

MARITIME REPORTER AND ENGINEERING NEWS



NWC ANNUAL EDITION

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AUGUST 1990 ISSUE

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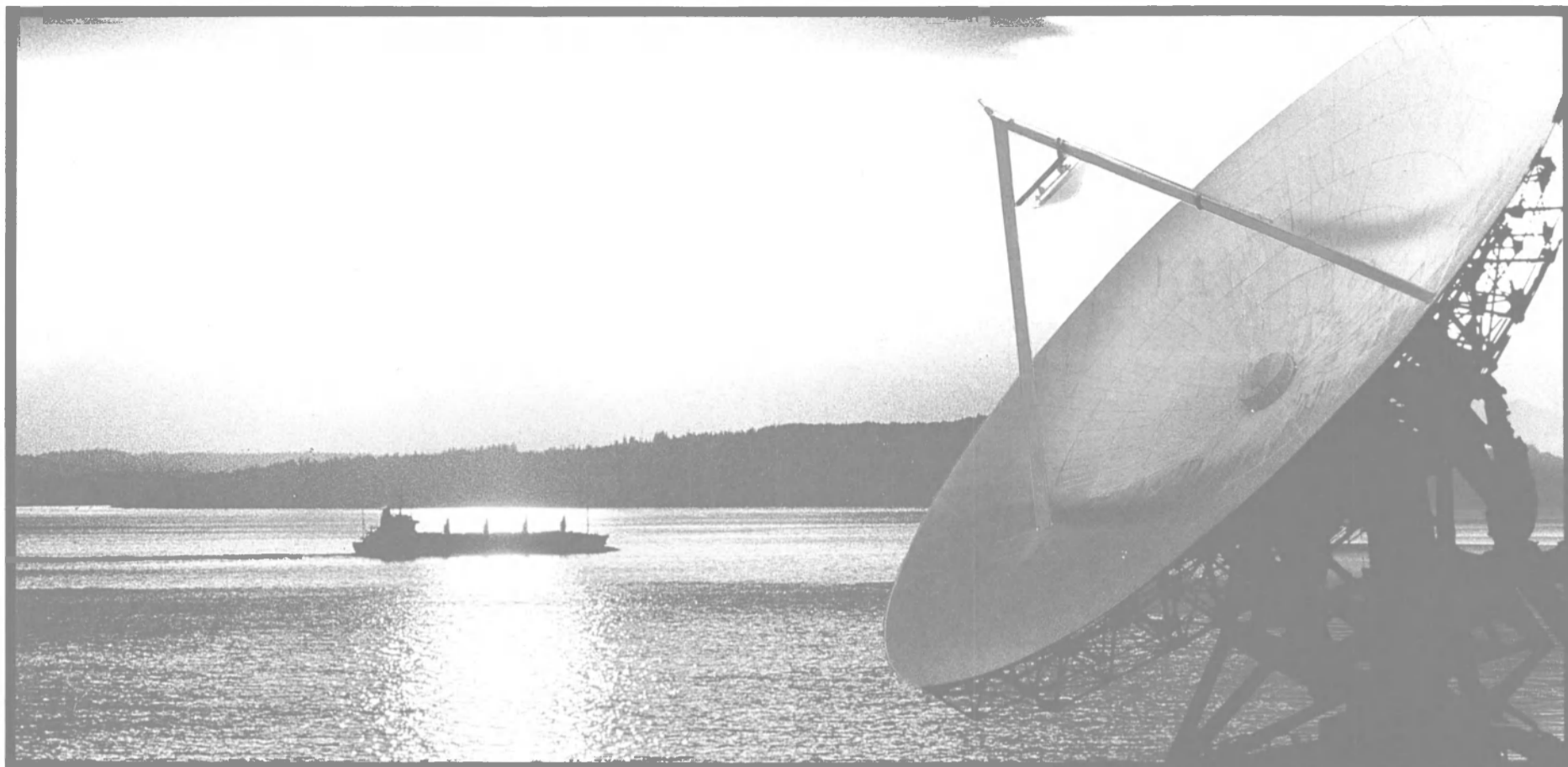
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ON THE COVER

Photos, from right of logo: Excursion/dinner boat Spirit of Mount Vernon, built by Service Marine Industries; excursion/dinner boat Spirit of Boston, built by Blount Marine Corporation; tractor tug Kinsman Falcon, built by Tampa Shipyards; SES commuter Metro Manhattan, built by Avondale Industries' Boat Division; docking tug Aman, built by Trinity Marine Group; and (center) St. Louis Cathedral, New Orleans, La.

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A Report—Expanding Small Vessel Market in U.S. 34

AWO Fall Convention America's Small & Medium-Sized Yards—A Review 48

Argos Engineering Wins \$65-Million Order From Norwegian Owner

Argos Engineering of Singapore, a subsidiary of Chung Wah Shipbuilding & Engineering Group of Hong Kong, was recently awarded a \$65-million contract by Viking Supply Ships of Norway for the construction of four 2,800-dwt anchor-handling vessels.

The first of the four 15,600-bhp vessels, which will be utilized in the North Sea, will be delivered in May 1991.

Northwest Marine Overhauling Cruiser Under \$29-Million Pact

Northwest Marine Iron Works, Portland, Ore., recently won a \$29-million U.S. Navy contract to overhaul the USS William H. Standley. The ship will be the first cruiser to be overhauled in the Portland Ship Repair Yard, the port said.

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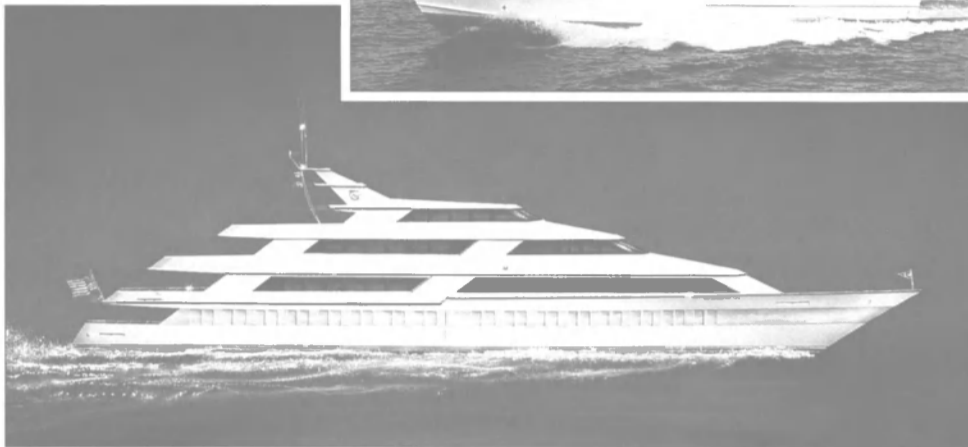
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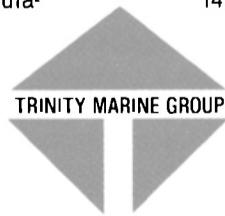
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BOATS & BARGES

Largest Aluminum Charter Yacht In North America Delivered By Aluminum Boats

Aluminum Boats, Inc. of Crown Point, La., recently delivered the Lady Windridge, the largest aluminum charter yacht ever built in North America, according to **Salvador Guarino**, general manager of Aluminum Boats, Inc.

The new vessel is 170 feet in length with a 33-foot beam and 5-foot draft. She has four decks, luxuriously furnished staterooms, a main salon which can seat 250 for dining, a lounge, dance floor and

bar, fully equipped galley, state-of-the-art electronics, and a 360-degree-view observation deck. Propulsion is provided by two Detroit Diesel 1671NA engines.

The Lady Windridge is now the flagship of Windridge Yacht Charters, Inc., Ft. Lauderdale, Fla., and the big sister of the Kathleen W, a 142-foot all-aluminum charter yacht built in 1988 by Aluminum Boats, Inc., for the Windridge company.

Aluminum Boats, Inc. is part of



Designed by her owners and Aluminum Boats, the Detroit Diesel-powered Lady Windridge is USCG certified to carry 400 people.

the Trinity Marine Group, Gulfport, Miss., which is owned by Trinity Industries, Inc., Dallas, Texas.

For free literature on the facilities

and capabilities of Aluminum Boats,

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Trinity Marine Group Licensed To Build Westamarin Aluminum Catamarans In United States

North American passenger vessel operators now have access to catamaran designs of one of the world's largest and most experienced catamaran builders, because of an agreement between Westamarin A/S, the Trinity Marine Group, and Scandinavian Catamarans, Inc.

Westamarin A/S, Mandal, Norway, which offers a line of standard and custom-designed passenger vessels from 75 feet to 150 feet in ferry, dinner/cruise, casino, and other configurations, has licensed the Trinity Marine Group, Gulfport, Miss., to build the entire range of boats.

More than 60 Westamarin civilian and military catamarans are in use worldwide.

Scandinavian Catamarans, Inc., Ft. Lauderdale, Fla., exclusive North American agency for Westa-

marin, selected Trinity because of the company's extensive experience in the design and construction of aluminum vessels and because of the financial strength and stability of Trinity.

Bjornar Helgesen, a principal of Scandinavian Catamarans, said: "Our strategy is simple. We will offer both well-proven and well-known products built by the Trinity Marine Group, a solid 'Fortune 500' company. Being well proven means less service and maintenance costs for the operator and being well known and stable reduces the risk for financiers. Teaming with Trinity gives us access to their multiple facilities which can assure quick deliveries."

Mr. Helgesen said his company offers assistance to customers in securing the best financing for Westa-



Westamarin's latest high-speed catamaran design, the 4200S (shown above), can cruise at 45 knots.

marin catamarans as well as training of key staff members.

The Trinity Marine Group includes seven shipbuilding companies with 10 shipyards. Three of those companies, Halter Marine, Inc., Equitable Shipyards, Inc., and Aluminum Boats, Inc., build alumi-

num vessels.

The Trinity Marine Group is owned by Trinity Industries Inc., Dallas, Texas.

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Gdansk Shipyard Wins \$250-Million Contract To Build Three RO/ROs

The Polish shipbuilder Gdansk Shipyard recently was awarded a \$250-million contract to construct three Roll-On/Roll-Off (RO/RO) ferries by Finnish shipowner Finnlines. The vessels are expected to be operated by Finn carriers, a joint partnership of Finnlines and Effoa, on Baltic routes.

Directions In Design Awarded Casino Boat Interior Design Contract

Directions In Design, Inc., Chesterfield, Mo., recently won the interior design contract for the Dubuque Casino Belle, a new 2,000-passenger casino riverboat that will operate on the Mississippi River out of Dubuque, Iowa.

Robert's River Rides, owner and operator of the \$7.5-million vessel, projects a spring 1991 completion. Patti Shipyard, Pensacola, Fla., is building the riverboat, which will be 385-feet long with a 58-foot beam, and an 11-foot draft.

Jeanine Bequette, vice president of Directions In Design and head of the company's ship design division, said the interior of the four-deck sidewheeler will be finished in a turn-of-the-century Victorian era motif.

