

October 2003

MARITIME REPORTER AND ENGINEERING NEWS

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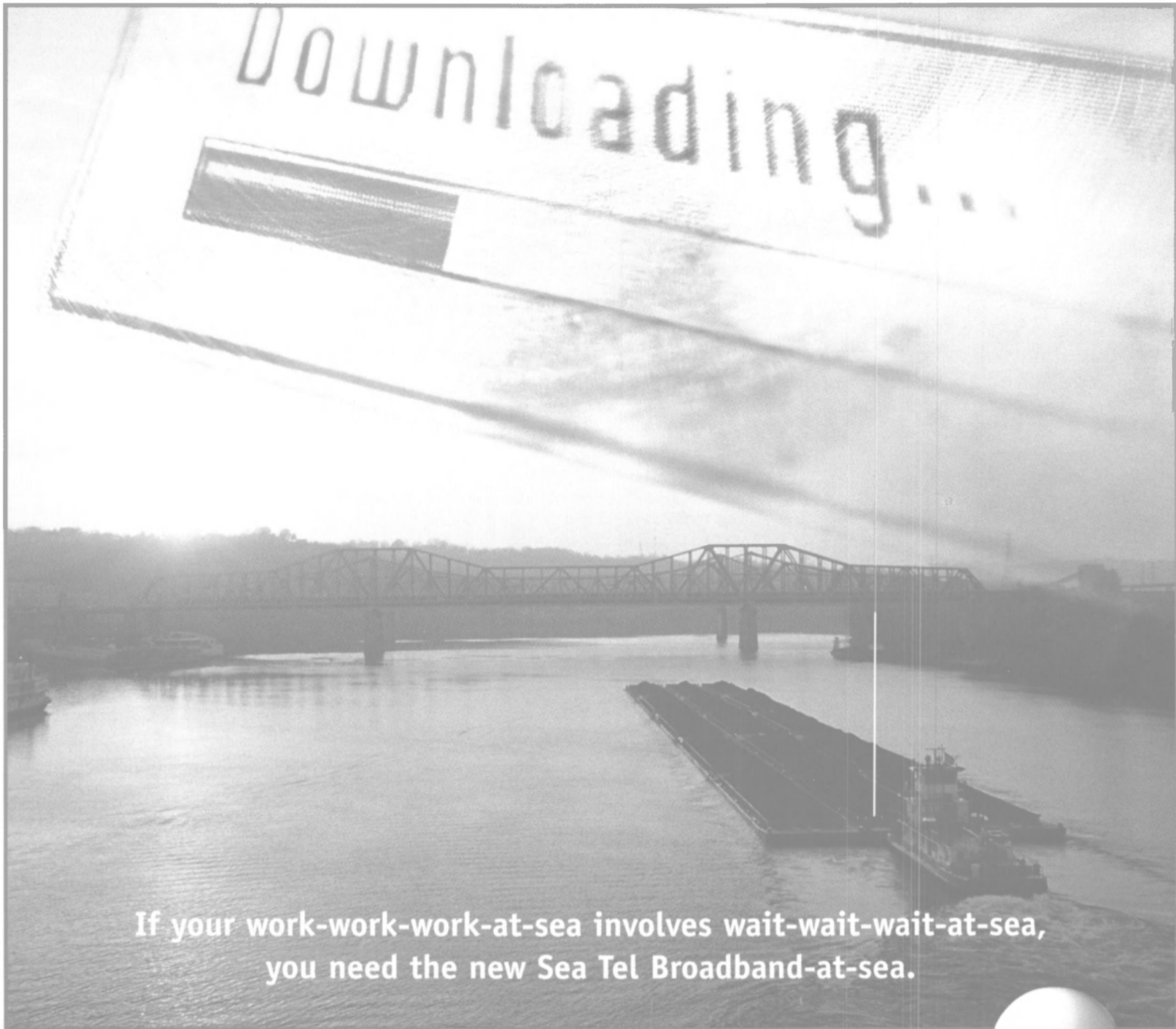
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— by David Tinsley

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NEW YORK

118 E. 25th St., New York, NY 10010
Tel: (212) 477-6700; Fax: (212) 254-6271
e-mail: mren@marinelink.com • Web: Internet: www.marinelink.com

FLORIDA • 215 NW 3rd St., Boynton Beach, FL 33435
Tel: (561) 732-1659 Fax: (561) 732-6984

Associate Publisher

Gregory R. Trauthwein • trauthwein@marinelink.com

EDITORIAL

Managing Editor • Regina P. Ciardiella • ciardiella@marinelink.com

Associate Editor • Jennifer Rabulan • rabulan@marinelink.com

Technical Editor • David Tinsley

Contributing Editor • Dennis L. Bryant, Senior Maritime Counsel,
Holland & Knight

Editorial Consultant • James R. McCaul, president,
International Maritime Associates

PRODUCTION

Production Manager

Michael Lowe • lowe@marinelink.com

Asst. Production Manager

Irina Tabakina • tabakina@marinelink.com

CIRCULATION

Circulation Manager

Dale L. Barnett • barnett@marinelink.com

ADVERTISING SALES

Vice President of Sales

Lucia M. Annunziata • annunziata@marinelink.com

National Sales Manager

Rob Howard • howard@marinelink.com

Tel: (561) 732-4368; Fax: (561) 732-6984

North American Sales Manager

Brett W. Keil • bkeil@marinelink.com

Tel: (561) 732-1185; Fax: (561) 732-8414

Director, New Business Development

Jean Vertucci • vertucci@marinelink.com

Marketing Manager

Richard Grable • grable@marinelink.com

Tel: (561) 732-1659; Fax: (561) 732-6984

Manager, Information Services

Tina Angelino • angelino@marinelink.com

Manager, Accounting Services

Esther Rothenberger • rothenberger@marinelink.com

Manager, Advertising Services

Kristen O'Malley • omalley@marinelink.com

Sales Assistant

Elizabeth Singh • singh@marinelink.com

Classified Sales • Tel: (212) 477-6700

Manager, Web Services

Rostislav Sakhnovskiy • sakhnovskiy@marinelink.com

Manager, Information Technology Services

Vladimir Bibik • bibik@marinelink.com

PUBLISHERS

John E. O'Malley

John C. O'Malley • jomalley@marinelink.com

International Sales Operations

Managing Director, International Sales

TONY STEIN

12, Braehead, Bo'ness, West Lothian EH51 0BZ, Scotland, U.K.

Tel: +44 (0) 1506 822240; Fax: +44 (0) 1506 828085

CHARLES E. KEIL, Vice President, International Operations

215 NW Third Street, Boynton Beach, FL 33435

Tel: +561-732-0312; Fax: +561-732-8063

24-hr Tel/Fax: +561-998 0313; Mobile Tel: +561-716-0338

e-mail: ckeil@marinelink.com

Germany/Switzerland

TONY STEIN

Tel: +44 (0) 1506 822240; Fax: +44 (0) 1506 828085

Japan

KATSUHIRO ISHII

Ace Media Service Inc., 12-6, 4-chome, Nishiike, Adachi-ku, Tokyo 121,
Japan, Tel: +81 3 5691 3335; Fax: +81 3 5691 3336

Korea

JO, YOUNG SANG

Business Communications, Inc., Kwangwhamun P.O. Box 1916, Seoul, Korea

Tel: +82 2 739 7840; Fax: +82 2 732 3662

Scandinavia

STEPHAN R.G. ORN/LEON SCHULZ

AB Stephen R.G. Orn, Box 184, S-271 24 Ystad, Sweden

Tel: +46 411-184 00; Fax: +46 411 105 31

Spain

JOSE LUIS SEVA

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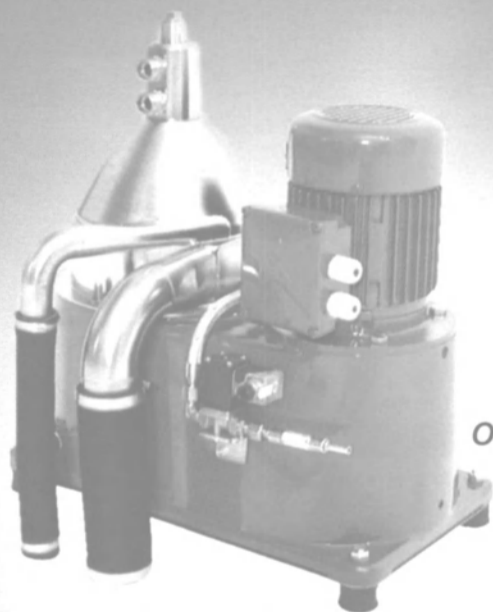
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Editor's Note

Image ...
Integrity ...
Is it impossible?

In case you haven't noticed, the marine industry has been engaged in a systematic metamorphosis of sorts, with a good deal of energy and resources dedicated lately towards the dubious achievement of crafting a "good public image." From inland operators concerned with local communities to oceangoing ships adhering to international statutes, the forum and the jury range widely in size and makeup, but the judge — "public" opinion — is always the same, and the verdict of "good image" or "bad image" can go a long way in ultimately determining a company's long-term success.

Industry leaders traveling the well-worn conference circuit have increasingly addressed the need for the marine business to essentially clean-up its collective act. Never mind the impressive statistics which indicate that most every cargo is delivered without incident: all it takes is for one tanker to break in half; one picture on one news network of one oil soiled sea creature; for public opinion to sway and condemn an entire industry. With a heightened security posture around the world and the advent of the Internet as a fast, reliable means to disseminate information and pictures in an instant, the clandestine, under-the-radar business model for the marine business is quickly fading.

ABS president & CEO Robert Somerville addressed Bulk Carrier Safety last month in London (story starts on page 58). In his comments he laments the "public face of this industry is the 27-year-old bulk carrier that is detained in a European port with 90 safety deficiencies ..." While not championing a single, one-size-fits-all solution, he accurately points out that a collective effort is needed ... from class, to shipyards, to owners to industry organizations ... to raise the quality bar, while simultaneously building a stronger industry.



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trauthwein@marinelink.com

On the Cover



Pictured on this month's cover is Jacobsen Pilot Service Inc.'s (Long Beach Calif.) new 54-ft. (16.4-m) welded aluminum pilot boat. The impressive vessel was built by Hike Metal Products Ltd. (Wheatley, Ontario, Canada) and delivered ready for duty in July.

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Leading Off

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With no offense intended to makers of underwater surveillance equipment, it is difficult to top the capabilities of the Navy's trained dolphins, which have been employed extensively to help clear mines and keep ships and crew safe in the Iraq War. Pictured is one of the Mark Six swimmer defense dolphins, deployed to the Arabian Gulf to provide

operational force protection capabilities for Navy ships, piers and other high-value assets as part of the global war on terrorism. The dolphins are trained to detect, locate and mark threat swimmers and divers attempting to commit terrorist attacks.

(U.S. Navy photo by Photographer's Mate 2nd Class Veronica Birmingham)

60 Years Ago



Is it the Good Ship Lollypop? No, but pictured is Shirley Temple and RAdm. Howard L. Vickery (second from left) during a Calship yard inspection in July of 1943. The yard, which employed 42,000, had to this date built more than 200 Liberty Ships.

Cartoon



"THE PILOT BOAT... I'D GUESS."

(See Pilot Boats on page 72)

Maritime Meanings

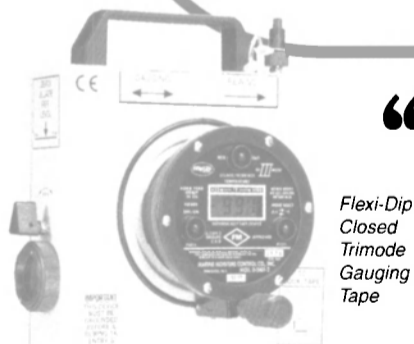
LASSIE In itself, Lassie is not a nautical term, but the name of this famous collie has an interesting connection with maritime history. The first British battleship to be torpedoed by a German submarine was HMS Formidable, sunk just off Portland Bill in the English Channel in 1915. A few hours after her sinking, some fishermen found the body of a seaman that had been washed ashore in Lyme Bay; they carried it to West Bay and laid it out on the floor of the Pilot Boat Inn, and out of decency, covered it with a tarpaulin. However, the dog belonging to the landlord of the inn kept pulling aside the tarpaulin and licking the face of the dead seaman. Despite every discouragement, the dog persisted until the landlord was forced to see for himself what the dog had apparently known all along: that the seaman was not yet dead. The man was revived, and that is the end of his part in this story. Eventually, though, the incident inspired the famous film featuring the collie who won the hearts of millions of children the world over for her bravery, loyalty and intelligence. The point of this anecdote is that the dog was named after the survivor of the sinking of HMS Formidable, John Lassie.

Source: *An Ocean of Words: A Dictionary of Nautical Words and Phrases*, by Peter D. Jeans; Birch Lane Press, 1998

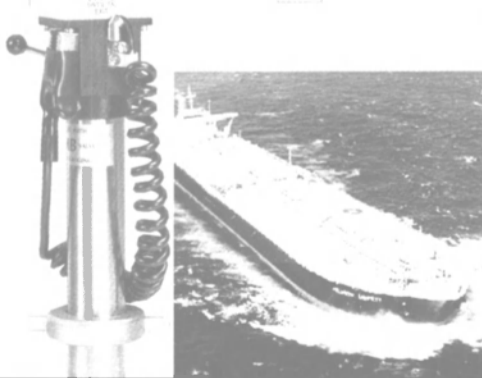


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Vessels

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summer months and commuter service in Key West, Fla., during the winter.

The 7,200 hp aluminum catamaran is powered by four Cummins KTA-50 engines; ZF4600D gears with two Cummins ONAN 95 kW generators supplying the ships service power. The



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Designer	Crowther Multihulls
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Beam	36 ft.
Depth	13 ft.
Draft	6 ft.
Speed	35 knots
Power	7,200 hp
Engines	(4) Cummins
Type	KTA-50
Power	1,800 hp @ 1,900 rpm
Gears	ZF4600D
Jets	Hamilton HM651
Ride control	SeaState Flaps & "T" Foils
Generators	(2) Cummins Onan 95kW
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Doors/Watertight	Beclawat
Hatches	Freeman Marine
Sewage & Potable Water	Head Hunter/Ocean Link
Fire Suppression	Metal Craft FM 200
Electrical	Compass Marine
Hydraulics	Moy Works
Audio/Visual	Custom Electronics
Navigation	Custom Navigation
Electrical	Compass Marine
Interior Design	Spear Green
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Exterior Deck	Line-X

vessel is equipped with four Hamilton Jets HM651 Series and SeaState Ride Control enabling the vessel to sail heavy seas. Full load service maximum speed is 35 knots. The vessel was designed by Crowther Multihulls of Australia and is the first large, high-speed catamaran built at the shipyard.

The modern upgraded interior features aircraft-style seating and a fully functional kiosk with a "wedding cake" multiple-level bow designed especially for whale watching. The vessel is equipped with a 750,000 BTU HVAC system. There is a surround sound theater system for each deck with large plasma-screen TV monitors connected to 13 cameras throughout the vessel and a satellite TV dish to monitor machinery, passengers and whale watching activity. This equipment will facilitate the onboard naturalist with nature viewing to surrounding sights.

The vessel was signed for construction by Blount Barker Shipbuilding under a yard lease, which accomplished initial

Maritime Reporter & Engineering News

work, but construction was taken over at the end of February by Blount interests and was completed by Blount Boats, Inc., a new company wholly owned by the Blount family.

The new company is continuing with several new vessels presently under construction. **Luther H. Blount** is President, **Bradford C. Bernardo** is Executive Vice President of the operation, **Marcia Blount** is Controller and **Julie Blount** is Human Resources Manager.

For more information from Blount
Circle 37 on Reader Service Card

10,850-HP AHTS Joins Seabulk Offshore Fleet

The Seabulk Offshore group of companies added a new UT-710 Anchor Handling Tug Supply Vessel (AHTS) to its fleet, making the 226-ft. Seabulk South Atlantic the fifth newbuild vessel



in Seabulk's 2003 fleet renewal program.

Built by Brevik Construction AS in Norway, the 10,850-hp Seabulk South Atlantic joins the Seabulk fleet on a five-year bareboat charter agreement that includes a purchase option at the end of the contract.

The Seabulk South Atlantic produces speeds up to 15.5 knots, has a certified bollard pull of 133 metric tons, and provides a hefty triple-drum anchor handling/tow winch with up to 300 tons line pull and 450 tons brake load. The vessel also offers a large 123 by 50-ft. deck that can handle up to 800 tons of cargo. Designed by Rolls Royce Marine, the UT-710 incorporates a substantial amount of Rolls Royce equipment, including the main engines, thruster,

October 2003

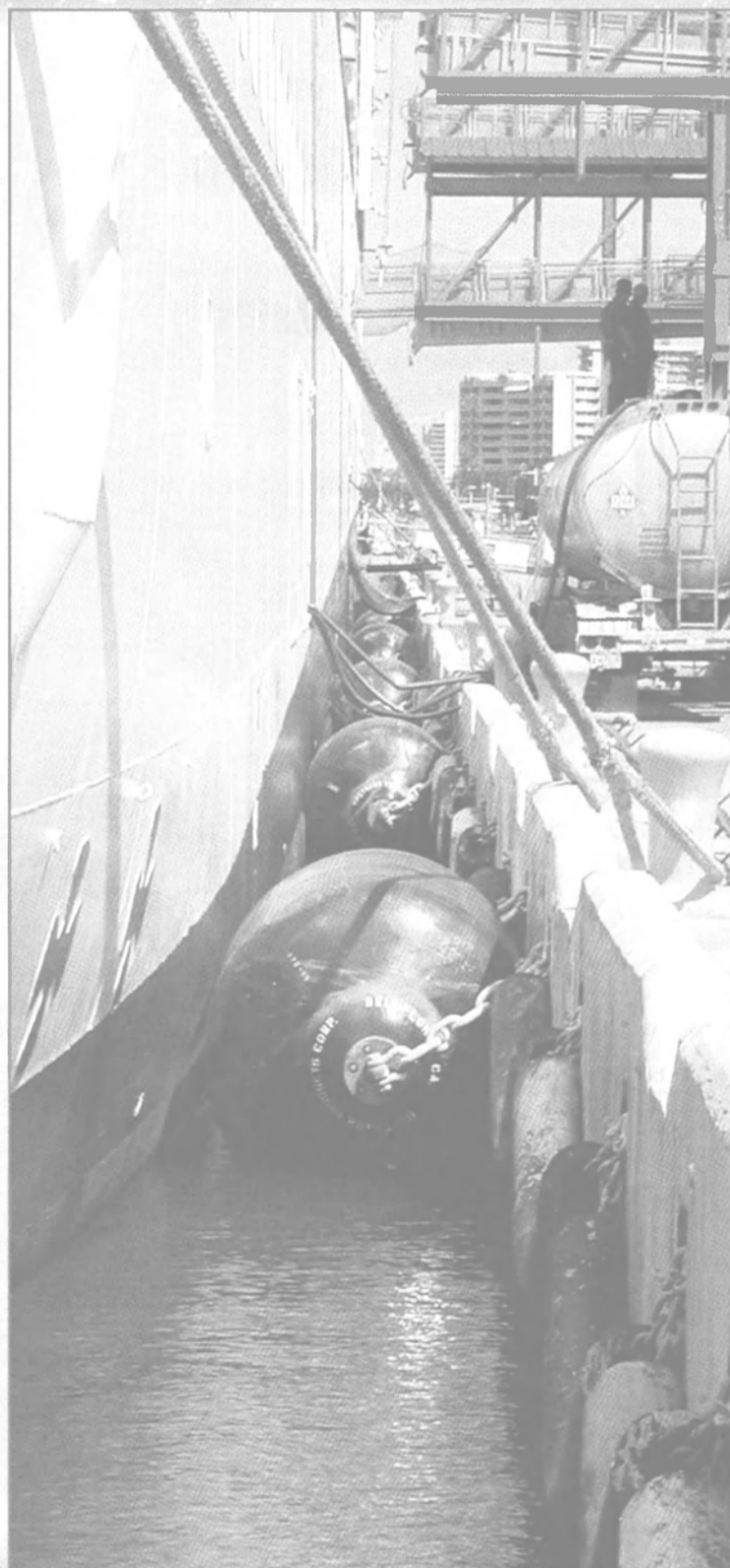
rudder, automation and control systems. Fitted with high Liquid Mud and Brine capability as well as Fire Fighting FiFi I class notation and Dynamic Positioning DP 1, the vessel's versatile capabilities allow her to serve in a multiple support role assisting heavy-duty semi-submersible rigs for exploration and development drilling, as well as fulfilling the rapidly growing demand for offshore

terminal support work.

Earlier this year, Seabulk announced the addition of a newbuild Platform Supply Vessel (PSV) to its West Africa fleet — Seabulk Africa, two newbuild bareboat charters — AHTS Seabulk Badamyar and PSV Seabulk Nilar — for Indonesia, a new line-handler for Brazil — Seabulk Ipanema, and two newbuild PSVs for Brazil to be delivered in 2004

and 2005. With operations in nearly two dozen countries, the Seabulk Offshore group is Seabulk International's largest business segment, accounting for about half of total revenues.

Seabulk Offshore's global fleet of 116 vessels serves customers in North America, South America and the Caribbean, West Africa, the Middle East, and Southeast Asia.



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Circle 310 on Reader Service Card

Vessels

Sibu: Ferries for Asia

The town of Sibu developed its vibrant fast ferry building tradition in the decades after World War II. But it is only more recently that the vessels' fame and their designs have grown to the point that the little town on Sarawak's Rejan River is supplying fast ferries for much of southeast Asia.

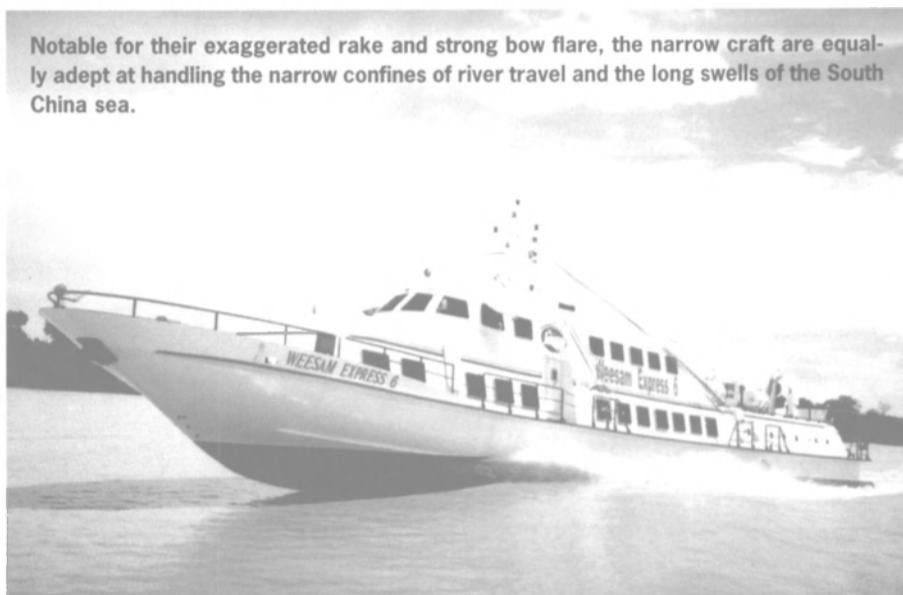
Most of the ferries that ply the rivers of the area are single engined. Many of those that have been supplied to China, Cambodia, Vietnam, Thailand and Indonesia are larger twin engine versions of the same trim "banana" boat style. Notable for their exaggerated rake and strong bow flare, the narrow craft

are equally adept at handling the narrow confines of river travel and the long swells of the South China sea.

A highly respected leader in the design of these ferries is **Paul Wong's** naval architect firm Wong Shipbuilding Contractor and Designer. Largely self-taught, Paul rowed a river craft to school

for many years and so learned the dynamics of propulsion on the end of a pair of oars. Today, still in his mid-fifties, Paul is working with his son who has completed a degree in naval architecture in Taiwan. The firm continues to design larger fast ferries built to class for the export market. One of their latest

Notable for their exaggerated rake and strong bow flare, the narrow craft are equally adept at handling the narrow confines of river travel and the long swells of the South China sea.



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Vessels

projects trades the pair of oars for a pair of Cummins KTA50 M2 main engines supplied by Scott & English (Malaysia). Each of the 50 liter engines is producing 1,600 hp continuous duty at 1,800 rpm to push the 142.5 ft. (43.5 m) by 16.4 ft. (five m) boat at 30 knots light and 28 knots in service.

Built at Sibiu's only ISO9001 certified shipyard, the Yong Choo Kui Shipyard, it follows several other Wong-designed and YCK-built vessels into owner SRN Fast Seacrafts, Inc. fleet in Samboanga City Philippines.

Named Wessam Express 6 the craft, which was delivered in July this year, has a steel hull and a double decked aluminum superstructure with capacity for 228 passengers and seven crew. With a molded depth of 8.2 ft. (2.5 m) the vessel has a designed draft of only 4.8 ft.

(1.45 m) allowing it to operate in a variety of shallow harbors.

In addition to being the first Sibiu shipyard to achieve Lloyd's ISO9001 certification, the Yong Choo Kui Shipyard was one of the first yards in Sibiu to offer aluminum construction. Like **Paul Wong**, Mr. Yong had humble beginnings, but like Mr. Wong, he has not only built a significant career he continues to be noted for innovation and progressive thinking. As the shipyard's promotion video points out, the Malaysian skies of full of aircraft form the EU and the US, her highways are full of cars from Japan, but the seas, not only of Malaysia, but of much of the world, are filling with the water craft from Sarawak.

**For more information from Cummins
Circle 48 on Reader Service Card**

Grimaldi-Naples Launches RoRo Grande Amburgo

The launching ceremony for the Grimaldi-Naples new RoRo occurred on September 6 at Fincantieri with Iliana Grimaldia, the wife of **Emanuel Grimaldi** the managing director of Grimaldi-Naples Group, serving as the vessel's Godmother. Grande Amburgo is the fifth of a series consisting of Grande Europa, Gran Bretagna, Grande Mediterraneo and Grande Francia all of which were built at Fincantieri's yard at Castellammare di Stabia. In little more than five years and in addition to Grande Amburgo, Grimaldi-Naples Group has ordered 12 ships from Fincantieri. These are Grande Nigeria and Grande Buenos

Aires from the Ancona yard and Grande America, Grande Africa, Grande Atlantico, Grande Argentina, Grande Brasile and Grande San Paolo from the Palermo yard. As an ultra large vessel of 56,000 tons, Grande Amburgo measures 702 ft. (214 m) with a beam of 105 ft. (32 m). 25,000 hp gives it a service speed of 19 knots.

The size of Grande Amburgo enables it to carry 2,500 cars as well as 2,500 lane m for heavy vehicles and 850 containers of 20 ft. all below deck. This capacity combined with two mobile decks, which can be adjusted for height depending on the type of load reflects the special

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research carried out by Grimaldi-Naples for all the ships they build resulting in open uninterrupted deck areas which reduce handling damage to a minimum.

Flexibility in cargo type, frequency and regularity of departures, number of port called upon although essential were not considered by Grimaldi-Naples top management to be sufficient. Accordingly staff training courses are held to improve handling operations and these have produced results much appreciated by customers especially car manufacturers and their dealers which use Grimaldi-Naples ships to carry their product the length and breadth of the world.

Intertanko Book Provides Good Guide

A new publication from the International Association of Independent Tanker Owners (Intertanko) should find its way on to the shelves of many ship repair yards that focus on this sector of business. The Tanker Specification Awareness Guide* is a comprehensive attempt by Intertanko to provide a guide on tanker standards for all those involved in tanker construction, operation and maintenance. High profile maritime accidents in recent years have resulted in significant pressure to identify substandard ships and remove them from the world's oceans, Intertanko declares. "Those in tanker shipping must work in an operating environment in which the general public has virtually a zero tolerance for oil spills". And, whilst great improvements have been made in maritime safety over the past two decades, expectations are now running higher than ever before. "The industry is faced with the considerable challenge of weeding out the remaining substandard ships and of proving that it is making continuous improvements in its maritime safety performance". Everyone in the maritime chain of responsibility must pull together, Intertanko insists: "shipowners, crews, flag states, classification societies, port authorities and terminal operators, shipbuilders, charterers, port states, insurance companies, coastal states, equipment suppliers, repair yards and financial institutions [must] work together to enhance the industry's image and to secure continuous improvements in its performance."

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U.S. Territorial Sea and Other Lines in the Water

By Dennis L. Bryant, senior maritime counsel, Holland & Knight

Maritime lawyers and others frequently use jurisdictional terms such as territorial sea, navigable waters, contiguous zone, and exclusive economic zone. But what does it all mean? What are the meanings of these terms and how were they acquired?

The modern concept of the territorial sea owes its genesis to Hugo Grotius and his work *Mare Liberum* (Freedom of the Seas) in 1605. He argued, among other things, that a coastal nation could not claim sovereignty over the seas beyond the range of its control from

shore. This concept developed over time into the cannon-shot rule and eventually the three mile rule, the first holding that the coastal nation's sovereignty couldn't extend further than the distance from shore that it could fire a cannon; the second that, for sake of uniformity, the sovereignty of all coastal nations should not exceed three nautical miles offshore. While the majority of coastal nations utilized the three mile rule for many years, acceptance was not universal. Following some initial opposition to the positions espoused by Grotius, Britain eventually became the prime supporter of the concept of the freedom of the seas and the concomitant view

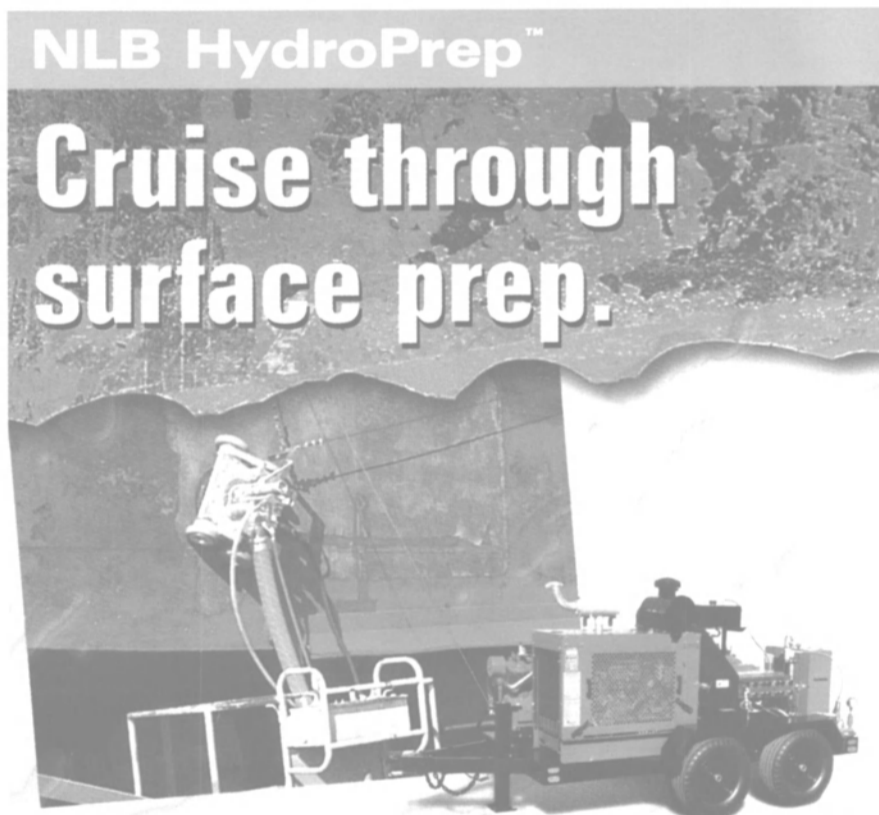
that the territorial sea for coastal nations should be limited to three n.m. This maritime legacy was carried to the American colonies and adopted by the new government of the United States of America following independence.

In simpler times, the United States had only one territorial sea, which was all things to all people. The nation had, with reasonable consistency, claimed a territorial sea three n.m. in breadth since its founding in 1789. Within the territorial sea, being under the full sovereignty of the United States, all U.S. laws are enforced, as well as those of the adjacent coastal state of the United States.

This changed in 1988, when President

Reagan, in response to the increasing threats posed by Soviet spy ships hovering off the U.S. coast, proclaimed a 12 n.m. territorial sea. The proclamation specifically limited its application to international law. The Proclamation left undisturbed the three n.m. territorial sea for all domestic purposes, including law enforcement.

Thus, the Proclamation's only real effect was to require the spy ships to move further offshore. The Proclamation did, though, cause a reexamination of the domestic concept of the territorial sea, resulting in a willingness to deviate from the traditional three mile rule if need be shown.



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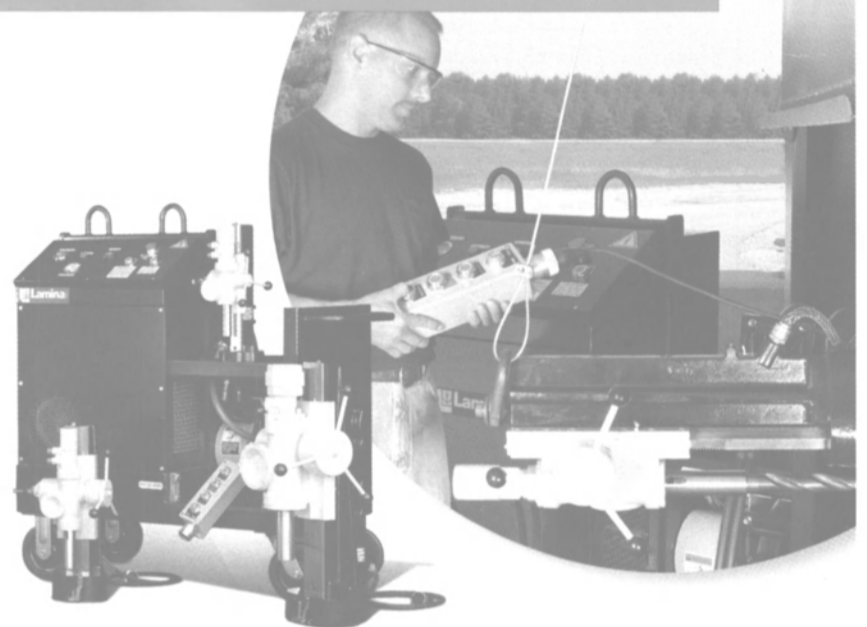
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Territory Defined

Subsequently, a number of federal laws have been enacted that utilize the terms of the Proclamation to define the U.S. territorial sea for purposes of that particular statute. The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 was the first federal statute to deviate from the traditional three mile limit. It provided that the territorial sea, for purposes of that Act, would be the belt of seas from the U.S. baseline as determined in accordance with the 1988 Presidential Proclamation. As part of an effort to deter terrorism against vessels and offshore facilities (e.g., oil rigs), laws specifically designed to punish such actions were passed. The measures provided, among other things, that for purposes of those statutes the U.S. territorial sea extended seaward 12 n.m. from the baseline.

The situation became immensely more confused with the passage of the Antiterrorism and Effective Death Penalty Act of 1996. Section 901 of this statute declares that all of the U.S. territorial sea as defined in the 1988 Presidential Proclamation is, for criminal law purposes, part of the United States, subject to its sovereignty, and is within the special maritime and territorial jurisdiction of the United States for purposes of title 18, U.S. Code (the federal criminal code).

The section also amended the Federal Assimilative Crimes Act to include within its ambit the newly expanded territorial sea, while making clear that this expanded area was not within the jurisdiction of the adjacent coastal state. The legislative history of this section is sparse and the goal of Congress in this regard is unclear.

The Ports and Waterways Safety Act was recently amended to add the term "navigable waters of the United States," defined as including "all waters of the territorial sea as described in Presidential Proclamation 5928 of December 27, 1988."

This provision expands Coast Guard jurisdiction for purposes of vessel operating requirements, vessel traffic service (VTS) systems, safety zones, many Captain of the Port (COTP) orders, and port access routes, among other things. The amendment is not intended to affect innocent passage through the territorial sea or transit passage through U.S. waters of an international strait.

The same new term and definition have been added to Subtitle II (Vessels and Seamen) of Title 46 (Shipping) of the U.S. Code.

