavacs' passion for the water and boating was evident in the fact that he was a 34 year veteran of the marine industry. Starting his career in 1980, Halavacs first started with ZF Industries in 1989. Proud to represent ZF and its products, he worked tirelessly to grow the organization from a relatively unknown newcomer in the North American marine industry to a market leader in marine propulsion technology. Halavacs is survived by his wife of 38 years, Jane, and their three sons – Brett, Jeffrey, and Chris. The Halavacs family has requested that in lieu of flowers, a donation be made in AJ's name to the Moffitt Cancer Center and Research Institute at: **https://eforms.moffitt.org/Donation/**

Cox & Harris Receive AOTOS Awards

Fred Harris

Joseph Cox

United Seamen's Service (USS) 2014 Admiral of the Ocean Sea Awards (AOTOS) will be presented to Joseph J. Cox, President/CEO, Chamber of Shipping of America and Frederick J. Harris, President of General Dynamics NASSCO. The awards will be presented at a gala industry dinner in New York City on November 7, 2014. Recognition will also be given to American Seafarers for acts of bravery and heroism while at sea. Cox graduated from the U.S. Merchant Marine Academy. He sailed on the Vietnam sealift for two years and for several years to other parts of the world. Harris became president of General Dynamics NASSCO and a vice president of General Dynamics Corporation on January 1, 2006. A graduate of Maine Maritime Academy, Harris sailed for several years as a U.S. Merchant Mariner. In 1972, he received a master's degree in business administration from Babson College.

Chouest

Martinko

Zacharias

Wegener

David Zacharias, the Supervisor of Apprenticeship for American Maritime Holdings (AMH), has earned a Master Trainer certificate and an Administrator certificate from the National Center for Construction Education and Research (NCCER). He can now instruct and certify craft instructors.

Carl Wegener was hired as Director of Commercial Sales for Louisiana-based boat manufacturer Metal Shark Aluminum Boats. Wegener brings a diversified background in engineering, strategic planning, and business development with 25 years of experience in the shipbuilding industry.

Retired Coast Guard Officer **Brian Hall** has joined Bouchard Transportation as Southern Port Captain/Vetting Manager. Hall brings with him more than 25 years of experience in marine safety, security and environmental protection. A graduate of Maine Maritime Academy with a degree in Marine Engineering, Hall most recently worked as the Technical Operations Manager for Royal Caribbean Cruise Lines.

Maximillian Natzet has been named a Supervising Engineer in the Virginia Beach office of Parsons Brinckerhoff, a global infrastructure strategic consulting, engineering, and program/construction management organization. In his new position he is responsible for managing ports and marine projects in the Southeastern U.S.

Bradley Kerr previously worked with Enman & Associates as its Director of Sales at the Detyens Shipyards facility in N. Charleston, SC. His new responsibilities will be to continue support of the existing international agent network, develop new international markets, help facilitate domestic sales and marketing and provide an amenity platform to Technical Superintendents during the yard period. Kerr has been in the marine industry for the past 16 years.

The American Association of Port Authorities (AAPA) has elected **Kristin Decas**, CEO and port director for the Port of Hueneme as its chair for AAPA's 2014-2015 activity year.

Capt. Stuart Miller has rejoined Crowley Maritime Corporation's TITAN Salvage operations team as salvage master, bringing with him over 30 years of worldwide salvage experience.

Crowley Maritime Corporation recently presented U.S. Merchant Marine Academy (USMMA) Midshipman **Kevin Berto** with the Maritime Security Enhancement Award during the Academy's award convocation. Berto received the award in recogni-


Hall


Natzet


Kerr


Decas


Miller


Berto

tion of his strong interest in a port, maritime or transportation security career and high grade point average. Berto is a logistics and intermodal transportation major and one of two Regimental Commanders for the class of 2014.

Elliott Bay Design Group (EBDG) has hired three Marine Engineers. **David Eubank** joins EBDG with more than two decades of industry experience that includes the design and project management of military, passenger and offshore vessels. **William Summers** has more than three decades experience in the offshore and oilfield industry. He holds a MBA from Tulane University and a BS in Marine Engineering from the United States Merchant Marine Academy. **Eileen Tausch** graduated with a BS in Naval Architecture from the University of Michigan.