The space plan developed by the designer calls for two separate gaming casinos on the main deck. The second deck will include two formal dining areas with combined seating for approximately 1,000 people. The multipurpose third deck will feature a 6,000-square-foot theatre for live performances, a children's video arcade, and a gift shop. The open fourth deck will be an outdoor observation area.

For more information on Directions in Design,

Circle 138 on Reader Service Card

Sabroe Offers Brochure On Marine Refrigeration

Sabroe Marine, a division of SABROE, Denmark, is offering a new six-page, full-color brochure titled "Focus on Refrigeration—For A.C. and Provision Stores." The publication centers on comfort on board with Sabroe Marine refrigeration and Sabroe know-how gained from more than 10,000 deliveries.

Various types of Sabroe refrigeration units are illustrated and described in the brochure. The design of the factory-assembled units is specially adapted to marine conditions, requiring a minimum of space, field design and installation work in accordance with the shipyards' demands. The units are manufactured and can be supplied in accordance with the rules of the leading classification societies.

For further information and a free copy of the brochure from Sabroe Marine,

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Art Anderson Associates Expands Professional Staff

Art Anderson Associates, consulting engineering and graphic design firm in Bremerton, Wash., recently hired four professionals to work on various marine projects currently underway in the company's Bremer-

ton and Seattle, Wash., offices.

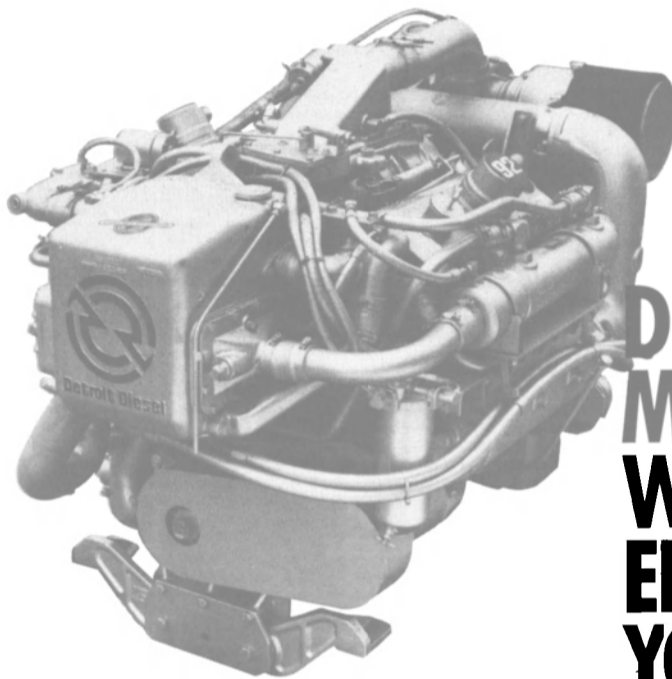
Michael J. Nuernberger joined the mechanical engineering staff and assists the mechanical department head with engineering design.

Yvonne T. Turney, a mechanical engineer, will work on mechanical systems design. Ms. Turney worked from 1985 to 1987 at the Mare Island Naval Shipyard, Valle-

jo, Calif., where she designed mechanical systems for deep submergence vehicles.

The company also employed Robert F. Henry, a civil engineer, as a senior engineer in the civil engineering department.

In the electrical department, the company hired Sandra L. Counsellor to work on various electrical systems designs on AutoCAD.



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HydroComp Develops Software Package For Propeller Selection

HydroComp Inc., Durham, N. H., announced recently development of a software package created for the selection and analysis of propellers in workboats and pleasure craft.

Called EasyProp 1.0, the package employs data for a variety of open-

wheel and ducted propellers. The propeller selection routine offers solutions for diameter, pitch and blade area ratio. The system analysis includes free-running and towing analyses to evaluate hull and engine data, propeller and powering coefficients, thrusts, torques and powers, and cavitation data.

For more information about EasyProp 1.0 from HydroComp, Circle 164 on Reader Service Card

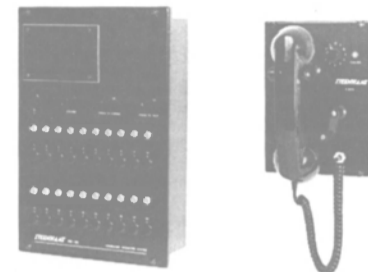
ELECTRONICS UPDATE

Furuno Introduces New Shipboard Communications System

Furuno recently announced the availability in the U.S. of the Steenhans line of rugged, commercial quality shipboard communications equipment, consisting of the System P-4200 batteryless telephone and the System PK Command Intercom.

The P-4200 will provide reliable communications even if all other shipboard power fails. Up to 24 stations can be handled and a wide variety of surface mount, flush mount, desk type and portable stations are available. Operation is simple: turn the handle on the telephone set a few times for ringing signal and approximately five minutes of conversation. If more time is required, turn the handle again.

The System PK provides reliable voice communications between the bridge and up to 40 individual locations aboard ship. Standard packages are 5, 10, and 20 lines, and various types of substations are avail-



Steenhans shipboard communications, recently introduced by Furuno.

able to meet almost any conditions: indoor/outdoor, high noise, or wet locations.

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For complete information on Steenhans shipboard communications for vessels of all sizes,

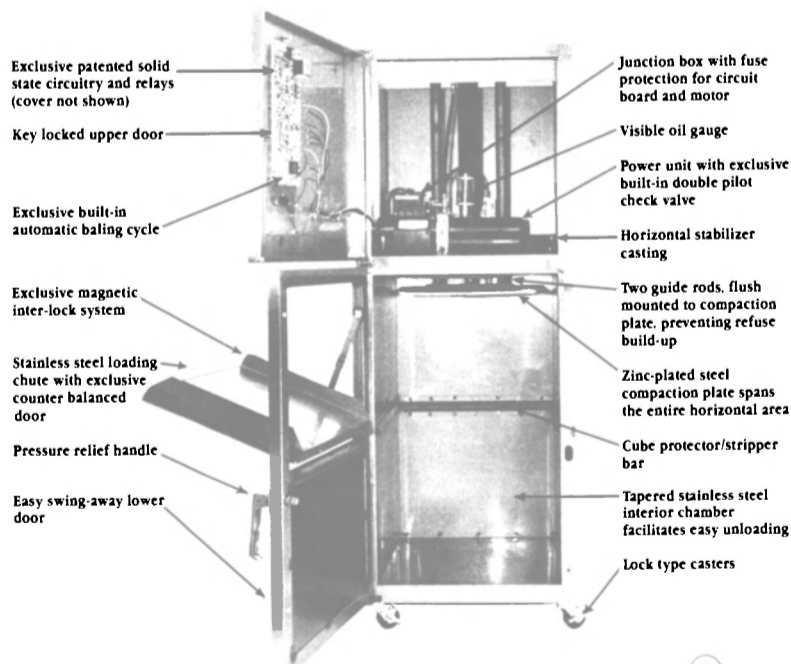
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Tidewater Adds 11 Boats To Domestic Fleet

Tidewater Inc., New Orleans, La., announced recently that its marine division, Tidewater Marine Service, Inc., added ten crewboats and one supply vessel to its domestic fleet. All of the vessels will be based on the U.S. West Coast.

"By acquiring high quality, used vessels, such as these, Tidewater is fulfilling its goal of adding to and operating one of the largest, most versatile fleets in the industry today," said John P. Laborde, Tidewater chairman, president, and chief executive officer.

Three large crewboats, Searich, Western Star, and Wendy Star, were purchased May 31, 1990. Built in 1982, the 110-foot, 2,280-hp Searich can accommodate 55 passengers and crew. Western Star, a 105-foot, 1,200-hp vessel, accommodates 65 people, and the 115 foot, 2,280-hp Wendy Star carries 50. Both Western Star and Wendy Star were built in 1981. All are certified by the U.S. Coast Guard.

In a separate transaction with Jackson Offshore, Ltd., Ventura, Calif., Tidewater added seven crewboats and one supply vessel to its fleet by long-term lease. The transaction, effective July 1, 1990, included an option to buy the vessels at the end of the lease. The leased vessels joining Tidewater's California-based fleet are the 165-foot supply vessel, Clipper Grand Cayman; the 105-foot crewboat Pawnee and Shoshoni; the 100-foot crewboats Clipper Hamilton, Clipper Larry, Clipper Jack, and Clipper Johnny; and the 95-foot crewboat, Clipper One. The crewboats can accommodate from 49 to 63 passengers and

crew, and are all certified by the U.S. Coast Guard.

Tidewater owns and operates 261 vessels serving the international offshore energy industry.

For more information on the services offered by Tidewater,

Circle 146 on Reader Service Card

JJH, Conan Wu, Naval Architect Firms, Plan Joint Venture

JJH Inc., a U.S. naval architectural and marine engineering firm, recently entered a joint venture with Conan Wu and Associates Pte. Ltd., a naval architectural and marine engineering concern in Singapore.

Under terms of the agreement, the two companies will share emergent ship design technology and promote each other's expertise and ship designs in their countries, as well as worldwide.

Conan Wu and Associates, incorporated in 1971, has had more than 1,000 vessels built to its designs, including harbor tugs, anchor handling tugs, landing craft, offshore supply boats, chemical tankers, oil tankers seismic survey ships, cargo ships, pipelay barges, and passenger/car ferries.

JJH Inc., during the past 40 years, has provided conceptual, preliminary, contract, and detail design, plan review, construction representation, and engineering assistance for a wide variety of commercial and military vessels.

For more information,

Circle 141 on Reader Service Card



The rebuilt SS Meridian docking at Pier 88 in Manhattan, following her \$55-million reconstruction at Lloyd Werft-Bremerhaven shipyard in West Germany.

'Reborn' Meridian Emerges From \$55-Million Reconstruction At Lloyd Werft-Bremerhaven

Chandris Celebrity Cruises' luxury liner SS Meridian recently arrived in New York following a major \$55-million reconstruction at West German builder Lloyd Werft-Bremerhaven's shipyard.

"The vessel was totally redesigned to support the new Celebrity product level," commented **Harry A. Haralambopoulos**, executive director of Celebrity Cruises. "Everything that passengers experience bears the stamp of the new Celebrity Cruises. All the luxury of classic cruising has been incorporated in the creation of the Meridian."

Among the structural changes were an entirely new sun deck with three whirlpools; the Marine Cafe which accommodates 450 with its indoor and outdoor seating and barbecue; and a new 585-seat Celebrity Showroom. An entire deck of cabins was razed and rebuilt to create 47 new deluxe cabins with seating areas on the Atlantic Deck.

"The cabins were stripped to the bulkheads to accommodate completely new furnishings and decor in each and every cabin aboard the ship," said **Albert C. Wallack**, senior vice president, marketing and passenger services, Celebrity Cruises.

Outside passenger cabins on the Horizon Deck, one of eight passen-

ger decks, provide great views through floor to ceiling picture windows. Two cabins were specially adapted to accommodate passengers in wheelchairs.

Among the ship's new public rooms are the Rendez-Vous Lounge, the Interlude Lounge, Zodiac Club, a gym with juice bar, and a children's playroom with a splash pool located outside.