Since this subtitle defines Coast Guard jurisdiction over U.S. flag vessels for most purposes and over foreign flag vessels for some purposes, its impact is equally extensive. Measures covered by

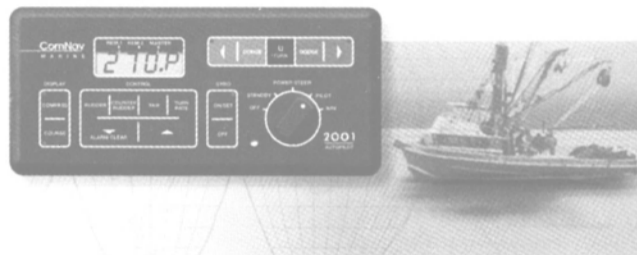
this expanded authority include: negligent operation, carriage of dangerous cargoes by foreign flag vessels, lightering, uninspected vessels, recreational vessels, load lines, marine casualty

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Government Update

Act of 2002 amended the Espionage Act of 1917 to likewise define territorial waters of the United States.

The purpose of this amendment was to allow the Coast Guard to establish and enforce security zones up to 12 miles offshore. There is some question as to whether the amendment achieved the

goal as security zones normally are established under the Magnuson Act of 1950.

Several other statutes, though, continue the use of the three mile limit for the U.S. territorial sea. For instance, the Oil Pollution Act of 1990 (OPA 90) defines the territorial sea as "the belt of the seas

measured from the line of ordinary low water along that portion of the coast, which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles."

The same language is used in the Federal Water Pollution Control Act

(FWPCA).

With similar effect, the Death on the High Seas Act refers to the high seas as those waters "beyond a marine league from the shore."

Even less clear is the effect, if any, the above legislative changes will have on other measures that rely on the territorial sea and navigable waters concepts, such as the cabotage laws, but fail to include specific geographic limits. Coastwise trade concepts are, in large measure, tied to the territorial sea, even though the term is not utilized in the various statutes.

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<p>Hull 045, HMAS Jervis Bay</p>  <p>Length: 86.14 metres Breadth: 26.0 metres Draught: 3.63 metres Deadweight: 415 tonnes Speed: 44 knots</p>	 <p>18 Bender Drive, Hobart,</p>	<p>Hull 050, HSV-X1 Joint Venture</p>  <p>Length: 99.37 metres Breadth: 26.58 metres Draught: 4.04 metres Deadweight: 741 tonnes Speed: 40 knots</p>
<p>MILITARY</p>		<p>MIGHT</p>
<p>Hull 060, TSV-1X Spearhead ACTD</p> 		<p>Hull 061, HSV-X2</p> 

Government Update

It is now defined as the seabed and subsoil of the submarine areas that extend beyond the territorial sea throughout the natural prolongation of the land territory to the outer edge of the continental margin, or to a distance of 200 n.m. from shore, whichever is further, but not to exceed 350 miles from

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EPA Denies Ballast Water Petition

The U.S. EPA issued its Decision denying the petition filed by environmental advocacy groups seeking repeal of the regulation allowing ships to discharge ballast water in the United States. The environmental advocacy groups

Territory Defined

Subsequently, a number of federal laws have been enacted that utilize the terms of the Proclamation to define the U.S. territorial sea for purposes of that particular statute. The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 was the first federal statute to deviate from the traditional three mile limit. It provided that the territorial sea, for purposes of that Act, would be the belt of seas from the U.S. baseline as determined in accordance with the 1988 Presidential Proclamation. As part of an effort to deter terrorism against vessels and offshore facilities (e.g., oil rigs), laws specifically designed to punish such actions were passed. The measures provided, among other things, that for purposes of those statutes the U.S. territorial sea extended seaward 12 n.m. from the baseline.

The situation became immensely more confused with the passage of the Antiterrorism and Effective Death Penalty Act of 1996. Section 901 of this statute declares that all of the U.S. territorial sea as defined in the 1988 Presidential Proclamation is, for criminal law purposes, part of the United States, subject to its sovereignty, and is within the special maritime and territorial jurisdiction of the United States for purposes of title 18, U.S. Code (the federal criminal code).

The section also amended the Federal Assimilative Crimes Act to include within its ambit the newly expanded territorial sea, while making clear that this expanded area was not within the jurisdiction of the adjacent coastal state. The legislative history of this section is sparse and the goal of Congress in this regard is unclear.

The Ports and Waterways Safety Act was recently amended to add the term "navigable waters of the United States," defined as including "all waters of the territorial sea as described in Presidential Proclamation 5928 of December 27, 1988."

This provision expands Coast Guard jurisdiction for purposes of vessel operating requirements, vessel traffic service (VTS) systems, safety zones, many Captain of the Port (COTP) orders, and port access routes, among other things. The amendment is not intended to affect innocent passage through the territorial sea or transit passage through U.S. waters of an international strait.

The same new term and definition have been added to Subtitle II (Vessels and Seamen) of Title 46 (Shipping) of the U.S. Code.

Since this subtitle defines Coast Guard jurisdiction over U.S. flag vessels for most purposes and over foreign flag vessels for some purposes, its impact is equally extensive. Measures covered by

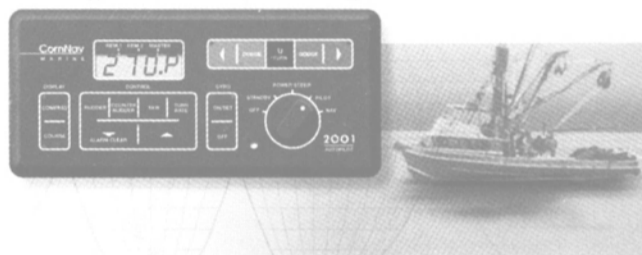
this expanded authority include: negligent operation, carriage of dangerous cargoes by foreign flag vessels, lightering, uninspected vessels, recreational vessels, load lines, marine casualty

reporting, and federal pilotage authorization.

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Government Update

Act of 2002 amended the Espionage Act of 1917 to likewise define territorial waters of the United States.

The purpose of this amendment was to allow the Coast Guard to establish and enforce security zones up to 12 miles offshore. There is some question as to whether the amendment achieved the

goal as security zones normally are established under the Magnuson Act of 1950.

Several other statutes, though, continue the use of the three mile limit for the U.S. territorial sea. For instance, the Oil Pollution Act of 1990 (OPA 90) defines the territorial sea as "the belt of the seas

measured from the line of ordinary low water along that portion of the coast, which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles."

The same language is used in the Federal Water Pollution Control Act

(FWPCA).

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In 1945, with offshore oil and gas drilling becoming more productive, President Truman asserted jurisdiction over the economic resources of the continental shelf off the U.S. coast. The concept has been assimilated into international law.

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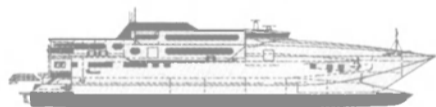
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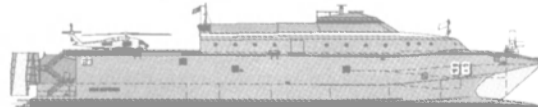
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Hull 061, HSV-X2



Length: 98.0 metres
Breadth: 26.61 metres
Draught: 3.43 metres
Deadweight: 750 tonnes
Speed: 40 knots

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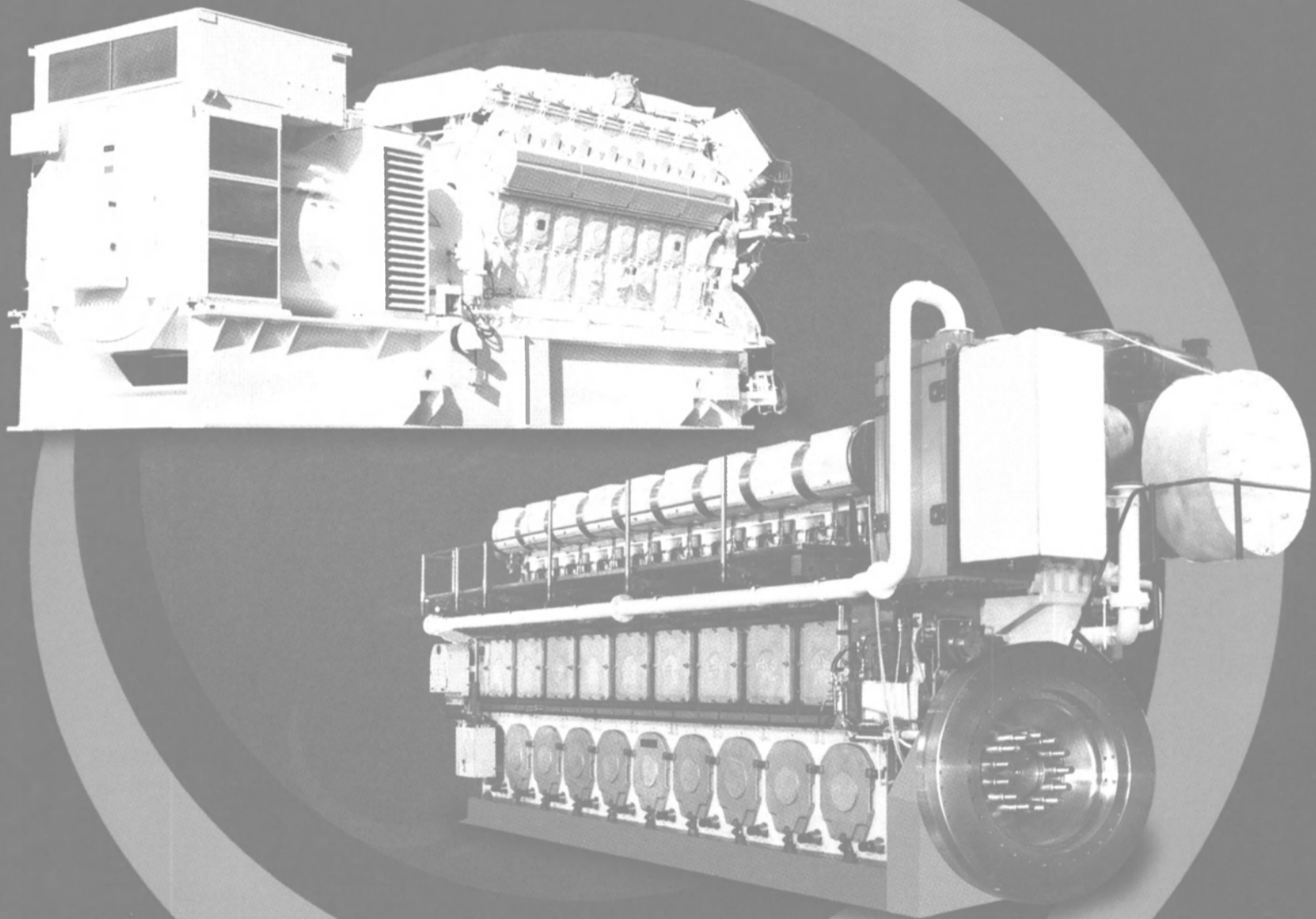
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Government Update

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Within its continental shelf, a coastal nation has exclusive sovereign rights over all the natural resources of the shelf, including minerals and sedentary living species.

With the increasing efficiency of fishing techniques, depletion of the living resources of the sea became an issue. The U.S., not unlike other nations, tried a combination of limited unilateral control and multilateral cooperation, but to little effect.

Eventually, the U.S. joined the increasing number of nations claiming an exclusive economic zone or EEZ (originally called an exclusive fisheries zone) extending 200 miles offshore.

Within the EEZ, the coastal nation has sovereign rights for the purpose of exploring, exploiting, conserving, and managing natural resources superadjacent to the seabed. This includes rights over production of energy from water, currents, and wind and over marine scientific research.

Demarcation lines or boundary lines are established by the U.S. Coast Guard primarily for the purpose of determining where ships are to utilize either the international regulations for prevention of collisions at sea (COLREGS) or the inland rules. The lines, which are shown on navigation charts, are also utilized for other purposes, such as application of the sea-going motor vessel act and the sea-going barge statute.

The above terms are perplexing, but important, as they frequently determine what laws apply to various activities of mariners.

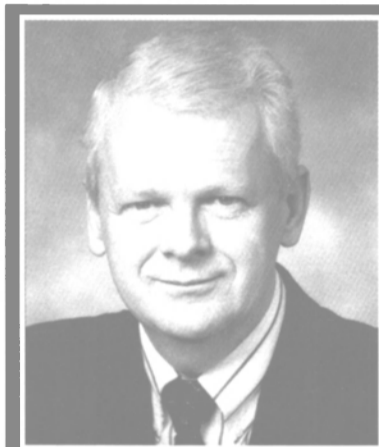
The territorial sea definition, in particular, remains in flux. Mariners, and others, will continue to be confused by the

boundaries of the United States so long as it claims different territorial seas for different purposes.

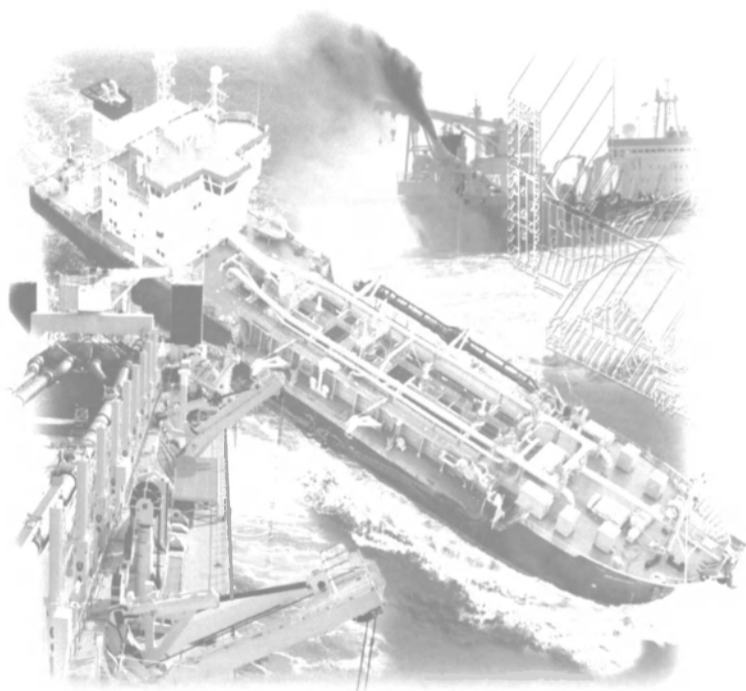
EPA Denies Ballast Water Petition

The U.S. EPA issued its Decision denying the petition filed by environmental advocacy groups seeking repeal of the regulation allowing ships to discharge ballast water in the United States. The environmental advocacy groups sought to bring ballast water discharges within the National Pollutant Discharge Elimination System (NPDES), meaning that individual discharge permits would be required for each ship. The EPA notes that there are many ongoing activities related to control of invasive species in ballast water, many of which are likely to prove more effective and efficient than NPDES permits. Congress has enacted other measures specifically intended to address ballast water issues. The exclusion of ballast water discharges from the NPDES program is a long-standing policy that should not be overturned when other options are available.

(Source: Holland & Knight)



Dennis L. Bryant, Senior Maritime Counsel at the law firm of Holland & Knight, Washington, D.C., is a contributing editor of MR/EN.



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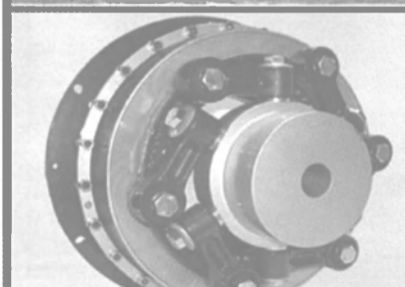
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Varian, PARC Receive Security System Funding

Varian Medical Systems, Inc. and the Palo Alto Research Center (PARC) have been awarded a \$5.87 million federal grant to develop ultra-sensitive X-ray inspection technology for cargo screen-

ing at airports and seaports. The grant was awarded by the U.S. Department of Commerce, as part of the National Institute of Standards and Technology's Advanced Technology Program.

Scientists at the two institutions, which have successfully collaborated in the past to develop flat-panel X-ray

detectors for medical applications, will now work to develop large-area, high-resolution digital X-ray sensor arrays for cone-beam computerized tomography (CT). These new large-area detectors, when paired with high-energy X-ray sources such as Varian's Linatron linear accelerators, will enable technicians to

examine the contents of a cargo container more quickly and thoroughly.

"The goal is to develop cost-effective methods for making flat-panel sensor arrays that are many times larger than those used for medical imaging," said Michael Green, technical manager for the project and senior scientist at Varian's Ginzton Technology Center, the company's research and development organization.

Both Varian and PARC, a subsidiary of Xerox, are investing additional resources into this research project. "This is a complex, multidisciplinary effort that would be difficult for any one company to complete on its own," said Robert Street, PARC senior research fellow and project principal investigator. "Without the ATP funding, the develop-


Wartsila to Concentrate on Marine and Service


Wartsila recently completed the first part of the business analysis launched at the end of July, an analysis which was launched to help refocus the corporation on markets that will help the company reach its targeted operating margin of 7-8% is to be reached by the end of 2005. The group will seek future growth in the area of ship power and service. Wartsila has secured significant power plant orders in recent weeks. The total order book of the Power Divisions at the end of August was \$1.7 million which was 14% higher than a year ago. The demand in the market, however, is clearly lower than the capacity available in the Group, which is why the capacity will be adapted and the number of employees reduced accordingly.

Wartsila to reduce the production of high-speed engines

In its present form the high-speed engine business has not met the expectations. Wartsila is therefore planning to discontinue the production of the Wartsila 200 and 220SG engines in Mulhouse, France. The manufacturing of special products will continue in Surgeres. Wartsila France will be stepped up as a service company and will continue to provide service for the customers of the high-speed engines as earlier. Wartsila announced last month its intent to start a cooperation with Volvo regarding service and sales of Volvo Penta marine engines. In 2002 Wartsila's net sales were \$2.8 billion and the number of employees 12,500.

Maritime Reporter & Engineering News





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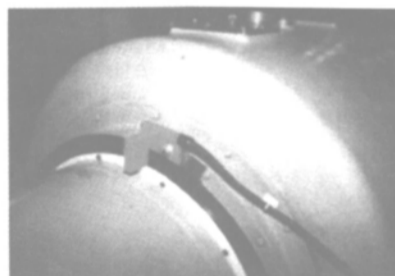
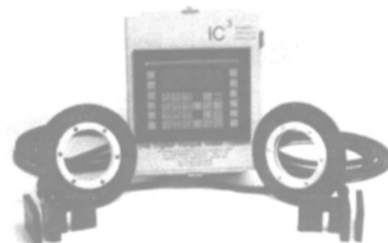


Figure 1.1 - The multiple slot interrupter (black) is passing through the fiber optic sensor (orange).

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ment of new technology from this research would take much longer."

OMI Orders Vessel

OMI ordered one 37,000 dwt ice-class 1A product carrier to be built by Hyundai Mipo Dockyard Co., Ltd., Ulsan, Korea. The vessel is scheduled to be delivered in June of 2005. Craig H. Stevenson, Jr., Chairman and Chief Executive Officer, said "we continue to grow our core business of double hull product carriers and Suezmaxes; this is the fifth sister product carrier on order, three of which will commence five year time charters upon their deliveries in 2004. We maintain our optimistic outlook."

Furuno Launches New GPS Navigator

Following the successful GP-80, a new GPS Navigator is launched by Furuno named GP-90. The new design builds on the same basic features and the known user-friendly key-layout of its predecessor, but is fully re-designed with a new Silver-grey 6-in. LCD display and new hard- and software. The new GP-90 GPS Navigator fully complies with the new GPS Performance Standard IMO Res. MSC.112(73) regulations and IEC 61108-1 ed. 2 for SOLAS carriage requirements on and after July 1, 2003. GP-90 is equipped with the new RAIM feature (Receiver Autonomous Integrity Monitor). With the RAIM function enabled, the GPS receiver automatically diagnoses the state of satellite signals and judges the positioning accuracy according to user selected accuracy level.



WAAS (Wide Area Augmentation System), consisting of 25 ground reference stations across the United States and its two geo-stationary satellites, can be received by GP-90 for navigation in US waters increasing accuracy to 3 meters at 95% of the time. For terrestrial DGPS correction, the GP-90 can be supplied either with an optional internal DGPS beacon receiver board or being connected to Furuno's external GR-80 Beacon Receiver.

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Parker Rig Collapses

All 41 people aboard an offshore drilling rig that collapsed off the Mississippi-Louisiana coast last month were rescued. The rig, Parker 14 J, an 85-ft. jack-up rig owned by Parker USA Drilling Co., collapsed in about 40 ft. of water in an area known as Chandeleur Block 27. Three vessels rescued 36 survivors: supply vessel LCD picked up 27, crew boat David McCall picked up six, and crew boat Brazos Express picked up six.

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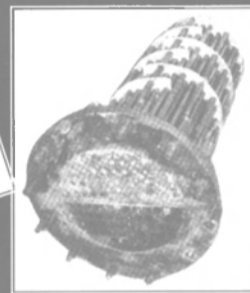
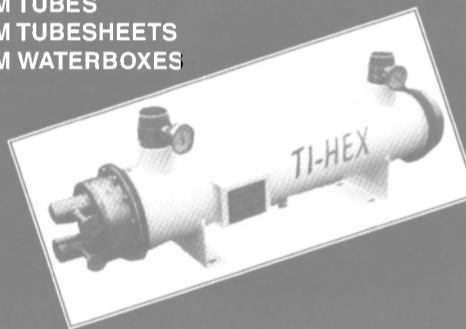


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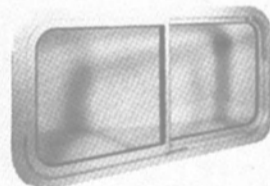
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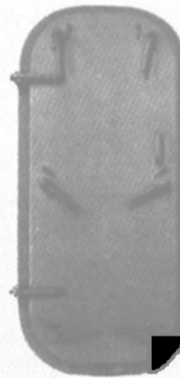
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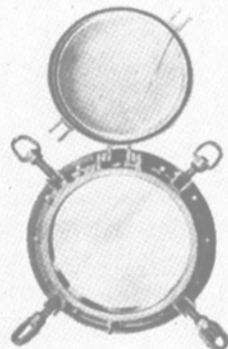
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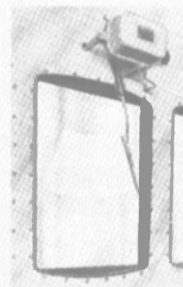
Hatch



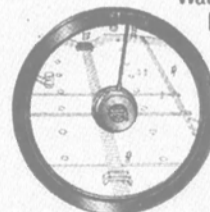
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LPG Tanker Repaired, Modernized and Converted



The 977-ft. (297 m) LPG tanker Matthew was docked in mid-August into drydock Elbe 17 of Blohm + Voss Repair GmbH to be repaired, modernized and converted in 33 days. The ship was berthed at the quay for an additional 12 days so that tests could be carried out and the equipment set to work in cooperation with the crew, which stayed on board during the docking period. The Matthew, a large order for the traditional Hamburg shipyard, had hundreds of people working around the clock, seven days a week to ensure the delivery to Cabot LNG Corp. went off as scheduled.

The tanker is in service on the route from Trinidad to Boston transporting natural gas, which is taken on board in liquefied form at a temperature of -162°C. The special feature is that this temperature is maintained during transport just by the excellent insulation of the tanker. The Matthew was the first tanker allowed to sail into the port of Boston after September 11.

Blohm + Voss Repair installed a new 2,100 kW auxiliary engine (weight 52,000 kg) to ensure a safer future power supply. For this, a new engine room was required, which

was completely fitted out with all auxiliary equipment by the yard. Adjacent to the engine room a workshop was arranged and several modernizations were carried out to make the tanker — commissioned in 1979 and laid out for a life of approx. 40-50 years — fit for the coming years.

Blohm + Voss removed an anchor winch with a capacity of 55,000 kg and four mooring winches and installed five new mooring winches each with a pulling power of 75 t. Two old life rafts were replaced by a free-falling rescue boat arranged at the stern. Extensive repair work was completed by Blohm + Voss specialists in all 26 ballast water tanks to meet the classification regulations. Gas loading systems and cargo pumps were overhauled. In addition, the propeller shaft was removed and the sealing system renewed using new Simplex seals produced by B+V Industrietechnik. Furthermore, 34,000 sq. m. of the outer skin were preserved and various pipes and valves of various systems such as the steam, ballast water and sounding system were renewed.

For more information on Blohm + Voss
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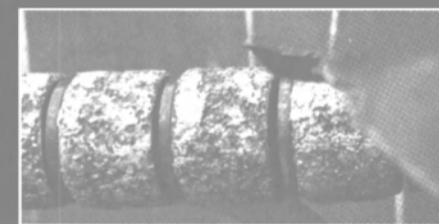
H&W Steps in for Emergency Ferry Repair

Harland and Wolff (H&W) came to the rescue this week when P&O Irish Sea's European Envoy required emergency repairs to. The 18,653 grt vessel made contact with the Belfast yard and docking preparations were underway within hours for repairs to one of the rear "azimuth" thrusters - auxiliary engines used to maneuver a vessel when docking. **George Cuthbert**, Harland and Wolff's Project Manager says the ability of the yard to take on this type of emergency work is further proof that it is well geared to succeed in the markets it is now pursuing. "Ship repair, conversion and maintenance are one of Harland and Wolff's strengths," says Cuthbert, "and we are very pleased to be able to react so swiftly to the urgent needs of a ship operator." P&O Irish Sea Ship Superintendent **Paul Radcliffe** says emergencies such as these have a profound impact on the services his company offers. "The sooner we are able to return a vessel to service the better for us," said Radcliffe. "P&O Irish Sea is dedicated to supplying uninterrupted service to our customers, so having reliable backup from local vendors such as H&W is vital." The 150 m long European Envoy was built in Japan in 1979 and serves the Mostyn - Dublin freight route for P&O Irish Sea.

RRF Ships Succeed in Readiness Exercise

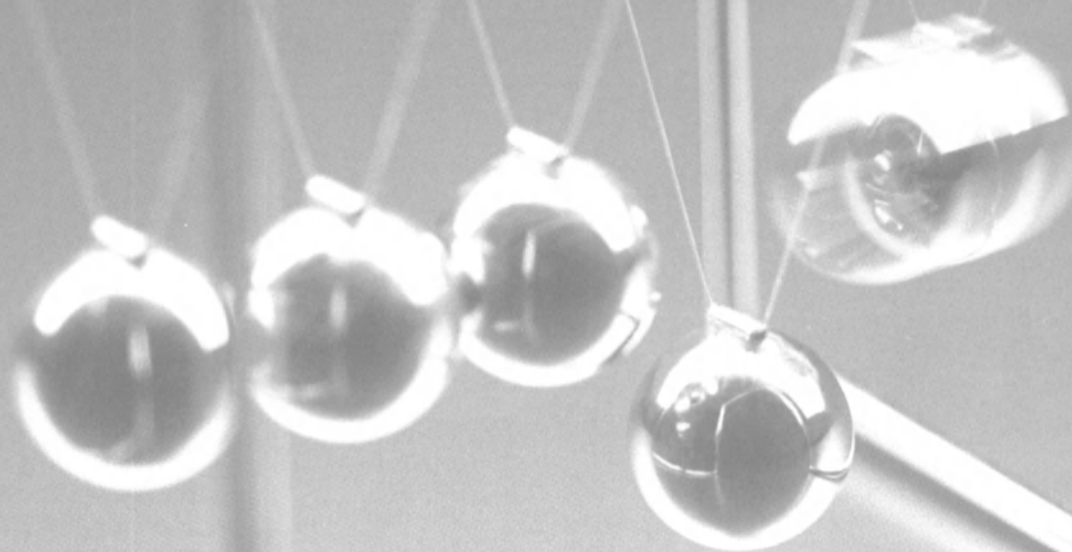
U.S. Maritime Administrator Capt. **William Schubert** said that three Ready Reserve Force (RRF) ships completed readiness activation exercises. The three activated ships were the Grand Canyon State and the Gem State, both berthed in Alameda, Calif., and the Green Mountain State, berthed in Bremerton, Wash.

Turbo Activations, sponsored and monitored by the Joint Chiefs of Staff and the U.S. Transportation Command, are made without notice. During an exercise, RRF ships are directed to shift from a reduced operating status to a fully crewed status, with the quarters made habitable and cargo gear ready, within four or five days. Activations are often followed immediately by a sea trial. The Grand Canyon State, Gem State and Green Mountain State were successfully delivered to the Military Sealift Command within their readiness time frames. The three ships are auxiliary crane vessels used to carry cargo. In addition, they can be used to load and unload other ships anywhere in the world and are particularly useful when port facilities have been damaged. MarAd maintains the RRF, which is a fleet of 72 militarily useful ships.



Raising Tricolor

The operation to remove the wreck of the Tricolor, the vehicle carrier that was lost in December 2002, 20 miles off the French coast required a healthy dose of creativity and marine know-how. **Top:** An unusual convoy with two sections of the TRICOLOR. (Photo Credit: Combinatie Berging TRICOLOR). **Middle:** SMIT refined the cutting system, increasing the tensile strength of the wire and its abrasive properties, to enhance efficiency and reliability. **Bottom:** A close up of the cutting wire. (Photo Credit: Combinatie Berging TRICOLOR).



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Repair & Conversion

Financier Calls for a New Approach on Standards

Calls for a new Maritime Standards Board came from ship financier **Paul Slater**, speaking at the Maritime London event. Addressing the IMarEST

and RINA debate on the single / double hull issue, Slater said that there is no standard established for the design, construction and operation of double-hulled

tankers. "One cannot build a factory or an apartment building or a truck or even a container without meeting standards established by the government or local

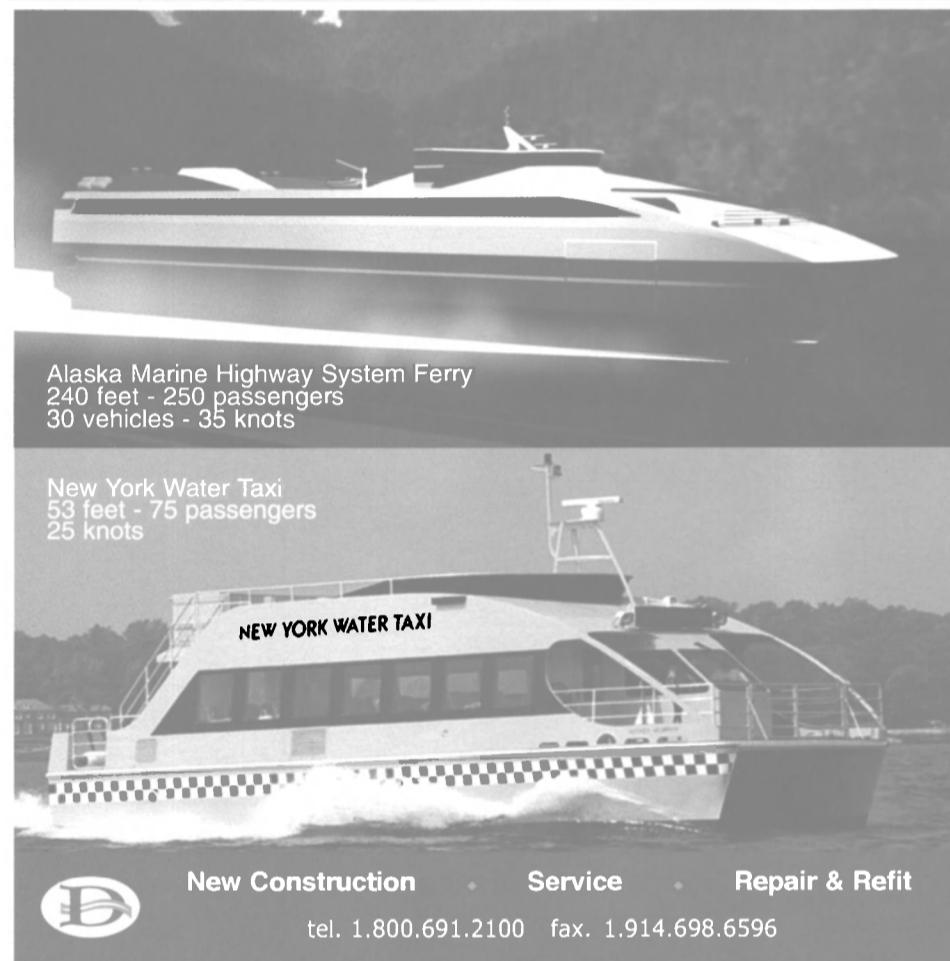
authority in which they are to be built or operated", he said. "It is the absence of enforceable standards in the shipping industry that is the root cause of many of its problems."

A new Maritime Standards Board would gather all the necessary information, which already exists within classification societies, to establish new standards which would then be presented to the IMO for adoption by maritime governments, he suggested. Class would then be appointed by the new Board to make sure that shipowners and shipbuilders conformed to the standards during construction, and subsequently through the working life of a vessel. Slater warned the gathering that moving from single to double hulled tankers without establishing proper standards for new designs may well be increasing the problems of pollution by creating greater safety risks in the future.

By establishing standards that would have the force of law, he said, the whole process of ship inspection becomes more straightforward. Class becomes an instrument of all maritime governments and applies a uniformity.

Other speakers had warned of the problems of corrosion in double hull spaces. These inaccessible areas, delegates were told, were ideal breeding grounds for fast-track corrosion, particularly aboard vessels where there was a large temperature difference between heated cargoes on board and sea water outside the hull. Such a temperature gradient would lead to substantial condensation, another corrosion catalyst.

Early double hull tanker designs were at significant risk, it was agreed. "The early generation of post OPA 90 tankers are now entering the second half of their useful lives", Slater said, noting that many of them are now owned by spot market traders whose operating budgets are more limited than the major owners or oil companies and whose vessels therefore face higher risk from corrosion or structural failure. Slater, who often draws parallels between shipping and aviation, asked delegates if they would even consider flying in an airplane for which no prototype had been built and tested. Shipping should follow aviation's model with maritime nations setting the standards by which all ships would be measured and port state control would then be better able to enforce the standards. "Shipyard guarantees could then be demanded for longer periods than are available at present and the substandard operators would be more clearly identified," he said.



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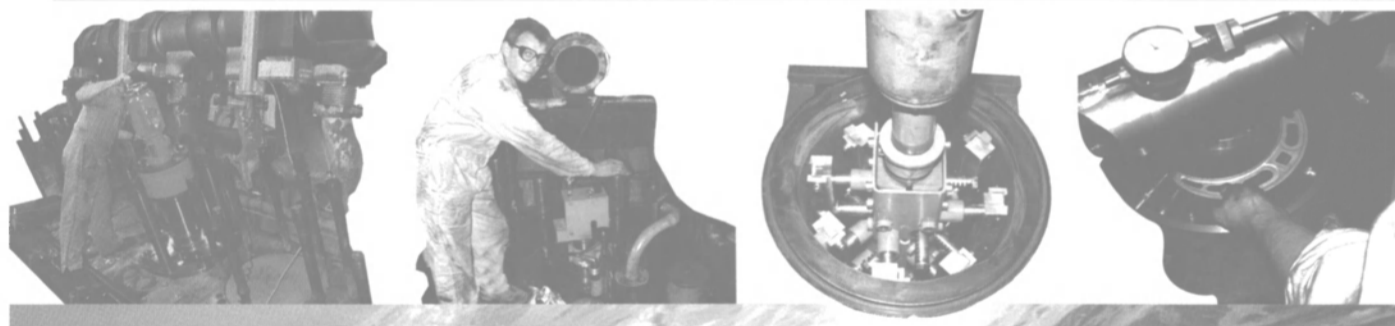
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Bollinger Completes Major Conversion of Ned Ferry

Bollinger Shipyards, Inc., has completed a major conversion of the Crescent Towing tug, Ned Ferry that transformed the boat from a single engine vessel with 3,500 hp, to a twin-engine vessel with 4,000 hp. It is the third of eight Crescent Towing 105-ft. (32 m) sister ships to undergo the same upgrades and modifications at Bollinger Algiers LLC, the New Orleans based repair and conversion shipyard facility.

Ned Ferry's old engine was replaced with a pair of Caterpillar 3512B engines coupled to Reintjes WAF673 reduction gears driving 83-in. Bollinger stainless steel propellers.

They were installed in 84-in. type 37 kort nozzles with stainless steel inner rings and leading and trailing edges. It has a 45-degree rudder angle for better maneuverability and its new power package is designed to generate 100,000 lbs. or 50 tons of bollard pull. The boat's stern was modified to accommodate the new propulsion system.