Eubank


Summers


Tausch

USCG Finalizes Changes to Inland Nav Rules

The U.S. Coast Guard announced Wednesday the publication of the final rule finalizing changes to the inland navigation rules and their annexes in 33 Code of Federal Regulations parts 83 through 88. This action aligns the Inland Navigation Rules in the Code of Federal Regulations with the amendments made by the IMO's International Regulations for Preventing Collisions at Sea, to which the United States is a signatory. The changes will reduce regulatory burdens by adding more options for vessel lighting, alleviating bell requirements, explaining whistle equipment options and adding options for navigational equipment. The final rule can be found at:

www.gpo.gov/fdsys/pkg/FR-2014-07-02/pdf/2014-14413.pdf

AWO Joins EPA as SmartWay Affiliate

The American Waterways Operators has joined the SmartWay Transport Partnership, a collaboration between the U.S. EPA and stakeholders in the transportation industry that provides a framework to assess and improve environmental and energy efficiency of goods movement within supply chains. Since 2004, nearly 3,000 partnering organizations have slashed their collective fuel costs by $16.8 billion, reducing foreign oil imports by 120.7 million barrels. This fuel savings has eliminated 51.6 million metric tons of carbon dioxide, 738,000 tons of oxides of nitrogen and 37,000 tons of particulate matter from the nation's air emissions.

Vard Acquires STX Canada Marine

Vard Holdings Limited has acquired STX Canada Marine Inc., a marine engineering and design company with more than 30 years history in North America. The sale, worth approximately NOK 65 million, allows Vard to provide a broad range of naval architecture and marine engineering services world-wide, including all aspects of ship design and production technology.

ClassNK Acquires Canada's Helm Operations

ClassNK has acquired Canada-based maritime software company Helm Operations. Tokyo-based ClassNK is one of the world's largest classification societies and Helm Operations is provider of manning, maintenance, dispatch, and HSQE software to the workboat and offshore industries. Helm software is currently used on some 1,000 vessels, including those of SVITZER, Seaspan, Blessey Marine and Florida Marine Transporters.

Phillips 66 CA Marine Fueling Facility

Phillips 66's marine over-the-water fueling facility at its Richmond, CA terminal is nearing completion. The facility is scheduled to come online in this month. Completion of this project will provide logistical advantages, including the ability to load diesel barges at Phillips 66's facilities. This addition will enhance safety while loading and improve the company's ability to deliver product to Bay Area customers.

Metal Shark Starts Operations

Metal Shark has commenced operations at its new shipyard, where the first of its recently announced Endurance-class catamarans is now in production. In January, Metal Shark acquired a 25-acre waterfront tract situated on the Charenton Bypass Canal in Franklin, LA, and announced plans to develop the new property into a facility to support its planned aluminum and steel shipbuilding efforts for vessels up to 250' in length. The new facility is now operational and production is underway. The first ship to take shape at the new yard is a 75' x 22' aluminum catamaran-hulled Metal Shark Endurance-class vessel built for a Louisiana port operator.

ACL Presents Enviro Stewardship Awards

American Commercial Lines in July recognized 35 customers with its Marine Environmental Stewardship Award. Recipients of the award include CITGO Petroleum Corporation; Consolidated Grain & Barge Co.; Cymetech Corporation; Dow Corning; Eastman Chemical Co.; ED&F Man Liquid Products LLC; Formosa Plastics; GulfMark Energy, Inc.; Koch Shipping; Kolmar Americas, Inc.; MEG Energy; MEGlobal Americas, Inc.; Neville Chemical Co.; Old World Industries, LLC; Phillips 66; Quality Liquid Feed Co.; Rentech Nitrogen Pasadena, LLC; SeaRiver Maritime, Inc.; Shell Chemical; Shell Trading Co.; Stryker Fuels, LLC; Sunoco Logistics; Texas Aromatics; Tricon Energy Limited; Valicor, Inc.; and Vertex Energy, Inc.

Marad, ABS Sign MOA

The U.S. Department of Transportation's Maritime Administration (MARAD) and the American Bureau of Shipping (ABS) have signed a Memorandum of Agreement (MOA) establishing policies and procedures for the survey and classification of MARAD's National Defense Reserve Fleet (NDRF). The MOA improves timelines, efficiency and cost effectiveness for surveys and updates ter-

minology, references and regulations. The NDRF includes the Ready Reserve Force, federal and state maritime academy training ships, and other vessels that are maintained by MARAD for national defense and emergency purposes.