"The Meridian's major reconstruction signifies the investment we have made in passenger accommodations and amenities, reflecting the standards of the new Celebrity product," noted Mr. **Haralambopoulos**.

The SS Meridian, formerly the SS Galileo, has a gross registered tonnage of 30,440, length of 700 feet, beam of 94 feet, draft of 29 feet, and speed of 24.5 knots. Her passenger capacity is 1,106 and she will be served by a crew of 580. The Bahamian-flagged Meridian has a total of 553 cabins, 295 of which are outside.

During the summer, the Meridian will operate from New York to Bermuda, while in all other seasons, she will depart from Port Everglades in Caribbean service.

For free literature detailing the facilities of Lloyd Werft-Bremerhaven,

Circle 126 on Reader Service Card

Rasmussen Joins COMSAT Maritime

COMSAT Maritime Services announced recently that **John A. Rasmussen** joined the company as manager, government sales. He will be responsible for sales of maritime satellite communications services to the U.S. Government.

Mr. **Rasmussen**, a 1982 U.S. Naval Academy graduate, served as operations officer aboard the USS Barbour County, and later with the Military Sealift Command. In that position, he managed shipboard and

shore communications enhancements including the procurement of transportable satellite terminals.

After leaving the Navy in 1989, Mr. **Rasmussen** joined the Maritime Administration where he was responsible for the management of electronic installations on the 92 ships of the U.S. Ready Reserve Force, and for the provision of technical and operational guidance of all aspects of naval and maritime communications.

For more information on COMSAT services,

Circle 148 on Reader Service Card

Stearns Mfg. Opens New Plant In Minnesota

Stearns Manufacturing Company, one of the leading makers of personal flotation devices for recreational and commercial use, opened a new plant earlier this year.

The 18,000-square-foot facility in Grey Eagle, Minn., is 45 miles

northwest of the Sauk Rapids headquarters.

"This expansion represents the growth we continue to experience in our water safety products," said **David G. Cook**, president, Stearns-Shakespeare Outdoor Products Group.

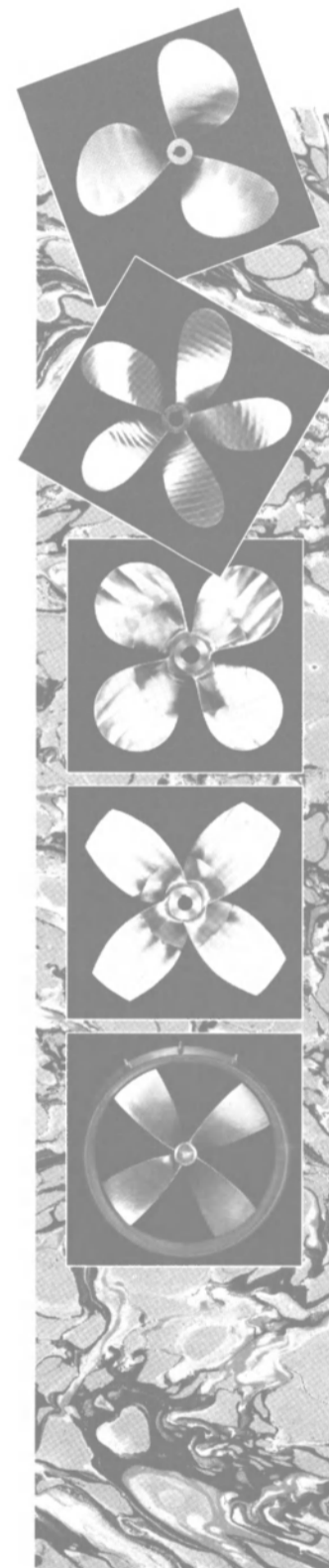
For more information on Stearns Manufacturing,

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Circle 321 on Reader Service Card

BOATS & BARGES

Service Marine To Build Dinner/Excursion Boat For Chicago Firm

Service Marine Industries, Inc., a full service shipyard located at Amelia, La., has been awarded a contract by Premier Yachts, Chicago, Ill., to design and build a 175-foot megayacht dinner/excursion boat.

Premier Yachts will operate the vessel, the M/V Odyssey, which will have a beam of 37 feet and draft of 11 feet, from the Navy Pier in Chicago. The managing partners, **Mike Higgins** and **Roy Sanders**, plan to offer what they call a true yachting experience, with specially prepared food served at the guests' tables, as well as live entertainment and music.

Service Marine worked closely with the managing partners to de-

velop the megayacht appearance of the boat, which they felt was necessary to carry out their theme of on-board yacht dining. While similar to the European styling of their previously built boats, Service Marine has carried the first cabin of the Odyssey forward to the bow and has stepped the second cabin back more.

Guests will enter the boat at the stern of the second deck and can be directed to any one of the three decks while still maintaining the privacy of the other decks. The boat will have the galley located in the bow on the first deck, in order to facilitate food service. The clear head height in the cabins will approach eight feet, which Service



Artist's conception of the 800-passenger excursion boat Odyssey, which will be built by Service Marine Industries, Inc., Amelia, La.

Marine believes is necessary to provide the passengers with a feeling of spaciousness.

Service Marine has designed the boat for 800 passengers with a U.S. Coast Guard stability and safety certificate to operate in partially protected water.

The Odyssey will be powered by two Caterpillar 3408 DITA main engines, which are rated at 470 bhp each at 1,800 rpm. The generator sets will consist of two Caterpillar 3406T diesels with two 250-kw gen-

erators. The port generator will have a power takeoff running a hydraulic pump which will power a 150-hp bowthruster. The engines and generators were supplied by the Holt Company.

For passenger comfort, 73 tons of Carrier air conditioning equipment, supplied by Harris Refrigeration, will be installed.

For free literature detailing the boatbuilding facilities offered by Service Marine,

Circle 8 on Reader Service Card

Cummins-Powered Aluminum Boat Delivered By Argo Marine For Logging Operation

The 29-foot, 12-passenger Ootsa Ranger, powered by twin Cummins engines and Hamilton waterjets, was recently delivered by British Columbia, Canada, builder Argo Marine Ltd. to Alcan Smelters & Chemicals Ltd., Kitimat, B.C. The vessel will be used to ferry loggers to timber harvesting sites.

The Ootsa Ranger, a new design boat for Argo Marine, a busy builder of aluminum workboats and fishboats, is powered by Cummins 6BTA5.9-M diesels rated at 250 hp at 2,600 rpm. The six-cylinder, inline engines are coupled with Borg Warner marine transmissions and 10-inch Hamilton 271 pumps.

During sea trials with a simulated

full load of fuel and passengers, the Ootsa Ranger hit a top speed of 31.7 knots, reported **Lorne Smith**, Argo Marine's owner.

"The boat was designed to have a top speed loaded in the 30- to 32-knot range," he said. "It's a fast boat."

The Ootsa Ranger will operate on the 100-mile-long Nechako Reservoir in British Columbia. She will be used to ferry about 10 loggers to and from harvesting sites, which range as far as 60 miles from the boat's base of operations.

In a novel operation that has been underway for about 10 years, Alcan-employed loggers harvest underwater standing timber whose tops pro-




The Ootsa Ranger, which features Cummins diesels, with Borg Warner marine transmission and Hamilton waterjets, will be used to ferry loggers on the Nechako Reservoir in British Columbia.

trude above the reservoir's surface. Four circular saws—each five feet in diameter and assembled into one huge cutting unit 24 feet in width—descend from a barge to cut off the timber 30 feet below the water's surface. Also involved in the operation is a six-foot-diameter saw attached

to the extended boom of a large excavator with a running gear removed and the turntable mounted to a barge.

For free literature on Cummins engines,

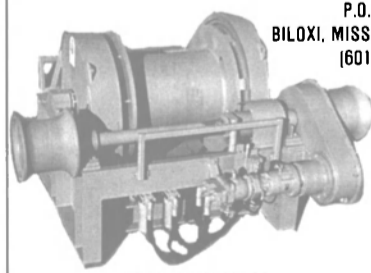

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Rauma Yards Wins \$155-Million Order For Baltic Cruise Liner

Effjohn International recently signed a \$155.3-million contract with Finnish builder Rauma Yards Oy for the construction of a Baltic cruise liner. The order will be confirmed once financing arrangements and other preconditions are received.

The vessel will be operated by Sally Line, part of the Effjohn International Group, and will replace the fire-damaged Sally Albatross in Baltic and European cruise operations. Mechanical parts from the Sally Albatross will be utilized in the construction of the new cruise liner, with delivery scheduled for 1992.

Sally Line's new cruise liner will have 550 passenger cabins, a length of 524 feet, width of 82 feet, cargo capacity of 25,000 gross registered tons and speed of 21 knots.

For further information on Rauma Yards Oy,

Circle 131 on Reader Service Card

ASNE Symposium 1990 Set For Biloxi, Miss., September 27-29

The American Society of Naval Engineers (ASNE) in cooperation with the Surface Navy Association (SNA) and the Supervisor of Shipbuilding, Pascagoula, Miss., will sponsor a symposium in Biloxi, Miss., September 27-29, 1990, at the Mississippi Gulf Coast Coliseum. The symposium is titled "Destroyer, Cruiser & Frigate Technology."

The conference is planned to bring the Navy and industry together for an interchange of technical ideas for future ship designs. During the two-day technical session, 18 papers will be presented by invited authors, emphasizing subsystem technology in the area of weapons, command and control, aircraft installation, machinery, hydrodynamics, structures, survivability and detectability.

Luncheon speakers will feature **Ron Kiss**, Director of Shipbuilding, Office of the Assistant Secretary of the Navy (RD&A), and Rear Adm. **William J. Flanagan Jr.**, Chief of Legislative Affairs.

Registration fee for the technical conference is \$75 for ASNE and SNAME members, \$125 for non-members, and \$20 for students.

For more information, write or call ASNE Headquarters, 1452 Duke Street, Alexandria, Va. 22314, Mrs. **Sally Skolnick**, (703) 836-6727, or call **Kim Shanahan**, Symposium Chairman, at Ingalls, (601) 935-1420.

Cosat Develops New High-Speed Data Service —Literature Available

Cosat Mobile Communications recently announced that it has suc-

cessfully tested a new high-speed data service that will make it possible to transmit broadcast quality audio feeds from small land transportable and shipboard satellite terminals.

The test, which was recently conducted by Cosat engineers at the company's Southbury, Conn., land earth station, used an improved technique for transmitting data at 56 kilobits per second. The enhanced service is being developed to

satisfy a number of requirements in the broadcasting and oil exploration industries, although many other applications are expected in the future.

Cosat, the U.S. partner in the global Inmarsat mobile satellite network, provides a variety of voice, data, facsimile and telex services to over 11,000 ships, offshore oil rigs, and land transportable terminals throughout the world. According to **Ron Mario**, Cosat Mobile Com-

munications vice president and general manager, the new high-speed data service, expected to be operational later this year, will be available to all of these users with only minor modifications to their existing terminals and the addition of a commercially available, off-the-shelf modem.