Crescent Towing's twin screw docking tug, Ned Ferry, on trials in the Mississippi River. It is the third of eight Crescent Towing 105-ft. sister ships to undergo the same upgrades and modifications at Bollinger Algiers LLC, the New Orleans based repair and conversion shipyard facility.

Bollinger has reconstructed the tug's wheelhouse with low profile stacks for maximum visibility and has installed new radars, GPS, depth sounders, hailers, VHF radios, fax machines, sound powered telephones, fuel emergency shut off systems, and remote control start and stops for the main engines.

New Coast Guard approved oil and water separators and sanitary systems have been installed and channel coolers were replaced with keel coolers. Living spaces and the galley were refurbished and new air conditioning and heating installed.

Mike Ellis, executive vice president and COO of Bollinger said, "This modernization project for Crescent Towing is similar to the U. S. Navy's SLEP (Service Life Extension Program) in which ships receive upgrades to their design as well as the installation of new leading edge machinery and electronic technologies. Executives at Crescent have told us their two other tugs, Louisiana and Florida (formerly Louise) that have already been converted, are performing beyond expectations. Conversions such as these

extend the productive life of vessels while helping to keep their owners costs down without the higher costs of newbuilds."

The G. Shelby Frederichs, Mississippi, Margaret F.

Cooper, Texas and Glenn will follow the Ned Ferry. Each measures 105-ft. long with a 26-ft. (7.9 m) beam and 13.5 ft. (4.1 m) depth. They were built in the late 1950s and early 1960s.

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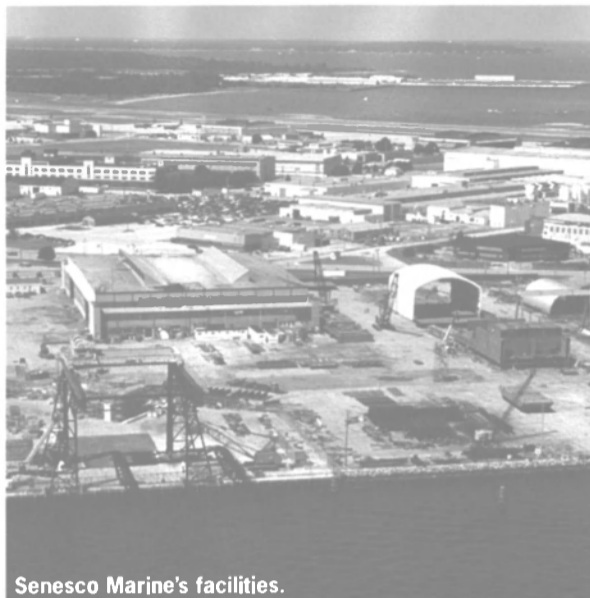
Repair & Conversion

SENESCO Becomes Senesco Marine

The Southeastern New England Shipbuilding Corporation (SENESCO) has capped years of progress and strong growth with a change in name and investment in the future. The company formally changed its name to Senesco Marine, and to prove that the metamorphosis is much more than skin-deep, has instituted a sweeping new design and build process to enhance the speed with which the company can design, build and deliver barges.

New CEO **Gary C. Schuler** said "Our most recent double hulled barge was built for a west coast customer and we continue to see increased activity out of our New Orleans office. The change to Senesco Marine makes sense for us based on our growing reputation as a leading national shipbuilder."

Schuler touted the company's new partnership with Guarino & Cox, a respected naval architecture firms. "We realize that expedited construction and on time



Senesco Marine's facilities.

delivery have become increasingly important as our customers move to comply with federal requirements for double hulled barges," said Schuler. "On time delivery starts with quality ship designs and we're pleased to have Guarino & Cox as strategic design partners. Not only is Guarino & Cox providing us with top notch designs, but they're designing to maximize efficiency and speed up construction time based on the operation of our shipyard." **Greg Cox**, a principal in Guarino & Cox, said he was pleased to be working with Senesco Marine on the design of the company's double-hulled barges. "As a relatively new company, Senesco Marine has developed a tremendous reputation as one of the leading barge builders in America," said Cox. "We're honored to be working with them as a design partner in their new on time design, build and delivery process."

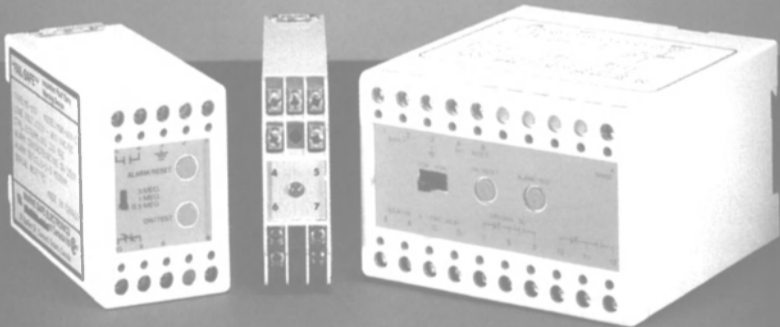
In addition to its strategic partnership with Guarino & Cox, Schuler said the company has taken a number

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of other key steps at the shipyard to make the new on time design, build and delivery process a reality.

Another 80,000-Barrel, Double-Hulled Barge Contract

Senesco Marine signed a second contract with Fall River, Mass.-based Sea

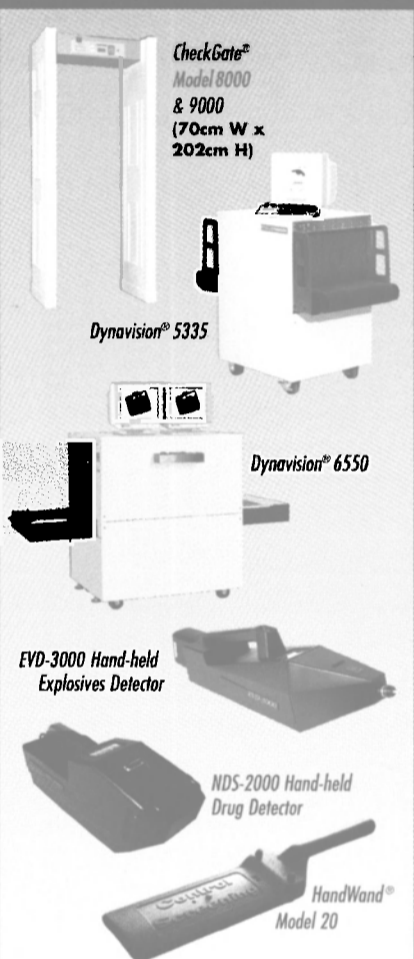
Boats, Inc. to build a 80,000-barrel, double-hulled barge. Construction will be complete by April of 2004. Earlier this year, Sea Boats launched Tennessee, its first 80,000-barrel, double-hulled barge built by Senesco Marine. Sea Boats then needed another such barge built, and fast. "Because of new Federal guide-

lines, our customers must replace their single-hulled barges with double-hulled vessels," explained Schuler. "In many cases, the new barges must be in place by 2005. To accommodate our customers, we've maximized our production capacity by implementing a new, on-time design, build, and deliver

process." Don Church, an executive with the company, said. "The people at Senesco Marine are not only great to work with, they're exceptionally talented. So our decision to return to them ... was an easy one."

For more information on Senesco Marine Circle 28 on Reader Service Card

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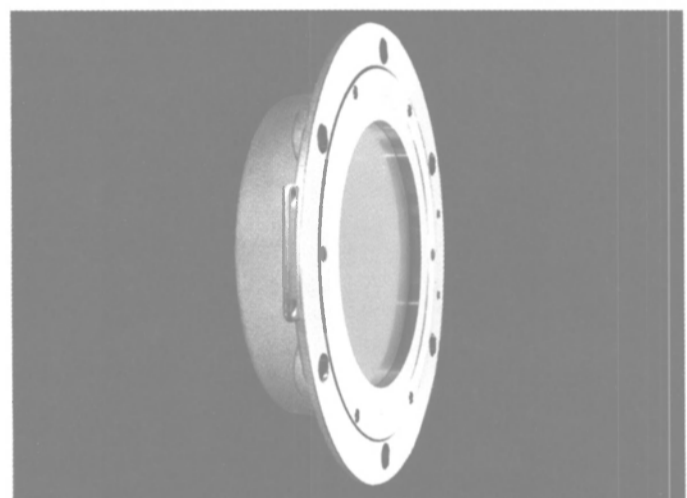
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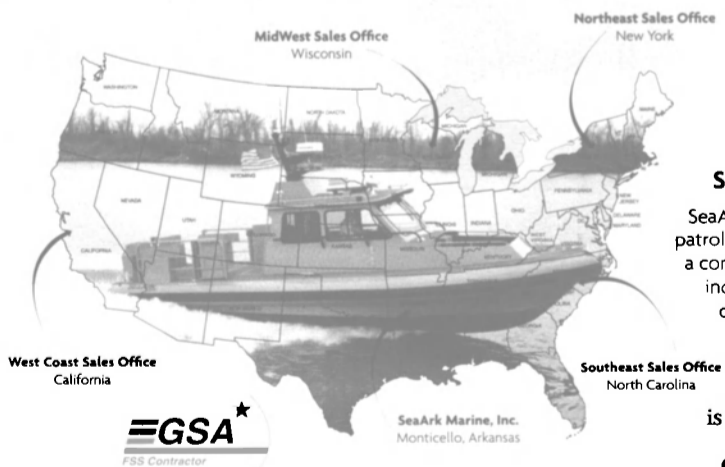
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Maritime Reporter & Engineering News

Polish shipyard as an overwhelming success, and proof of the system's value. Stena Transporter, Stena Transfer and Stena Partner were three vessels in need of vehicle deck re-instatement. Using the SPS system, 12,000 sq. m. of deck was replaced in 60 days, saving the carrier an estimated \$5 million based on approximately 140 days at sea saved. The SPS Overlay process is designed to reinstate the structural capacity and wearing/corrosion surface without disturbing anything below the deck's surface, such as pipes, cables or insulation. The process has additional benefits as well, chiefly sound and vibration dampening, built-in fire protection and an ability to withstand severe operational or accidental impact loads including ballistic and blast protection.

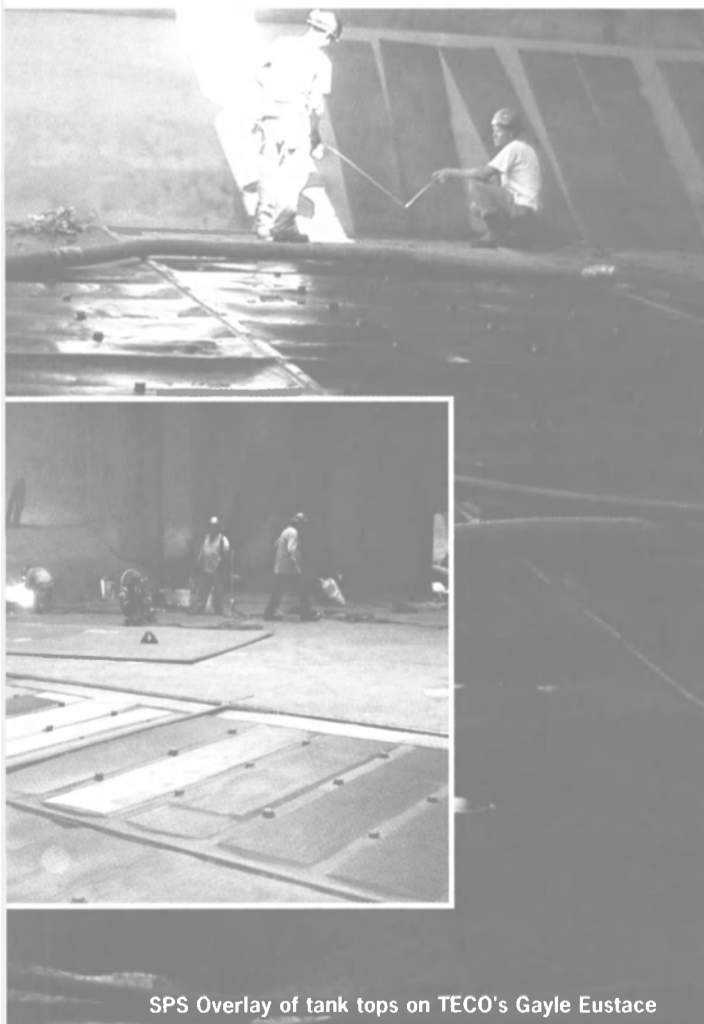
It was the speed and toughness of the SPS solution that encouraged TECO Ocean Shipping to use the technology in the repair to tank tops on the ITB Gayle Eustace carried out by Bollinger in New Orleans in June. Figure one demonstrates the heavily corrugated condition of the tank top before the repair and the extremely flat surface achieved by the process.

More than Just Repairs

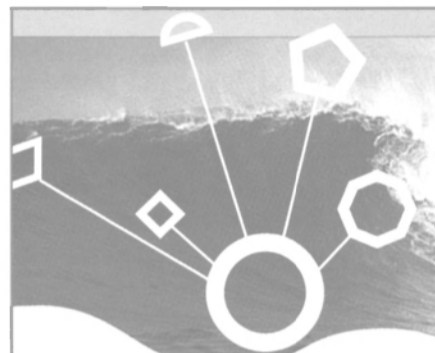
While the SPS system, as stated, offers undeniable advantages to shipowners and shiprepairers, the system is not being sold exclusively as a repair solution, and IE has aggressively sought to tout the advantages of SPS panels for new construction projects where independent analysis by yards in Europe and Japan have illustrated weight savings of approximately eight percent, and shipyard labor savings approaching 44 percent, Welch said. Germany's Flensburger is using SPS panels — panels that they are building themselves — as engine room casings on five ships under construction for DFDS Tor Line. The panels are saving the owner space and weight, and come with built-in fire

protection. While Flensburger is building the panels themselves, Welch said that the more likely scenario for use of SPS is for a civil engineering firm to pre-fab the panels to exacting specifications and low cost, and deliver them to the shipyard. As the technology is still relatively new, IE is very cognizant of quality issues, and it is adamant those licensed to use the technology achieve and maintain high quality levels. In fact, on

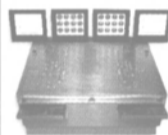
the repair side, IE retains responsibility for design, classification society approval and for the injection processes itself. "We're here to help this technology enter the market, and then gradually extend the list of companies who are licensed to use it," Welch said. "We don't want to compete with any existing civil engineering firms - we simply see SPS as a logical alternative to stiffened steel wherever it is used today."



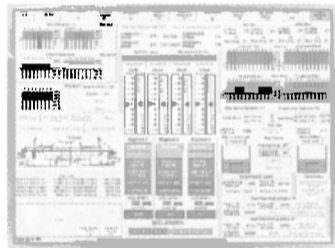
SPS Overlay of tank tops on TECO's Gayle Eustace



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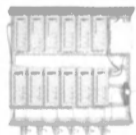
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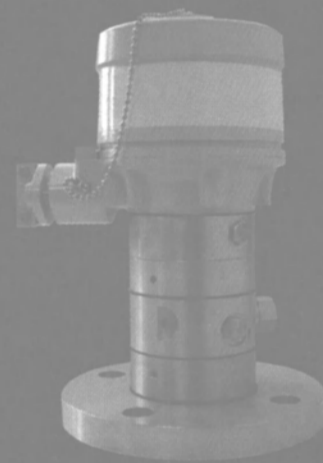
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For new construction applications, methodologies have been developed for fabricating curved sections, inspection and testing, repair during service and disposal at the end of its service life. Most importantly, SPS is approved by all of the world's leading classification societies.

P&O: A Good Reference

The process of introducing anything new, particularly to a relatively conservative industry such as the marine business, can be a daunting process for companies, even those with strong track records in other industries. Paramount to building momentum is acquiring strong references, which IE has admirably done

with P&O and Stena, the former the first customer to use the SPS overlay.

P&O ferries in 1999 had to install new RoRo decks onboard the 1975-built, 900-lane-m passenger RoRo Pride of Cherbourg. The job, using the SPS Overlay solution, was carried out by A&P Falmouth to LR class. Today, according to Welch, P&O specifies this

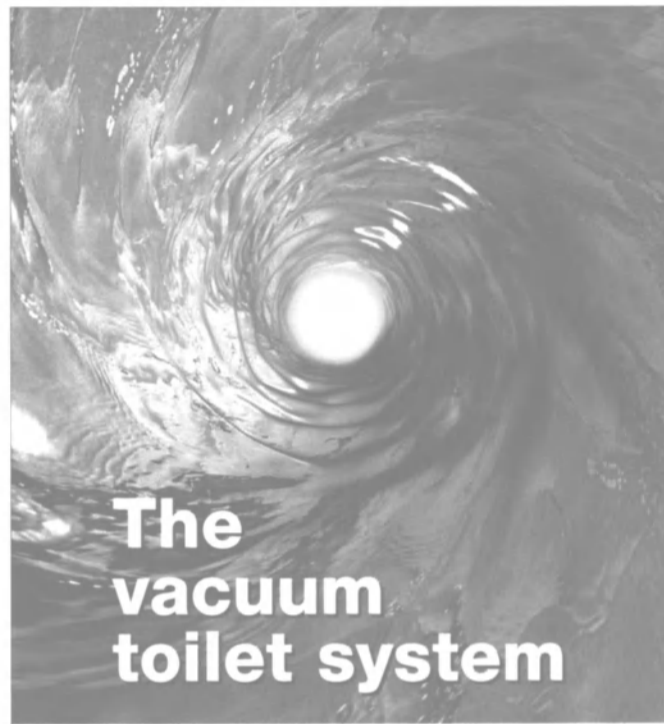
method and the only one it uses for re-decking.

Recently, A&P Birkenhead won a further three-ship contract from P&O European Ferries for passenger/car ferries operating across the Irish Sea. The ships involved are the 14,426 grt European Pioneer, the 18,653 grt European Envoy, and the 12,879 grt European Leader. The first was due to arrive in Birkenhead on July 21.

All three will receive deck renewals using the "Sandwich Plate System" from Intelligent Engineering. Other scheduled repair work will also be carried out, with the yard remaining very flexible over the requirements of P&O.


During the P&O ships stay at A&P Birkenhead, a total of over 2,723 sq. m. of decks will be repaired on all three ships using the SPS Overlay technology. The breakdown includes the European Leader (a total of 1,936 sq. m.), European Envoy (202 sq. m.) and European Pioneer (585 sq. m.).

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Atlantic Marine Completes Several Repairs

Several vessels have been repaired recently in the Mobile Shipyard of Atlantic Marine — Shih Wei Navigation's 40,864 dwt bulk carrier Federal Pescadores was in the yard for a quick propeller change-out, as was TECO's 36,414 dwt bulk carrier Cynthia Fagan. Associated Maritime's 106,118 dwt tanker New Alliance came in for a special survey and routine drydocking work.

U.S. Shipping Lines' 34,930 dwt chemical tanker Chemical Pioneer is undergoing complete tank recoating, Global Industries' 24,406 dwt bulk carrier Global Pioneer was recently in for general repairs, and Waterman Steamship's MSC support vessel Major Stephen W. Pless is undergoing a 21 day drydocking and repair period. Atlantic Marine was also recently awarded the contract for the USCG Decisive, which included primarily hull coatings application.

Ships due include Bisso Marine's support vessel DB Boaz for an ABS survey and Seabulk International's 49,530 dwt tanker Seabulk Trader at the end of this month (September) for a standard docking.

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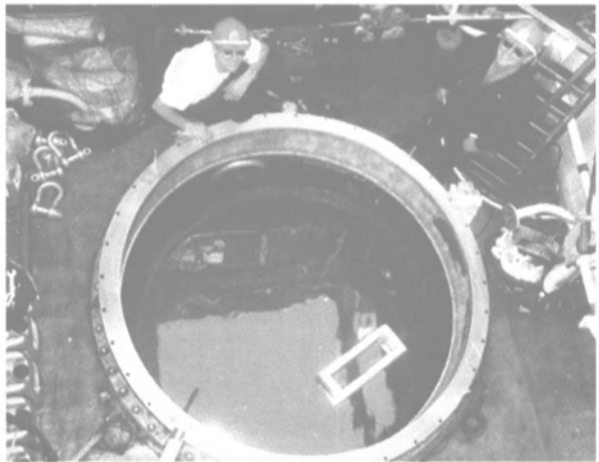
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Team UMC Helps Navy Ship With Innovative VSP Switch

UMC International Plc recently supported the British Ministry of Defense (MoD) to successfully complete the afloat replacement of a 7.5-ton Voith Schneider Propulsor (VSP) unit, while the Royal Navy ship was operating over 3,000 miles from its UK base port. The VSP waterborne exchange is, reported by the MoD, to be a premiere culmination of efforts by UMC, on behalf of the MoD, to establish comprehensive waterborne maintenance support for the VSP. The VSP now joins the growing list of ship equipments that UMC can inspect, maintain and repair, afloat without the need to dry dock. UMC has designed and developed the system to replace VSP units in conjunction with the Mine Countermeasures Vessels Integrated Project Team



This Royal Navy ship was operating more than 3,000 miles from its U.K. base port when it underwent repairs by UMC.



VSP Seat with unit removed and cofferdam in place.

(MCMVIPT) of the MoD's Warship Support Agency. The MCMV IPT identified that not all "Ports of Call" had the facilities or resources to change a Voith-Schneider Propulsion (VSP) unit should a breakdown occur. The development process began with UMC being tasked to undertake a study, which confirmed that it was feasible to design and build a cofferdam to replace VSP units afloat that could be airlifted anywhere in the world. This was followed by a contract to design, manufacture and supply a portable cofferdam system along with procedures for installation removal and maintenance. The cofferdam, lifting frame (to sit on the deck above the propeller room) and dockside support frame (to hold the VSP once removed from the ship) were promptly delivered to Portsmouth Naval Dockyard for a trial. During the trial, all elements of the replacement procedures were proven, and on completion of the trial the system was declared fully operational. Almost immediately it was called into service and flown overseas to a Royal Navy forward support unit, which had been deployed to support a Royal Navy task force. Shortly after the equipment had been deployed a warship reported a requirement to exchange one of its VSP units. The options were to remain on task and run the risk of the VSP unit failing, a costly and time consuming departure away from its operating area to find a suitable dry-dock or to use the cofferdam

system provided by UMC. It was decided that the cost-effective option was to use the cofferdam, as to avoid the immediate risks of continued use of the VSP. Having been given the go ahead, preparations for the replacement task began on a Friday morning with a combined UMC, MoD, RN and Vosper Thornycroft

team set to work. The following Monday afternoon, the VSP unit had been replaced and the ship was ready for its basin trial, at which time the ship sailed with a fully serviceable VSP unit.

For Voith Schneider, Circle 31 on Reader Service Card

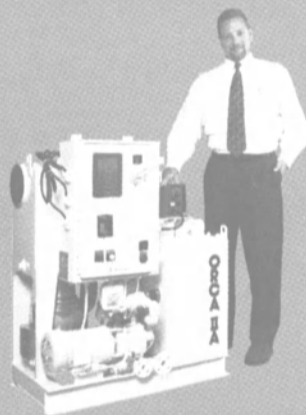
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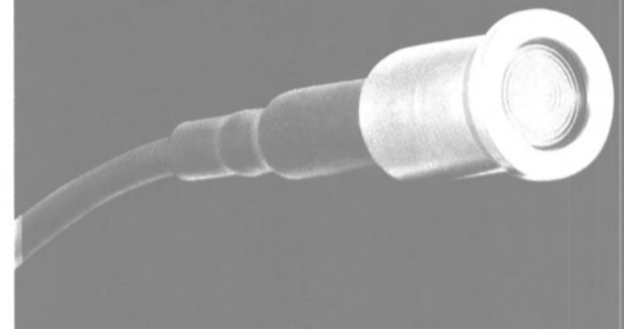
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Repair & Conversion

B+V Reports Busy Repair Docks in August

Despite the difficult market situation Blohm + Voss Repair GmbH has been able to book new orders so that the docks are quite busy in August. In addition

to the conversion of the LNG tanker Matthew, which is discussed on page 24 of this edition, B+V found itself flush with work, including the following.

In early August the bulk carrier Anangle Venture from the Anangel Purity Compania Navio arrived. The 741 ft. (226 m) long and 105.6 ft. (32.2

m) wide ship, which had been tugged across the Atlantic, was provided with a new rudder. The new rudder had been designed and built at the yard during in four weeks, and the ship was in dock for about nine days. Next, a Vertex Shipholding's reefer vessel Fortune Bay called at Blohm + Voss and was docked for two days (dock 16) to repair cracks in the rudder. The reefer measures 474 ft. (144.5 m) long with a breadth of 71.5 ft. (21.8 m).

In mid-August the 784 ft. (239 m) tanker Young Lady, which is in service under the flag of the Isle of Man arrived. It was docked for six days in dock 11, and equipped with two new winches and 14 new bollards. In addition, a monitoring system was be installed.

Following the arrival of LNG tanker Matthew, the floating crane HHLA IV was be subjected to a routine docking of about four days prescribed by the classification society. Paint work and work on the seawater valves was carried out. In addition to this, an order for the cruise liner Hanseatic was signed: On Monday, August 25, the 402.5 ft. (122.73 m) long and 59-ft. (18 m) wide Hanseatic was hauled into dock 10 to refurbish the cabins and the cinema. During the 14-day stay, the cabins were provided with sprinklers and the decks and the pool was newly decorated. In addition, an emergency genset was installed.

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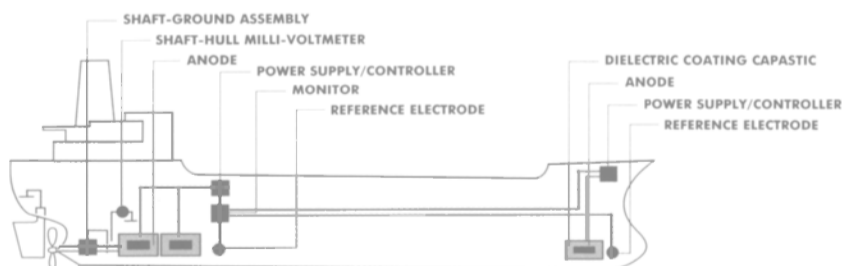
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On Monday, August 25, the 402.5 ft. (122.73 m) long and 59-ft. (18 m) wide Hanseatic was hauled into Dock 10 at Blohm + Voss to refurbish the cabins and the cinema.



Maritime Reporter & Engineering News

Extensive Fantasy Refurb

Carnival Cruise Lines' 2,056-passenger, 70,000-ton Fantasy is currently undergoing an extensive multi-million-dollar refurbishment as part of its scheduled five-week drydock. The refurbishment, which is taking place at the Grand Bahama Shipyard in Freeport, Bahamas, will include a new lobby bar, remodeled cabins and a redesigned promenade. Each of Fantasy's 1,028 staterooms will receive a complete makeover with new wall coverings, furniture, bedding and linens. In-cabin bathrooms will be fully remodeled, as well, with updated vanities, new tile work and shampoo and soap dispensers. Via Marina, an enclosed double-width promenade, will get a facelift, with elegant new furniture and a decorative marble floor with carpet inlays, while The Forum, the Fantasy's conference facility, has been reconfigured so that it can be utilized as both a meeting space and entertainment venue. The namesake vessel in Carnival's Fantasy-class, the 70,000-ton SuperLiner entered service in 1990 and operates year-round three- and four-day Bahamas voyages from Port Canaveral, Fla.

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Repair & Conversion

Climax Portable Machine Tools

New Tooling, Training Solutions Target Shipbuilding

A common thread found in shipyards — across the nation and around the world; among builders of the most massive oceangoing ships to builders of the smallest inland boats — is the need to outfit and maintain a well-trained workforce; one that knows how to use the latest technology efficiently.

Helping to fulfill this need with renewed vigor is Oregon-based Climax Portable Machine Tools, Inc., a manufacturer who for 37 years has made its business out of producing all types of manufacturing processes streamlined and efficient, as attested by its 20 patents.

The company recently launched a targeted initiative for the world's ship and boatbuilding industry, as it sees an unrivaled opportunity to tap markets new and old. In essence, Climax is offering comprehensive services that include engineering consulting services and specialized training in machining techniques, in addition to its entire line of portable machine tools.

"We're helping to bring the machine shop to the problem, rather than the problem to the machine shop," said **Geoff Gilmore**, Ph.D., P.E., President & CEO. Specifically, the company is looking at situations

where it is often impossible or impractical to move or dismantle equipment in order to service or re-tool it. "Our vision is to advance the shipbuilding industry by creating powerful and precise portable machine tools and offering the training and engineering services needed to help this industry improve overall productivity and profitability. We want them to come to only one supplier ... we want them to come to us, with their problem, and we'll provide them the solutions."

Climax sees opportunity both inside the U.S. and far outside its borders, and is aggressively pursuing the initiative internationally. **Andy Becker**, director of marketing, credits Climax's network of 23 worldwide distributors, including a very strong distributor in China, as instrumental to its market penetration. China has been very active for the past few years, with a pressing need to update its facilities and equipment. The massive shipyard in Dalian, for example, recently bought some tools, and is now in need of training.

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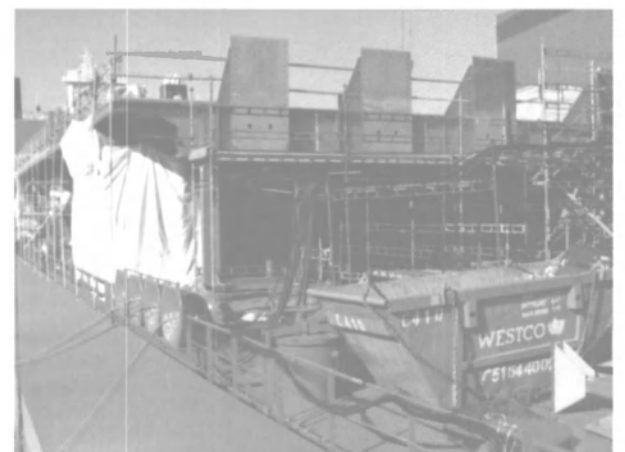
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Above: A Norse Abandonment machinist lubricates the Climax PM6000 portable milling machine as it mills the steel plates on the Odin. A plate that has as much as 15 millimeters of steel milled from it is visible in the background.

Below: Norse Abandonment used the Climax PM6000 portable milling machine onsite to machine the Odin's four steel plates shown in this photo.



Repair & Conversion

Training = Efficiency

Climax's initiative is far from a tool's based solution, as the company is currently putting the finishing touches on its all-encompassing training program that is designed to fill a void. Though worlds apart, the needs in the U.S. and China, for example, are strikingly similar, as the U.S. shipbuilders have watched experienced workers exit with market attrition, and a recent influx of business means a young new generation needs training.

In China the situation is different, yet similar, as a massive workforce is in need of training as the newbuild market quickly ramps up. China also realized the need to invest in modern facilities and tool systems in order to attract new, higher level customers, Gilmore said. Through the solutions package, Climax engineers help shipbuilding and repair organizations develop cost-effective solutions for the building process, and for the retrofit or re-design of outdated equipment. The company's training offerings also help diversify the skill sets of overspecialized workers or expand the skills of under-trained machinists.

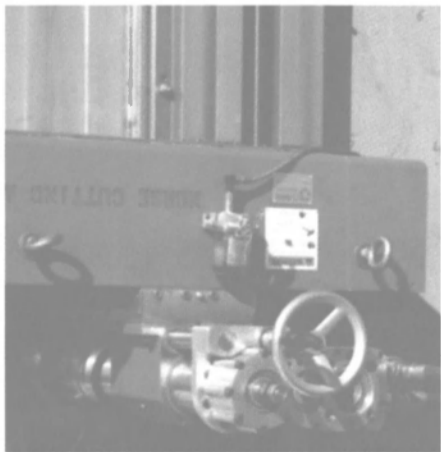
Climax Portable Machine Tools provides its solutions to shipbuilders like Northrop Grumman/Ingalls, General Dynamics Electric Boat and Northrop Grumman/Newport News, as well as to service organizations within these industries.

Climax Meets North Sea Challenge

A few years ago Norse Cutting & Abandonment a.s., a service company in Stavanger, Norway, had a contract to square up eight 5 x 10-ft. (1.5 x 3-m) steel plates that had warped after being welded into place on Odin, a freighter.

Odin was being converted into a mobile drilling rig, so the plates had to be milled within 1 mm and laser aligned

The Climax PM6000 portable milling machine used to mill eight 5' by 10' steel plates on the Odin, in Stavanger, Norway. The silver cloth on the bottom is used to contain chips from falling through grates below the plate.



to the other plates to later accept the oil tanks. Norse contacted Climax for help. The Climax engineers analyzed the situation, recommended the right tool and fixturing, and provided onsite supervision and training for the job.

Ship conversions like this typically include extensive modifications and involve large amounts of additional steel

welded to the structure. It is common to see warping under these circumstances. Since such structures are immovable, and grinding does not provide the needed precision, portable machine tools were an appropriate fit.

Climax met the challenge, helping Norse to finish the job in 18 days, three days earlier than scheduled. Climax con-

tinues to provide Norse Abandonment with comprehensive services that include engineering consulting services specialized training in machining techniques, as well as its widely-utilized, comprehensive line of portable machine tools. Climax is currently helping Norse remove oil wells from the North Sea.

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Repair & Conversion

Dubai Drydocks Completes Conversions

Dubai Drydocks, UAE, which this year celebrates 20 years of operation, has completed the first of two tanker/FPSO conversions for Monte Carlo's Single Buoy Moorings (SBM), part of Holland's IHC Caland Group.

The VLCC Mosecean arrived in Dubai during April 2002 and was renamed Atlantic for the conversion operation. She has now been re-delivered as the Xikomba for use off the Angolan coast in West Africa. The 1974-built Xikomba, measuring 1142 x 170.6 ft. (348 x 52 m) and having a deadweight of 256,715 tons, has a production capac-

ity of 90,000 barrels per day and a storage capacity of 1.8m barrels. This conversion will also extend the life of the vessel by at least a further 10 years. The conversion project has involved vast amounts of steel, pipe, electrical, mechanical, painting and accommodation work. In total over three million production hours have been used to

complete the work.

The second FPSO project, involving the dwt Mystras 11, is currently in the final stages of completion at Dubai Drydocks and due to sail from the Yard in October 2003.

Dubai Drydocks has also recently won a conversion contract in the form of Bergesen's 360,700 dwt tanker Berge Pioneer, which will be converted to a Floating Storage Offshore unit (FSO) for use off Murmansk, Russia. The project work involves external and internal surface treatment, installation of tank heating coils, spread mooring system, vapor return line and refurbishment of existing valves and cargo lines. Part of the work will be the coating of the cargo tanks with Sigmaguard CSF. Due to the cold harsh temperature in the North Sea, special insulation will be installed on deck steam and bunker lines. The tanker arrived off Fujairah at the end of August for extensive cleaning operations prior to entering the shipyard at Dubai during early September.

For more information from
Dubai Drydocks,
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Solutions in Panama



The diver goes down.

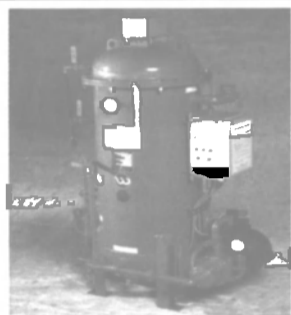
The owners of a 34,000-ton container vessel contacted Hydrex to carry out a repair requiring a 700 mm x 300 mm insert into the vessel's shell plating. A crack had developed in the plating right next to the bulkhead, which needed to be dealt with quickly before it became a major problem.

Hydrex was called upon to carry out the work, and immediately it dispatched a diving team to the vessel's location in Panama. The first call was to a local company where an appropriate sized mobdock was constructed to cover the area over the hull that needed replacement. Once satisfied that the mobdock was to the standards required, a meeting with all appropriate staff was held. The first step of the actual repair was to fit mobdock underwater over the affected area. Once complete, the team started to cut out a part of the bulkhead over the area where the external plating had to be replaced. The defective hull plating was then cropped out, corners rounded off.

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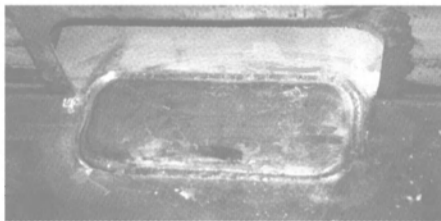
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Repair & Conversion

Top: Cutting out the bulkhead and hull plating;
Bottom: Insert welded in place.