Marad Calls for Marine Highway Projects

The Maritime Administration is accepting project applications for Marine Highway designations until September 30, 2016. Eligible projects should establish new or enhance existing Marine Highway services that reduce landside congestion and increase the use of domestic marine transportation. Visit:

http://www.regulations.gov/#!documentDetail;D=MARAD-2013-0011-0015

St. Lawrence Seaway Cargo Shipments Rise to 2013 Levels

Over 15 million metric tons of cargo moved through the St. Lawrence Seaway during the month of July, down just 4 percent over last year, marking a sustained comeback after the slow start to the shipping season. The Seaway reported that year-to-date total cargo shipments for the period March 28 to July 31 were 15 million metric tons. Iron ore and coal were both down by 37 and 16 percent respectively. General cargo was up 61 percent overall with iron and steel, and steel slabs posting increases of 78 and 111 percent over 2013. U.S. grain shipments were down by 9 percent in July. The liquid bulk category posted a downturn of 24 percent to 1.3 million metric tons. The dry bulk category was down 1 percent over 2013.

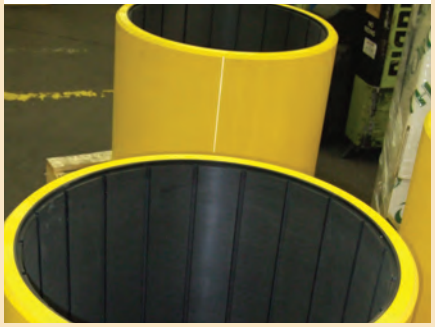
July: Best Month for Lakers in Two Years

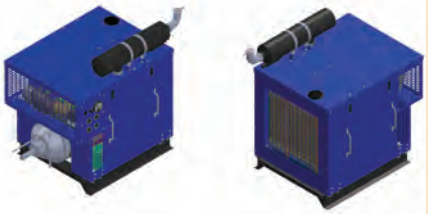
U.S.-flag Great Lakes freighters moved 11,365,550 tons of cargo in July, the highest monthly total in two years. Shipments of limestone reached their highest level in two years, 3.4 million tons, an increase of more than 10% compared to a year ago. U.S.-flag cargo movement stands at 38.4 million tons, a decrease of 10.8% compared to a year ago. Even though 55 U.S.-flag lakers were in service in July, an increase of five compared to a year ago, the fleet has not overcome the thousands of hours lost to heavy ice formations in March and April. Ice damage to U.S.-flag lakers cost LCA members more than $5.7m.

Dredger Boast 9-Year Wear Life of Thordon Bearings

Water lubricated Thordon Composite cutterhead shaft bearings have performed well for 9 years on one of the largest cutter suction dredgers in the world. The vessel had a major dry docking in February 2014 where the shaft was removed, bearings and shaft inspected. Built in 2005, the D'Artagnan self-propelled cutter suction dredger is involved in rock-breaking.

www.thordonbearings.com





Mastry Helps OEMS Achieve EPA Compliance

Tier 4 EPA regulations create unprecedented challenges for many OEMs, as they require extensive testing to ensure end products are compliant. Mastry Engine Center now offers design and performance analysis services for its OEM customers to help with this hurdle. The diesel engine specialist can also streamline business for those who use its engine brands for their own equipment, with its sub-assembly and private label options.

www.mastry.com

Caterpillar's Cat 3516C Tier 4 Solution

Caterpillar Marine's 3516C United States EPA Tier 4 propulsion, auxiliary and diesel electric propulsion (DEP) power solutions are now available. IMO II certified and IMO III compliant, the engine is available in a 'B' rating of 2240 bKW @ 1800 rpm and a 'C' rating of 2350 bKW @1800 rpm. The Cat offerings are ideal for customers in the tug and salvage and offshore industries.