For free literature giving full information on Cosat,

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MSI Combines Emergency Medical Training Program With Shiphandling Course

Marine Safety International (MSI) recently announced that an emergency medical training program is being combined with the shiphandling course offered to personnel undergoing training at the Computer Aided Operations Re-

search Facility (CAORF), operated by MSI at the U.S. Merchant Marine Academy, Kings Point, N.Y.

According to MSI, "Emergency First Care at Sea," conducted by Emergency and Safety Programs, Inc. (ESP), is a dynamic and innovative U.S. Coast Guard-approved program specifically designed for maritime personnel. Emphasis is on a basic approach to caring for all serious medical emergencies that

could occur on board vessels, and what to do to provide life support until professional medical assistance becomes available, regardless of the diagnosis or cause of the problem.

The program aims to remove the confusion of making a complicated diagnosis and increases the confidence of medical "first responders," showing them that they can do what is necessary to aid a seriously ill or

injured shipmate.

Internationally known ESP has worked in cooperation with MSI, offering marine oriented safety programs in conjunction with MSI's highly acclaimed ship operations and safety programs.

For further information and free literature from MarineSafety International,

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Circle 222 on Reader Service Card

Mariotti To Convert Second Costa Ship Under \$120-Million Pact

Italian cruise operator Costa Crociere recently awarded an approximate \$120-million contract to T. Mariotti to convert a second containership to a cruise vessel.

When the work is completed, the second vessel, Alexandra, will be a sistership to Costa Marina, which Mariotti also converted. Workers in the Genoa yard are scheduled to convert the second vessel to accommodate 800 passengers in 400 cabins. The second ship will be 571.5 feet long with an 84-foot beam.

For more information on Mariotti,

Circle 143 on Reader Service Card

Bender To Overhaul Barbados Patrol Boat Under \$1.1-Million Pact

Bender Shipbuilding & Repair Co., Inc., Mobile, Ala., recently was awarded a \$1.1-million contract for the overhaul and repair of the HMBS Trident, a 123-foot Barbados Defense Force patrol boat.

Correction

The article, "Colt-Pielstick Powered 'Ericsson,' Navy's Newest Kaiser Class Oiler, Christened At Avondale Industries," which appeared on page 85 of the June 1990 issue, erroneously reported that the USNS John Ericsson (T-AO-194) was equipped with Lohmann & Stolterfoht reduction gears. The Ericsson is actually equipped with Cincinnati Gear reduction gears. Cincinnati Gear reduction gearing will also be featured on the Navy oilers T-AO-195 and -196. Cincinnati Gear also supplied gearing for the first four oilers of the class, T-AO-187, -188, -189 and -190.

The gearbox designed and manufactured by Cincinnati Gear features high power density carburized, hardened and precision ground gears resulting in a gearbox that is 35 to 40 percent smaller and lighter than a conventional through hardened type. A full load, full speed back-to-back test of Cincinnati Gears' Kaiser Class gearbox established a baseline measurement, allowing the U.S. Navy to monitor future CHG gear development.

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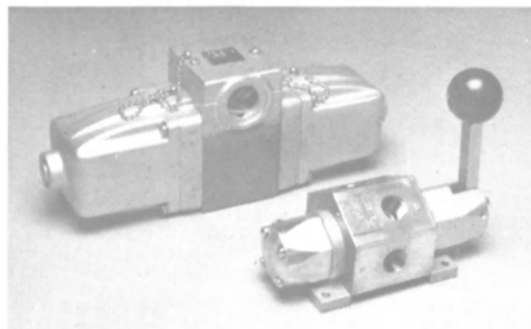
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Simplex Wire Awarded \$42-Million Contract For Fiberoptic Cable

Tyco Laboratories, Inc. announced recently its Simplex Wire and Cable Company subsidiary, Newington, N.H., received a \$42-million contract from AT&T Federal Systems Division for undersea fiberoptic cables to be used by the U.S. Navy for oceanographic research.

Simplex already has manufactured more than 17,000 nautical miles of commercial fiberoptic undersea cables for AT&T, and currently is manufacturing another 2,500 nautical miles for TAT-9, the second-generation fiberoptic cable system to be installed on the Atlantic seabed in 1991.

For more information on Simplex,

Circle 139 on Reader Service Card

Tidewater Board Elects Two New Directors

John P. Laborde, chairman, president, and chief executive officer of Tidewater Inc., announced recently the board of directors elected Donald T. (Boysie) Bollinger and Hugh J. Kelly as company directors for a term expiring at the next annual shareholders meeting. The board has nominated Mr. Bollinger and Mr. Kelly for election as directors at the annual stockholders meeting for a term that would expire in 1993.

As chairman and chief executive officer of Bollinger Machine Shop Shipyard, Inc. in Lockport, La., Mr. Bollinger is a leading builder of vessels for the offshore oil and gas industry and the U.S. Navy and Coast Guard. He is a director of the National Ocean Industries Association, the Offshore Marine Services Association, and the World Trade Center of New Orleans.

Mr. Kelly, an oil and gas consultant based in Mandeville, La., retired in June 1989 as president and chief executive officer of Ocean Drilling & Exploration Company. He currently serves on the board of directors of Subsea International, the American Bureau of Shipping, and is past chairman of the board of the National Ocean Industries Association.

New Platinum Series Watermakers Introduced By Matrix Desalination

Matrix Desalination, Inc., Fort Lauderdale, Fla., has introduced its new high-capacity Platinum Series® watermakers.

The units are all custom-designed by Matrix engineers and built precisely to user requirements and operating conditions. They cost-effectively produce from 3,000 to 3,000,000 gallons of potable water per day, enough to service large megayachts, cruise ships, island resorts and communities, even small cities.

Each watermaker is specifically laid out to exactly match delineated

space constraints, while maximizing efficient serviceability, an extremely important consideration in high-production, continuous duty applications.

According to company president Whitney Irons, the Platinum Series represents the ultimate in reliability and durability. "Matrix steadfastly resists making shortsighted concessions to the competitive cost-cutting pressures that invariably lead to long-term user

problems. Only the highest quality components available are incorporated into those units."

Like all other watermakers in the Matrix extensive line of marine and industrial desalinators, the Platinum Series employs state-of-the-art reverse osmosis technology. Sea or brackish water is pressurized, causing it to pass through a special semi-permeable membrane that blocks salt and other contaminants. The result is pure, potable freshwater

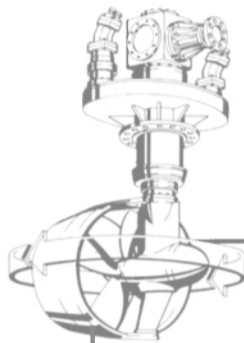
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For free literature containing complete information from Matrix Desalination,

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ELECTRONICS UPDATE

ETA-Pilot Fuel Saving System Now Marketed Worldwide By SSPA

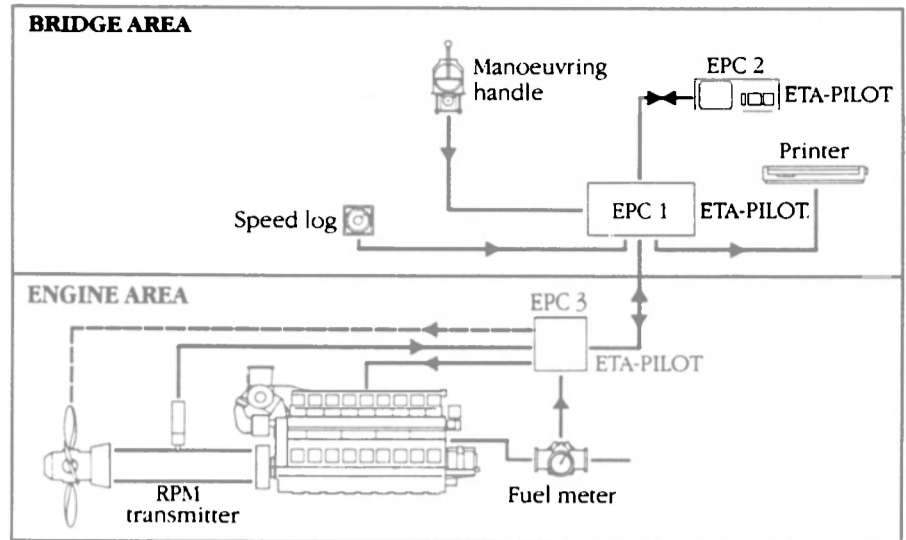
SSPA Systems, responsible for the development and marketing of the Roll-Nix Control System for roll reduction using rudder control, has now also taken over the marketing of the ETA-Pilot fuel saving system, an original product wholly developed and manufactured in Sweden and now available from SSPA representatives around the world.

The ETA-Pilot has been in operation since 1982. There are now over 65 of these systems in use around the globe.

By efficiently controlling the ship's speed, engine rpm, pitch setting and fuel consumption, the ETA-Pilot—a microprocessor-based control and monitoring system—is capable of maintaining a given speed or consumption

throughout the voyage. Savings of 5-15 percent on normal consumption have been recorded under real operating conditions. The ETA-Pilot is not only a conventional measuring and displaying system, it is also a real-time microcomputer-based measuring and control system that continuously monitors and controls the engine speed and pitch setting in order to minimize fuel consumption.

ETA-Pilot features include: maintenance of a preset speed related to distance and time of arrival; automatic regulation of propeller pitch and engine speed for minimum fuel consumption at all speeds and under widely varying operating conditions; presetting of a maximum fuel consumption, i.e., a spe-



Functional description of the ETA-Pilot.

cific quantity per nautical mile; voyage preplanning system using preset speed and control programs; a proven track record—documented reductions in fuel consumption under real operating conditions; the ETA-Pilot can be fitted to all types of ships, not only to ships with CP-

propellers; and a special package for statistical analysis of several performance variables is available as an optional function.

For further information and free literature on the ETA-Pilot fuel saving system,

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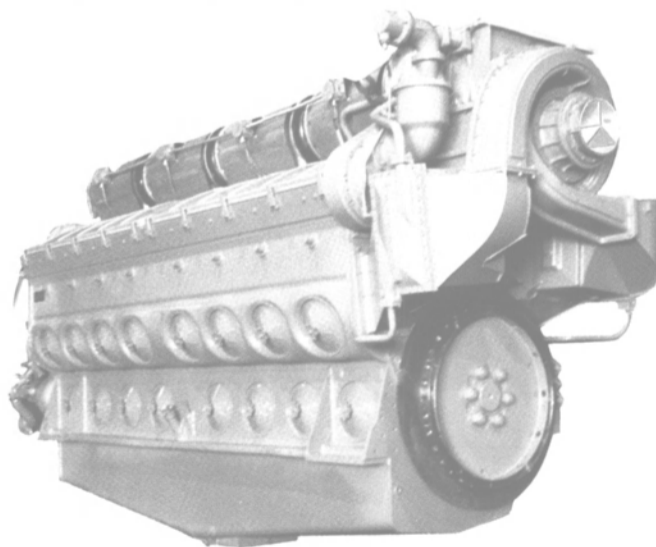
General Motor's Electro-Motive Division is the leading manufacturer of medium speed Diesel engines, building more engines than any other manufacturer in its class.