Fitting of the insert in place was performed next, and once this had been positioned correctly the full penetration weld started from the inside, in accordance with Lloyds approved welding procedure. After it had been completed the insert repair was checked using ultrasonic testing and found to be without any defects. The part of the bulkhead that had been removed was then replaced and welded securely back in place.

For more information from Hydrex
Circle 36 on Reader Service Card

"Pride of America" Work Starts in Germany

Bremerhaven's Lloyd Werft has started to cut NCL's cruiseship newbuilding *Pride of America* in two in preparation for the lengthening of the hull by 82 ft. (25 m) to be carried out in the yard's floating dock.

At the same time, completion of the upper decks of the passengership by setting new steel sections on the aft section is continuing. Lloyd Werft is lengthening and completing the *Pride of America* following the ship having been towed across the Atlantic from the United States (Northrop Grumman Shipyard - formerly Ingalls Shipbuilding), where the original order for two cruise vessels was placed by American Classic Voyages for two vessels. NCL purchased the half completed first vessel and the material for the second vessel. The ship arrived in Bremerhaven during December last year (2002) and is expected to enter service for NCL by the beginning of next year (2004).

Insurer Not Liable for Repairs Beyond Warranty

In an unpublished opinion, the U.S. Court of Appeals for the Fifth Circuit ruled that insurers are not obligated to reimburse a shipyard for the cost of repairs made to ships when the defects were not discovered during the warranty

period. In the instant case, the shipyard built four lift boats. The contracts included a warranty and an obligation to repair and replace defects discovered within 180 days of delivery. The insurers provided coverage for the shipyard for, among other things, sums that the shipyard became legally obligated to pay under its contracts. Cracks were

discovered in the jack-up legs approximately three years after delivery. The cracks were found to have been caused by faulty welds by the shipyard. The shipyard repaired the jack-up legs and filed claims for reimbursement with the insurers, who then brought a declaratory judgment action.

The court held that, while there may

have been good business reasons for the shipyard standing behind its work well beyond the warranty period, the insurers were justified in refusing to reimburse the shipyard for such repair work. *XL Specialty Insurance Company v. Bollinger Shipyards Lockport LLC.*

(Source: *HK Law*)

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Circle 259 on Reader Service Card

Cutting & Painting a Clear Path

The Evolution of Marine Painting

Evolution is an interesting word. The Dictionary defines it as "an ongoing process of development". While the term is most closely associated with Human development, it also applies equally well to manufacturing and technology. In the Marine Industry, examples of evolution in the production process include: Computer Aided Modeling Computer Controlled Machining; Computer Controlled Systems Management.

When compared to older methods, the newer technologies offer levels of efficiency and predictability that were previously unattainable. This is due, in large part to the increased use of automation and the upgrading of manual labor to a role of programmer/technician. Ask a Shipyard Manager how this Evolution affects Production and you are likely to hear terms like "lean, increased through put, dependability and consistency" sprinkled throughout his response. Not all the areas of the

Marine Industry have been evolving at the same rate, however. In the marine coatings sector, the area of coatings development has been rapidly moving from the many layered, lower solids coating systems to advanced high solids or zero solids materials that are applied in fewer passes. But, in the equally important areas of Surface Preparation and Coatings Application, the continuing dependence on labor intensive manual methods has kept these two areas of Marine Coatings from achieving the efficiency and quality that has become synonymous with Automotive production lines.

In the Automobile coatings industry, wherever it has been economically feasible and technologically possible, the worker holding the spraygun (old Labor) has been replaced with a computer controlled painting robot that is programmed and operated by trained technicians (new Labor). In layman's terms, the painter is replaced with a

robot (automation) and then trained to operate it. The incorporation of advanced technologies into it's production methods has made the Auto industry a window to the future for other industries.

With automation, the company benefits from the speed, dependability, improved consistency and reduced labor costs possible with computer controlled robotics. The coatings worker moves away from direct exposure to hazardous materials and receives valuable training in advanced technology and last but not least, the customer benefits by having his contract completed faster and with greater quality and accuracy. An example of evolutionary development in marine manufacturing is CNC Mold production for composite craft. In this process, plugs and molds for boats are designed with the aid of computers and specialty software programs and then milled to the proper shape by computer controlled robotic equipment. This well

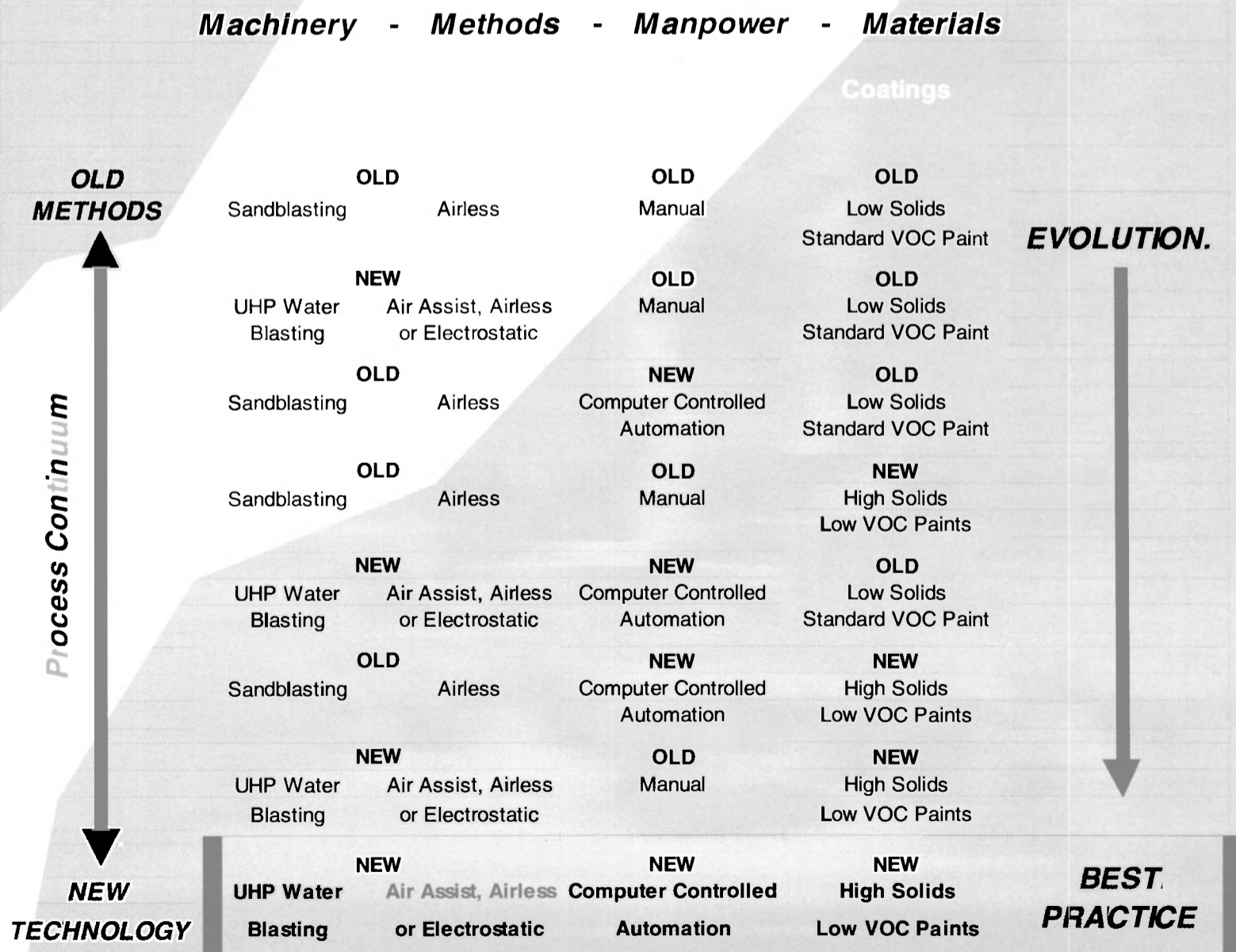
established production method delivers greater accuracy in substantially less time and makes the older practices of manual design and mold making inefficient and outdated by comparison.

Marine Coatings is poised to take a similar step forward as robotic water blasting units and computer controlled, plural component painting equipment give us a glimpse of the next step in the Evolutionary process-automated systems.

For more information from Visions East Circle 40 on Reader Service Card

By Steve Morton, President, Visions East, Inc.

Visions East, Inc. has patented the first robotic system for preparing and painting ship surfaces. By automating the marine coatings process, labor costs are reduced, uniform quality is delivered through precision application and contracts are completed on time.



Grand Bahama Shipyard Receives Quality Mark

Grand Bahama Shipyard has received ISO 9001 accreditation from the international certification body, Lloyd's Register Quality Assurance Ltd. Mr. **Graham Brown**, Vice President of Lloyd's Register North America Inc. presented the certificate of approval to the company on August 28 at the shipyard. The accreditation has been achieved in less than three years after the start-up of the operation and it is one of only a handful of such accreditations for industrial organizations in the Bahamas. It confirms that the quality management systems in place at the shipyard meet the highest International Standards and it endorses the commitment from the company and all its employees to continually improve the way in which operations are managed.

Chris Millman, CEO said "All of the effort and investment we have made in achieving this standard is a sign of how seriously we take our quality issues and the speed with which we have gained our accreditation is a testament to dedication and skill of our workforce. The certification highlights the fact that a vital goal has been reached in our aim to create a world-class ship repair facility here on Grand Bahama. Our quality management systems, which have now received accreditation on an international stage, will help us to ensure that we maintain the highest standards for our services and that we reach our goal which is to exceed customer expectations each and every time we repair a ship."

Currently in the shipyard is Carnival's 70,367 grt cruise vessel Fantasy, which is expected to stay for some five weeks. Much of the work is interior refurbishment, which is being carried out by Belfast's Mirvan.

GBS is one of the industries new arrivals, only opening for business during the late nineties. Locationally ideal for the cruise vessel repair industry, GBS has already completed a number of large repair and refit projects in this industry, and looks to maintain a leading position for the years to come. However, GBS management are also keen to increase the market share for more conventional ships trading in the area. The yard has already looked at the gas carrier market, and to improve their chances in this trade, has spent time and money in training for the workforce. To this end GBS has received certification from Norway's Det Norske Veritas (DNV) to verify that it has recently successfully completed a 'Liquid Natural Gas carrier' training and familiarization program.

Cascade General Granted USNS Rainier Contract

Cascade General Inc., Portland, Ore., is to be Awarded a \$6,192,763 firm-fixed-price contract for the post-turnover shipyard availability of the USNS Rainier. Work will be performed in Portland, Ore., and is expected to be

completed in December 2003. Contract funds will not expire at the end of the current fiscal year. This contract was competitively procured with five proposals solicited and two offers received.

The U.S. Navy's Military Sealift Command, headquartered in Washington, D.C. is the contracting activity (N62383-03-C2271).

Repair & Conversion UltraStrip Awarded Air Gap Magnetic Patent

UltraStrip Systems, Inc. the developer of robotic ship hull cleaning equipment, announced that it has received from the U.S. Patent and Trademark Office patent number US 6,564,815 titled "Air Gap



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Repair & Conversion

Magnetic Mobile Robot".

The new patent allows UltraStrip Systems to further expand its patented coatings removal systems.

The advantages to the Air Gap patent over existing UltraStrip patented roller designs are greater adhesion and non-marring of the surface.

UltraStrip Systems has received four

other U.S. patents for its coatings removal equipment (#5,628,271, #5,849,099, #6,287,340, and #6,425,389) with two Notice of Allowances approved, and two other patents applied for.

**For more information from UltraStrip
Circle 57 on Reader Service Card**

Brunei Develops New Coating System

Bristol-based Brunel Limited has developed radical new coating systems for the marine industry. The aim has been to create the most durable, efficient and environmentally friendly available. To marry the owners' needs for hull-effi-

ciency, long docking intervals, and short downtime, with those of the marine environment and the legislation designed to protect it.

Developed and produced in the U.K., the systems are constantly evolving, but are already well-proven. The system was recently applied on three Canada Maritime container vessels in Antwerp, and the same group, who operate a five-year docking schedule and widely use Brunel's systems, will be applying these on two further ships later this month in Lisnave, Portugal. Since its initial development with the aid of Britain's Royal Naval base at Portsmouth, applications have taken place in over 20 countries. Vessels range from Containerships, Tankers, Cruise Ships, Rigs, RoRo, etc. The product range covers decks, ramps, tanktops, tanks, hatchcovers, superstructure, leisure tracks and pools, as well as hulls above and below the waterline.

The Brunel systems rely on a tried and tested formulation, which is applied with conventional spraying equipment, of complex resins and their catalyst. The Enviromarine and Endurance product ranges are free of all metals and biocides. They will comply well beyond 2008, and so will not be required to be removed at that time to avoid encapsulation. Brunel's are not designed to cater for the manufacturer's normal commercial need for the ship to require re-coating at the next dry-docking, either by shedding the coating through wear, or by obsolescence through new legislation. Indeed, the facts that the system does not "polish off", and that it is approximately four times harder than concrete, have meant that wear factors are very low, even when hulls have been breaking ice for repeated winters.

The system is applied in fewer coats, which saves considerable cost and time. It can be re-floated in much shorter intervals after applying the final coat, since final curing will continue under water. Also, since there is no evaporation, painting and dock time are not at the mercy of the weather. Humidity is not a factor, and painting can continue in the rain. Since the coatings are 100% solids, and contain no solvents, there are no pores to nurture marine micro-organisms and to nourish marine growth on the hull. There are no attachment points for such growth and, with a coefficient of friction so low that it represents a fraction of polished steel or glass, the slightest motion of the hull helps to keep the hull efficiently clean. Inspections, including those by divers, have shown successful resistance to marine growth.

**For more information from Brunel,
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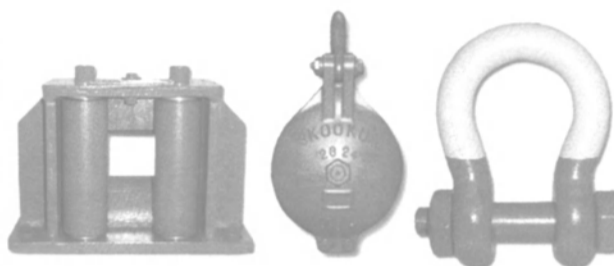
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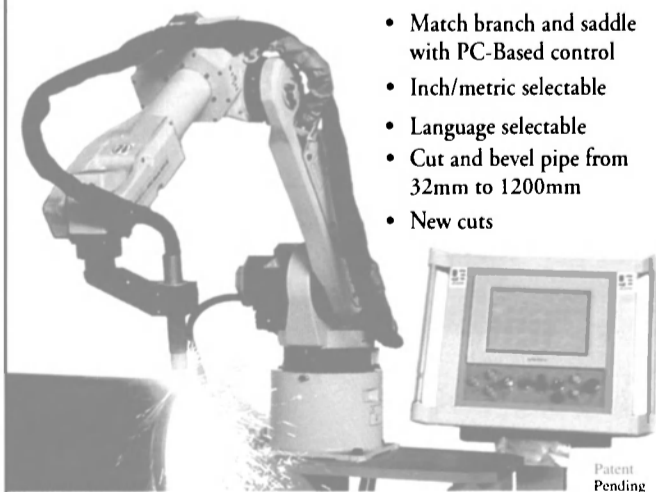
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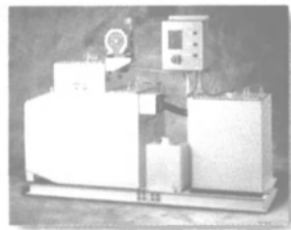
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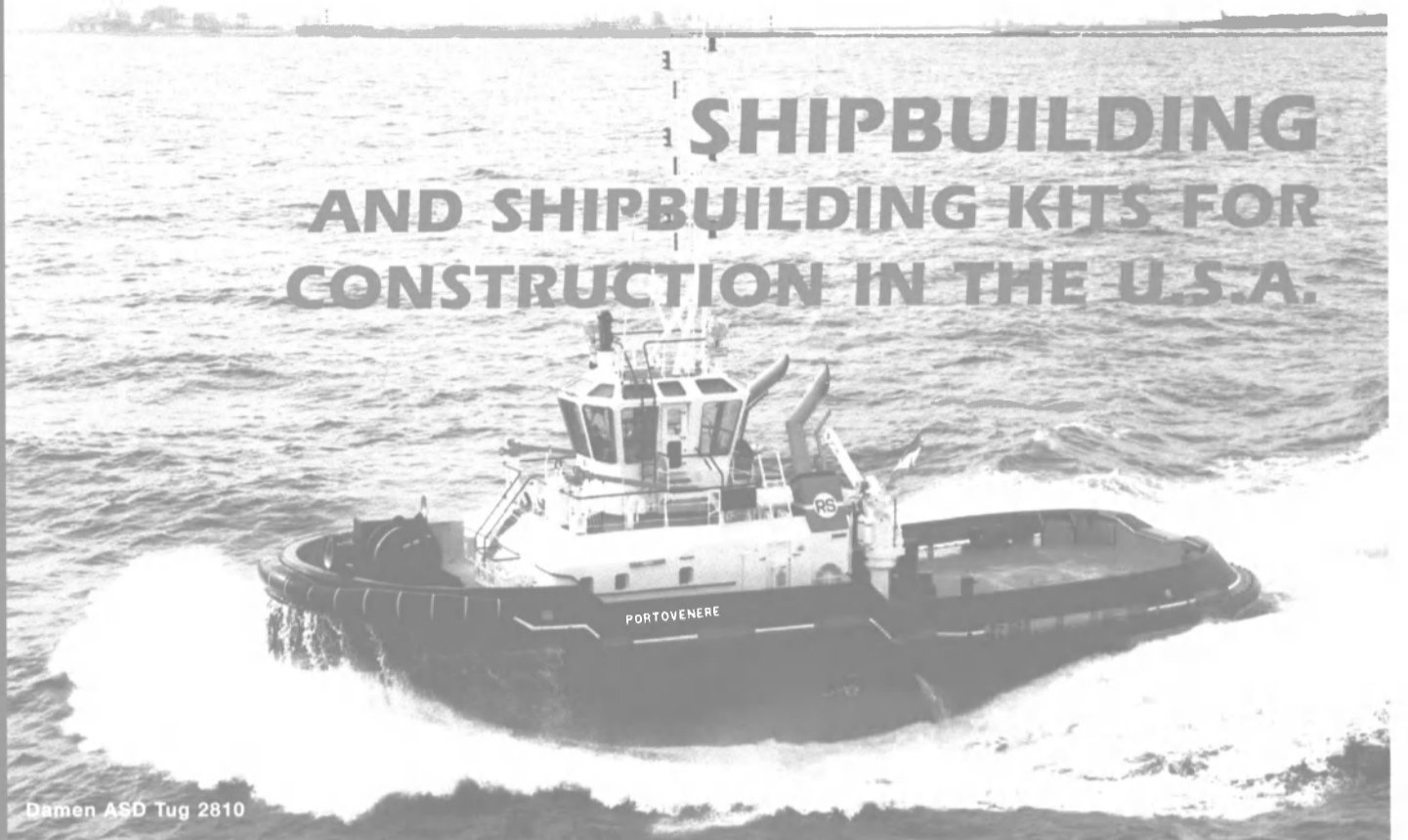
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November Ad Closing: October 10	
<p>BONUS DISTRIBUTION Rust 2004 Louisville, KY • July 12 -16</p>	<p>Feature The Workboat Annual Review of the best workboats built in 2004.</p> <p>Technical The Electric Ship Advances in the use of electricity onboard ships.</p> <p>Market Training & Education Facilities, Special Programs and Equipment.</p> <p>Product Ship Repair & Conversion Techniques Case Study profiles of some of the world's most challenging repair & conversion jobs.</p> <p>Directory Gulf of Mexico Buyer's Guide</p> <p>Country Focus China</p>
<p>BONUS DISTRIBUTION The International WorkBoat Show New Orleans, LA • Dec. 1-3</p> <p>Ship Repair & Conversion 2004 London, U.K. • Nov. 24-25</p> <p>Marintec China Shanghai, China • Dec. 2-5</p>	
December Ad Closing: November 10	
<p>BONUS DISTRIBUTION Offshore Communications 2004 Galveston, TX • Sept. 14-16</p> <p>ODESSA 2004 Odessa, Ukraine • Sept. 2-5</p> <p>BONUS MAGAZINE SUPPLEMENT MARINE SECURITY SOURCEBOOK</p>	<p>Feature Great Ships of 2004 Elite vessels delivered during 2004, with a focus on the owners, yards and suppliers that made them possible</p> <p>Technical Naval Architecture & Marine Engineering Annual Exclusive insights from the leading technical minds on emerging technological trends.</p> <p>Market World Shipbuilding Prospects: A 5-Year Analysis</p> <p>Product Deck Machinery, Cargo Handling Equipment, Hatches & Seals</p> <p>Directory Safety Products & Systems</p> <p>Country Reports Korea & Japan</p>
<p>2005 Global Maritime Directory Your advertising program earns your company credit toward discounted and free advertisements in the industry's most complete international directory of marine companies. A Compact Disc (CD) with more than 100,000 records of ship & boatbuilders, ship & boatowners, product and service providers. Ask your sales representative for details.</p> <p>2005 Maritime Directory on CD</p>	<p>CD ROM BONUS Advertisers in the December 2004 edition earn a free advertisement on The Maritime Group's 2005 Global Maritime Directory & Marine Equipment Catalog</p>

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Circle 262 on Reader Service Card

Europort 2003 Preview

New Marine Techn

EURO PORT 2003

Europort 2003, one of the marine industry's premier trade exhibitions, is set again for the Amsterdam RAI from November 18 — 22, 2003. This 31st Europort exhibition will feature more than 530 exhibitors representing more than 750 suppliers. This is the 31st edition of Europort, and the exhibition traditionally provides a broad overview of products and services for professionals who work in the sea shipping, inland navigation, offshore, dredging and ports sectors.

Europort 2003 will be backed by various conferences and annual meetings, including the MARE FORUM 2003 on November 17 — 18 in Grand Hotel Krasnapolsky in Amsterdam.

"The total of 14 national pavilions shows that more and more countries, including China on this occasion, regard participation in Europort as a very important way of raising their profile in the international maritime sector," says **Farouk Nefzi**, the Europort product manager. Countries submitting national entries for the first time are China, Cyprus, Finland and Romania. Those countries, which will be present again with a national pavilion, are Austria, Belgium, Denmark, Germany, Great Britain, Poland, Russia, South Korea and the United States. The Dutch exhibitors too will once again mount a collective entry under the aegis of Holland Marine Equipment (HME).



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Circle 294 on Reader Service Card

Technology Set for Debut at Amsterdam Exhibition

Innovation on Display

Europort attaches great importance to innovation, demonstrated by the dozens of new products presented by exhibitors for the first time. One crowd pleaser will undoubtedly be the demonstration of a vessel that uses air to reduce the water resistance of the hull.

Using a large model of a ship the Maritime Research Institute (MARIN) of Wageningen and the Netherlands' Shipbuilding Industry Association VNSI will demonstrate how this new, fuel saving technology works. This revolutionary advance in shipbuilding has already been developed so far that shipbuilders expect it to yield major benefits in the future.

Europort 2003 Schedule

Exhibition Days:
November 18 to 22, 2003

Admission Hours:
Tuesday, Wednesday and Friday
11 a.m. to 6 p.m.

Thursday Nov. 20
11 a.m. to 9 p.m.

Saturday, Nov. 22
10 a.m. to 4 p.m.

www.europort2003.com



MARE FORUM

The theme of the official Europort conference, which will be held in Hotel Krasnapolsky on November 17 — 18 will be: 'Restoring Trust in the

Triangular Relationship Between Ship-Owners — Regulators — Charterers / Shippers / Cargo Owners, and its Effect on Quality in Shipping Today.' To restore this trust the conference aims to

develop concepts that can lead to 'A fair price for good shipping service,' 'A balanced deal between contracting parties,' and 'A reasonable recognition of a quality shipping operation.' The CEDA

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Europort 2003 Preview

Dredging Days is a two-day conference (November 20-21) intended for professionals from the dredging industry. This year's topics are 'Specialist dredging techniques' and 'Inspiring dredging solutions.' More information about the conferences and how to register for them can be found at www.europort2003.com.

www.europort2003.com

Exhibitors and visitors alike can obtain more information about the forthcoming exhibition at Europort 2003's website www.europort2003.com. Europort 2003 will be held from November 18 to 22, 2003. The opening hours are from 11 a.m. to 6 p.m. on the Tuesday, Wednesday and Friday, 11 a.m. to 9 p.m. on the Thursday and 10 a.m. to 4 p.m. on the Saturday.

Company Caldic Techniek B.V.
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Product Multi-Line 2 generator control systems. This series consists of a product range that is very easy to assemble and fit, and combines all possible functions, such as synchronization, power control, extensive generator safeguards, read-out and transducer signals. New possibilities for use as a stand-alone generator unit or enlargement to form a complete Power Management System with external controls (p.l.c., etc.). Direct drive of diesel engines, e.g. by means of PWM signals and direct bus

connectors. Engine control, start/stop functions and safeguards (engine safeguards are not marine-certified), which provide much scope for automation.

Company Icon Research Ltd.
Booth 04.4062
Product Doctor on-line diesel engine performance and condition monitor.

Combines the Doctor technology with state-of-the-art Ethernet data capture. The Doctor analysis software from the portable range of analyzers provides full analysis capabilities. The Ethernet based network monitors cylinder pressures, scavenge pressure and optionally, fuel pressures.

Company Imtech Marine & Offshore
Booth 01.1031
Product New integrated bridge, advanced design with touchscreen control. Integrated bridge for low-end purposes. Maintenance solutions via worldwide network. Exhibiting other Imtech companies offering fully integrated solutions (like Imtech Access Technology, Imtech Telecom, etc.). E-propulsion technology with water chilled drives.

Company Machine Support B.V.
Booth 01.1168
Product Vibracon SM Low Profile elements are permanent, strong and reusable equipment mounting chocks

that are easily and accurately adjusted. The Low Profile elements are the economic solution for repair projects or fixed design systems where expensive milled chocks, shims or epoxy resins were inserted. Creates the ideal mounting plane for critically aligned machinery in those applications where the original Vibracon SM is too tall.

Company NewThex B.V.
Booth 01.1024
Product NewThex lifting appliance. A very complex elevator system special designed for the new Airbus A380 xx. It includes special hydraulics and electronic controls and sophisticated engineering by using a.o. FEM. The platforms are approx. 220 sq. m. and can lift 220 tons. The platforms will be installed on two ships that are built at the Shipyard De Hoop in Heusden. The ships will be used in order to transport parts of the new Airbus 380 xx from Bordeaux over the river Gironde to the factory in Toulouse. Weight; height and narrow space gives that the design of the platform is complex.

Company Tresco Engineering
Booth 01.1050
Product Inland ECDIS pilot GPS chart system for inland waterways vessels, with new electronic navigation charts in S-57 format. These digital charts can be used 'course-up' or 'north-up'.

Gesilco: Built to last



In 1993 the first Geislinger Gesilco glass fiber coupling was put into operation on a fast ferry, built in Spain. The Gesilco was caught up with the same "fate" as any other new invention: its introduction was met with wide-spread skepticism at engine builders, classification societies and operators. However, success in operation has proven the product effective.

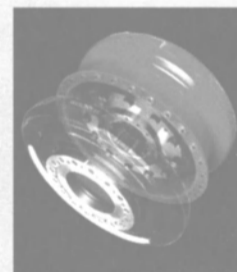
Gesilco is touted by the manufacturer as the lightest coupling on the market. At the same time it is designed to be extremely loadable, has an outstanding misalignment capability and very low reaction forces. All those characteristics were proven within the last 10 years over and over again, partly under the hardest conditions. The material used for Gesilco couplings is glass and carbon fiber — which is also used in the aero-space industry.

These couplings are used in a number of applications, especially for fast monohulls or catamarans, but also for coastguard- or police-vessels, for yachts or test bench applications. The power range for which the Gesilco couplings are used at the moment lies between 100 kW and 9,000 kW.

The latest product is the Gesilco disc, a flat membrane coupling for single bearing generator applications, which opens the door to many other fields of application.

Every year several hundreds of Gesilco couplings are produced at Geislinger's production plant in Bad St. Leonhard/Austria and are mainly combined with the well-proven, torsionalelastic high damping Geislinger couplings.

For more information from Geislinger
Circle 39 on Reader Service Card



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Europort 2003 Preview

Van der Velden Changes Name

A. van der Velden is changing its name. The company, which is a leader in inland shipping maneuvering equipment, is joining the other companies in the Van der Velden Group in operating under the trade name Van der Velden Marine Systems.

Its experience in ocean-going equipment has been offered under the Barkemeyer brand, the superyacht market has been served via Van der Velden Yachting, and (maritime) crane solutions have been marketed under the name Van der Velden Marine Cranes.



"The different companies in the Van der Velden Group have taken a more integrated approach in recent years, ensuring expertise is shared," said Managing Director **Gerrit Spekman**. "To gain maximum synergy from our global reputation, it makes sense for the four firms to operate under a single name: Van der Velden Marine Systems. Our philosophy is to provide smart maritime solutions to the inland shipping, ocean-

going and yachting sectors, always distinguished by excellent quality and a round-the-clock worldwide network."

Its Inland Shipping sector is a leader in the specialist field of river maneuverability, with more than 4,000 rudder placements. Barkemeyer joined the Van der Velden Group in the 1990s and has since embarked on a major program of innovations. The company prides itself on taking a customized approach to each of the different ocean-going disciplines, including shipping companies, dredgers, cruise vessels, fishing & underwater research, the Navy and SWATH concepts.

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Schottel

Schottel will be showing its range of innovative products and services on stand 07.7048 (Amstelhal), where a sales and service team from both Schottel headquarters and Schottel Nederland BV in Zoetermeer will be on hand. The current range of products and services encompasses in particular: Rudderpropellers (SRP) up to 6,000 kW, Twin-Propellers (STP) up to 3,500 kW, Navigators (NAV) up to 1,000 kW, Podded Drives (SEP and SSP) up to 20 MW, Pump-Jets (SPJ) up to 3,500 kW, Transverse Thrusters (STT) up to 3,400 kW, controllable-pitch propeller plants (SCP) up to 30,000 kW, including shafting, rudder systems and remote control devices, as well as tailor-made steering

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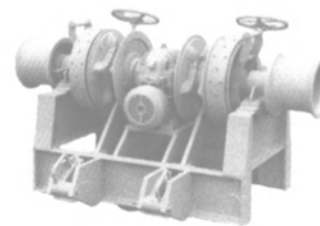


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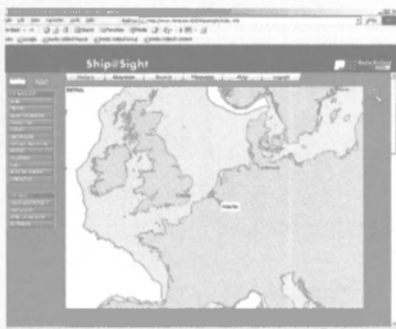


Schottel's Director of Marketing and Sales, **Christophe Mourout** (center), demonstrates the advantages of the Schottel Electric Propulsor SEP by means of a working model.

and control systems.

For more information from Schottel
Circle 14 on Reader Service Card

Radio Holland



Radio Holland Group presents several 'breaking' novelties in maritime electronics at Europort 2003, as usual in an eye-catching major stand presentation (Stand No. 01.1077, Europahall RAI). In co-operation with Furuno (Japan), Radio Holland will launch the new series of Furuno blackbox deepsea radars. All features will be announced shortly before the exhibition. Also new on show at RH is the innovative AVECS Ship Management System, presented in a virtual Maritime IT Surrounding on the stand, including several other IT applications to be used onboard. Also Radio Holland will present the latest equipment of its newest exclusive brand in Automation equipment, Stein Sohn. The new airtime services that Radio Holland offers through its brand Radio Holland Connect, will be presented together with the complete Fleet satcom range F77, 55 and 33 of Nera and ECI. For audio/video purposes RH introduces the new Sea Tel 4003 Broadband-at-Sea KU Band Maritime VSAT system, as well as an innovative DVD server for maritime applications. RH will show a complete electronics range for navigation, communication, automation, AV, survey, fishery, deepsea and inland shipping.

For more information from
Radio Holland
Circle 18 on Reader Service Card

Nauticast AG

Following the company strategy to expand its global business, Nauticast's SOLAS Class A AIS-Transponder was recently granted two further regional approvals: The USCG/FCC-approval for the North-American market and the CCS-approval for the emerging market of the Federal Republic of China. "AIS

is one of the key technologies for the shipping-industry and North-America and China are core-markets for our future business," says **Peter Martin**, CEO of Nauticast. "We are consequently following our path towards AIS leadership by upgrading our products with new features. This has been recognized in the market and has led to orders of

more than 1,500 units."

Besides civil maritime applications, the naval market holds huge potential for AIS technology. Nauticast has completed the development of a customized AIS-unit: The Navy X-Pack. The Navy AIS-system is a tailored solution for naval applications and provides specific features for this area of operation;

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Europort 2003 Preview

including encryption, shadow or silent mode as well as traffic maneuvers images. Dedicated shore-based systems for RIS (River Information System) and VTS (Vessel Traffic Service) applications will also be made available for naval operations.

**For more information from Nauticast
Circle 15 on Reader Service Card**

Wartsila Gensets for Sovcomflot Tankers

Wartsila won a contract by Admiralty Shipyards in St Petersburg to supply 12 generating sets based on Wartsila 20 diesel engines for tanker newbuildings for the Russian shipowner OAO Sovcomflot

Circle 42 on Reader Service Card

STN Atlas

STN Atlas Marine Electronics will feature three new products along with its established product range at this year's Europort exhibition. Key exhibits will include a proprietary Ship Control Center (SCC) integrating and automating all main bridge equipment operating functions and including a NACOS

Series 4 navigation command system. Display functions will also include latest results of the current EU-funded EPDIS (Electronic Pilot Display Information System) project headed by STN Atlas and five partners. Communications exhibits will include the Debeg 3270 Inmarsat F satcom terminal, as well as Debeg 3200, a new Ship Security Alert System (SSAS) for ships of more than 500 gt built on or after July 1, 2004.

Circle 17 on Reader Service Card

VT TSS

The latest developments in gyro-compass technology will be a major feature on the VT TSS stand at Europort (Stand No 02.2003) with its range of SG Brown and TSS products. The Meridian range of gyros will be shown alongside new gyro-repeaters that will be seen for the first time at the Amsterdam show. The Meridian was launched in 2001 to meet the need for a fully certified gyro for use on conventional shipping and high-speed craft.

Circle 16 on Reader Service Card

Improved Hatch Cover Handling on Bulkers

MacGregor's new Roll-up-Roll mechanism for side-rolling hatch covers combines higher operating efficiency and safety with lower maintenance: just 18 hydraulic cylinders are needed for a shipset of Cape-size bulker covers, compared with 72 cylinders used in traditional wheel-lifting systems. Shanghai Waigaoqiao Shipbuilding (SWS) yard's debut newbuilding — 175,000 dwt bulk carrier CSK Fortune for Tai Chong Cheang Steamship (TCC) — features MacGregor side-rolling hatch covers with a new Roll-up-Roll mechanism. Higher operating efficiency and safety with lower maintenance are delivered, both panel lifting and cleating performed simultaneously and fully automatically, simplifying and speeding deployment of the covers. The Cape-size bulker design was developed by TCC in association with Peter Cheng Naval Architects & Marine Consultants of Hong Kong, the Shanghai Merchant Ship Design & Research Institute and the shipyard. Each hold is equipped with a MacGregor side-rolling hatch cover comprising twin panels stowing to each side and offering clear openings 15.5m long x 16.5m wide and 15.5m x 20m. **Circle 43 on Reader Service Card**

Maritime Reporter & Engineering News



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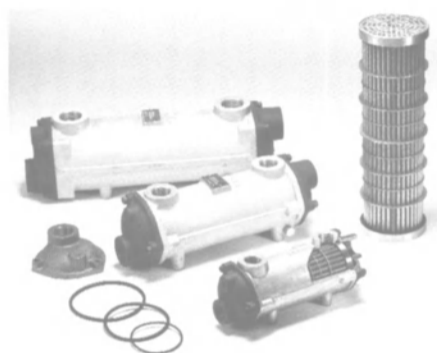
Circle 329 on Reader Service Card

New Mooring System from Glestein

Glestein ropes introduced a new generation of engineered mooring systems and associated advanced technology fiber ropes for the offshore and commercial marine industries. Using Mooring Master technology from Samson Rope, Glestein will fabricate a complete range of mooring systems. Mooring Master N-7 Nylon is an OCIMF prototype tested product, and is available from Glestein in sizes to 21-in. circumference.