http://marine.cat.com/news-events

BayDelta Goes With Markey Winches

BAYDELTA Maritime recently commissioned a sixth Delta Class Tug. The vessel is outfitted with two Markey Winches; one forward for ship assist and one aft for towing. The two winch suite includes the Markey Model DEPCF-52-75HP Class II Hawser Winch and the TES-40 Tow Winch. The DEPCF-52 has a drum capacity for up to 750 ft. of 9-1/2" / 10" soft-line and has a rated performance of 30,800 LBS at 378 ft/min.

www.markeymachinery.com

IMTRA's Exalto External Wiper Motor

The 223BDX external pantograph/pendulum style wiper system from Exalto is ideally suited for pushboats. The easily adjustable sweep angles, wiper arm lengths and spring pressure make the 223BDX easy to configure and install for a variety of windows, reducing cost and delivery time. Housed in marine grade 316 stainless steel and protected from water ingress, the Exalto 223BDX ensures long life in exposed environments.

www.imtra.com

Simrad S-Band Radar Expands Argus Portfolio

The Simrad Argus S-Band Radar is a high-performance radar with a slim profile and is suited for vessels over 3,000 gross tons that require an S-Band radar (3 GHz). The radar is a long life, third generation ceramic magnetron 30 kW S-Band radar. With enhanced detection of 100 ARPA and 300 AIS targets, the system gives situational awareness that safe commercial operations require.

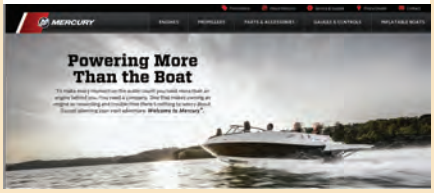
pro.simrad-yachting.com/en

Mercury Marine Launches New Website

Mercury Marine has launched a new global website designed to enhance the consumer experience and provide a single online point of reference for all Mercury partners and consumers around the world.

Stage one of the rollout, completed Tuesday, was launched for the North American audience and provides content in English, Spanish and French. The new global website from Mercury Marine will be optimized and easy to use on any type of device – tablet, mobile or desktop.

www.mercurymarine.com



Klüber's Multi-Purpose, Extreme High-Temperature Lubricant

Klüber Lubrication, a worldwide manufacturer of specialty lubricants, has introduced Klübertemp GR AR 555, a multi-purpose lubricant offering exceptional corrosion protection and high evaporation stability. Developed for high-temperature applications (up to 250 °C) and applications exposed to aggressive media, the product is NSF H1 registered. Common applications include pillow blocks/bearings, seals, rotary joints and ball bearing chains.

www.klueber.com

Victaulic Vic-Press System Receives Five Type Approvals

Victaulic has received type approvals from ABS, BV, DNV, Korean Register and LR for its Vic-Press, a flame-free press system for joining small-diameter stainless steel pipe. The approvals will allow shipbuilders to take advantage of Vic-Press as a quick, safe and reliable means of joining stainless steel pipe in vessel construction, retrofit and repair operations. Approved for use in class III piping systems, Vic-Press creates rigid, permanent, leak-tight joints.

www.victaulic.com

Elastec/American Marine Equipment in Ecuador

PetroEcuador recently acquired two ELASTEC TDS136G grooved drum skimmers, two ELASTEC SeaSkater weir skimmers, a PACS1000-770, two ELASTEC BoomVane units, 60 sections of oil containment boom and ten QuickTanks. The oil spill response equipment will be used at PetroEcuador's Esmeraldas facility, the country's largest refinery. Elastec skimmers have been in service there for over six years.

www.elastec.com

Asahi/America Announces Three ABS Product Approvals

Asahi/America, Inc. has received ABS product approvals for their Type-21 ball valves, Type-57 butterfly valves and Series 92 electric actuators. The three Asahi/America product lines received product type approval for marine and offshore applications – non-essential systems including fresh water, potable, sea water, sanitary, scuppers, vents, soundings and brine. The Series 92 electric actuator is a motor type reversing, quarter-turn single phase unit.

www.asahi-america.com

Globalstar's Sat-Fi Satellite Hotspot

Globalstar, Inc.'s newest voice and data solution, Sat-Fi, provides seamless wireless connectivity over the World's most modern satellite network. Customers can use their smartphones, tablets and laptops to send/receive communications when traveling beyond cellular. Sat-Fi's superior performance provides fast, affordable, mobile satellite data speeds and clear voice communications. A convenient smartphone app enables connectivity between Wi-Fi-enabled devices and the Sat-Fi satellite hot spot.