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New Designs And Developments From Munson Manufacturing In Oil Spill Response Vessels

By Bill Munson, President,
Munson Manufacturing
And Larry Pintler, Sales Manager,
Chemical Processors, Inc.

The grounding of the Exxon Valdez and the resulting oil spill caused the Coast Guard to reevaluate the existing regulations governing the movement of tanker traffic on Prince William Sound. Soon after the spill, pilots were required to escort the tankers past Valdez Arm and into the open waters of Prince William Sound. These expanded pilot duties required that a new pilot boat capable of operating in extreme winter weather conditions be brought on line.

Middle Rock Inc., a Homer, Alaska, pilot association, already owned two pilot vessels. Built by Munson Manufacturing, Inc., Edmonds, Wash., the 26-foot Silver Bullet and the 55-foot Katmai were designed to operate in rough but relatively protected waters. What now was needed was a vessel that could operate safely and comfortably in exposed waters with seas running to 25 feet, winds to 70 knots and temperatures well below zero. Working with the pilots, the vessel Columbia was built by Munson to handle these arduous conditions. Delivered in the spring of 1990, the 65- by 20-foot vessel is equipped with twin Caterpillar model 3412 diesels, stainless steel prop protection skegs, 747 air-

plane tire bumpers, deluxe accommodations for four men, double bottom sections and many other features.

This increased concern for protection from and response to oil spills has also created an opportunity for Munson to design and construct a wide range of oil containment and recovery vessels. These vessels all work with oil containment booms in one way or another. The boats range in size from 18-foot open skiffs to 72-foot oil skimmers. Munson oil pollution control vessels are grouped into four basic categories.

The first category of boats are the boom support skiffs. These outboard-powered boats, ranging in size from 18 to 21 feet, are used for towing and tending small quantities of harbor type booms, cleanup of small spills utilizing oil absorbents and various spill cleanup and facility support duties. The units are constructed from 1/4-inch aluminum plate and are based on the Munson Sealed hull design. The Sealed hull has a flat bottom aft, slight V forward square bow design and is favored because of its stability. This vessel is typically outfitted with a tow post, self-bailing double bot-

tom, standup center steering console and either one or two outboard motors.

The second type of pollution control boats are the boom deployment and facility maintenance boats. These vessels typically range from 24 to 32 feet and allow for true multi-mission capabilities which may include deploying booms from dock-mounted boom reels or skimming and storing recovered oil from small portable deck-mounted skimming systems. Vessels of this size are commonly used to set anchors and maintain permanently installed booms as tankers and barges are moved in and out of the permanent booms' perimeter. When outfitted with a bow door, 500 to 1,000 feet of foam-filled boom can be carried on deck and quickly deployed in the event of a spill. In addition to pollution control, other duties may include water quality monitoring, security, search and rescue, personnel transport, and general dockside maintenance.

The third group of vessels range from 34 to more than 70 feet. These boats are designed to carry onboard collapsible containment booms mounted on reels or large quantities of foam-filled booms stacked on deck. The size of these vessels allows for utilization of a wide range of large oil skimming or pumping systems to be operated from the decks. Recovered oil can be stored in onboard tanks, towable bladders, or bladders laid on deck. Both aft house and forward house configurations are built. The house aft design is based on the Munson Hammerhead square bow hull incorporating a bow door. This layout is best suited for a rigid boom stacked on deck and deployed through a bow door. The house forward design is based on the Munson Hammerhead round bow hull and is preferred for collapsible boom reel systems mounted on the stern. These vessels vary widely in size and power. The type, size, and amount of boom to be installed dictate hull size. Vessel power can vary from twin outboard motors to a pair of high output diesel engines coupled to conventional shafting and propellers. The size and weight of the boom as well as the response area and response speed also play a major role in power and hull selection. If the vessel is to be outfitted with a containment boom reel system, hydraulic power is required. Since full control of the vessel is needed under deployment situations, it can be undesirable to pull hydraulic power off the main engines. Hydraulic power is usually supplied by a separate dedicated engine and pump.

The fourth category of oil pollution control vessel is the single mission oil skimmer. Oil skimming vessels come in all shapes and sizes, utilizing literally dozens of systems for removing surface oil. Most are reasonably effective in calm seas. A few are effective in a moderate seas and fewer still are effective in heavy seas. Some of the basic skimmer technology includes belts, disks and mop skimmers.

Vikoma International based in



Typical rigid boom deployment and maintenance boats. Munson delivered four of these diesel-powered boats to Valdez oil terminal in Alaska.

England has been a world leader in the development of all forms of oil pollution control equipment. Vikoma has recently licensed Munson to produce its successful 32-foot Harbor Scavenger disk skimmer in the U.S. The Harbor Scavenger can recover up to 10,000 gallons of oil per hour and has an effective system for handling small oil debris and floating trash. The Harbor Scavenger will be marketed through Chemical Processors Inc. (CHEMPRO), a division of Burlington Environmental Inc., based in Seattle, Wash. CHEMPRO represents Munson in the oil pollution control industry and has worked closely with the company and industry to develop Munson's line of single and multi-purpose vessels.

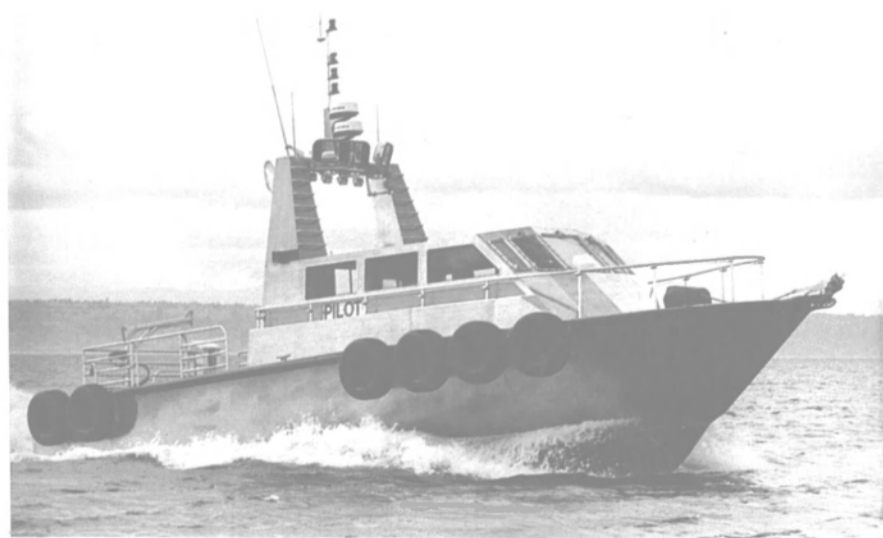
Many organizations in the oil pollution control industry are opting for vessels that utilize rigid oil booms attached to the hull to guide oil back to pump/skimmer systems as the vessel moves forward. The boom is attached to the vessel near the stern and is held forward and away from the vessel with outriggers. This allows the vessel to cover a wide area. Oil trapped inside the sweep area of the skimmer moves aft as the skimmer moves forward and eventually is trapped near the corner where the boom is attached to the vessel. A pump or skimmer suspended from a crane pumps recovered oil into holding tanks on the vessel.

Shell Oil Company has taken this a step further with the development of a very large system based on this vessel for use on the north coast of Alaska. The skimmer vessel is actually a 400- by 100-foot oil barge which is towed by a tug. The outriggers are actually a pair of Munson 36-foot boats which position a large Norwegian oil trawl to form a sweep width of several hundred feet. This industrious effort is setting an example that will be followed by others.

Although a major oil spill may currently be beyond man's ability to quickly and totally contain and recover to the satisfaction of the general public and many regulatory agencies, we see a very serious and admirable effort being made by professionals charged with the prevention of spills and the quick and cost-effective cleanup of spills to have the right equipment at the right place at the right time.

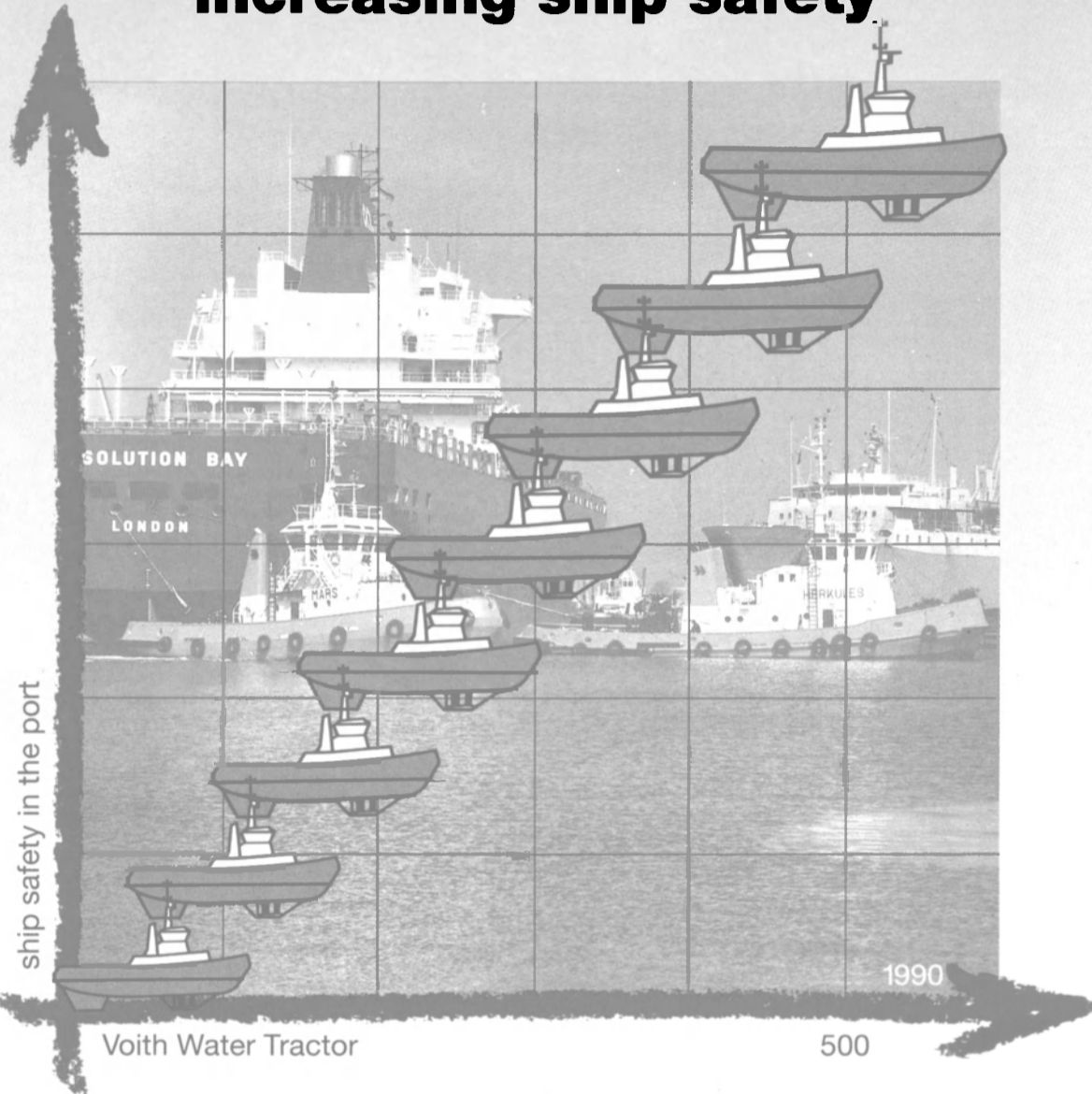
For a free brochure detailing the full line of workboats from Munson Mfg.,

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The pilot boat Columbia is working the tanker fleet out of Valdez, Alaska. After the Exxon Valdez spill, the Coast Guard revised regulations for tanker piloting in Prince William Sound which created the requirement for this vessel.