For more information from Glestein
Circle 44 on Reader Service Card

Bowman Coolers Receive ABS Certification



U.K.-based EJ Bowman has manufactured its range of marine heat exchangers and oil since 1919. The company recently had its range of hydraulic EC to PK shell and tube oil coolers design approved for marine use by the American Bureau of Shipping (ABS) and now hold certificate no. 02-LD302798-PDA. Bowman heat exchangers and oil coolers are suitable for use on engines up to 1,400 kW (1,880 hp) and for gear boxes up to 1,800 kW (2,400 hp). As a result of this design approval EJ Bowman are exhibiting at the Workboat Show in New Orleans in December 2003.

For more information from Bowman
Circle 45 on Reader Service Card

Avondale to Get \$112M Modernization

Northrop Grumman Corporation's Ship Systems sector and the state of Louisiana signed an agreement for an approximately \$112-million modernization program at the sector's Avondale Operations. The state funding dedicates \$39 million toward the purchase of new, automated panel line equipment, and four new, heavy-duty cranes, as well as \$16.85 million for various workforce-training initiatives. Northrop Grumman's capital investment will be used to integrate the new panel line equipment, upgrade the electrical distribution facilities, purchase new manufacturing equipment and machinery, and upgrade computer software and hardware for the design and construction of ship programs.



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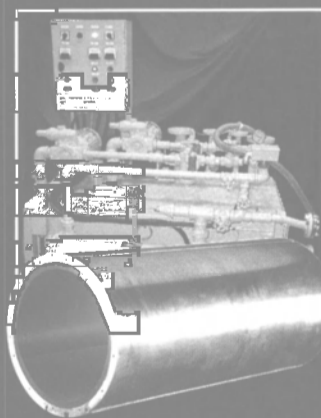
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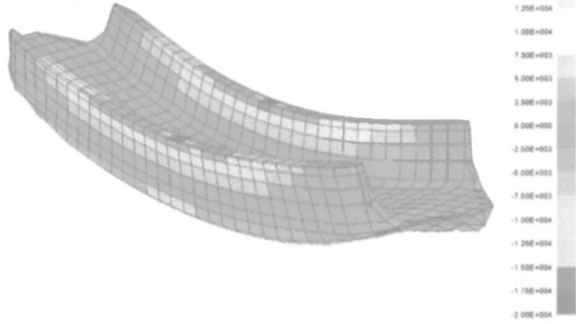
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Circle 307 on Reader Service Card

HVAC's full 3D modeling environment reduces user errors and clashes with structure Full-Featured Reporting.



HVAC Featured In ShipConstructor2004

Scheduled for a September 2003 release, the next major revision of the 3-D product modeling software for shipbuilding and offshore platforms from Albacore Research Ltd., ShipConstructor2004, will include a full Heating, Ventilation and Air-Conditioning module (HVAC). HVAC is a fully integrated member of the ShipConstructor suite of Structure, Automatic and Manual Nest, NC Code generation, Outfit, Pipe, Fairing, and Lofting tools. To facilitate automatic report generation, HVAC makes full use of ShipConstructor's SQL Server product database.

As with all ShipConstructor modules, HVAC is a full 3-D modeling package; this reduces drafting errors and time-to-production. With ShipConstructor, HVAC ducts are full-featured AutoCAD entities. Ducts keep track of their connections, allowing them to be stretched and moved in real-time while maintaining connections. Because ducts track changes to the system, ARL has virtually eliminated the need to re-draw large sections of HVAC due to small modifications. As with all of ARL's intelligent objects, ducts can be exported to regular 3D solids if desired.

For more information from Albacore Research, Circle 69 on Reader Service Card

Autoship Continues To Make Waves

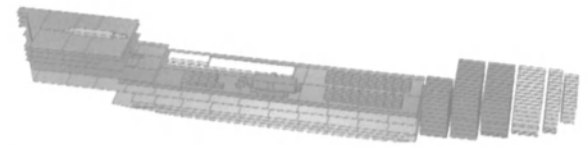
Autoship Systems Corporation (ASC) is making waves in a host of maritime industries — they remain a leading software supplier with a range of products that include complete CAD/CAM suites, Stowage Planning Systems (SPS), real-time Hydrostatic Engines, and real-time Structural Strength simulation.

With a customer list that includes companies such as Newport News, ASC can never forget its CAD/CAM roots - and the tradition continues with major additions coming soon to both Autostructure and Autoship product lines. Starting October 2003, Autostructure includes a complete Production Manager program (structural fabrication functions such as part nesting onto stock material), and a parametric design feature that will create a deck beam, frame, edge stiffeners, and brackets in one operation. Already being developed for next year's Autoship 9 are brand-new, state-of-the-art surface editing capabilities.

ASC continues to demonstrate that it can create stowage planning, hydrostatic, and structural strength products for any maritime market anywhere in the world: offshore, Great Lakes bulk cargo, tanker, container, break bulk, and RoRo. For example, new customers include Haliburton Subsea, Maersk, Statoil AS, Trans Ocean, Rolls Royce, BP, Teekay Shipping, Nile Dutch Africa, Upper Lakes Group, and Algoma Central

Maxsurf Links with ShipConstructor

Formation Design Systems and Albacore Research Ltd. (ARL) have announced that Formation's Maxsurf suite of naval architecture and ship construction software now links with ARL's ShipConstructor software suite to provide shipyards with a complete end to end solution for ship design, detailing and production. The link has been developed by Formation Design Systems



3-D representation of break bulk and container cargo. Images of cargo include separation and lashing.



With SPS, WWL will now coordinate stowage planning around the globe.

Marine. Implementation of ASC's two largest Stowage Planning Systems (SPS) are well underway at both Westwood Shipping Lines (bulk, break-bulk, container) and Wallenius Wilhelmsen Lines (RoRo, container).

For more information from Autoship, Circle 70 on Reader Service Card

as part of their ongoing program of adding additional capabilities to the Workshop module within the Maxsurf suite of software. The new functions allow naval architects and structural designers to take preliminary structural definitions from Workshop and export them in a format compatible with ShipConstructor. This format allows transverse frames, longitudinal stringers, hull plates and decks to be transferred.

The new Maxsurf/ShipConstructor interface allows a range of parts to be exported. These include: export of hull plates complete with both 2D and 3D plate information and marking lines; export of stringer information including the full 3D stringer shape, export of transverse frames including cutouts for stringers and openings in the frame; export of decks including any deck openings. All parts can be rendered in 3D before export and verified in a similar way after import into ShipConstructor.

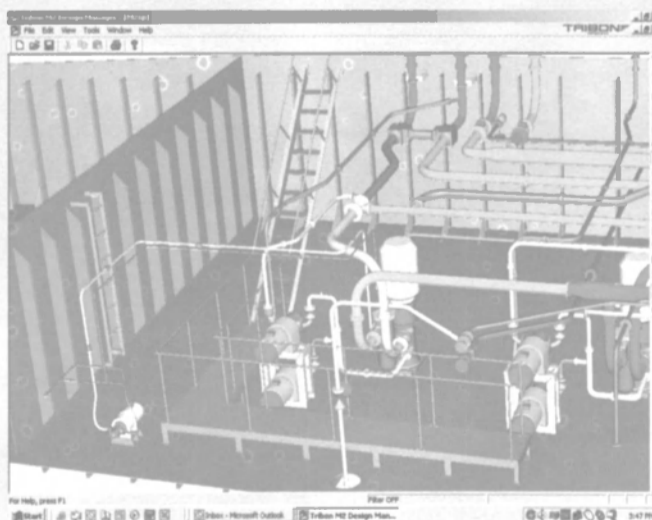
Albacore Research develops the software suite ShipConstructor, an easy-to-use, 3D product modeling tool for ships and offshore structures of all sizes. ShipConstructor provides functions for Curved Plate Production, Internal Structure, Piping, HVAC, Nesting and NC Processing. ShipConstructor runs inside of AutoCAD connecting all data to Microsoft SQL Server, thus presenting a familiar environment and resulting in minimal training requirements. The modular software design and flexible licensing allow ShipConstructor to be fully scalable to the client's specific business needs from the largest shipyard down to the smallest boat builder. ShipConstructor is used worldwide by hundreds of shipyards and naval architects on a wide range of vessels and offshore structures.

For more information from Albacore Research, Circle 72 on Reader Service Card

Neilsoft Outfit Steel Module Reduces Design Time

The Neilsoft Outfit Steel Module is a new modelling tool for the Tribon M2 Shipbuilding system enabling designers to easily, quickly and accurately create and place outfit steel objects into the Tribon Product Information Model (Tribon PIM). The outfit steel objects available are Walkways, Ladders, Staircases, Equipment Foundations and Masts. This module developed by Neilsoft will be marketed and sold by Tribon Solutions to Tribon users worldwide. In fact, this past October, Tribon Solutions and Neilsoft signed a developer co-operation agreement, wherein Neilsoft will support Tribon users world wide in the customization of existing Tribon applications, and by developing new tools using the Tribon M2 Developer's Toolkit (including the Vitesse application). These structures can be complex as each single structure may consist of up to hundreds of different parts. The Outfit Steel Module has a parametric modelling approach that reduces the amount of user interaction to a few simple inputs. Thereafter the module automatically generates the model objects of the structures thus reducing the design time to virtually a couple of minutes.

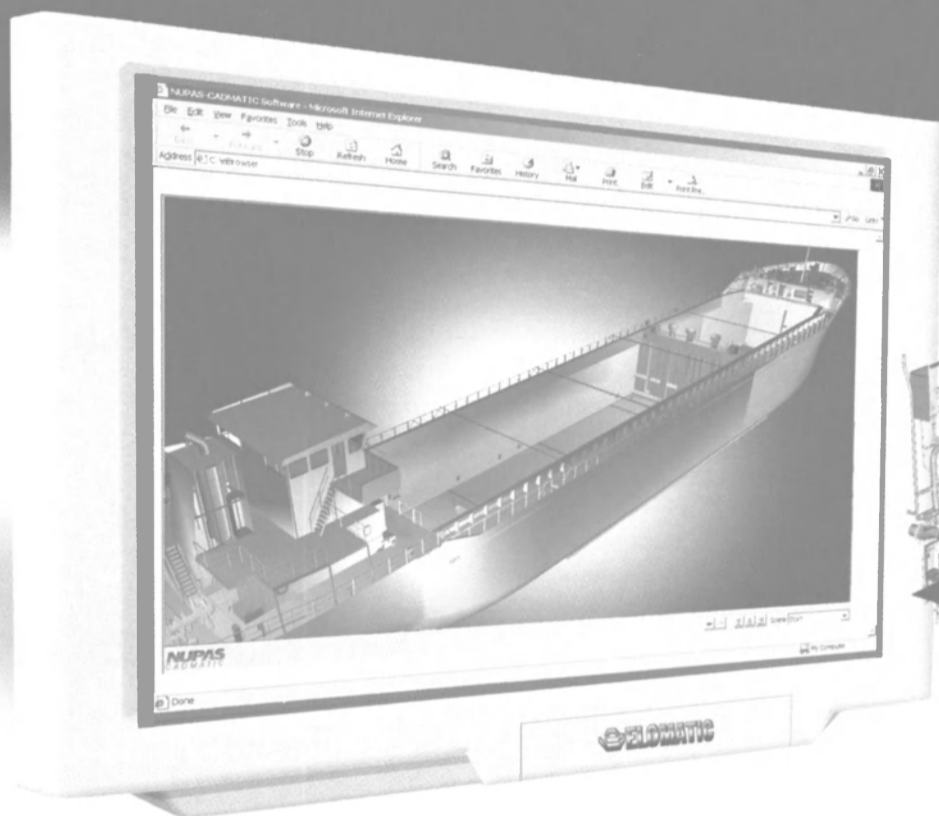
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- Plate and profile bending
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- Pipe cutting and bending
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The Nupas-Cadmatic models are courtesy of Elomatic Marine Engineering Ltd, Finland and Shipyard Ferus Smit, the Netherlands.

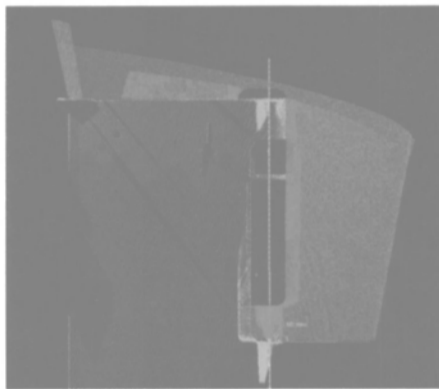
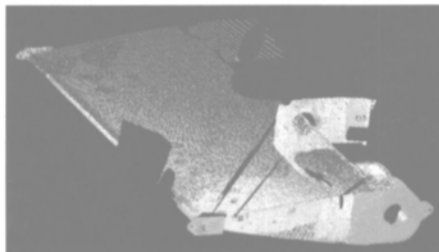
Provide Solutions Introduces 3D Laser Scanning

LIDAR-based 3D laser scanning allows designers and builders to view structural and machinery units already fit as a final product before construction and assembly are finished. Quick dimensional comparison can be made between drawings and constructed units, checks for accuracy and alignment can be made to control the general quality of the product — all while reducing the expense of re-work.

Provide Solutions, based in Scottsdale, Ariz., is developing the use of this technology in the marine industry. In 2002, the company conducted a pilot test in partnership with ConocoPhillips Marine and Northrop Grumman Ship Systems Avondale Shipyard. The goal of the pilot program was to determine the potential for 3D laser scanning to minimize rework during ship production by checking accuracy early in construction. The 3D laser scanner proved to be up for the job, as it is a high-accuracy, high-definition surveying tool that can rapidly and remotely measure ship sections and components for accuracy and control.

"The purpose of the trial was to integrate the technology to save time and costs associated with ship fitting and rework during the production process," says **Scott Cedarleaf**, president of Provide Solutions.

The 3D laser scanning technology uses multiple lasers pulses to measure



the surface geometry of objects. These line-of-site scans have a range of 1 mm to 5 mm accuracy up to a distance of 50 m depending on the techniques used for measurement and data analysis. The scanner sends out laser pulses to an object and measures how long it takes for each pulse to return to the scanner. The data from each pulse are translated into 3D coordinates. Hundreds of thousands of measurements are made of each object during a scan, which typically takes 10 minutes or less, and together the 3D coordinates create a highly detailed 3D point cloud.

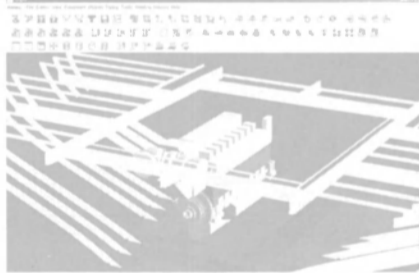
These point clouds can be immediately reviewed on a laptop computer in the field. They also can be imported into AutoCAD to create 2D and 3D drawings for further analysis, including design maintenance, value engineering and virtual fit prior to fabrication and installation of complex machinery and systems.

Provide Solutions worked alongside the shipyard's engineering and design, accuracy control and ship fitting departments to provide a balanced and objective approach for testing and implement-

ing the technology in the production process.

During the pre- and post-erection processes, units can be virtually fit to previously fitted units and reworked in the staging area. Virtual fit-up can also be made between units and assemblies located at different work sites prior to the transportation of equipment to the assembly site. This proactive approach allows the building team to rework both the fitted unit and the unit to be fitted prior to assembly.

For more information from
Provide Solutions,
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Nupas-Cadmatic Offers Versatile Shipbuilding Applications

Nupas-Cadmatic is a joint venture of Cadmatic Oy and Numeriek Centrum Groningen B.V., a combination of resources designed to create a solution that exceeds the level of traditional software offered to the maritime market. Nupas-Cadmatic is a unique CAD/CAE/CAM solution for shipyards and consulting engineering offices interested in improving their efficiency in design, engineering and production. It is designed to be a new generation of open

software for hull, machinery & piping, outfitting and interior design, engineering and producing a variety of production information as well.

With Nupas-Cadmatic 3D Show Extended the user has the possibility to

start engineering of the hull construction from the start. This is done by using the NUPAS-CADMATIC 3D product model. During this early stage the information about the construction, like ships weight, center of gravity, is known in

real time. The system guides the user with a maximum of assistance to build the model.

**For more information from
Nupas-Cadmatic
Circle 55 on Reader Service Card**

New Tech for Drafting, Data Management

SENER has partnered with think3, Inc., a global provider of integrated product development solutions, to incorporate technology from think3 to improve and upgrade its CAD/CAM software FORAN.

"The agreement with SENER will allow us to have an additional vertical application based on think3's kernel, dedicated to the shipbuilding industry. This represents a strategic area as well as a significant market for think3, through the direct and indirect channels", said **Alberto Pittoni**, think3's Indirect & OEM Channel Manager.

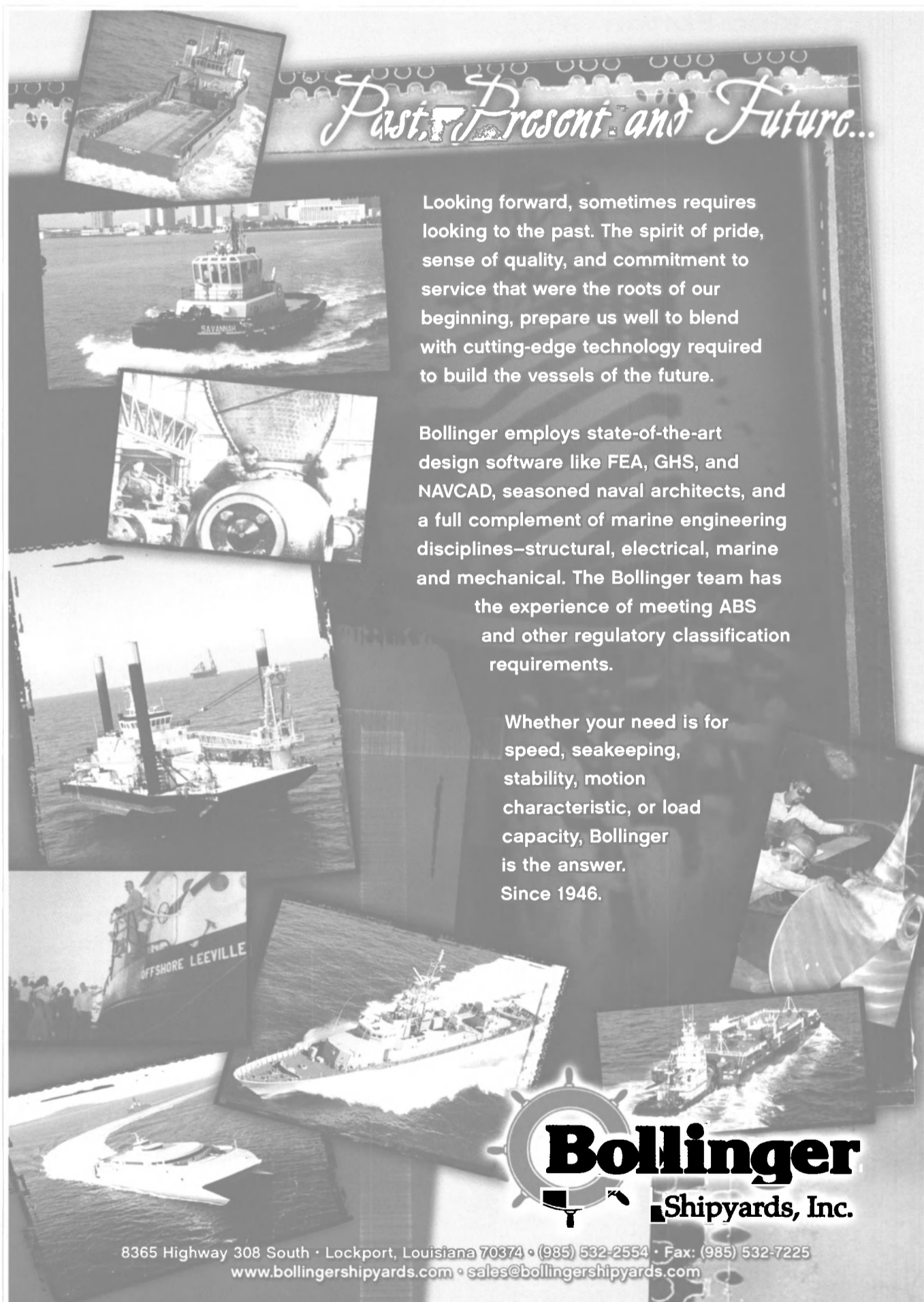
think3 technology will enable SENER and its customers to reduce the time-to-market of new products and speed up significantly the product development cycle by allowing the full integration of 2D-3D and PDM. FORAN users will benefit from simple, easy to use software. This will be reflected in the streamlining of the production of drawings and the introduction of PDM functionality fully integrated with the FORAN 3D model.

**For more information from Sener
Circle 56 on Reader Service Card**

J. Ray McDermott, Selects ABS NS

Marine constructor J. Ray McDermott has selected ABS Nautical Systems (ABS NS) as the software provider of choice for its assets worldwide, including all major derrick barges and associated equipment such as cranes and specialized offshore equipment. McDermott has purchased the following ABS NS modules: Maintenance & Repair, Purchasing & Inventory, Financial Reporting, Replication Manager and Crew Management.

**For more information from
ABS Nautical Systems
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ABS President Discusses Bulk Carrier Safety

ABS President and CEO, Robert Somerville recently discussed Bulk Carrier Safety at a conference in London. His speech, in part, follows.

It was in the tumultuous period when the tanker industry was still trying to

adjust to OPA90, to the mandate for double hulls, to the uncertainties of COFRs and all the rest of the restrictions that were being placed on their operations. It was also a time when there had been a casualty, with a small amount of pollution, involving a bulk carrier.

Of course the incident was portrayed by the media as another "tanker" casualty. That owner was very, very frustrated. His basic argument was that his dry bulk brethren just "didn't get it."

That it was not just tanker operators who had been thrust into an entirely dif-



ferent ballgame. It was the industry.

That legislators and the general public were not interested in whether one subset of the shipping industry was at fault. In their eyes, it was the shipping industry that was at fault.

That, as a consequence, every time a bulk carrier was involved in a high profile casualty, the tanker sector would suffer.

His frustration was rooted in the apparent reluctance of the bulk sector to recognize this and to accept that this knock-on effect would ultimately include them.

It's only a matter of time, he warned, and they will have their own OPA90. Is there anyone here who would dispute the accuracy of his forecast?

These last 10 years have seen a steadily increasing raft of new regulations affecting the design, construction, operation and maintenance of bulk carriers, starting with the Enhanced Survey Program and culminating with the possible mandate for double sides.

And I think it is an odds on bet that the process is far from over even though there is clear statistical evidence that ESP is working and that bulk carrier losses are declining.

Are the changes warranted? It doesn't matter. The technicalities of double hulls for tankers were entirely irrelevant within the political context.

When there is a perceived need for action, no legislator worth his salt can resist the temptation to fill the void.

And so it is that the bulk carrier owner of the future will most probably be building double side skin vessels, like it or not. Will that double-sided bulker be safer than a robustly designed, well maintained, single skin ship?

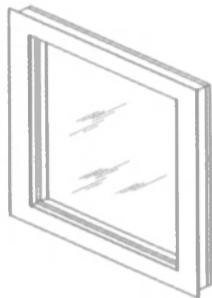
No. But that is not the way the system works. And I think this is where many members of our industry still have not fully grasped the realities of the current situation.

The public face of this industry is the 27 year-old bulk carrier that is detained in a European port with 90 safety deficiencies as the owner tries to squeeze in one more voyage before the pending intermediate survey sends her to the

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Circle 230 on Reader Service Card



"These last 10 years have seen a steadily increasing raft of new regulations affecting the design, construction, operation and maintenance of bulk carriers"

— ABS President/CEO, Robert Somerville

scrap yard.

It is the older, poorly maintained bulk carrier that suffers side shell failure and sinks, taking her crew with her.

Let's be realistic about this. Legislators will always seek to establish regulations that address the worst-case scenarios and those can usually be attributed to the small minority of owners who do not care about standards.

Yet the people who bear the principal costs of those actions are the responsible operators.

What I have not, and cannot understand is the reluctance of good owners to accept that, in the long run, it is cheaper and easier to support and adhere to the highest standards that make it difficult for the substandard operator to continue in business.

The surest way to guarantee continuing disruptive and costly regulation is to maintain the discredited and damaging lowest common denominator practices of the past.

Every member of the safety chain, including class, bears some responsibility for improving standards.

Yet, class, for example, continues to be pressured by shipyards seeking to cut their costs by optimizing the amount of steel that goes into a new bulk carrier.

It was only a couple of years ago that a leading shipyard took a proposed new design to each of the leading members of IACS with the clear inference that the society that approved the design with the least steel would become the shipyard's preferred society for the planned series of ships.

By simply increasing the cost of the ship by a \$1M if built to an alternative society's requirements, a yard is able to significantly influence an owner's selection. It doesn't matter if the owner changes class on delivery; the inherent susceptibility of that design is already built-in to the ship. But the problems do not stop there. There are flag States that either do not care or who will, on occasion, attempt to pressure the class society on behalf of the owner.

Let me give you an example of another kind of pressure to which class is exposed.

Recently one of our surveyors con-

ducted a rafting survey on the tank of an ABS classed ship.

He noted a section of the underdeck plating that appeared to be heavily corroded and asked the owner to stage the tank to allow a close up inspection.

The owner's response was to immediately transfer class on that ship, and on all the other ABS classed vessels in his fleet.

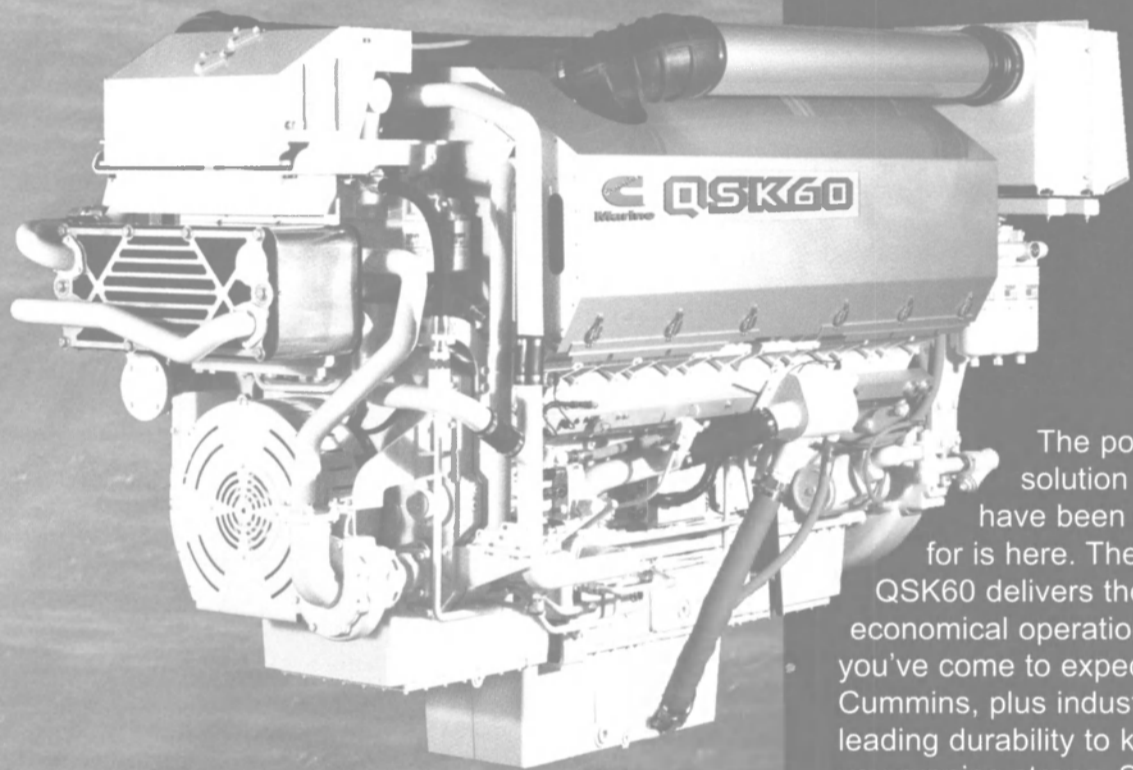
Adding insult to injury, the owner then invoiced ABS for the cup of coffee that had been provided to the surveyor.

I do not believe for a minute that any of the overwhelming majority of responsible members of this industry is comfortable with the situation. The Hong Kong Shipowners Association and MARTECMA, for example, have become prominent advocates of change

— demanding robust bulk carriers that are fit for purpose. And it is there organizations, together with the very promising first steps taken by the Round Table members — Intercargo, ICS, Intertanko and Bimco — that give me hope that, finally, a willingness to change has begun to emerge.

(Continued on page 80)

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Circle 233 on Reader Service Card

Integrity in a New Era

By David Tinsley, technical editor

As the first containerhips officially credited with capacities topping 8,000-TEU, the series of newbuilds ordered at the start of the year by Vancouver-based Seaspan for long-term charter to China Shipping Group embodies a design, which has been the subject of the most thorough structural analysis.

The boxship sector has always been characterized by a propensity for driving developments to the limits of technical possibility. Its outstanding structural safety record over the years is testament to the industry's unflagging efforts to ensure long-term vessel integrity in combination with advancing scale.

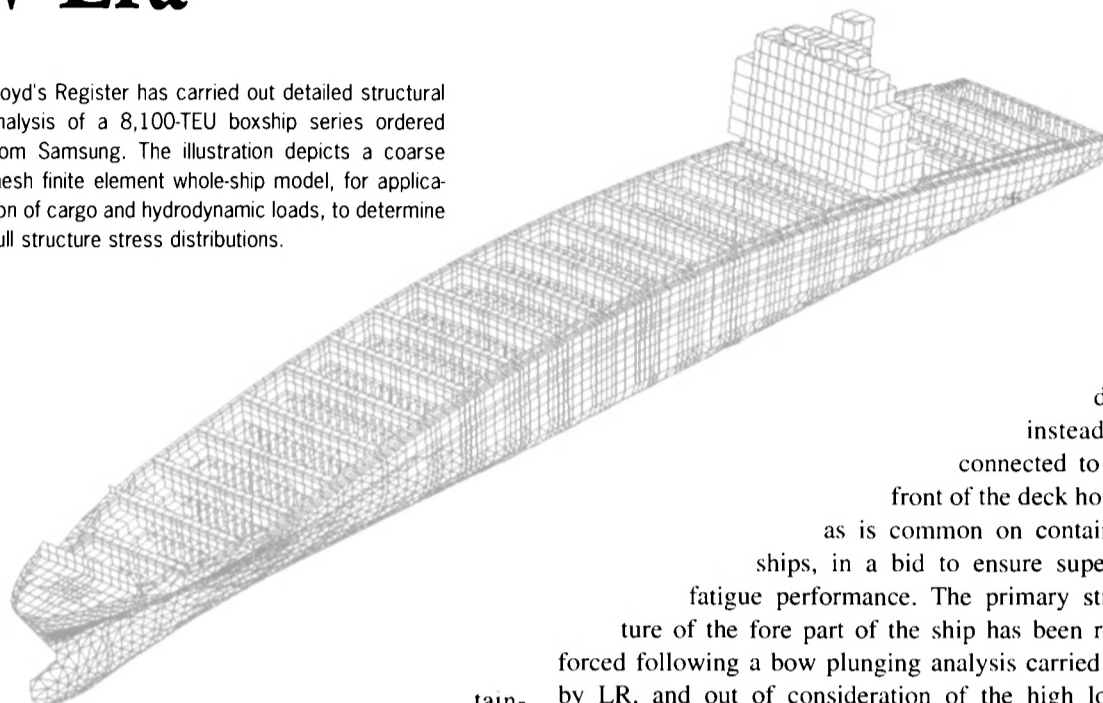
The considered technical approach expressed in current projects in the 8,000-9,000-TEU category, the focus of a major investment drive by the industry this year, demonstrates that the nascent generation of linehaul vessels represents more than an extrapolation of design and engineering systems proven at a smaller unit scale.

The five 8,100-TEU post-Panamax vessels contracted by Seaspan from Samsung Heavy Industries, will rank among the largest containerhips ever to have been built in Asia. It is understood that two of the newbuildings have since been sold to Danaos Shipping of Greece, and that one of the series will now be owned outright by China Shipping Group. Seaspan, part of the Washington Marine Group, was also linked with earlier studies at Samsung into a 9,200-TEU vessel design, in a project involving a European operator.

Powered and formed for a laden speed just under 26-knots, the 8,100-TEU design has been dimensioned for 19 forty-foot bays in the hold and 20 above deck, with the weatherdeck stow encompassing 17 stacks across in a maximum of seven tiers.

A lashing bridge arrangement is to be adopted in the interests of improved cargo security and turnaround time, while the hatch covers have been specified with four panels instead of the usual three to promote con-

Lloyd's Register has carried out detailed structural analysis of a 8,100-TEU boxship series ordered from Samsung. The illustration depicts a coarse mesh finite element whole-ship model, for application of cargo and hydrodynamic loads, to determine hull structure stress distributions.



tain-
er-han-
dling flexibility. Shipment scope will be enhanced by provision for up to 700-FEU integral, air-cooled type refrigerated boxes.

Lloyd's Register has undertaken a comprehensive structural analysis of the vessel type as part of the plan approval process from the society's Busan office in South Korea. It takes the view that a robust and proven structural analysis methodology is crucial with ships of this size. The extensive list of class descriptions under which the new series will be built include the ShipRight notations SDA(structural design assessment), FDA(fatigue design assessment), and CM(condition monitoring).

The primary structure has been assessed using a full ship model created by Samsung and analyzed by LR. Fine mesh models of the critical hatch coaming and upper deck details have been investigated. The aft end of the hatch coaming has been tapered into the upper

deck instead of connected to the front of the deck house, as is common on containerhips, in a bid to ensure superior fatigue performance. The primary structure of the fore part of the ship has been reinforced following a bow plunging analysis carried out by LR, and out of consideration of the high loads imposed when large, fast containerhips are driven through heavy seas. As studies have indicated the susceptibility of such vessels to stern slamming when operating at reduced speeds, the 8,100-TEU type also incorporates strengthening of the stern.

Given the very substantial breadth, transverse strength has commanded greater attention than that typically required for Panamax vessels. Large angles of roll have been examined as part of the structural analysis, and some additional reinforcement was deemed necessary.

The manner in which the design process has been managed is an evolution of previous projects. All design comments have been exchanged between LR, Seaspan and Samsung by e-mail, and the classification body reports that a commitment to transparency by all parties has enabled design issues to be quickly identified and resolved. Such an approach is pertinent to the development of even larger containerhips under design by the South Korean builder.

More Power to the Dredgermen

Belgian dredge contractor Jan De Nul is putting down new markers for an industry that has invested in major advances in vessel scale, power and performance in recent years in line with intensifying competitive pressures and the evolving nature of project demands. The company's recent recommissioning of the mega trailing suction hopper dredger Vasco da Gama, equipped for tasks at greater-than-ever depths, will soon be followed by the delivery of what is claimed to be the world's most powerful, self-propelled cutter suction dredger, the J.F.J. De Nul. Retrofitted at Keppel Shipyard in Singapore with an

IHC Holland-supplied, new deep dredging installation, the three year-old, 33,000 cu. m.-capacity Vasco da Gama is now able to undertake projects at an unprecedented suction depth of 446 ft. (136 m). This remarkable capability is being put to immediate use by the Canadian offshore sector, whereby the vessel has been dispatched from Singapore to the rigorous waters of the northwest Atlantic, to dredge wells of about 295 ft. (9 m) at a water depth of 410 ft. (125 m). The wells will provide a protected location for subsea production systems, below the seabed level, and out of harm's way from the icebergs that

scour the sea floor. Just as the post-Panamax 'trailer' Vasco da Gama had ushered-in the era of the mega dredger in June 2000, by virtue of a hopper volume 40-percent greater than that of the largest vessel at that time, the company's newbuild J.F.J. De Nul will establish a new level of potency among self-propelled cutter dredgers. The 27,190-kW power concentration in the J.F.J. De Nul, suited to rock dredging as well as sand and clay removal, includes 6,000-kW of cutter drive power, said to be around 30-percent more than that of the most powerful 'cutters' currently in operation, and a maximum dredge pump power of

15,800-kW. Due for handover by IHC Holland's Kinderdijk yard during the fourth quarter of 2003, the new vessel has been designed to dredge at depths ranging from 21 to 115 ft. (6.5 to 35 m), to which end the cutter ladder incorporates two sets of trunnions. The ladder's weight of 1,450-t reflects the sheer scale of the unit and the immense mass necessary for steady rock dredging in all conditions. Flexibility in the discharge arrangements is such that she has been equipped with a special barge loading installation, besides the usual facilities for pumping spoil ashore via floating pipeline.