www.globalstar.com

Volvo Penta's Keel Cooling

Volvo Penta's keel cooling option with D4 and D6 marine diesel engines are now in the North American marine commercial market. The factory-built keel-cooled engines are for the entire line of marine commercial inboard and sterndrives. D4 3.7-liter and D6 5.5-liter engines uses a twin circuit design, with keel coolers for both high-temperature engine block circuit and low-temperature charge air cooler circuit.

www.volvopenta.com/us

Factory Training for Sennebogen Customers

When Sennebogen LLC opened its new headquarters in Stanley, NC, in 2009, the facility was equipped with one of America's premier OEM Training Centers for heavy equipment. Since then, over 1,000 technicians have attended the hands-on courses in material handler maintenance and troubleshooting.

Meeting rooms and classrooms are all equipped with the computer networking and projection technology required for today's interactive instruction methods.

www.sennebogen-na.com

MJP Breakthrough in Gulf of Mexico

Successful sea trials of Rodi Marine's newest crewboat, the M/V Riley Claire, have given Marine Jet Power a breakthrough in the fiercely competitive Gulf of Mexico crewboat market. The trial results show that all performance predictions were reached and the product is ideal for this application.

Four MJP 650 CSU waterjets power the new 175' (53.34m) DP2 Certified Crewboat.

www.marinejetpower.com

RSC BIO Solutions Hydraulic Fluid Approved as EAL

RSC Bio Solutions' EnviroLogic 3068 biobased hydraulic fluid has been approved for Rolls Royce stabilizers as an environmentally acceptable lubricant (EAL) in order to meet the revised 2013 U.S. EPA VGP requirements. The approval covers Rolls Royce's VM Series, Neptune and Aquarius stabilizers, as well as older (pre-1993) International-type stabilizers. The approvals provide guidance for replacing petroleum based fluids with EALs in U.S. waters.

www.rscbio.com

MAN extends Power Range of High-Speed Engines

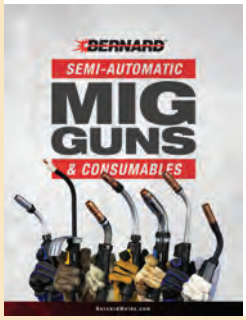
MAN's newly developed 12-cylinder V-engine extends the power range of its high-speed marine engines for heavy-duty operation up to 735 kW (1,000 hp). The D2862 LE441 is MAN's 735 kW (1,000 hp), 12-cylinder V-engine for heavy-duty operation. The efficient MAN marine engine D2862 LE441, with its increased power and a dry weight of 2,270 kg, offers excellent power density for applications such as tugboats.

www.engines.man.eu

Bernard's Semi-Automatic MIG Guns Catalog

Bernard's full-color catalog assists in determining the right semi-automatic MIG guns and consumables for each application. Each page offers valuable information about various products, including the new Best of the Best (BTB) Platform MIG Guns, TGX MIG Guns and Bernard Fume Extraction Guns, as well as Bernard consumables and liners. The catalog includes comparative charts and reference tables to guide users.

www.BernardWelds.com/Literature



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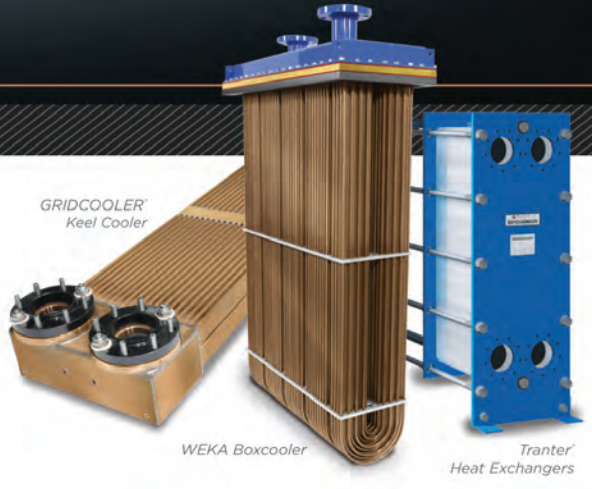

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