Voith Water Tractor: increasing ship safety



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Marine Engineering Division
Postfach 1940, D-7920 Heidenheim
Tel. (0 73 21) 37-0, Fax (0 73 21) 37 31 05

BOATS & BARGES



The Florida Department of Natural Resources recently ordered 19 of SeaArk Marine's "transporter" model oil spill recovery vessels.

SeaArk Marine To Supply 19 Oil Spill Recovery Boats To State Of Florida

SeaArk Marine, Inc., Monticello, Ark., a leading U.S. supplier of aluminum workboats for commercial and marine applications, will supply nineteen 23-foot oil spill recovery vessels to the Florida Department of Natural Resources under a recent contract.

The vessels will be SeaArk Ma-

rine's 2308-B "transporter" models, which are constructed of all-welded marine aluminum with a center console, open cockpit and 5-degree semi-Vee bottom hull design. The 23-foot oil spill recovery boats will have a beam of 8 feet, draft of 1 foot 8 inches, freeboard of 1 foot 4 inches, loaded displacement of 7,500

pounds and fuel capacity of 54 gallons. The transporter's standard propulsion is a single 100-hp commercial OMC outboard motor, but other power options are available.

For responding to an emergency spill, the 23-foot transporter is equipped with portable weir skimmers and a 400-gallon holding tank. These trailerable vessels can be quickly transformed for boom and cargo transport by using a lift davit to remove the storage tank and pumping system.

Oil recovery system equipment on board includes a "Skim-Pak" model 18000SH portable skimmer and

model 4000 portable skimmer, "National Master" peristaltic pump, and 400-gallon aluminum holding tank, as well as discharge and suction hoses.

The skimmers for the Florida Department of Natural Resources will be readily adaptable for use as a utility/work boat and designed for easy cleanup including disassembly by a single worker. The vessels will be used at 12 Florida ports.

For free literature detailing the model 2308-B "transporter" oil spill recovery vessel from SeaArk Marine,

Circle 127 on Reader Service Card

Campbell Chain Develops New Process To Extend Chain Life

Campbell Chain, a division of CooperTools, formulated a new galvanizing process that reportedly will increase chain life by more than 60 percent.

Used in galvanized Campbell chain, the new cold particle process substitutes for the traditional, difficult-to-control, hot molten metal process, and reportedly produces twice the resistance to corrosion compared to the older method.

In the new cold, mechanical galvanizing method, chain tumbles in a slurry of tiny glass beads and zinc particles. The beads "hammer" the

particles into the metal surface, producing an even distribution of zinc on the chain.

In the traditional "hot dip" process, workers immersed chain in a bath of molten zinc, producing a chemical reaction with iron to form a series of zinc-iron intermetallic compounds. But small differences in coating bath composition, temperature, and base steel composition can produce significant changes in appearance and coating thickness.

Based on extensive testing, Campbell believes the new mechanical galvanizing technique is superior to the hot dip process.

For free literature detailing the new Campbell chain process,

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Just a minute now!

If you've got a minute, WATERCOM® has a new money-saver for you: a lowering of the call minimum from three minutes to one.

This new minimum can let you get a lot of work done... and save a lot of money in the bargain. Think about it. In one minute, you can verify your vessels' locations; call in a pickup or drop-off change; report on river conditions; confirm fueling arrangements; and save as much as \$2 on your one-minute daytime calls.

But if nighttime is still the right time, WATERCOM can help you save even more. Send your facsimiles and other data transmissions at night. Rates drop drastically from 8 p.m. to midnight (EST), and plunge even lower from midnight to 5 a.m. (EST).

It's as plain as night and day. WATERCOM, the direct-dial telephone network, offers you clarity, privacy and—with the new one-minute minimum—economy. So you can talk when you want, the way you want.

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are pleased to announce they have been appointed by the Todd Shipyards Corporation and authorised by the Court of New Jersey to be

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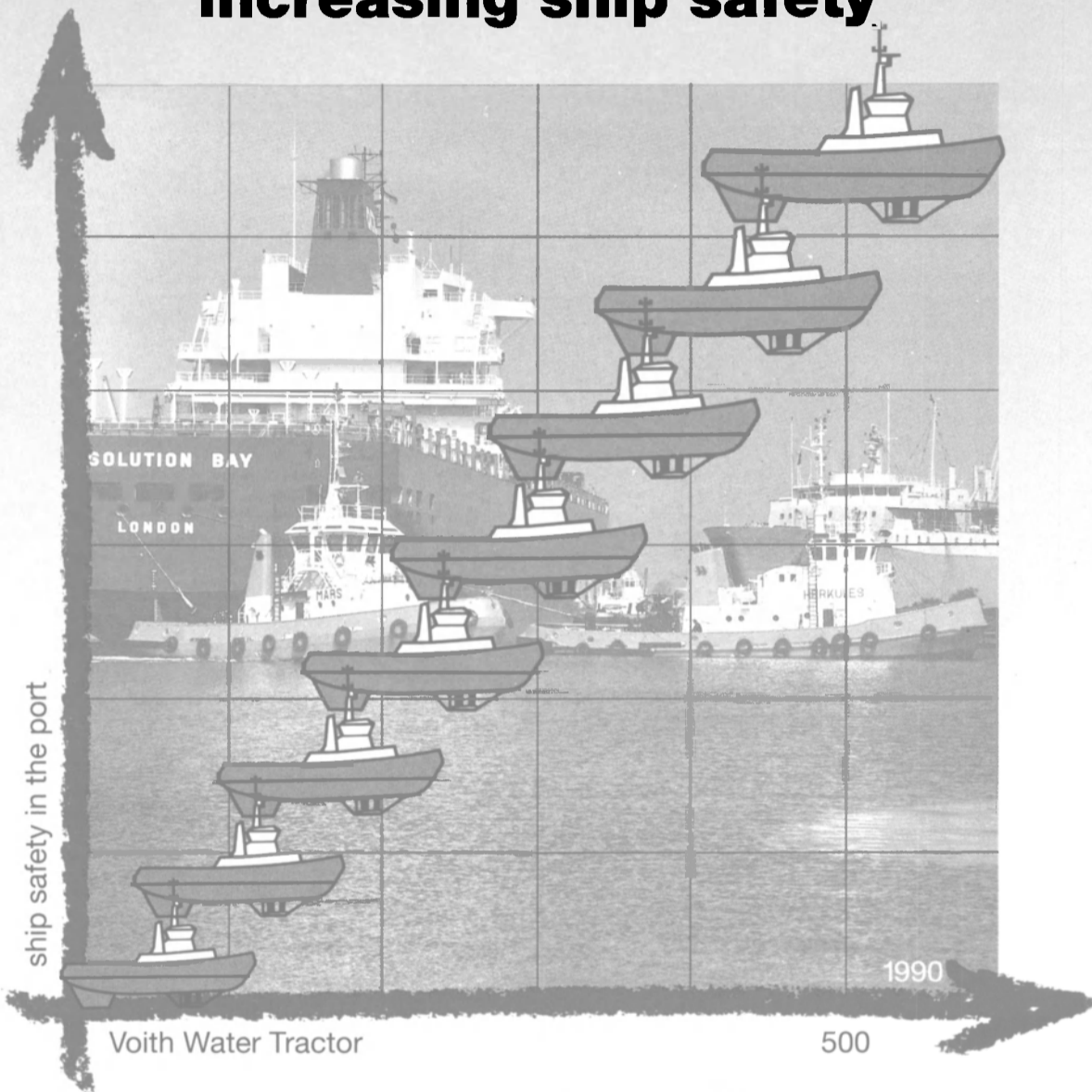


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Maritime Reporter/Engineering News

Voith Water Tractor: increasing ship safety



SMM '90
Hamburg, Sept. 25-29, 1990
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Depend on Voith
for more reliability and safety
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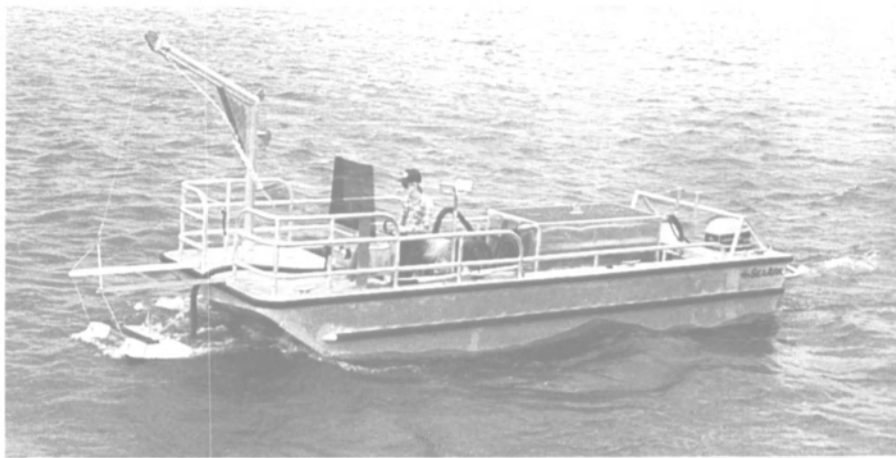
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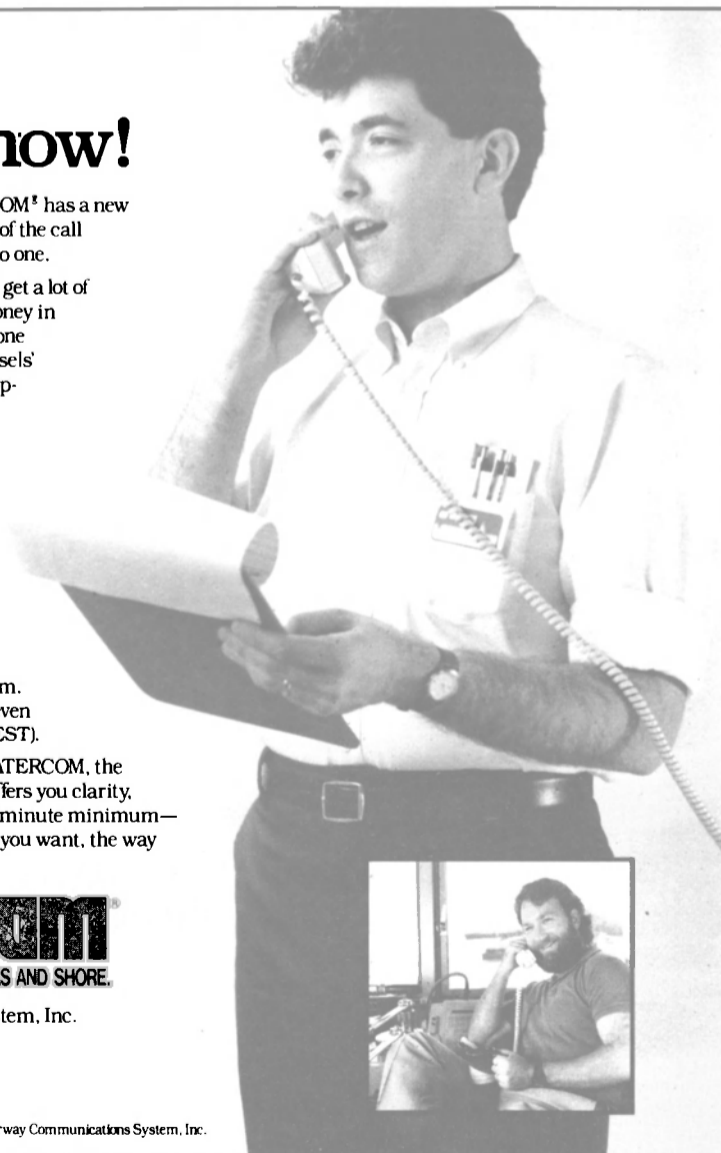
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Maritime Reporter/Engineering News



NuFlex, Inc.