CNG Carrier One Step Closer

EnerSea Transport LLC, in association with its maritime partners, Kawasaki Kisen Kaisha, Ltd. ("K"Line) and Hyundai Heavy Industries Co., Ltd. (HHI), announced that its VOTRANS gas carrier achieved "Class Approval in Principle" (AIP) from ABS (American Bureau of Shipping). This is a major milestone in the companies' ability to deliver compressed natural gas (CNG) through the world's first commercial large scale marine gas transport system of its kind. "Class Approval in Principle is further independent validation of VOTRANS' solid engineering foundation and allows us to launch our industry-leading CNG capabilities," said EnerSea's Managing Director **Paul Britton**.

This achievement enables EnerSea to commence commercial deployment of its VOTRANS gas transport services to the industry. With U.S. natural gas demand projected to reach 32 trillion cu. ft. by 2020, industry and government alike are seeking innovative solutions.

"Undeveloped gas resources in the deepwater Gulf of Mexico, Atlantic Canada, Alaska, Trinidad, Venezuela and Colombia are all ideal prospects for helping meet U.S. gas demand using EnerSea's transport services," explained Britton. EnerSea's plans for deployment will enable gas operators to begin shipping these new volumes in early 2007.

EnerSea and its partners recently concluded a comprehensive engineering program that started in June 2002 and culminated with the AIP award for its "V800" class vessel design. The V800 is designed to carry 700 to 800 million cu.

ft. (mmcf) of natural gas, depending on the specific gas composition. EnerSea intends to use this vessel to support economic gas transportation services for applications with average supply rates ranging from 300 to 500 mmcf per day to markets up to 2,500 miles away.



New Threats New Regulations Same Partner.

Ships have become terrorist targets and potential terrorist weapons.

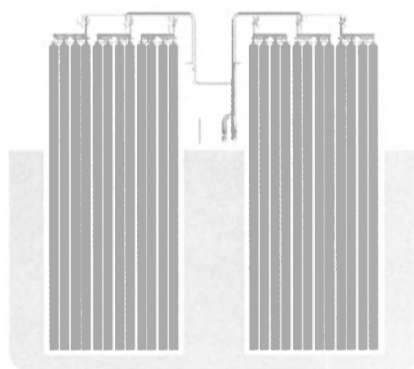
Shipowners must meet new international and national regulatory standards designed to minimize such threats.

ABS has developed a clear, concise *Guide for Ship Security* to assist owners understand these new requirements and develop practical strategies for compliance.

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VOTRANS V800* Main Particulars

Capacity	700 MMscf (lean)
	800 MMscf (Rich)
Length, o.a.	1,004 ft. (306 m)
Length, b.p.	954.7 ft. (291 m)
Beam	164 ft. (50 m)
Hull depth	89.9 ft. (27.4 m)
Full load draft	33.8 ft. (10.3 m)
Lightship draft	24.6 ft. (7.5 m)
Full load displacement	120,300 mt
Lightship displacement	87,900 mt
Gas cargo weight	19,600 mt
Deadweight	40,600 mt
Service speed	18 knots
Crew	36
Classification	ABS

Tech Notes

EnerSea also offers V600 and V1000 vessel classes that will enable the company to support production rates ranging from 150 to 700 mmcf per day over distances up to 3,000 miles.

The ability to safely and efficiently operate and manage gas fleets is of para-

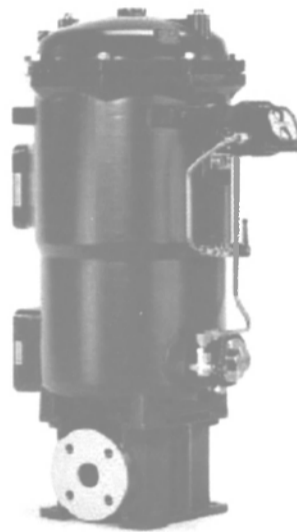
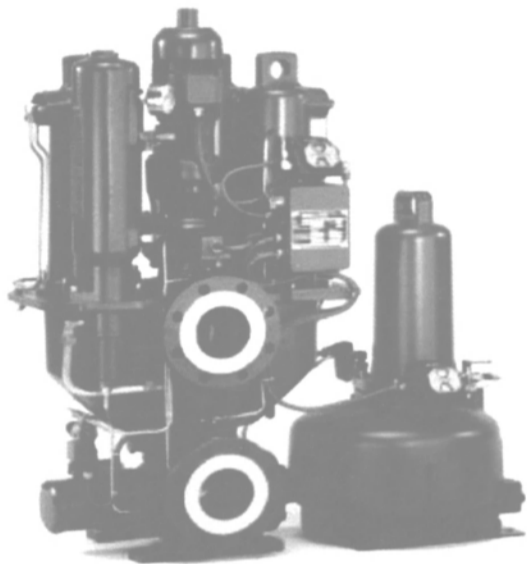
mount importance to EnerSea. "K"Line joined EnerSea's maritime partnership to support the engineering program and to develop vessel operations procedures. "K"Line will own and operate the initial VOTRANS vessels by way of dedicated time charter agreements.

VOTRANS utilizes EnerSea's patented and proprietary technology with design storage pressures of well under 2,000 psi. EnerSea's team was able to dramatically reduce the thickness and weight of the steel required for the containment system, thus increasing storage

efficiency and reducing overall cost.

VOTRANS is designed to land natural gas via cost-effective offshore gas ports, thus eliminating the need for expensive new onshore gas terminals which are more difficult to permit and build. Other key participants in EnerSea's engineering program included Paragon Engineering and A.C. McClure Naval Architects, both of which have been involved from the beginning in EnerSea's VOTRANS development.

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Pictured are USS Mustin (DDG 89), commissioned July 26, 2003 and Momsen (DDG 92), which was christened August 9, 2003. Drawings by Peter K. Hsu, Anteon Corporation)



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* EnerSea has developed a range of vessel size classes, including the V600 and VI000 for smaller and larger transport needs, respectively, to provide clients with an optimum gas delivery solution. These vessels may be further tailored to confidently meet a project's unique and demanding transport requirements, such as specific capacity, gas composition, sea state and loading and offloading rates.

JJMA on LSC Team

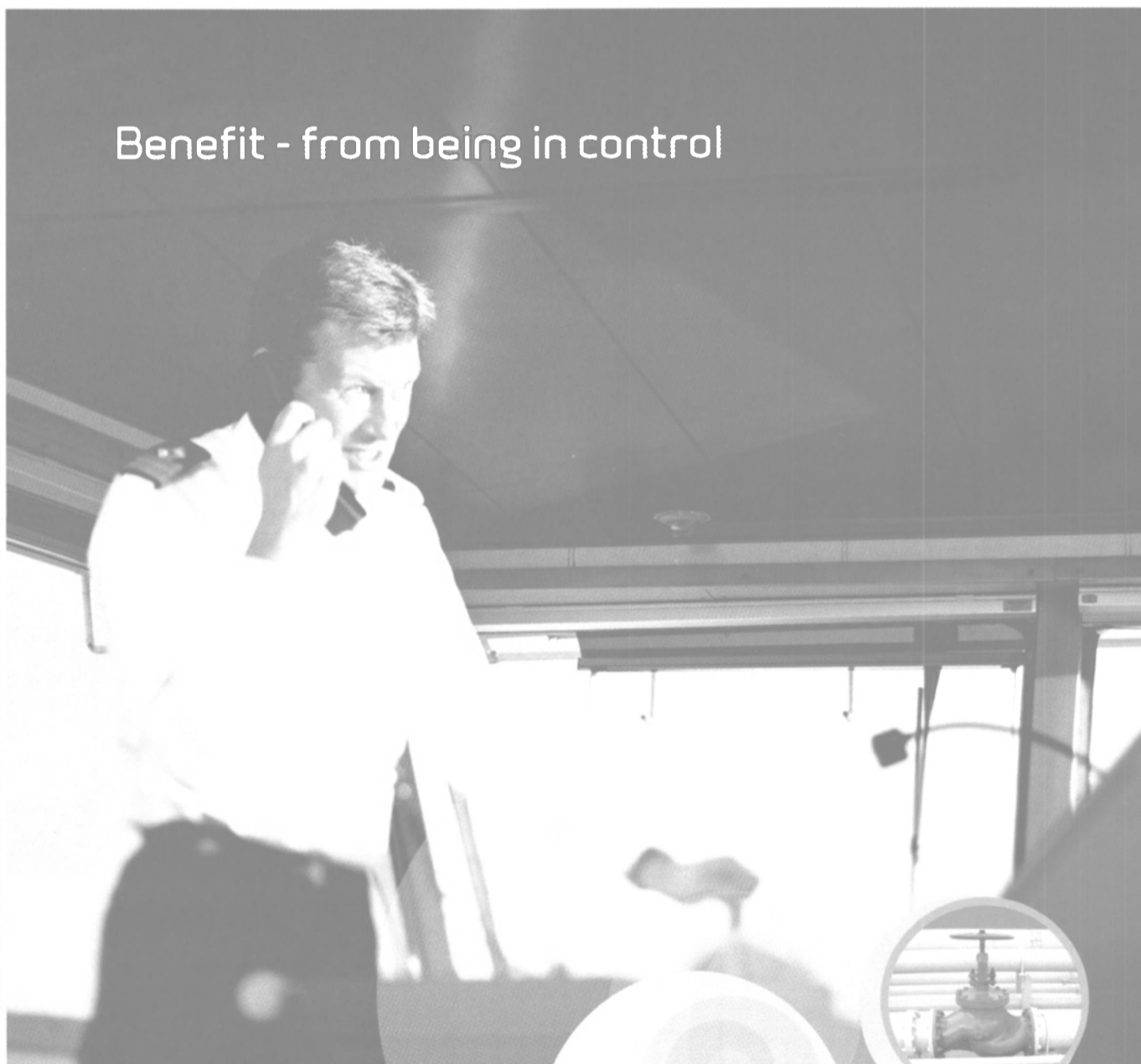
John J. McMullen Associates (JJMA) is a member of the Raytheon LCS team recently selected by the US Navy to develop the preliminary design of a Littoral Combat Ship (LCS), the next

generation surface combatant. Designs are to be finalized in seven months. In addition to Raytheon as the prime contractor, the team consists of John J. McMullen Naval Architects and Marine Engineers, who will develop the ship design and provide systems engineering support, Goodrich Engineered Polymer Products, who will provide the compos-

ite materials and build the superstructure and lower hulls, Umoe Mandal, who designed and built the high speed Surface Effect (SES) composite ship SKJOLD and the composite SES nine composite SES mine ships for the Norwegian Naval Forces and who will provide technology transfer in composite ship production and support JJMA in

the ship design, and Atlantic Marine Jacksonville Fla., who will build the ship. As Prime Contractor, JJMA, in conjunction with the other team members successfully competed for, and won, the "Focused Mission Ship Study," which was a preamble to the award of the Preliminary Design phase.

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A Legacy Spanning Three Generations

Mention *M. Rosenblatt & Son, Inc. (MR&S)*, to anyone who has been involved with the marine industry since the mid-20th Century and one would think of the naval architecture and marine engineering firm that has held court from its homebase in New York City since just after the heydays of WWII. Its foundation, which was literally constructed by **Mandell Rosenblatt** and his son, **Lester**, has remained at the forefront of the industry and weathered the constant cyclical changes of an industry that is now often dominated by consolidation.

By **Regina P. Ciardiello**, managing editor

It's a good thing that Mandell Rosenblatt lived near Brooklyn's

Prospect Park. As a young man of about 14, the eldest Rosenblatt of this multi-generational firm, may not have formed his patriarchal role in establishing the naval architecture and marine engineering firm of M. Rosenblatt & Son. It was during those days that Mandell began to hone and develop his eye for vessels that were multi functional and in proper working order, yet aesthetically pleasing, or "pretty" to look at.

The year was 1907, and at the ripe age of just 16, Mandell literally made headlines when he entered a yacht design contest advertised in *Motor Boat* magazine on a whim — and won the grand prize — the magazine published his own concept for a "multi-functional vessel that was aesthetically pleasing." Something he had always dreamed of.

Mandell's winning concept debuted in the November 1907 issue of *Motor Boat*, with the headline, "A 36.5-Foot Speed Boat Designed by Mandell Rosenblatt of New York."

According to his grandson, **Bruce Rosenblatt**, who occupies the same office that was once held by both of his forefathers, Mandell was a firm believer in the importance of aesthetics. "My grandfather's forte was as a naval architect of yachts," Bruce says. "He lived by

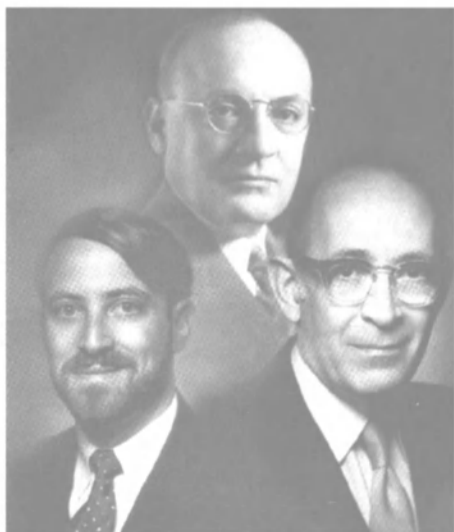
the motto 'You can make something look good in addition to being technically correct.'"

In keeping with the tradition that Mandell established as a foundation for the firm, the U.S. Naval Academy has kept his name and ethical sense of style alive with its Mandell Rosenblatt Prize that is given to graduating naval architecture students who have presented a class project that is technically correct, yet aesthetically pleasing.

Simply known as Pilot No. 1, M. Rosenblatt & Son designed the first modern pilot boat for the Sandy Hook Pilots for use in the Port of NY/NJ. (Photo courtesy of Sandy Hook Pilots).

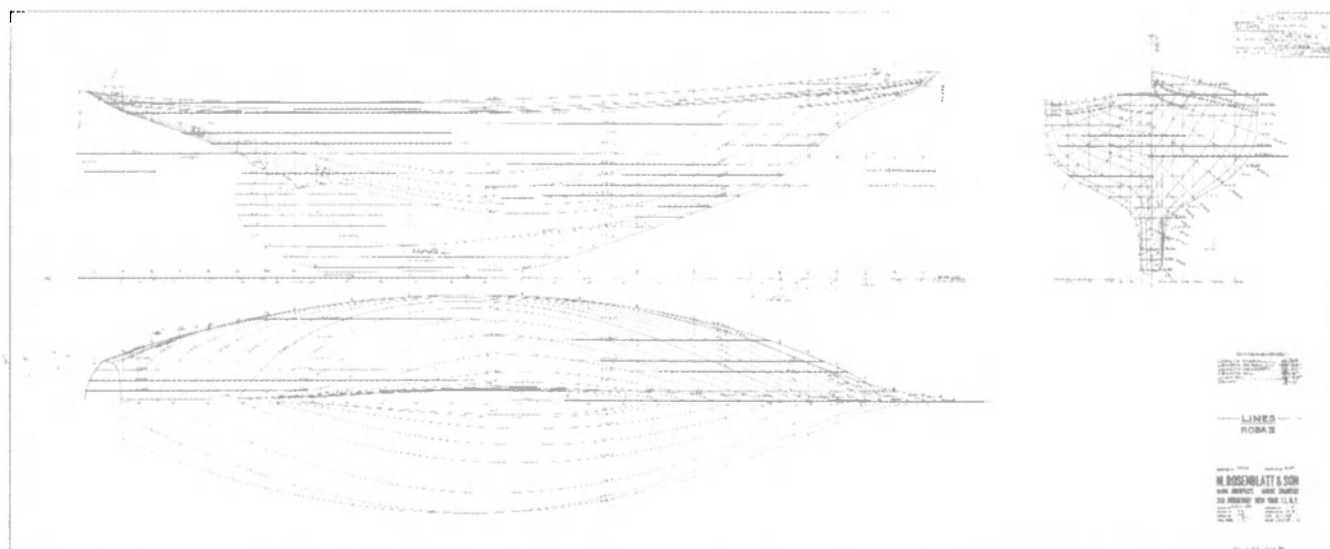


The Rosa II was co-designed in 1959 by Mandell and Lester Rosenblatt. The vessel still sails today, and is maintained by Mandell's grandson, Bruce. (Photo courtesy of Bruce Rosenblatt).



Generations: Pictured are Mandell (top), Lester (right) and Bruce Rosenblatt. (Photo courtesy of AMSEC LLC)

The original lines drawing of the Rosa II penned by Mandell Rosenblatt in 1959, still hangs in his grandson, Bruce's New York office. (Photo courtesy of Bruce Rosenblatt).



"In terms of design, my grandfather was very seat of the pants," Bruce says. "Even though I was less than eight years old when he died, I remember being told that his quick estimates were very soon confirmed correct by the calculations."

The self-taught Mandell Rosenblatt could sketch a vessel design from his mind, knowing all of the components of a vessel by using his basic common sense and experience. "He (Mandell) was a very 'practical' engineer," Bruce says. "He was the type of person that would — once knowing the principal characteristics of a vessel — could estimate, before doing the back up calculations, such important information as the size of the propeller, the shaft, the rudder stock, etc. "He saw aesthetics as 1A, it wasn't even number two."

Association Leads to Foundation

It was soon after the end of WWII, and because of discriminatory issues regarding their Jewish faith, both Mandell and his son, Lester, who by now had joined his father's vocation of ship design, were both out of a job. They turned to what has become their second family — The Society of Naval Architects and Marine Engineers (SNAME). It was at a New York section meeting of the trade organization where Mandell and Lester met a prior acquaintance, a man named Mr. Blackstone, according to Bruce. "My grandfather said to Mr. Blackstone: 'What are you doing at the SNAME meeting?'" Bruce remembers. "And he (Blackstone) responded: 'I'm looking for a naval architect to design a ship that we want to have built.' Mandell responded quickly: "That's interesting; we're looking for someone that needs to have a ship designed."

The meeting, which led to the company's first contract, was negotiated through Mr. Blackstone with a Newburgh, N.Y. shipyard. What came out of that yard was a 2,400-ton Portuguese fishing trawler known as Joao Martin that was built at the Hudson River yard and shipped off to Portugal. "They (Mandell and Lester) formed the company on that job," Bruce says.

From Yachts to Commercial Design

Relying more so on yacht design than commercial and military design, which has been the company's staple for the last several decades, Mandell and Lester took on a project of their own in 1958 when they designed the family's sailboat, the Rosa II, which is famous in the marine and sailing circles for its stylish lines. When *MR/EN* met with Bruce recently at M.Rosenblatt & Son's New York City offices, a large framed copy of Mandell's original lines drawing of

the Rosa II still hangs in the office that was once occupied by each of her co-designers. "To me (the lines drawing) of our sailboat, the Rosa II, is the greatest piece of artwork," Bruce says. The drawing three dimensionally describes the 41-ft. sailboat's hull. Since it was before the advent of CAD software, Mandell drew the vessel's hull entirely

by hand.

He also speaks of a running family joke that had to do with refuse hauling "garbage" barges on the East River. While the company has made significant design contributions to more famous designs, such as the Spruance (DD-963) class destroyers and Unrep (Underway Replenishment) Systems for the U.S

Navy, and the primary pilot boat for New York harbor, the firm also designed every New York City garbage barge that has been floating since the 1950's. "I remember being a boy of about seven-years-old," Bruce recalls. "We were out on the Rosa II and my siblings and I complained of the stench (of garbage) that permeated as some fully loaded

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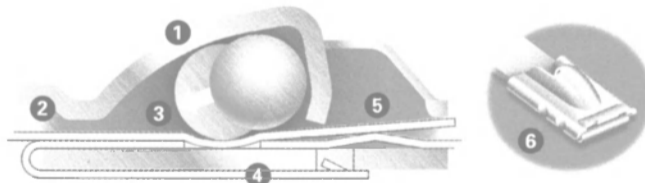
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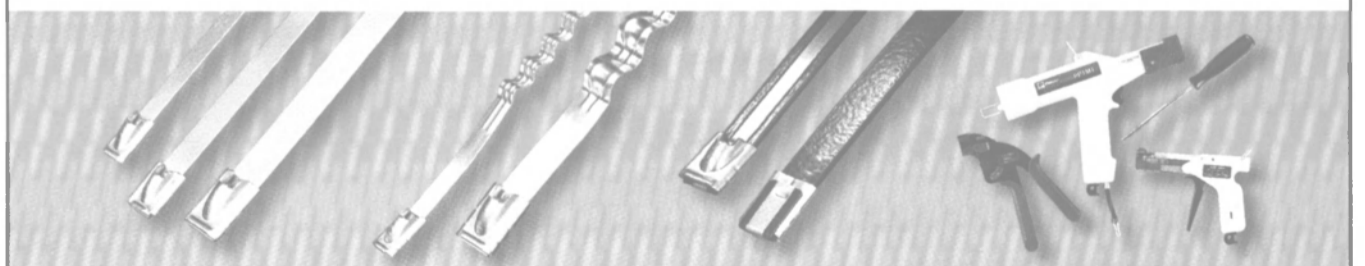
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Profile

barges went by. Well my father, turned to my mother and simply said: 'It may stink to them, but it's bread and butter to us.'"

Bruce has that memory and many others of his father, **Lester Rosenblatt**, who was an industry icon. Following in his father's footsteps, Lester grabbed hold of an industry that would become his extended family. While his father before him was involved with SNAME, Lester went on to become president of the Society — a position, which his son Bruce has held for the last year.

It was Lester's unending drive that led the firm to boast at times more than 1,000 employees in 10 offices performing designs on the L.Y. Spear Class of submarine tenders, Spruance Class destroyers and T-AGS 39 Class Oceanographic Survey Ships, to name a few.

Even though his company was sold in April 2000 to AMSEC LLC, operating as a "Group" to the company jointly owned by SAIC and Northrop Grumman Newport News, Lester continued to remain at the forefront of the industry that granted him his livelihood. Sadly, however, his life ended on the morning of June 15, 2003 when he passed away at the age of 83, at his home in New York City, — leaving his son Bruce to carry on the family name and the SNAME tradition. "My father used to joke that I was almost named Bruce "Halibut" Rosenblatt," he says. "The day I was born, my grandfather was at the Mare Island Naval Shipyard at the launching of the submarine Halibut when he received a telegram from my father stating that he had a new grandson. He sent the telegram back saying: 'Another naval architect in the family.'"

SNAME 2003

World Maritime Tech Exhibition Set for San Francisco

The Society of Naval Architects and Marine Engineers (SNAME) has taken its annual meeting to a worldwide venue by not only partnering with The Maritime Group, publishers of *Maritime Reporter & Engineering News*, but by staging a truly international conference and exposition. From October 17- 20, 2003, industry leaders from around the world will gather at the Moscone Center in San Francisco, Calif. for the 2003 World Maritime Technology Conference and Exposition. WMTC will provide a wide variety of courses and technical papers that will be presented by industry experts. A selection of some of the conference presentations includes sessions on Ship Operations, Design and Technology, and Ship Production. Two courses will also be offered towards Continuing Education Units. On Thursday, October 16 and Friday, October 17, attendees and exhibitors who arrive early in San Francisco will have the opportunity to participate in early registration, which will be held at the Westin St. Francis (SNAME's official headquarters hotel) in the Olympic Room, which is located on the second floor of the hotel. Early registration will be held both on Thursday from 3 p.m. - 8 p.m. and on Friday from 7 a.m. until 6 p.m. Later that evening, join your fellow SNAME members and delegates at an Early Arrivals Reception in the Tower Salon of the Westin St. Francis. With the official opening day of the Expo occurring on Saturday, October 18 the main social event of the show — the International Banquet — will be held in the Grand Ballroom of the Westin St. Francis on the evening of Sunday, October 19. The event, which is sponsored by General Dynamics Electric Boat will begin with a Pre-Banquet Reception at the hotel at 6 p.m., followed by dinner from 7:30 - 10 p.m. Surely, after meeting with colleagues and potential and current clients, as well as attending the conferences and paper presentations, you will want to take a literal breath of fresh air. Head over to the newly-reopened San Francisco Ferry Building, located at the Foot of Market St., which has been transformed into a gourmet marketplace and shopping area comprised of 47 shops (featuring many of the Bay Area's food producers) as well as myriad of restaurants and cafes. For information on this new building, log on to www.sfport.com. If the spontaneous route is not your style, and you are the type who considers Zagat's to be your bible when choosing culinary fare, you can log on to the San Francisco Convention & Visitor's Bureau — www.sfvisitor.org — and research the city's restaurant offerings.



Oil tanker Marine Columbia undergoes sea trials in San Francisco Bay in 2001. (Photo Credit: Tom Paiva Photography).

There's Still Time to Participate

What: World Maritime Technology Conference & Exhibition
When: October 17-20, 2003
Where: Moscone Center, San Francisco, Calif.

Exhibition Hours

- Saturday, October 18, 10 a.m. to 5 p.m.
- Sunday, October 19, 10 a.m. to 5 p.m.
- Monday, October 20, 10 a.m. to 2 p.m.

For full details on the packed conference schedule, or to receive more information on attending this year's WMTC, please visit www.worldmaritimetechnology.org, or contact SNAME HQ, Eileen Romanelli, tel: (201) 798-4800; fax: (201) 798-4975; e-mail: eromanelli@sname.org.

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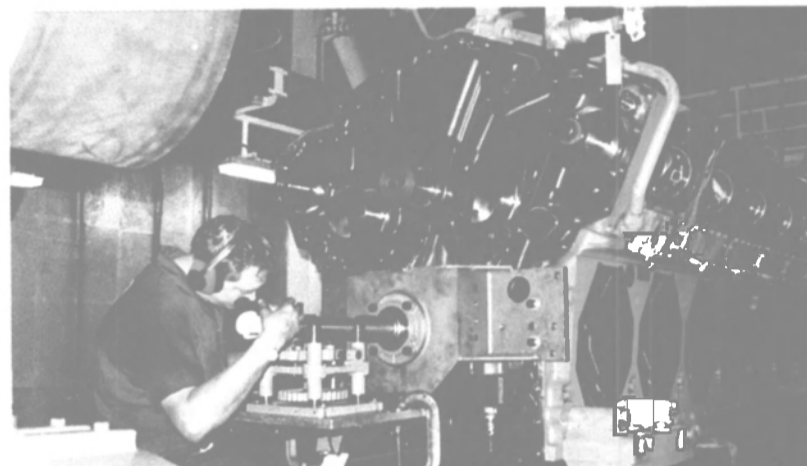
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World Maritime Technology Exhibition 2003 Exhibitor's Guide

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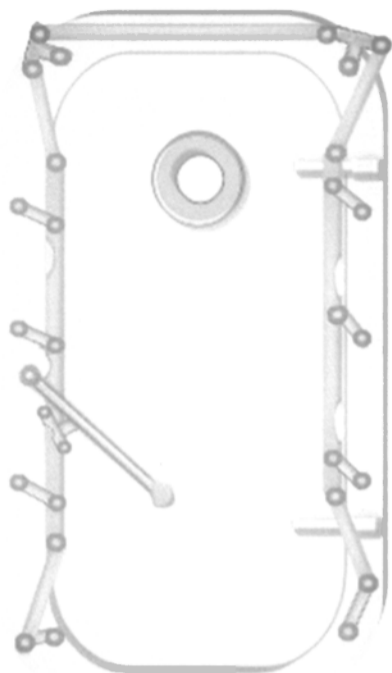
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Circle 200 on Reader Service Card



Juniper's Hinges Go Low and High



An inside view of Juniper's (Part# JE-268-DQ-23) 10 Dog Left Hand Quick Acting Door.

As a diversified company, Juniper Industries, which has been operating out of its headquarters in Middle Village, N.Y. since 1928, has been dubbed the premier independent manufacturer and developer of Navy standard watertight doors, hatches, scuttles and manholes.

To maintain this position that Juniper has worked to achieve within the industry, the company invests in a large inventory of parts, which enables them to supply shipyards and repair facilities the hardware their customers need — right off the shelf.

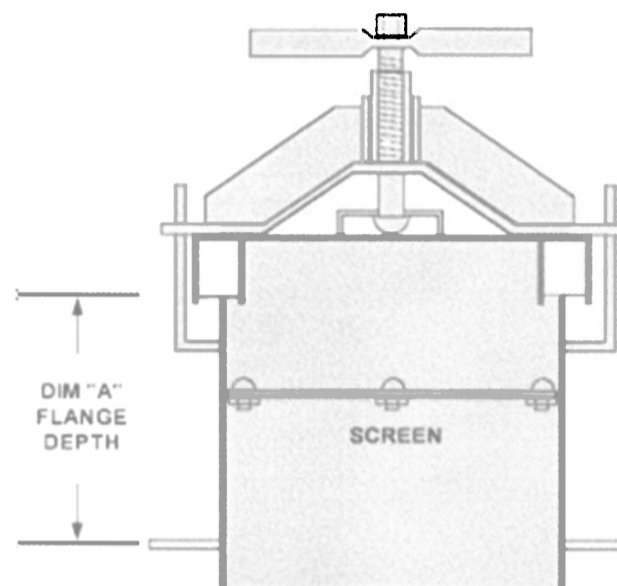
In addition to product innovation, Juniper provides its customers with virtual online price quotes and ordering system as well as direct technical assistance through a variety of mediums via phone, fax and its informational web "Tips and Techniques" section. Juniper also offers comprehensive training courses instructed by technical spe-

cialists in the field with regards to watertight closure repair and parts replacement.

The company, which boasts more than 200 employees also offers a line of ventilation products including dampers, flame arresters, duct, duct fittings, access plates, deck ventilators and bellmouths.

Even though the company recently added an improved actuating system to its toxic gas dampers making the product more efficient and cost effective, they will still, through its research and development, stop at nothing to continually assess this growth potential in the damper field, and is actively keeping an ongoing watch to increase its share of the air control, fire, smoke and toxic gas damper market.

The company has also grabbed a foothold in its electronic technology through its EDI capability, which has paved the way for successful compliance of strict DVD contracts for some of its largest clients.



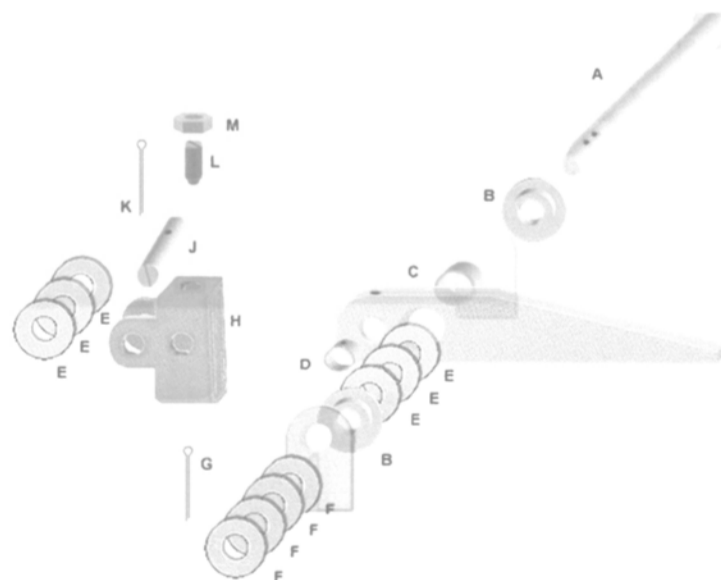
Juniper's Air Sweeps (Part# JE-123) are manufactured from galvanized steel, aluminum or stainless steel. The company will tailor dimensions to each customer's specific needs.

What does the future hold for Juniper? The company will undoubtedly make headlines with its involvement in two high-profile projects currently underway for the U.S. Navy and U.S. Coast Guard. The company will be involved in supplying its products for both the Navy Littoral Combat Ship (LCS) and U.S. Coast Guard Deepwater

program. In no uncertain terms did Juniper become involved with these projects by chance as they have proven themselves through successful relationships with repeat customers such as the U.S. Navy, and both the Northrop Grumman and General Dynamics Groups — all of whom are involved with these current programs.

The focus of the 75-year old company remains on continuous product improvement as evidenced by its capital expenditures of the latest CNC equipment.

The most recent addition to Juniper's current facility list includes a 357-ton, 14-ft. 11 axis Trumpf press brake. This new addition complements Juniper's existing line of press brakes, which range in size from 50-ton, 3 ft. to 750 ton, 20 ft.



Per its web site, Juniper Industries provides a complete description of its low hinge upgrade kit. Pictured is a typical low hinge for airtight and watertight doors.

Circle 326 on Reader Service Card

Theriot Promoted at Bollinger

Bollinger Shipyards, Inc., Lockport, La., announced that **Scott Theriot** will



Theriot

assume the newly developed position of Vice President, Business Development.

Mike Ellis will fill the Executive Vice President of New Construction position on an interim basis until a replacement is identified.

American Salvage Association Names New Leaders



Fairbanks



Wittich

Richard Fairbanks, President of Titan Maritime, LLC (Fort Lauderdale, FL), has been named President of the American Salvage Association (ASA). **George Wittich**, Senior Vice President of Weeks Marine (Cranford, NJ), has been named the association's Vice President, and **John Witte, Jr.**, Executive Vice President, Donjon Marine Co., Inc. (Hillside, NJ), has been named ASA's new Secretary/Treasurer.

Sugar Assumes Chairman Duties

Northrop Grumman Corporation announced that its board of directors has elected **Ronald D. Sugar**, the company's chief executive officer and president,



Sugar

as Northrop Grumman's next chairman of the board. Effective Oct. 1, 2003, Sugar will be chairman, CEO

and president. As previously announced, **Kent Kresa**, who has served as chairman since 1990, will retire on that date. Kresa stepped down in April 2003 as president and chief executive officer.

Frasher Takes Head of Helm at American Commerical

Stephen A. Frasher has been appointed president and CEO of American Commercial Barge Line LLC as well as CEO of Jeffboat LLC, Louisiana Dock Company LLC and American Commercial Terminals LLC. With 31 years of experience in the transportation

industry, most recently as president and CEO of Tidewater Holdings, Frasher's hiring is part of a management transition plan for the retirement of **Michael C. Hagen**,



Frasher

who plans to step down at the end of October.

Alstom Consortium Wins Fincantieri Order For Carnival

ALSTOM has secured its third contract in recent months to supply equipment for major shipbuilding projects - mainly Carnival Liberty - scheduled for

delivery in July 2005. The contract involves the supply of an electrical package for Carnival Liberty, the new vessel being built for Carnival Cruise Lines for a July 2005 delivery.

The vessel, which will be built by Fincantieri at the Port of Monfalcone in the Gulf of Trieste, Italy, will be used for year-round worldwide cruising for up to

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Circle 276 on Reader Service Card

People & Company News

3,500 passengers, and will feature two shaftlines of 20MW - 142 rpm each.

As leader of a consortium for this contract, which also includes ASIRobicon and Imesa, ALSTOM will supply the two synchronous motors of 20MW each and the associated power synchroconverters. With equipment due to be delivered at the end of March 2004, ALSTOM will also provide the propulsion control system, including the remote control, the harmonic filtering system, the 11kV distribution transformers and one emergency alternator.

MEP Announces New Board, Staff

Marine Environmental Partners, Inc. (MEP), a developer of innovative technology for ballast water and wastewater treatment, announced the election of **Ann Beal Salamone** to the company's Board of Directors and the addition of **Jorge Perez** to the sales staff.

Trico Completes Sale of North Sea

Trico Marine Services, Inc. announced that it is continuing to make progress executing its liquidity enhancement plan. The company completed the sale of one of its largest North Sea vessels for NOK 263.5 million, approximately \$35.5 million.

In addition, the company completed the sale of its Brazilian AHTS newbuild project for approximately \$17.3 million. The company recovered all of its direct

vessel costs related to the project. As a result of the sale of its interest in the Brazilian AHTS newbuild project, the Company will no longer be liable for the remaining progress payments required to complete the vessel.

Proceeds from the sales will be used to provide working capital and reduce the Company's outstanding bank debt.

Costa Crociere & TIM Agree on Mobile Service at Sea

From November 2003 Costa ships will be among the first worldwide where you can use your mobile phone even on the open sea. An agreement has been signed by **Pier Luigi Foschi**, Chairman and CEO of Costa Crociere and **Marco De Benedetti**, CEO of TIM, which will enable all Costa Crociere customers to use their mobile phones and take advantage of a host of related services while they are at sea.

Costa Fortuna — the largest passenger ship in the history of Italian seafaring, due to enter into service in November — will be the first to offer the new service. By virtue of this agreement, Costa Crociere's vessels will be among the first worldwide where you will be able to use a GSM cell phone even on the open sea.

Up until now, the only communications that work beyond a few miles from the coast have been provided by satellite telephones.

Busch Promoted at Crowley

Crowley Maritime Corporation has **Todd Busch** to general manager of the company's Southern California ship assist and escort services operations.

Busch, who will relocate from Seattle to San Pedro, Calif., will continue to direct the sales and marketing efforts for all of Crowley's ship assist and escort business, and will now take on the administrative and operational responsibilities in Southern California where Crowley operates six harbor tugs in the ports of Los Angeles and Long Beach, and two harbor tugs in the port of San Diego.

Admiral Jeremiah Joins Todd Shipyards Board

Todd Shipyards Corporation announced that Admiral **David E. Jeremiah**, U.S. Navy (Ret.) was elected to the Board of Directors of the company at its annual meeting of shareholders on Friday, September 12, 2003.

Admiral Jeremiah is President of Technology Strategies & Alliances Corporation, a strategic advisory and investment banking firm engaged primarily in the aerospace, defense, telecommunications and electronics industries. Prior to his retirement from the U.S. Navy in 1994, he was Vice Chairman, Joint Chiefs of Staff from 1990 to 1994.

Transport Minister Announces Appointment to Marine Atlantic



Polar Adventure Receives Final Bow Forspeak

Polar Adventure, the fourth of five double-hulled oil tankers being built by Northrop Grumman Corporation's Ship Systems sector for ConocoPhillips, receives its final bow forepeak in New Orleans, La. The 110-ton forepeak is the last of 353 units, or modules, that make up the 895-foot-long ship.

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Transport Minister **David Collette** announced the appointment of **Roger Flood** of St. John's, Newfoundland and Labrador, as the president and CEO of Marine Atlantic Inc. Flood currently serves as the president of Day and Ross (Nfld.) Ltd., a freight trucking company, where he is responsible for personnel, administration, and the daily operations of the company Marine Atlantic is a Crown corporation that provides constitutional ferry services between Newfoundland and Labrador and Nova Scotia.

Statoil's Chairman Resigns

On September 21, **Leif Terje Løddesøl** informed the head of Statoil's corporate assembly and the board of directors that he is withdrawing with immediate effect from his position as chairman and member of Statoil's board of directors. The way in which the debate about Statoil has developed recently has caused him to take the view that his possibility for efficiently leading the board has been weakened. He believes that in the best interests of Statoil, a new chair should be elected.

Oceanwide Appoints New Management

Oceanwide announced a new management structure for Oceanwide Netherlands, Oceanwide Baltics and Oceanwide Offshore Services, effective immediately. Oceanwide Netherlands has appointed **Jan Hessel Dijkstra** as its new Managing Director. Oceanwide Baltics' new Managing Director is **Galina Raspopova**. **Leendert van Halst** who was appointed Director Maritime Division last year, will head up Oceanwide globally and will be responsible for the strategic direction of Oceanwide.

Transas HQ Moved to Ireland

As of July 2003, the International Headquarters of the marine IT specialist, Transas, has moved to Cork, Ireland.

The move to Ireland is a logical consequence of the company's ongoing expansion into international markets. Today Transas is represented in some 90 countries worldwide with more Transas offices to be established within the coming months. As the center of international commercial operations Ireland has the advantage of being located in the euro zone and offers a strong base of experienced, well-educated personnel from which to staff its operations.

Hornbeck Offshore IPO Filing

Hornbeck Offshore Services has filed a registration statement with the Securities and Exchange Commission

relating to a proposed initial public offering of its common stock. Hornbeck Offshore plans to use the net proceeds to the Company from the proposed offering to fund a portion of the costs of the construction of ocean-going, double-hulled tank barges, the retrofit of certain existing vessels, possible future acquisitions or additional new vessel construction, and for general corporate purposes.

The underwriting group will be co-led by Goldman, Sachs & Co. and Jefferies & Company, Inc., with Goldman Sachs & Co. acting as sole book-runner. Simmons & Company International and Johnson Rice & Company, L.L.C. will act as co-managers.

FBM Babcock Promotes Three

FBM Babcock Marine Ltd. has appointed **Nick Pearson** as commercial manager and **Craig Patrick** has joined the company as sales manager for commercial vessels. Pearson has joined FBM Babcock Marine from Three Quays Marine Services where he was business development manager and Patrick has joined FBM Babcock Marine from Maritime Dynamics where he was their sales manager. At the same time as announcing these new appointments, **Derek Hughes** has moved to be

ANCHORS CHAINS

WORTELBOER

support services coordinator, responsible for FBM Babcock Marine's spares business.

Driscoll Godmother of RCCL Ship

Royal Caribbean International has announced that **Jean Driscoll** — world-class athlete, Olympian, Paralympian and international advocate for persons with disabilities — will serve as godmother to the line's newest ship, *Mariner of the Seas*, which debuts later this year. As godmother, Driscoll will officially give the ship its name during ceremonies in Port Canaveral, Fla., on Nov. 14, 2003.

Saporito Named Manager of Port Authority's NJ Marine Terminals

Andrew Saporito, a 22-year Port Authority veteran, has been named manager of the New Jersey Marine

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Terminals.

In his new position, Saporito will manage the operations, maintenance, construction and tenant service activities for the 2,300-acre New Jersey Marine Terminal. The terminal includes Port Newark, the Elizabeth-Port Authority Marine Terminal, and the Auto Marine Terminal.

He manages a staff of 85 employees, who perform operations, maintenance, technical, support and administration functions.

PROBLEM. SOLUTION.

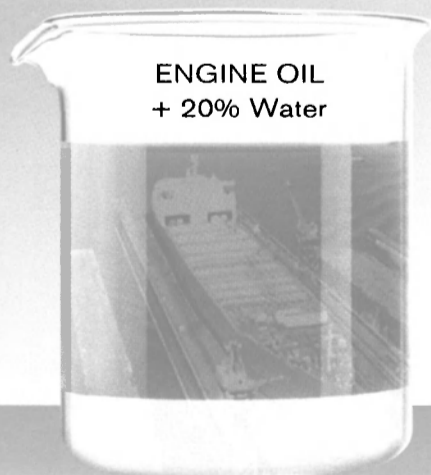
Conventional oil and water don't mix, which is bad news if water should enter a stern tube. The lubrication provided to the shaft and bearings will be of a very poor standard.

THE RESULT? Interrupted schedules and expensive repairs and maintenance.

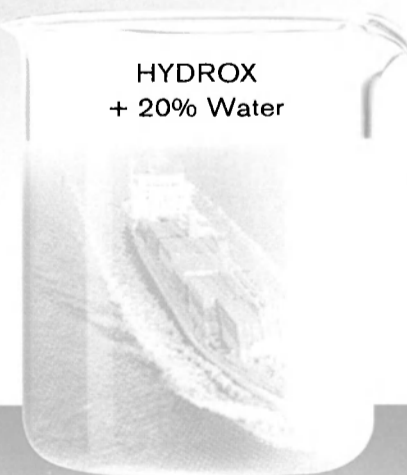
Hydrox forms stable emulsions which continue to provide effective lubrication even when significant quantities of water are present in the stern tube.

THE RESULT?

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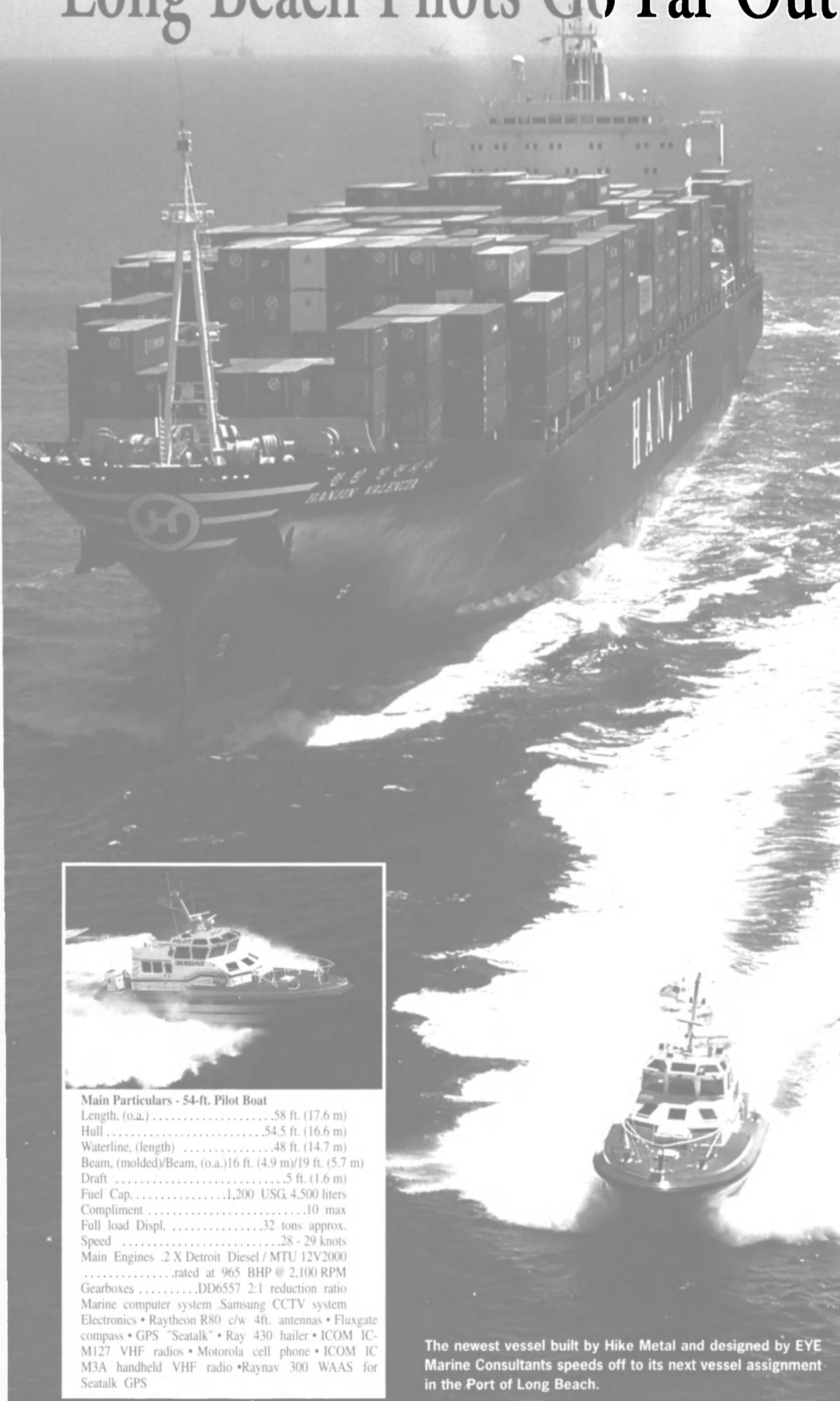
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Long Beach Pilots Go Far Out With New Boat



Jacobsen Pilot Service Inc., Long Beach Calif. Received a new 54-ft. (16.4-m) welded aluminum pilot boat from Hike Metal Products Ltd. in Wheatley, Ontario, Canada this past July. Hike Metal was approached in the early summer of 2002 after Jacobsen Pilots services owner **Tom Jacobsen** had conducted a thorough review of the market and read an article about a new Pilot Boat Hike had just built and delivered to Atlantic Canada. While Jacobsen needed a new vessel for the growing demand for Pilot services in Long Beach, he also wanted a modern vessel, specifically designed for function, good visibility, ergonomics, and built to suit their operational requirements out of Long Beach, which is the second largest container vessel port in the U.S.

The ships calling the Port of Long Beach today are larger and the pilots have to board further out to sea, also the rush periods now demand a bigger boat with more seating for pilots. After 9/11 Jacobsen Pilots partnered with the U.S. Coast Guard and the Sea Marshals to help deliver them to the incoming ships. The new pilot boat fulfills this mission when required. Hike Metal, now celebrating its' 40th anniversary, provided them with an ideal craft.

According to **Tom Jacobsen**, president of Jacobsen Pilot Service, the new boat was built to meet the growing needs of his company's services to the Port of Long Beach. With their speed and high level of seaworthiness, the new pilot boats are equipped to meet Jacobsen's piloting needs: sometimes dispatching up to eight pilots on the boat during the port's busy mornings.

"The business has changed and we're now boarding ships further out at sea," Jacobsen said.

The hull form is based on a well proven, standard advanced chine hull design developed years ago by Hike utilized in the construction of its' 30ft to 70ft Patrol boats, currently used on both the Great lakes and inshore coastal operations in North and South America. Final design details and engineering was carried out by EYE Marine Consultants Inc. in Dartmouth, Nova Scotia, Canada.

The deep-V hull provides smooth fast and responsive handling while the flattened side chine's afford excellent lateral stability, lift and further help knock down spray. The structural design is based on LRS Special Service craft rules while ABYC rules govern systems and outfit.

Careful attention was paid to weight control, to produce a robust and yet sea-kindly craft fit for the demanding role of pilot transfer. The vessel is designed to have a minimum service life of 30 years. Maintenance and service access was of paramount importance to Jacobsen Pilot Service Inc. and these consideration were maintained during all aspects of the design and construction process. The interior fit-out consists of a lower deck accommodation with day berths for four crew, a head, and a small galley area. Access to the engine room is also located there through an oversize bulkhead door allowing easy removal and replacement of large components during future overhauls.



Main Particulars - 54-ft. Pilot Boat

Length, (o.a.) 58 ft. (17.6 m)
 Hull 54.5 ft. (16.6 m)
 Waterline, (length) 48 ft. (14.7 m)
 Beam, (molded)/Beam, (o.a.) 16 ft. (4.9 m)/19 ft. (5.7 m)
 Draft 5 ft. (1.6 m)
 Fuel Cap. 1,200 USG, 4,500 liters
 Compliment 10 max
 Full load Displ. 32 tons approx.
 Speed 28 - 29 knots
 Main Engines .2 X Detroit Diesel / MTU 12V2000
 rated at 965 BHP @ 2,100 RPM
 Gearboxes DD6557 2:1 reduction ratio
 Marine computer system, Samsung CCTV system
 Electronics • Raytheon R80 c/w 4ft. antennas • Fluxgate
 compass • GPS "Seataalk" • Ray 430 hailer • ICOM IC-
 M127 VHF radios • Motorola cell phone • ICOM IC
 M3A handheld VHF radio • Raynav 300 WAAS for
 Seataalk GPS

The newest vessel built by Hike Metal and designed by EYE Marine Consultants speeds off to its next vessel assignment in the Port of Long Beach.

The engine room is spacious and well laid out, with ample space over the engines, for easy access and maintenance tasks. It is fitted with a manually operable CO2 system. The propulsion engines can be removed through a soft patch in the pilot cabin floor and cabin deckhead. A single 12 kW Northern Lights generator c/w sound shield provides AC power. All machinery is flexibly mounted for noise and vibration attenuation. In addition the engine room received an insulation system, which resulted in sound levels not exceeding 75 dba anywhere outside the machinery space. The ballast tank system is installed on the vessel centerline forward and aft and can be used for the weight and for trim adjustment in certain conditions. Stern gear consists of Aquamet S.S. propeller shafts, Duramax shaft seals, Vulcan flex couplings and Hall & Stavert five-blade propellers. Steering gear is electro/hydraulic type 4 station provided by Jastram Technologies. A unique portable operating station c/w jog steering and engine controls is fitted inside a watertight station on the stern deck for use in a man overboard emergency. A very functional elevating platform for man overboard retrieval is fitted at the transom.

Welded aluminum bollards are fitted both sides along with a fixed towing post on the foredeck and a portable tow post aft. Since the boat was delivered to Jacobsen Pilot Service this past July, according to Tom Jacobsen, it has not left any room for disappointment. "We're very pleased with Hike and were impressed with their commitment to quality boat-building," he said.

Circle 46 on Reader Service Card

Gladding-Hearn Get New Pilot Boat Order

Having already built four new pilot boats this year, Gladding-Hearn, Duclos Corporation, has taken orders for two more of its all-aluminum 52 footers. The New Orleans pilots will take delivery of their launches in mid-2004. The new "Jacksonville" class boats, designed by C. Raymond Hunt Associates of Boston, measure 52.6 ft. (16 m) overall, with a 17-ft. beam and a 4.8-ft. (1.4-m) draft. They will be powered by twin Detroit Diesel Series 60 D-DEC engines, each developing 600 bhp at 2,100 rpm. Top speed is expected to be 25 knots. The engines will run five-blade Hall & Stavert bronze propellers via Twin Disc MG 5114A, 2:1 reverse/reduction gear boxes. The generators are Northern Lights, with 12kW of output. After riding the "St. Johns," built by the shipyard for the St. Johns Bar Pilots in Jacksonville, Fla., the New Orleans pilots wanted a similar boat, because the wave action at the mouth of the St. Johns River was similar to that at the South Pass of the Mississippi, said shipyard officials. The New Orleans pilots' boats are equipped with wide side decks, side and rear doors, heated front windows, and a boarding platform.

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Cruise Crew to Train with CDM

SEATTLE-CDM has been selected by Carnival to develop computer-based training (CBT) for each level of operations personnel. The training will enable each operating line to fulfill environmental compliance requirements in accordance with Carnival's Environmental Compliance Plan. Specifically, CDM is developing shipboard and shoreside training for

Carnival Cruise Lines, Holland America Line, Cunard Line, and Costa Cruises.

For more information from Seattle-CDM
Circle 73 on Reader Service Card

DNV Certifies Seagull's Security Course Package

Det Norske Veritas (DNV) has certified the Seagull Security Training package according to the DNV SeaSkill Standard for certification of learning programs, which confirms that the course package is covering the requirements in the ISPS Security Code (Part B, reg. 13.1 & 13.2), and the drafted competence requirements from the IMO model course outlines given in STC 34/14 (Annex 7 & 8).

The courses have been developed in close cooperation with renowned UK-based Maritime & Underwater Security Consultants (MUSC). The Security Training Programs includes on-board CBT training for:

- General Security Awareness for crew (controlling ship operations & care of persons onboard)
- Ship Security Officer
- Automatic Identification System

In addition, a thorough yet streamlined classroom course is available for Company Security Officers -

those managers responsible for developing and implementing company-wide security plans. Contact us for more information.

The human factor remains the key element in managing any type of risk exposure, including security risks. The best way to manage security risks is to ensure that all staff are trained and prepared in both security measures specific to your operations and external requirements/regulations set as industry "best practices."

Seagull Maritime Training can provide top quality, certified, cost & time effective, security training ready for the July 2004 implementation date, and available ongoing.

For more information from Seagull
Circle 74 on Reader Service Card

BOSS Selects Rate Explorer from Management Dynamics

BOSS International a Non-Vessel Operating Common Carrier (NVOCC) selected Management Dynamics' Rate Explorer to automate its service contracts and generate new growth opportunities. BOSS International will use Rate Explorer to better manage business costs in its NVOCC operations and compete

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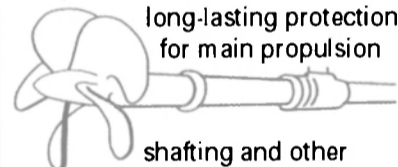
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LR Launches Distance Learning Training Program

HPMS is an alternative hull survey regime for selected ship types based on the alignment and integration of classification requirements with an operator's existing hull inspection and maintenance programme. It enables operators who have already demonstrated a commitment to maintenance management to empower selected, accredited shipboard staff to carry out regular hull inspections. The results are then presented to a Lloyd's Register Group surveyor for verification during the annual class survey. The CD-ROM contains multiple modules that cover a variety of general and ship-type specific topics, including An Introduction to Classification, Personal Health and Safety, General Ship Knowledge, Inspections and Marine Coatings. The ship-type specific modules illustrate the design and construction processes for that particular ship type, along with details of common defects. Such units have been prepared for gas carriers, passenger ships, container ships, vehicle carriers and RoRo ships. Users are required to demonstrate their understanding of each unit by completing an in-built assessment. After completion of the distance learning program, participants attend a one or two day training workshop, either ashore or onboard one of the operator's ships. The latter option clearly provides the best method for practical demonstrations but is subject to the availability of a suitable ship. The workshop repeats some of the distance learning material in greater detail, with emphasis on the identification of defects, repairs and the reporting of inspection. Upon successful completion of the training course, ship's staff are issued a certificate of authorisation which qualifies them to undertake hull inspections on the particular ship type they received training on. Authorisation is valid for five years, after which time ship's staff must undergo refresher training.

For more information from Lloyd's Register
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more effectively by responding faster to new sales opportunities with quotes based on a complete and accurate understanding of total delivery costs.

Joe Fordney, Operations Manager, Ocean and Air Transportation, said, "The growth we experienced over the past year had a negative impact on our response time, our staff was allocating more time to operational issues and less to quotations and we have been challenged to correct this situation."

After evaluating other products, BOSS International determined that Rate Explorer was a solution that could calculate complete and accurate bottom-line costs that included all output arbitrators, inlands and assessors from their carrier's governing tariffs.

For more information from
Management Dynamics
Circle 75 on Reader Service Card

LR Software Aids in Compliance

Lloyd's Register Americas, Inc. can provide advanced software for structural design assessment for compliance with its Classification Rules. This includes both rule based and direct methods. The Rules and Regulations, together with appropriate IMO legislation are available on a searchable CD.

Technical details on the world fleet of ships above 100 GT and details of the associated shipowning arrangements and builders are available on a CD. These products are also available over the web.

Follow the links to www.lr.org
For more information from
Lloyd's Register
Circle 76 on Reader Service Card

Resurgence Helps Keep Machinery Efficient

The Wave Equipment Optimization System is a machinery risk and reliability analysis software package developed by a team of reliability engineers and business managers at Resurgence Software, Inc. This tool is designed to allow ship owners and operators to optimize the reliability and financial performance of their fleets by maximizing vessel uptime, minimizing maintenance costs and reducing risks of failures.

Intended benefits of the Wave system include reduced maintenance costs, increased safety and reliability, less unscheduled maintenance, and more effective prioritization and allocation of scarce staff resources.

The unique features of the Wave Equipment Optimization System allow managers to: enhance fleet performance by analyzing the performance of vessel

systems, equipment, and parts; track trends over time by calculating 17 equipment performance indicators (including MTBF and MTTR); reduce maintenance expenses by identifying chronic failures; use the Maintenance Review Board module to get to the root cause of equipment problems; evaluate costs with Pareto reports; and use

benchmarking features to compare equipment performance across the fleet and against the industry.

The Wave Equipment Optimization System is distributed in conjunction with Lloyd's Register.

For more information from Resurgence
Circle 77 on Reader Service Card

Rolfs Returns As New IT Provider

John Rolfs, a founding director of shipping IT provider Dataworks, has returned to the maritime communications and technology sector after a two-year absence with his new company, Chipcraft. Rolfs left Dataworks in 2001 when it was acquired by Strategic



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Circle 285 on Reader Service Card

Urethane's Products Are Thick-Skinned



Proven in its field of monopile donut fenders, Urethane Products, based in Bellflower, Calif., provides Marine Guard Fenders Skin, which is a thick, tough protective polyurethane elastomeric skin material. Engineered by Urethane, this "skin" works as a capturing agent to hold the foam core of the fender. The skin is reinforced with filament nylon tire cord - continuously wound in a helix pattern. This method is used by Urethane because of its ability to significantly increase the tensile and tear strengths of the elastomer.

Designed to perform in some of the harshest weather conditions, the high strength fender skin distributes (through its reinforced skin) working energies and stresses throughout the fender skin. Urethane's donut fenders are carefully designed as to not scratch or mark-up vessels' hulls.

Getting to The Core

Urethane's fender protection is based on foam and steel cores. With the internal foam core comprised of

100 percent closed cell, cross linked resilient, energy absorbing foam, the company's inner steel core is made of heavy duty steel is made of a skeleton whereby that same energy absorbing foam and now anti-friction bearing pads are affixed. The bearing surfaces between the donut fender and the pile thus permits the fender to rise and fall with the water level - rotating around the pile without binding. Shear forces are eliminated in the fendering system through these swift movements around the pile.

Additionally, the fender can be outfitted with a mooring crown, which allows vessels the ability to moor directly to the fender assembly, thus eliminating the need to adjust mooring lines and tides fluctuate.

Meanwhile, the foam core is a non-water absorbing material that is designed and constructed to yield maximum strength and consistent performance. In addition, no adhesive is used in the foam core, which can sometimes break down under heavy or prolonged use.

Lab Tested = Urethane Approved

Marine Guard foam fenders have stepped up to the plate and have come out on top following tough quality and performance tests provided for Urethane via independent testing labs. Therefore all Urethane products are designed to meet the most stringent quality control methods, which are designed according to the requirements of the U.S. Military Quality Assurance Specification MIL-I-45208. That is why in times of imminent danger, Urethane's fenders always rise to the occasion.

According to the company, its Marine Guard Floating Monopile Donut Fender is especially useful in areas with large tidal fluctuations. The donut fender's unique design allows it to rotate and rise and lower (see inset photo above) with the tidal change, providing optimal fendering at all tide levels.

This unique feature of the donut fender allows for a smooth berthing for passenger ferries — a situation where customer comfort is paramount.

Applications include:

- Dock fendering in areas of large tidal swings;
- Turning dolphins;
- Breasting Dolphins;
- Corner Protection;
- Bridge Protection;
- Ferry Terminals;
- Dry Docks;

Features include:

- High Energy Absorbing;
- Low Reaction Forces;
- Low Shear Force System;
- Hull Conforming;
- Burst Resistant;
- Easy Installation;
- Low Maintenance;
- Custom and Versatile Designs

Additionally, UPC donut fenders absorb a high level of energy while exerting a low reaction force. This berthing energy is absorbed by a combination of the donut fender internal foam core and the deflection of the pile.

Circle 327 on Reader Service Card

SES Launches "Smart" Solution

With the development of the new software product Smart Radical Innovation, Greek marine IT specialist SES has underlined its long-term commitment to the ship management software and services sector.

Smart is a multi-user technical, purchasing and cost-control software that can be installed in any Microsoft Windows environment. Smart is delivered with the necessary relational tools database and other tools, including training, technical data, all bundled into one price of \$2,000 per vessel for both the office and onboard software.

"Smart is an Office ship management

software, which creates the onboard software modules and data base with a simple operation," says SES chairman and CEO **Achilles Vardakis**, who is himself a shipowner. "Therefore, in one software, one price, the company is licensed for the office and onboard for each ship."

Smart can be used by small-fleet companies for better control and economic management as well as for assistance with the task of complying with international regulations.

It is intended that medium to large fleets can also use Smart to organize their Technical, Purchasing and Cost

Control departments in a comprehensive and integrated way. They can also use Smart as an entry point to further expand to the full suite of SES products including Financials, Crew, Operations, Chartering, which are well established and proven internationally.

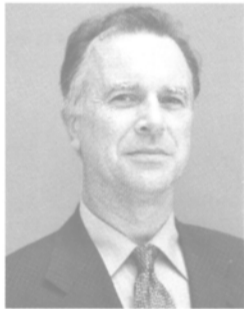
In addition to the Smart software, SES offers the Data Implementation Wizard. Through this, with simple drag and drop operation, a user can build the maintenance jobs and spares for each vessel out of the data base included in Smart in a matter of few hours per vessel. This results in substantial savings in consultancy and implementation fees to soft-



ware consultants and vendors.

**For more information from SES
Circle 78 on Reader Service Card**

Software. Chipcraft, his first venture back into the maritime sector, is a specialized software provider to the shipping world, and is the official U.K. and Northern Europe representative for Danaos Shipping Software of Greece. As well as bringing communications and ship management software to match client needs, the company provides installation and support for its customers through U.K. partner and network specialists, Blue Diamond IT.



It was a condition of the sale of Dataworks to Strategic that Rolfs would refrain from competitive business for two years.

**For more information from Chipcraft
Circle 79 on Reader Service Card**

PC Maritime Receives Type Approval

Official Type Approval was given to PC Maritime's range of PC-based engine room training simulators.

Seven products have been Type Approved for STCW 95, as well as the full suite of all seven products as a single installation.

The certificate was issued by the Polish Register of Shipping, and names the following products: Turbo Diesel; Virtual Engine Room; CBT Marine Training Software; Medium Speed Engine Room; Steam Engine Room; Engine Room Console and Medium Speed Engine Room Console.

**For more information from PC Maritime
Circle 80 on Reader Service Card**

Bass Signs Agreement With Euroship Services

Bass, a maritime software company, announced that EuroShip Services Limited (ESL) has signed an agreement for delivery of the crew/human resource management software — Bass CrewNet as well as the onboard accounting/payroll software Bass PayNet.

Based in Purfleet, U.K., EuroShip Services will use Bass CrewNet/PayNet to manage their crew activities for the managed fleet of 14 ships. ESL will also get Bass PayNet onboard all 14 vessels to handle all details

for payroll and onboard accounting. CrewNet and Paynet are seamlessly integrated.

**For more information from Bass
Circle 82 on Reader Service Card**

SIS, MTS to Provide B2B Solution

Star Information Systems (SIS) and Marine Transaction Services (MTS) of Oslo, Norway, have developed B2B software and e-commerce solution for the shipping industry.

Under the new cooperation agreement, MTS will integrate marine vendors existing ERP/back office systems with ship owners and operators currently utilising SIS Commerce software.

**For more information from SIS
Circle 83 on Reader Service Card**

Sperry Marine Receives CMM Level 3 Rating on Software

Northrop Grumman Corporation's Sperry Marine business unit received a significant Process Maturity Level rating in an assessment conducted by the Software Engineering Institute (SEI).

Mississippi River - May 22nd

The M/T SEA JACKIE, 58,808 dwt single hull tanker, laden with 44,000 tons of oil, ran aground at the entrance to the Mississippi River.

Response & Results:

The MRA (as the vessel's OPA 90 responder) received the call and immediately notified Titan. Titan was contracted by the vessel managers to refloat her. Titan mobilized a salvage team from their Florida base, dispatched tugs (a combined bollard pull of 400 tons) and liaised with the U.S. Coast Guard. The vessel was refloated within 48 hours after she grounded.

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The assessment was performed on the software engineering processes for integrated navigation systems and ship machinery control systems.

In accordance with the SEI-licensed Capability Maturity Model (CMM) based appraisal for Internal Process Improvement (IPI), the assessment team concluded that the overall Sperry Marine software engineering process was at the Defined (Level 3) Process Maturity Level.

For more information from
Sperry Marine
Circle 84 on Reader Service Card

Integration for P&O Nedlloyd

P&O Nedlloyd has implemented the AMOS Connect e-mail system of Xantic in combination with the SPOS weather system on a selection of vessels. Via a MAPI protocol within AMOS Connect, the SPOS weather system can automatically create e-mail messages or check the AMOS mailbox for new weather forecasts. The weather files containing wind, wave and cyclone forecasts are sent to the vessel on a daily or twice-daily basis via Inmarsat. Such that this is vital information for ship operations, a reliable link is essential and with the implemented connection, so the officers can be sure that the forecast is available whenever they need it.

For more information from Xantic
Circle 85 on Reader Service Card

Yantai Raffles Shipyard Selects PLM

IBM and Dassault Systemes have signed a contract with Yantai Raffles Shipyard (YRS) for product development and data management software. YRS has acquired IBM's Product Lifecycle Management (PLM) Shipbuilding Solutions with software developed by Dassault Systemes in its aim to become one of the most efficient and low cost shipyards in the world.

The PLM Solution fulfills YRS' critical need for web-based product development collaboration to link its shipyard in Yantai, China with its headquarters in Singapore and its offices in Houston, Texas. With the integrated IBM PLM platform, comprised of CATIA V5 for collaborative virtual product development and ENOVIA LCA and ENOVIA Portal 3d com for real-time product data management developed by Dassault Systemes, YRS is already realizing the benefits of seamless sharing of all vessel lifecycle information between product development teams in the company.

For more information from IBM
Circle 86 on Reader Service Card

Making Ships Stronger, Safer

GHS Load Monitor (GLM) is a software program used aboard ships to monitor stability and/or strength with various loads.

It gives vessel operators the ability to

quickly check the safety of present and anticipated loading conditions. GLM computes hull and tank characteristics directly from geometrical models of the ship and its tanks, helping to simplify the initial data preparation and eliminates a source of errors.

It also leads to more accuracy over a wider range of trim angles, and makes possible flooding and grounding calculations using the same software. Special versions of GLM can easily be produced to meet special requirements.

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ABS President Discusses Bulk Carrier Safety

(Continued from page 59)

Class wants and needs to be part of this change.

IACS has already announced that it is working hard to unify the Rules of all of its members for bulk carriers over 150m in length by January 2005. That should put an end to the manipulation of class loopholes by the shipyards.

Class has also got together with the Bahamas and Greece to develop pragmatic criteria that will meet the IMO's requirements for the establishment of "goal-based" standards for the design and construction of bulkers — and tankers — in the future.

You will already be familiar with the other initiatives that have been agreed or are under discussion.

The pending introduction of mandatory double sides. The requirement to raise bow height to give greater protection against green water.

The fitting of water ingress alarms.

The new notations for bulk carriers that will denote the density of cargoes they are permitted to load.

The UR S31 requirements that establish minimum web and sectional modulus criteria for shell hold frames on bulk carriers. New longitudinal strength requirements for bulkers in the flooded condition. Investigations continue into hatch cover and coaming strength.

The question of hatch cover securing arrangements remains to be properly addressed. There are the new hold access requirements.

And then there are the ancillary issues such as ballast water exchange that will have a profound effect on the operation of some bulk carriers.

Many of you are probably grimacing at this litany of woes and mentally calculating how many hundreds of thousands, possibly millions of dollars they are all going to cost.

And you can be assured that we are in overdrive developing new programs and systems to help you deal with these various initiatives.

These are understandable, and necessary reactions. But I suggest we, as an industry, need to get over them very quickly.

I believe it is because the industry has a long history of fighting every proposed new regulation, tooth and nail and usually unsuccessfully, that we find ourselves in this mess today.

Perhaps I am an idealist. So be it.

But I refuse to believe that this industry cannot reclaim a measure of control over its own regulatory destiny.

And the key to achieving that is for the responsible members to move beyond the defensive strategies of the past that

play to the lowest common denominator. For self regulation to work the goal must be the establishment of the highest safety standards coupled with an intolerance of the substandard.

It requires those responsible members of this industry to recognize that it is in their long term financial interests to develop and introduce and support and adhere to those standards and see that they are applied equally and fairly to all.

You do not have to be a student of history to understand what will happen if we, as an industry, do not take this proactive, cooperative approach.

Just look at your own trade press of the last few years.

Take a look at the tanker industry. They didn't think it could get much worse after OPA90.

But we all know differently.

And now we have ship's masters being thrown in jail.

We have hundreds of perfectly sound ships consigned to the beaches at Alang well before their normal scrap-by date.

We have new criminal penalties, and 200 mile exclusion zones being enforced by warships.

The shipping industry is firmly in the legislator's sights.

They do no differentiate between ship types. Even the Tricolor, the car carrying RoRo was recently referred to in the press as a tanker.

Fourteen years on and the log carrier New Clarissa is still being referred to as a tanker.

Oil on the beaches may stick to the feet but the ghosts of the 40 crewmembers on the Derbyshire have stuck in the collective memory.

There are more than 700 other seafarers' souls that have cried out to the IMO for assistance. And they have been heard. This issue is not going away. Along with death and taxes, increased regulation of your activities is a certainty.

There is some sunshine in this gloomy future. You are not alone.

Every responsible member of this industry is on your side.