America's Composite Hose Company

An Open Letter From The President:

The composite hose manufactured at NuFlex is superior in every facet to those manufactured by any of our competition.

One reason for this is the materials that go into our hose are the finest - (all made in America). We buy our materials from companies such as Exxon Corp., Johnson & Johnson, I.C.I. Americas. All proven companies with a proven record of excellence.

By manufacturing the product in the USA we are able to service our customers not only much easier and faster but at a more competitive price as well. Special services such as color coding—customer labeling—different wire or other compound combinations can be manufactured and shipped usually within a seven day period. (This lead time is unthinkable when dealing with our European competitors.)

Because of all the problems America has encountered through the years, everyone is conscious of the strong message being sent out to "Buy American" we believe that this gives our distributors a decided edge over their competition when competing in today's marketplace.

While examining our catalog you will become aware of the wide variety of hoses that NuFlex offers, we feel this also gives our distributors a decided edge.

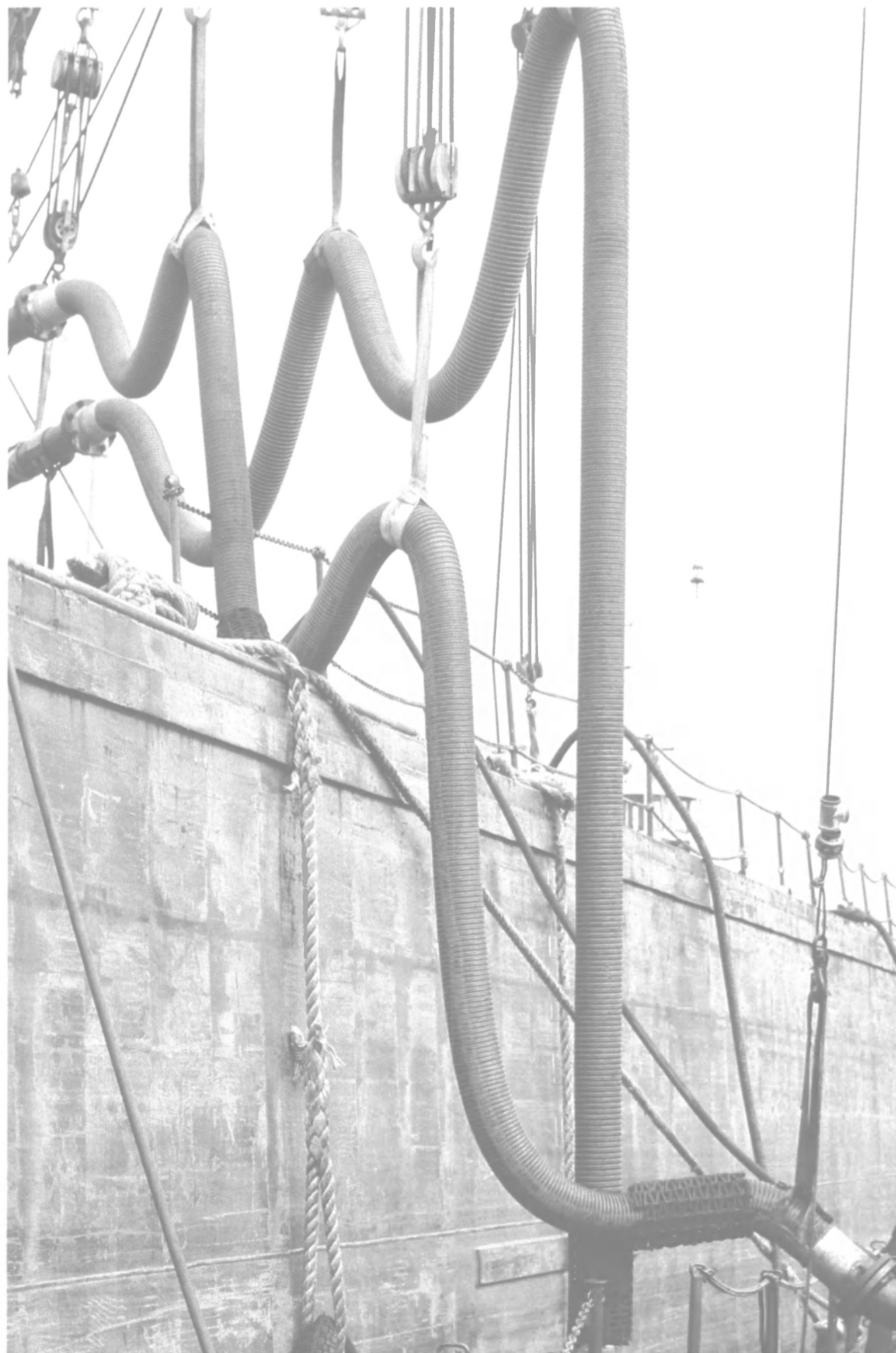
In The Final Analysis We Offer:

1. Finest quality (American made materials)
2. Superior Service
3. Proven Saleability
4. Wider Range of Products

There is one point that we haven't covered here and that is DEDICATION. Everyone at NuFlex is totally dedicated to supplying our customers with a product that is suited to their needs at a price that they "can live with". When talking with our inside people, sales engineers or technical people this dedication will become very apparent. All we ask in return is the opportunity to serve you.

Very truly yours,

Harry Combe
President



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Circle 307 on Reader Service Card

MAN B&W Diesel, Inc. Formed As U.S. Affiliate



Claus Windelev

In order to strengthen its presence in the USA and thus enhance the service to customers, MAN B&W Diesel has decided to establish its own U.S. affiliate, MAN B&W Diesel, Inc.

MAN B&W Diesel, Inc. will conduct all the business formerly done by the Diesel Division of MAN GHH Corp., using the experience and expertise of its well-known diesel staff.

The president of MAN B&W Diesel, Inc. is Claus Windelev.

For free literature giving full information on MAN B&W engines,
Circle 34 on Reader Service Card

Mackay Communications Wins Follow-On Order For U.S. Army Installations

Mackay Communications Inc. of Raleigh, N.C., has received follow-on orders for 13 U.S. Army LCU electronic installation packages.

Mackay is under contract with Moss Point Marine of Escatawpa, Miss., a Trinity Marine Group shipyard, to perform the turnkey electronic equipment installation.

This service includes MIL-STD EMI/EMC surveys as well as the overall system integration.

Mackay offers a complete engineering and support service to the U.S. shipping industry. In addition, Mackay is a manufacturer and supplier of MR/HF radio equipment system.

For further information and free literature from Mackay Communications,
Circle 47 on Reader Service Card

IMO Double CIG Pumps Offer Increased Flow Rates At Lower Installed Cost

The CIG® Pump Series, available from IMO Pump Division, now includes a double pump design for multi-staging and multi-pump applications.

The double units, consisting of two CIG pumps assembled on a common shaft with a common suction port, provide important OEM design advantages for applications normally requiring two separate pumps. The double CIG pumps can be installed to double flow in a single circuit or to power two individual circuits, reducing installation space and expense due to fewer inlet-side piping requirements and

the need for only one driver.

Compared to conventional pump designs usually operating at 90 db (A) or higher, double CIG pumps have a lower noise level—typically 75 db (A). This feature is particularly meaningful for machine designs in which it is desirable to increase perceived quality, and for installations requiring a large number of pumps mounted in close proximity.

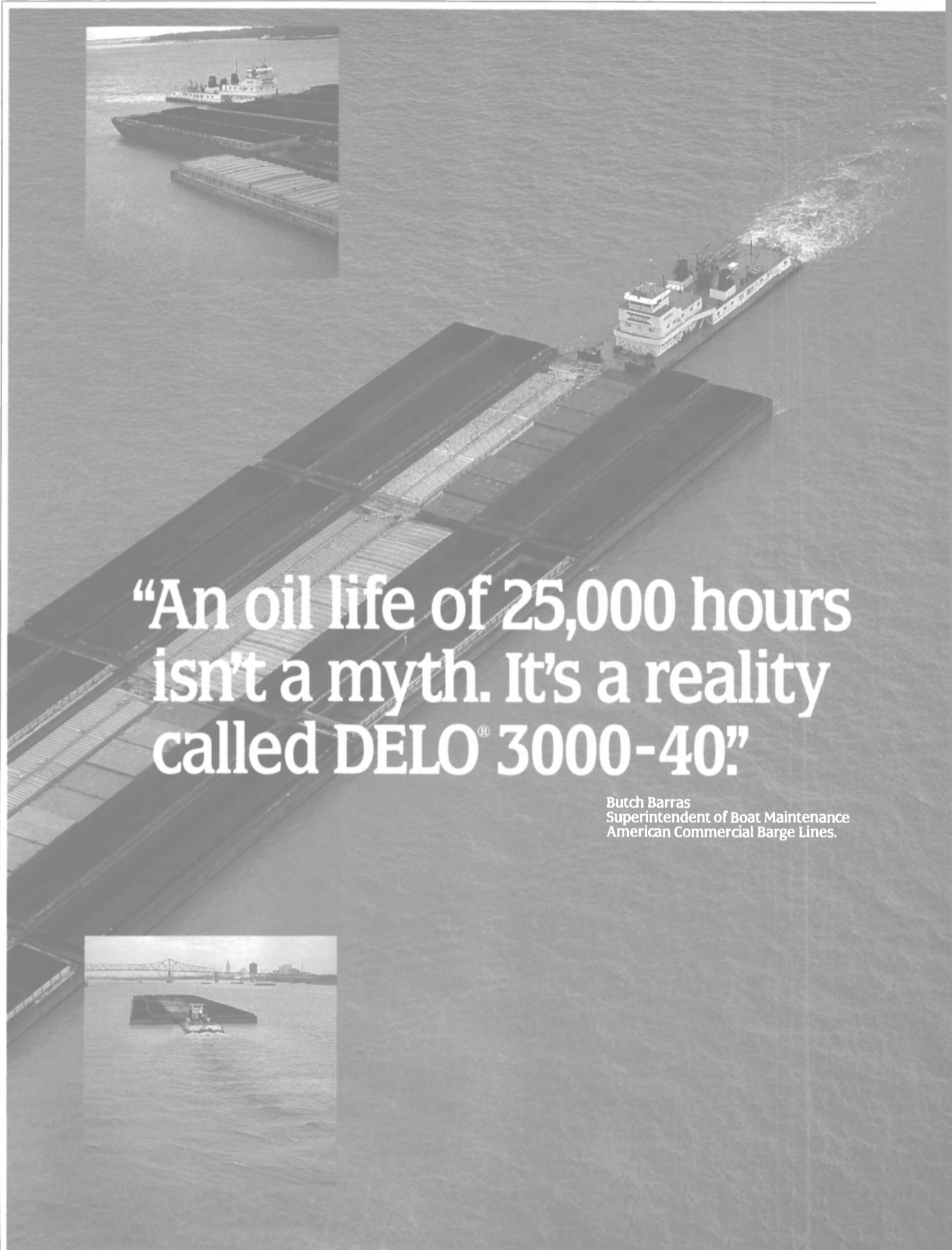
Under the most severe operating conditions and with minimal maintenance, double CIG pumps can be expected to give reliable performance in excess of 30,000 hours or 10 times longer than conventional designs.