I can assure you that ABS is 100 percent behind any and every responsible, reasonable effort to improve safety, to protect life, property and the natural environment.

We support every effort that strengthens the self regulatory mechanism and creates a fairer marketplace that recognizes and rewards quality.

And we would welcome your support and encouragement in taking some of the tough decisions that will be necessary if real improvement is to be achieved and sanity restored.

BP's Shafts are Oil-Free

Four 185,000 dwt Alaskan-class tankers that will soon be carrying oil along the U.S. West Coast feature the latest innovations in safe-ship design, including Thordon COMPAC water-lubricated propeller shaft bearings. During the design phase of the vessels — which are being built by NASSCO for the BP Shipping — BP was determined to minimize the risk of oil leakage. This included building in multiple redundant systems, and eliminating the use of oil wherever possible. "The prop shaft is an area where, traditionally, some lubricating oil can leak into the sea," said Stan Taylor, technical manager for BP. "So we needed to look for alternatives." Traditionally, propeller shaft bearings on commercial tankers are made of white metal lubricated by oil. Although these systems work well, keeping the oil and water separate can be a challenge. If seawater contaminates the bearing area, prop shaft performance can be compromised. If oil escapes into the sea, that's pollution. "Even a small leakage from the prop shaft," says Taylor, "can result in a visible sheen when in port." The Thordon COMPAC propeller shaft bearing systems now

being installed on each of the BP vessels feature water lubrication (a renewed innovation pioneered for the 21st century by Thordon), no use of oil (and therefore zero risk of pollution), and an expected minimum 10-year bearing wear life based on systems currently in operation. To ensure a steady supply of abrasive-free seawater to the bearings, Thordon also supplied its integrated Water Quality Package. This maintenance-free system includes pumps, flow alarms and a separator capable of eliminating particles down to 50 microns from the seawater lubricating the bearings.

Circle 88 on Reader Service Card

Correction

On page 16 of the September 2003 edition of *MR/EN*, the article, "U.S. Sub Christened in 'Home' Port" mistakenly identified that the SSN Virginia was christened on August 16, 2003 at Northrop Grumman Newport News, when in fact the sub's christening ceremony was held at the General Dynamics Electric Boat Shipyard in Groton, Conn. The SSN Virginia is the lead ship of the new Virginia Class of submarines, which are being built jointly by Electric Boat/General Dynamics and Northrop Grumman Newport News. *MR/EN* regrets the error.

Recent Ship Sales

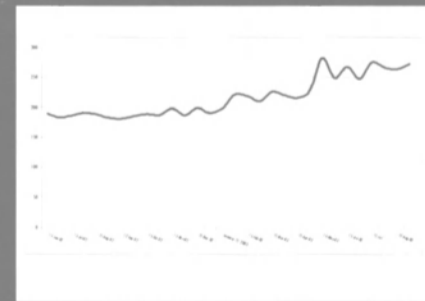
Vessel	Type	DWT	YB	Price	(MS)Vessel	Type	DWT	YB	Price (MS)
Achilles	bulker	68,779	89	\$10.20	Rubin Stock	bulke	18,315	96	\$7.25
Agios Andreas	bulker	52,068	0	\$20.40	Sea Maggie	bulke	71,298	97	\$17.65
AgiosNectarios I	bulker	23,969	86	\$3.10	Serafin Topic	bulke	37,188	82	\$4.40
Alliance Trader	bulker	38,223	80	\$2.95	Star Kim	bulke	26,973	90	\$8.00
Ariston	bulker	137,000	92	\$15.30	Star Phoenix	bulke	46,641	95	\$14.20
Arthur Stove	bulker	68,541	96	\$20.00	Taerri	bulke	15,882	80	\$1.40
Athina	bulker	68,817	81	\$4.00	Tamar	bulke	28,467	86	\$6.00
Atlantic Saviour	bulker	64,754	83	\$5.25	Toscanini	bulke	160,089	97	\$30.00
Auroral Ace	bulker	27,908	96	\$12.00	Vigor	bulke	64,801	87	\$8.50
Betio	bulker	36,249	83	\$3.30	Vigor	bulke	64,002	87	\$8.00
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C. Morning	bulker	27,036	73	\$1.80	Accord Express	tanke	19,991	85	\$3.90
Century Forest	bulker	31,762	99	\$14.00	Aruba	tanke	69,118	80	\$3.00
Dexler Eagle	bulker	45,664	95	\$13.45	Astra	tanke	149,995	02	\$52.00
Eastern Glory	bulker	45,202	85	\$5.50	Astra Pegasus	tanke	81,275	75	\$3.60
El Flamenco	bulker	69,392	89	\$10.50	Athenian Beauty	tanke	29,940	87	\$2.50
Global Fortune	bulker	64,500	83	\$5.25	Azalea	tanke	12,800	75	\$1.15
Golden Island	bulker	45,919	96	\$14.00	Ehm Maersk	tanke	299,700	93	\$40.00
Golden Laker	bulker	30,838	96	\$12.40	Equatorial Lion	tanke	273,539	97	\$60.50
Green Island	bulker	28,381	95	\$11.50	Four Sun	tanke	160,000	03	\$54.00
Green Trader	bulker	21,450	77	\$1.65	Gran Esperanza	tanke	149,999	02	\$55.00
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Houyu	bulker	45,205	97	\$14.75	Irene	tanke	96,315	94	\$26.00
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Lauren E	bulker	66,713	83	\$5.60	Lanner	tanke	60,489	86	\$6.90
Lucky	bulker	25,403	84	\$4.50	Maersk Estelle	tanke	299,700	94	\$47.50
Magnus Stove	bulker	68,541	95	\$20.00	Magellan Spirit	tanke	95,000	85	\$8.00
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New Bright	bulker	146,019	87	\$10.20	Meridian Lion	tanke	273,539	97	\$60.50
New Champion	bulker	70,296	96	\$16.00	Saint Vasilios	tanke	67,031	81	\$3.40
Otello Manship	bulker	42,244	85	\$7.25	Shayo Maru	tanke	5,445	89	\$2.40
Pacific Premier	bulker	43,193	95	\$12.50	St. Katharinen	tanke	43,760	99	\$27.00
Pacqueen	bulker	26,666	86	\$5.60	Sumidagawa	tanke	259,998	92	\$24.60
Pandora P	bulker	37,614	83	\$4.80	Toy Maru 81	tanke	3,332	91	\$1.80
Pearl of Jeddah	bulker	33,688	79	\$2.50	Treguier	tanke	31,952	86	\$7.00
Planet	bulker	23,930	86	\$3.80	United Peace	tanke	48,000	84	\$5.60
Royal Chance	bulker	48,913	99	\$17.25	Voyager	tanke	149,995	02	\$52.00
Rubin Bright	bulker	70,296	96	\$16.30					
Rubin Cygnus	bulker	47,271	97	\$15.45					

Index Fleet Value

The Index Fleet Valuation is representative of the resale market for Bulk Carriers and Tankers as a whole. The Index Fleet consists of 15 vessels, nine Bulk Carriers and six Tankers, of various size and ages. Fluctuations in the value of the world fleet are mirrored in the Index Fleet.

Current Market Value:	\$272.7
One Month Ago:	\$266.4
Six Months Ago:	\$210.3
One Year Ago:	\$182.4

This report, compiled by Shipping Intelligence of New York (212) 997-0966, tracks the sale prices of secondhand bulk carriers and tankers. This report, compiled by Shipping Intelligence of New York (212) 997-0966, tracks the sale prices of secondhand bulk carriers and tankers.



Vosta Debuts Universal MK3 Bow Coupling Installation

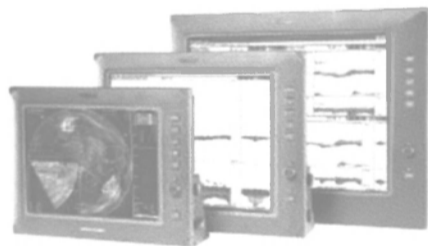
It occurs regularly that several dredges are co-operating within a dredge contract and use the same discharge line. To enable coupling of the floating discharge line, it used to be necessary that the bow coupling installations on the dredges were of the same make. With the universal Vosta MK3 bow coupling installation this has changed. Currently dredging contractors work with conventional Vosta installations (MK1 up to MK3) and installations of other manufacturers. With the new universal bow coupling installation it is not only possible to couple a male part of VOSTA make but also male parts of other manufacturers.

To make the compatibility possible, it was needed for Vosta LMG to replace the spring-ring system with a segmented ring system. Just like with the spring-ring the segmented ring can be increased and reduced in diameter size via the use of a hydraulic cylinder. A second cylinder can lock the segments of the segmented ring in place. Besides the interoperability an additional advantage of the segmented ring is that, in respect to conventional systems, the surface which carries the male part is significantly increased. This improvement causes the coupling to be even more robust than before. Apart from placing a new, universal bow coupling installation on Hopper Dredges, it is also possible to upgrade conventional Vosta MK3 systems. Replacing the ball joint part and making some changes in the hydraulic control easily complete the upgrade. In August 2003, VOSTA LMG delivered the third universal VOSTA MK3 bow coupling installation. This installation will be assembled onto a 1,500-cu.m. Trailing Suction Hopper Dredge for Vietnamese customer Waterway Dredging & Construction Company.



For more information from Vosta
Circle 89 on Reader Service Card

Simrad Offers New TFT Display Sizes



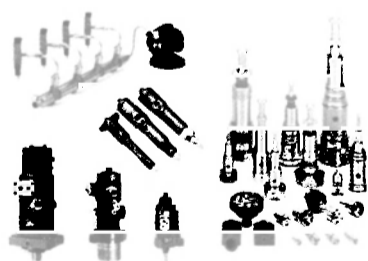
Simrad launched a new range of LCD monitors in various sizes designed for use across all professional and commercial fishing applications. Based on the Fujitsu TFT MVA Premium technology, these industrialized displays are now available in 15-, 17- 19- and 23-in. versions, with a 10-in. version due soon.

Called the 'CF' range, the displays are designed to offer excellent clarity and enhanced color and image quality. Improved input options means that each model includes DVI-D input, RGB standard input and Video input. As with Simrad's SunView displays, CF displays can be viewed almost anywhere on a vessel, making them easy to position for effective working conditions.

For more information from Simrad
Circle 90 on Reader Service Card

L'Orange Helps Diesel Engine Reliability

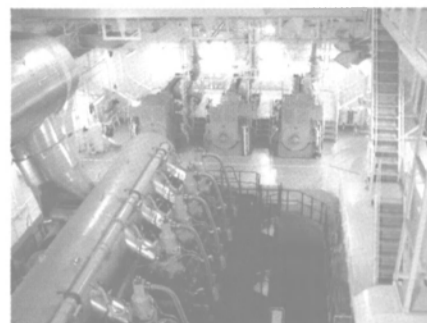
By focusing improving injection technology, L'Orange has made a big contribution to optimum engine performance. Many improvements on conventional injection systems and important new developments of L'Orange, above all the Common-Rail injection system, helped the large diesel engine to reach better heavy fuel suitability, lower fuel con-



sumption and lower exhaust gas emission values. Thus, engine manufacturers can choose from a wide range of efficient L'Orange injection components. L'Orange has traditionally paid close attention to R&D, and its injection systems reflect this, meeting high standards as far as high-pressure systems, high efficiency, and easy maintenance are concerned. Each is tailor-made for the respective engine.

For more information from L'Orange
Circle 91 on Reader Service Card

Diesel Engine Performance



Digitec is celebrating its 35th year of serving the marine industry worldwide and 20 years since the delivery of its first Dieseltune I system by releasing the latest state-of-the-art Dieseltune IV. Dieseltune has been completely revamped with new hardware and software, resulting in a powerful system with built-in diagnostics, interactive step-by-step installation instructions and many other new features. Installation as a result is very easy and can be completed any experienced electrician. Other new features include Engine Fault Diagnosis, Engine Trials comparison, System self test, new crank angle sensors and a new high temperature combustion adaptor. With a combustion pressure resolution of 0.06 bar, valve operation and turbo charger performance can be monitored as well as overall condition and performance. Dieseltune IV has been completed successful trials on 14 ships.

For more information on Digitec
Circle 92 on Reader Service Card

Transas Installs CMI Simulator

The installation by Transas of a multi-million dollar full mission simulator upgrade project is well on its way at the Caribbean Maritime Institute's (CMI) Training Center in Kingston, Jamaica. Financed mainly by the European Development Fund (EDF) and the Caribbean Development Band (CDB), the simulator project is implemented by Transas and comprises its Navi-Trainer Professional 4000 navigational bridge with seven channels of visual display and the potential to expand that number to nine channels; Engine Room Simulator, ERS 3000; Liquid Cargo



Handling Simulator (LCHS), and GMDSS simulator, TGS 4100. As the most technologically advanced training facility in the Caribbean region, the simulator is designed to meet the needs of the modern marine industry in compliance with the STCW '95 Convention and includes training programmes for GMDSS, LCHS, Navigation, Ship-handling, Watch-keeping, Bridge Team Management, Pilot Training and others.

For more information on Transas
Circle 93 on Reader Service Card

Safety Not Optional

Regulations such as the new SOLAS and Fire Safety Systems Code (FSS Code) are not to be dismissed, as anything but full compliance can lead to myriad legal and financial troubles for ship owners. Fugro's new and unique geotechnical drill ship D/S Fugro Explorer; ABS-Classed, was one of the first such ships to comply with the new SOLAS requirements, now in force, for Type Approved Portable Foam Applicator (PFA) and Emergency Escape Breathing Apparatus (EEBD). To facilitate compliance for such mandatory equipment and enhance the ship owner's confidence, ABS has designed its Type Approval Program website to provide the ship owner with instant access to a variety of products requested by manufacturers to be approved against SOLAS and other relevant standards. The ship owner can quickly download a .pdf format copy of the manufacturer's Type Approval Certificate showing the itemized SOLAS, FSS Code regulations along with class and government approvals. In addition, ABS Type Approval requires a manufacturing annual audit to verify that the manufacturer is capable of producing a consistent product of form, fit and function meeting the design standard and Product Design Assessment Certificate. When all is satisfactory, a Type Approval certificate may be downloaded from the web site. Please see, <http://www.eagle.org/typeapproval/contents>. One such ABS Type Approved Manufacturer of Portable Foam Applicators (PFA-95) is IMSSCO Corporation, Hallandale Florida & San Diego Calif. Captain Ira. Richman, CEO said, "The days of just manufacturing our PFA-95 portable foam applicators to comply are over. Now, we not only sell our fire fighting equipment to the ship and OSV owners, but provide copies of the new SOLAS and FSS Code rules, guidance and hands on training, all at the same price. It is a cost saver to the ship owners and promotes professionalism with confidence to the maritime business community."

For more information from IMSSCO
Circle 51 on Reader Service Card

Walform M Plus : Leak Free pipe connections

For high pressure and low pressure applications

The Walform M Plus pipe connector system developed by GKN Walterscheid in Germany and marketed exclusively in Great Britain by Stauff UK is designed to deliver a new dimension of safety and reliability to pipework systems for British Warships.

There were opportunities to introduce the latest connection technology for future builds, that would provide significant performance improvements as well as cost reductions. Therefore the MoD (Navy) with Stauff and Walterscheid at QinetiC in Rosyth entered into the most exhaustive test program ever carried out on pipe work couplings by the M.o.D. At the end of the program Walform M was given full M.o.D. (Navy) approval for use on Cupro - Nickel 70 / 30 pipework for all future work.

The Components

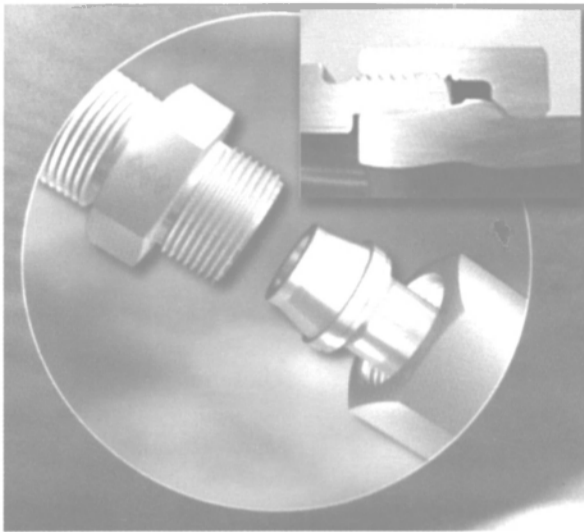
The Walform M Plus connector system uses standard DIN 2353 connector components i.e. male studs, elbows, straight connectors etc.; but does not utilize the cutting ring (olive). Instead the tube is reshaped on the Walform machine to replicate the 24-degree cone. This eliminates any potential for a leak path to be created in conditions of severe stress. The Walform Plus System has two versions: the M (metallic) seal or the WD (elastomeric seal). The latter provides for sealing to be enhanced with the use of a separate and replaceable profiled sealing ring. This is an additional feature that can be used when there is no inherent worry about the inclusion of polymer products.

Testing

A whole series of tests were undertaken: Proof Pressure; Disassembly/Reassembly; Vacuum Gas; Maximum Static Gas; Impulse; Vibration; Thermal Cycle; Fire Test; Overtighten Test; Tensile Test; Deck Shock; and Shock Test.

Probably the most significant of these was the shock test program, brief details of which are as follows:

A sample cross section of pipes were made up using



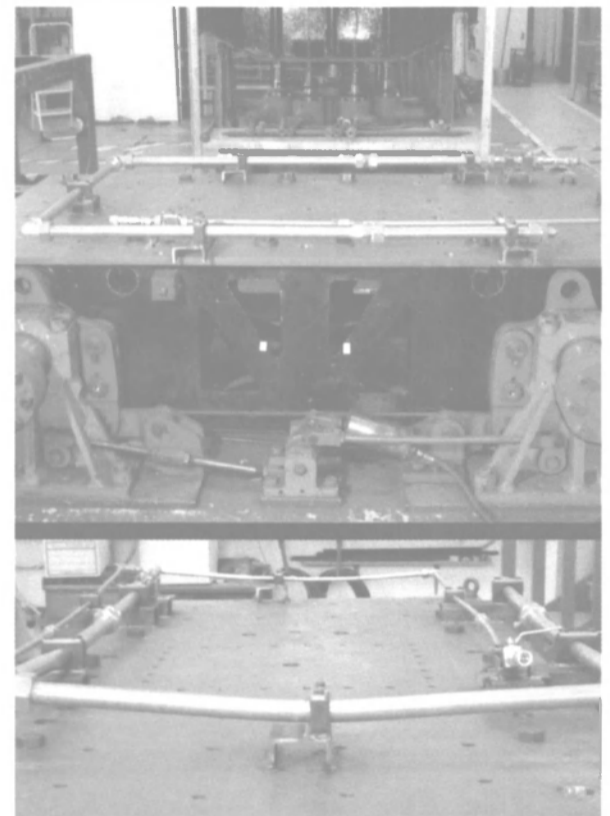
70/30cupro nickel tube and fitted with straight connectors and elbows. These pipes were then fitted to deck shock test equipment, pressurised to 300 bar and subjected to 100g acceleration with maximum deflection (63.5mm). Then they were further fitted to shock test machines, pressurised to 300 bar and subjected to acceleration in both the vertical and horizontal axes, of firstly 200g - the required level for MOD acceptance, and in addition further tests up to 700g were successfully carried out. At the completion of the testing program, despite considerable distortion of the pipework, including bending of the 38 mm dia. x 6.5 mm wall tube, all of the joints maintained a completely leak free integrity.

Application

For Warship and other military uses, the application of systems with a metal seal helps to avoid any of the operational problems sometimes associated with the long-term lay-up of joints with polymer seals.

The introduction and application development of this system has been carefully scrutinized by UK Defense departments and their contractors. The need for defense project suppliers to offer whole life guarantees

The Test Platform



and support for their equipment means that the long-term integrity offered by Walform M Plus will provide service life cost savings as well as initial installation cost reduction.

Because this system has been developed essentially as a commercial product, there are no premiums involved when using it for pipework systems at large. This means that the use of the Walform product in everyday applications will offer huge benefits in terms of operating features. The inherent leak free properties as well as high operating pressures will ensure long life and minimum service costs.

For more information from Stauff UK
Circle 52 on Reader Service Card

VENTIQ Offers Innovative Approach to Cargo Tank Venting

Ventiq's new range of high velocity relief valves for tankers vessels, VQHV-ISO, are designed to prevent passage of flames into cargo tanks carrying oil, product and chemical cargoes. The VQHV-ISO is also designed to prevent over- and underpressure in a safe and simple way. Ventiq has taken the latest amendments issued by IMO into consideration and focuses on safe operations and easy maintenance. Ventiq has developed a series of valves which are type approved by leading classification

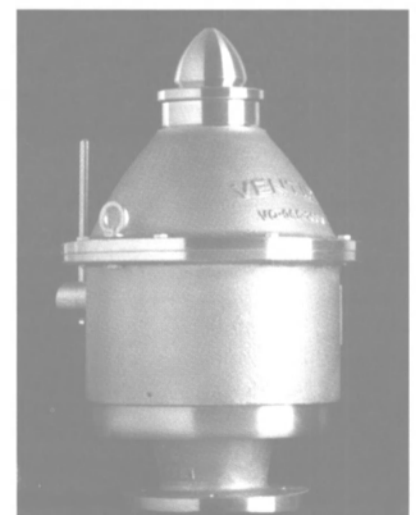
societies and the United States Coast Guard, and meets the latest requirements of ISO 15364:2000, SOLAS Reg.59, IMO MSC 1009/677/373 and API 2000.

The valve range provides safe venting to atmosphere to protect the tank against pressures above or below ambient. Its internal design avoids oscillation and hammering which could lead to premature seat wear and flashback to the tank.

The complete unit is manufactured from acid resistant stainless steel, with

easily replaceable seats. Valve functions to full stroke can be checked using a single lever. A removable circular inspection window, "fish-eye", allows for easy inside inspection of the valve for clogging, as well as for easy cleaning. This window also works as a visual check of vacuum disc operation. Function and safety are strongly emphasized in the Ventiq design and manufacturing process.

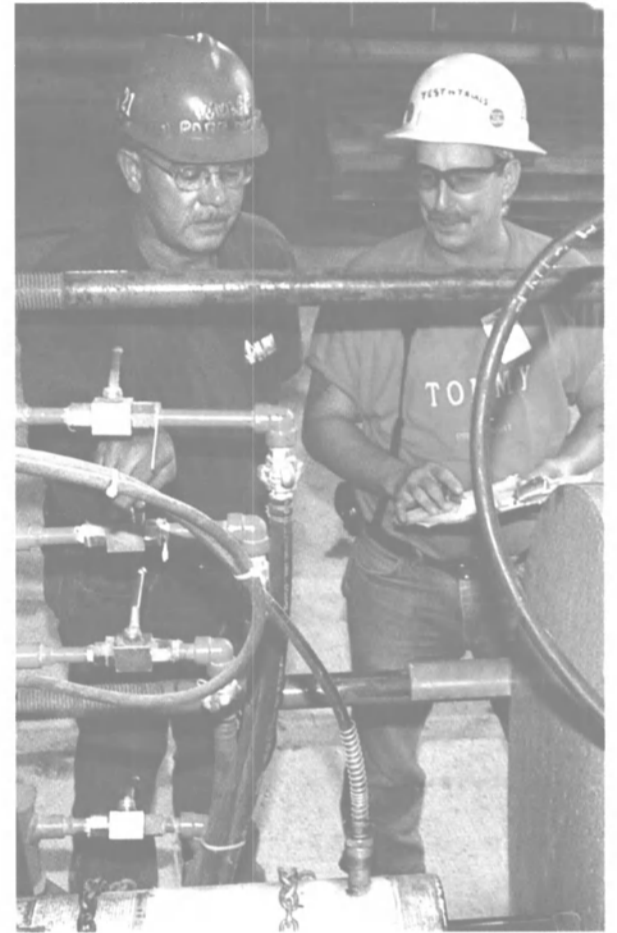
For more information from Ventiq
Circle 53 on Reader Service Card



Employees' Invention Improves Valve Process

As Avondale Operations valve supervisor Bubba Thornton mounted and checked the 68 valves on Polar Endeavour, he set out to improve the process of installing and testing that many valves on such a huge ship. That's why Thornton joined 20 other Avondale employees to come up with a way to test the valves prior to installation aboard ship. There is a total of 68 valves, ranging in size from 8 to 36 in. in diameter, in the Polar tanker's cargo system. Of those valves, 31 control the flow of crude oil in and out of each tank during filling or discharging from land-based terminals. The other 37 valves control the movement of ballast water, potable water, ship's fuel and most of the other fluids in the ship's systems. Ken Genter and zone manager John Whittington wanted to develop a basic concept of a valve-testing device that was compact, light, and could handle high-pressure loads. "I had an idea of a tool for testing valves at a different location other than aboard ship, as well as having the valves tested and the results witnessed by our customer prior to installation on the ship," said Genter. Engineers Gopal Suthar and Aseem Kaikini took the lead and designed a device that would test a valve up to 36-inches in diameter with a minimum number of settings. "After discussing the concept with all involved, I started putting together a preliminary concept that I thought was the best available method of performing the task," said Suthar. "I took that preliminary concept and completed the detailed design of the testing tool," said Kaikini. "But I took it one step further to design the tool and its components so that the tool would success-

fully test each valve on the first trial." Pipefitter Alvin Phillips took the detailed drawings and, with welder John Guillory, manufactured all of the components and assembled the testing device. "The real proof in the tool's design is that it's flexible enough to test different size valves, gain successful approval, and then sell those to the customer well in advance of installation," added Suthar. The valve-testing device is 6 x 4 x 6 ft. (1.8 x 1.2 x 1.8 m), weighs 750 lbs., and is relatively inexpensive to build. The device uses water to pressure-test a valve from 5 PSI to 250 PSI. That's equivalent to a generating force of 255,000 lbs./ft. on the valve. Normally, the manufacturer only tests the valve using air pressure. All of the valves destined for Polar Discovery, the third double-hulled tanker under construction at Avondale, have been pre-tested prior to installation, and no leaks were detected. "This device is one of the most significant pieces of equipment we have invented that will help us with this series of ships," said zone manager John Whittington. The valve-testing device's influence extends far beyond the Polar tanker construction program. It can be integral to any of the Northrop Grumman facilities. Suthar and Kaikini have even bigger plans for the device. They envision it being used at any facility along the Gulf Coast that needs to pressure-test valves. "The efforts of all involved in this project are greatly appreciated," said Polar Tanker Project Integration Director Terry Verret. "The ability to set up and test the valves prior to installation aboard the ship is a major cost reduction for the program." — *By Jeff Nowakowski*



Test and Trials George Wulff and Test and Trials Leaderman Thomas Harrison. (Photo Credit: Ricky Kellum)

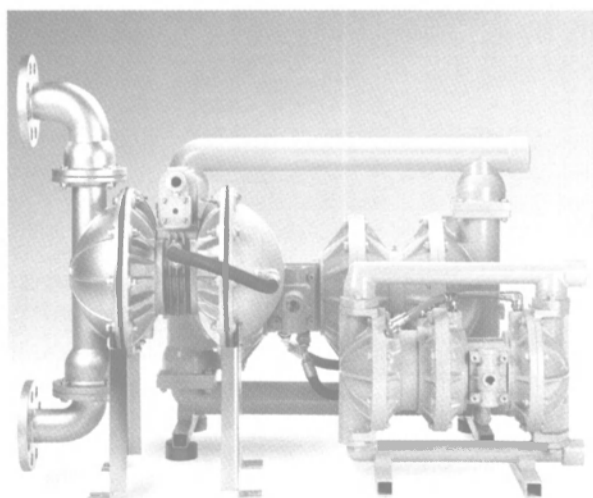
New High-Pressure Pumps

Versa-Matic has teamed up with Blagdon to offer a complete line of high-pressure pumps. The new series includes three models that address a full range of high-pressure applications. The VM E2HP 2-in. Standard Flow pump is made from stainless steel and delivers up to 200 lb./sq. in. of pressure, with standard flow at a rate of up to 69 gal./min. The BL N25 1-in. and BL N50 2-in. Full Flow pumps both deliver pressure as

high as 238 lb./sq. in., however the N25 has a standard flow rate of 30 gal./min, while the N50 can achieve a standard flow rate as high as 90 gal./min. Both BL models are available in choice of aluminum or stainless steel. All three models feature a non-stalling, non-icing air valve system with shoe valve technology, to eliminate blow-by and provide lube-free operation. Self-venting, self-charging surge suppressors help eliminate

pulsation and lessen system vibration, while anti-shock valves protect pumps, pipes and diaphragms from damage during startup. Filter and regulators are also available to optimize pump performance and reduce maintenance costs by regulating air pressure and filtering particles and water out of the compressed air inlet.

For more information from Versa-Matic
Circle 54 on Reader Service Card



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Circle 324 on Reader Service Card

Products



Jabsco

Jabsco has a product line comprised of Cyclone Circulation Pump, the VSD Water Pressure System, and the expansion of the Jabsco engine cooling pump line. The increased revenues from these products combined with streamlining its manufacturing and inventory control processes have set Jabsco up for a promising future.

Circle 101



AMOT

The latest AMOT Controls three-way temperature control valve features a 70 percent increase in flow capacity, allowing the use of smaller valves, providing a more cost-effective solution (with reduced weight and installation costs.)

Circle 102



FluoroGrip

Integument Technologies now offers FluoroGrip Fluoropolymer Pipe wrap, an easy-to-install mechanical protection system to help prevent damage such as scrapes and corrosion caused by pipe expansion and contraction.

Circle 103



Kobelco

Kobelco Marine is part of the Kobe Steel Group in Japan, manufacturing marine propulsion related equipment for more than 50 years. Products include stern tube seals, white metal and no metallic bearings, propeller shafts, propeller repairs and a hydraulic propeller nut.

Circle 104



Pall

Pall Marine has developed proprietary advanced design reverse osmosis technologies to provide high grade drinking water from seawater.

Circle No. 105



Rail Safe

Rail Safe is a dry installation product that can be used immediately, as there are no toxic chemicals used and no containment waste involved. It is used on railways to ensure a safer stairway, even providing insulation against extreme heat and cold.

Circle 106



Smith Flow

Easi-Drive is a new portable valve operating system from Smith Flow Control, designed for use with manual valves in situations where valve size, pressure rating or work environment would demand a dedicated actuator or require a work crew.

Circle 107



Midland

Midland Mfg. Company has released a newly designed pressure relief valve. A benefit to shippers is the reduction of NAR's achieved by using stainless steel for critical sealing surfaces only, such as seats and retainers. A stainless steel overlay and retainer prevents the rust build up and corrosion.

Circle 108



Spirax

The new Spirax Sarco SP2 Loop powered smart positioner provides a "smart" approach to pneumatic control, for improved valve performance and efficiency in fluid processing. Designed to be user friendly, the SP2 includes many programmable functions through menu-driven embedded software.

Circle No. 109



Tyco

Tyco Thermal Controls launched the Isopad brand of heated hoses in North America which is a line of electrically heated hoses for industrial applications. It comes in two distinct types: cut-to-length and fixed length design. The series begins with inside diameter of .177-in. (4.5 mm) in lengths up to 328 ft. (100 m).

Circle 110



Ventiq

Ventiq introduced the VQHV-ISO as a sophisticated oscillation-free, non-hammering high velocity pressure/vacuum valve. It is a simple yet sophisticated design for the venting of liquid cargo tanks.

Circle 111



Viking Pumps

Viking Pumps' new line of Mag Drive Magnum seal-less pumps features a thrust-controlled design that allows a short-term run dry capabilities. This design all but eliminates damage resulting from priming and accidental empty tank situations. These reversible-direction-of-flow pumps are ideal for hazardous or hard-to-seal liquids, or for applications where very low maintenance is a requirement.

Circle 112



Zero

Zero Fasteners carries a full line of All Threaded Studs and Headed Fasteners. They tailor their service to the clients' needs and boast a diverse inventory, and they manufacture B-7 stud bolts at their plant.

Circle 113



Fiberline

Fiberline gratings and profiles in glass fiber reinforced plastics are lightweight and strong, and cannot be corroded by salt, water or chemicals, making them ideal for use in offshore industries. The company is a manufacturer of state-of-the-art profiles in plastic composites which are used in offshore industries for ladders, stairs, railings and connecting bridges, among other things.

Circle 114



SSI

SSI Equipment announced that its line of Suction Diffusers are now available with one, three or five pipe diameters of flow straightening. The SSI Suction diffuser installed in front of a fluid pump in place of a strainer is designed to extend pump life by reducing turbulence.

Circle 115



Orkot

Orkot Marine Bearings is a global manufacturer and supplier of composite bearing materials to the shipping industries. Approved by the U.S. Navy, Coast Guard, and all major marine classification societies, Orkot marine bearing materials are used in both offshore and commercial shipping applications.

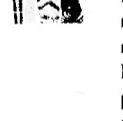
Circle 116



Blohm + Voss

Blohm + Voss is the birthplace of countless extraordinary ships, ranging from gigantic tankers, cutting edge container vessels, ironclad warships, stealthy frigates, Blue Riband-winning passenger ships to the many of world's largest, most stunning yachts contracted by an extremely exclusive circle.

Circle 117



Metawell

Metawell GmbH-metal sandwich technology, seated in Newburg/Donau, produces the purely metal sandwich panel Metawell in various types and distributes them directly, or via partners worldwide. Metawell is a purely sandwich panel with the core being a corrugated thin metal layer that is glued to one or two thin cover sheets.

Circle 118



Drew Marine

Drew Marine has developed the AMERARC I-300 GTSW AC/DC Inverter Arc Welding Machine and the AMERARC I-400 MSTW Multipurpose Inverter Arc Welding Machine. The new GTSW welder upgrades the familiar Drew Marine AMERARC I-400 GTS DC welder, with the added benefits of "Square Wave" It is lightweight, compact and portable.

Circle 119



Abanaki

Abanaki presents a comprehensive brochure detailing its line of inexpensive, coolant maintenance products. Included are: disk, belt and tube skimmers; coolant mints; aerators; coolant removal equipment and more. Application recommendations for Abanaki's full coolant product line are featured in the FREE, easy to read brochure, "Coolant Maintenance."

Circle 120



Kobelco

Kobelco Marine is part of the Kobe Steel Group in Japan, manufacturing marine propulsion related equipment for more than 50 years. Products include stern tube seals, white metal and no metallic bearings, propeller shafts, propeller repairs and a hydraulic propeller nut.

Circle 121



Jesse

Jesse's Wallace Coast family of pipe fabrication equipment begins with its world-famous benders, capable of bending round, as well as rectangular, pipe and tube. The Wallace Coast Line also includes flange tack and weld machines, saddle and hole cutters, pipefitters for welding flanges.

Circle 122



Wastewater Evaporators

Wastewater Evaporators, manufactures equipment that reduces oily bilge water disposal problems by evaporating the water content to reduce the volume of waste by as much as 95%. Model G30 has been in operation for over three years at Boston's Coast Guard Station.

Circle 123



Acorn

Acorn Marine's toilets are high quality, from design and materials. The range comes in a large variety of fit and finish, from basic to luxurious.

Circle 124



Xantic

Xantic is a satellite communication providers, offering ICT and CAT (Content, Applications and Transactions) oriented solutions. Xantic was formed by the merger between Station 12, Telstra Global Satellite, SpecTec and KPN Broadcast. It operates three Land Earth Stations (Netherlands/Australia).

Circle 125

INFORMATION

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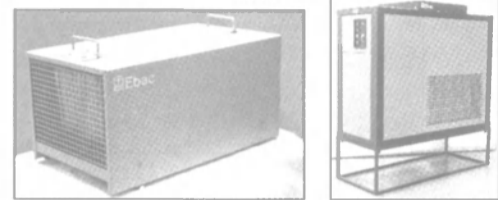
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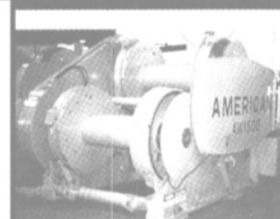
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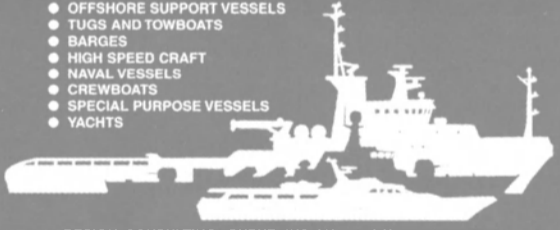


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
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