IMO Pump Division, IMO Industries Inc., is one of the world's largest designers and manufacturers of high performance rotary screw pumps. Known for design simplic-

ty, wide fluid viscosity capacities, pulsation-free operation, and high reliability over extended periods, they are used in a broad range of industries for fuel oil/fluid transfer, lube oil service, hydraulic power, hydraulic sealing, and turbine governor use.

For free literature giving further information,

Circle 29 on Reader Service Card



**“An oil life of 25,000 hours
isn't a myth. It's a reality
called DELO® 3000-40.”**

Butch Barras
Superintendent of Boat Maintenance
American Commercial Barge Lines.

Chantiers De L'Atlantique To Build Two Passenger Ships For Kloster Cruise

Kloster Cruise Limited, Coral Gables, Fla., has ordered two new 40,000-ton, 1,220-passenger ships, to be launched in late 1992 and early 1993 as part of the company's Norwegian Cruise Line and Royal Cruise Line fleets. The cruise ships

will be built in St. Nazaire, France at the Chantiers de l'Atlantique shipyard.

This development in Kloster's new building program follows the company's recent announcement that a new 212-passenger ship will join the Royal Viking Line fleet in February 1992.

The two new mid-size ships will be built to offer a range of cruises from three- and four-day Caribbean

itineraries to 14-day European and worldwide cruises.

"Kloster opted to build 1,220-passenger vessels rather than larger ships to allow more flexibility in itineraries and ports of call," said **Trygve Hegnar**, Kloster's chairman and CEO.

Spacious cabins and an a la carte restaurant will distinguish the yet-unnamed vessels, designed to blend the intimacy and exclusivity of mid-

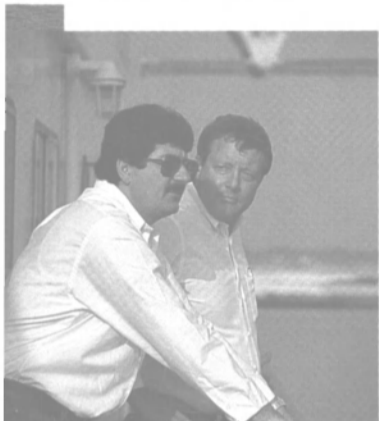
size ships with the glamour and spectacular entertainment of larger liners. **Petter Yran** of Norway, one of Scandinavia's most distinguished designers, will oversee the construction projects.

Outside cabins will make up 86 percent of the 610 well-appointed cabins on each vessel.

Kloster Cruise Limited is the parent company of Norwegian Cruise Line, Royal Viking Line and Royal Cruise Line.

For free literature on the facilities and capabilities of Chantiers de l'Atlantique,

Circle 16 on Reader Service Card



Chevron Area Manager Rolaph Whelchel works closely with Butch Barras to make sure Chevron's lubricant technology meets all the needs of ACBL.

"Those 25,000 hours weren't logged on milk runs," Butch Barras says firmly

"We averaged 85 percent engine capacity pushing three to five acres of barges, running 24-hours a day over a four year period."

"When we *did* tear down the

engines, the parts were good enough to go another 10,000 hours—thanks to Chevron DELO 3000-40."

The boat: the 180-foot, 785-ton M/V Bill Elmer—one of over 100 boats in the American Commercial Barge Lines fleet.

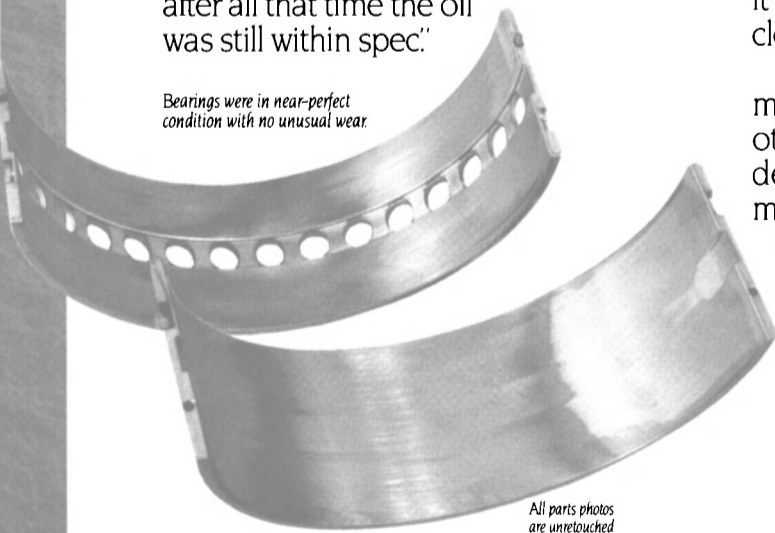
The engines: three MaK 6M453 in-line sixes, running on 2500 Second Redwood fuel—with each engine rated for 2400 HP at 600 RPM.

The route: 1700 miles up and downstream on the Mississippi from New Orleans to Cairo, Illinois.

The oil: Chevron DELO 3000-40 Marine Oil.

"We anticipated two or three oil changes per year—but our Chevron Chek oil analysis proved that the oil and the engines were in great shape," Butch continues. "We kept the same oil for four years, with the normal sweetening process. And after all that time the oil was still within spec."

Bearings were in near-perfect condition with no unusual wear.



All parts photos are unretouched

"The real proof was in the parts themselves," smiles Butch. "You could still read the names and numbers on the parts."

A quick glance at the unretouched photos of the teardown prove Butch's point.

"There was no abnormal coking or carboning on the valves—or unusual pitting on the valve seats. Only light carbon deposits behind the piston rings. The pistons and bearings looked hardly used. Most parts were within factory

specs and could've been returned to service. That's how well DELO 3000-40 performed."

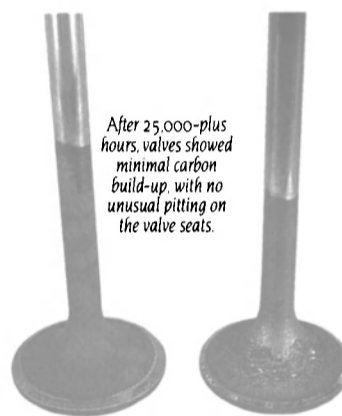
"With the M/V Bill Elmer we set out to prove a vessel could successfully operate on blended fuel to dramatically cut fuel costs. But we've also proved that with the right oil, a company can realize substantial savings on the main engine oil usage, as well."

Over 25,000 hours of tough service without a major overhaul or oil change—with minimal downtime and wear rates. It's the kind of success story only quality lubricants and a proper maintenance program can produce.

"I believe in Chevron DELO 3000-40—it helps keep our blended fuel program clean and profitable."

Chevron offers a complete line of marine lubricants, hydraulic fluids and other products formulated to meet today's demanding inland marine service. Your

Chevron representative has the product and the answers. Call 1-800-582-3835.



Circle 324 on Reader Service Card



Bird-Johnson Awarded MCM Propeller Contract

Bird-Johnson Company, Walpole, Mass., was recently awarded a contract to supply Peterson Builders of Sturgeon Bay, Wis., with three shipsets of controllable pitch (CP) propeller systems for the U.S. Navy MCM-12, -13 and -14 Avenger-Class Mine Countermeasure Ships. Bird-Johnson also supplied the propellers for the previous 11 MCM 1-Class ships.

The propeller blades will be cast at Bird-Johnson's Pascagoula, Miss., foundry. They will be finished by numerically controlled (NC) machining in accordance with the U.S. Navy's military specification requirements, at Bird-Johnson's Blade Machine Center in Walpole. Complete propeller system assembly, qualification for shock and vibration, and testing for compliance with electromagnetic and nonmagnetic standards will also be completed at the Massachusetts facility prior to delivery to Peterson.

MCMs are intended to locate and destroy mines that cannot be neutralized by conventional mine-sweeping methods. They are fiberglass sheathed wood-hulled vessels, 224 feet in length, with twin-screw propeller systems delivering a total of 2,400 hp.

Bird-Johnson Company, a leading U.S. manufacturer of marine propeller systems, is a Navy Mil-spec qualified builder of CP propeller systems and also supplies commercial CP systems and both Navy certified and commercial fixed-pitch propellers. The company is a wholly owned subsidiary of Axel Johnson Inc. of New York City.

For free literature giving more information on the Bird-Johnson Company,

Circle 35 on Reader Service Card

Crandall To Conduct Second 1990 Dockmaster Training Seminar

Crandall Dry Dock Engineers Inc. will conduct a second 1990 dockmaster seminar in San Diego from September 25 to September 28 at the Kona Kai Beach and Tennis Resort.

For more information, contact Crandall Dry dock Engineers Inc. at 21 Pottery Lane, Dedham, Mass., 02026, Telephone (617) 329-3240.



National Waterway Conference To Hold Annual Meeting In New Orleans

Event Scheduled For September 26-28

Some 400 business, civic and waterway leaders are expected to participate in the National Waterways Conference's 1990 annual meeting when the organization will mark its 30th anniversary. The meeting is scheduled for September 26-28 at the Inter-Continental Hotel in New Orleans.

The program includes six panel discussions, two luncheons, and a banquet as well as several breakfasts, special reports and business sessions. There will also be a waterways exhibition, an opening reception and a spouses tour.

"We are planning a timely and informative program examining issues of importance to the entire waterways industry," said NWC chairman **Berdon Lawrence**. "We will be exploring such topics as waterborne commerce trends, economic growth projections, environmental challenges, waterway policy changes, financing constraints and navigation funding prospects—each of which is crucial to the barge and towing industry and to waterway shippers."

Mr. **Lawrence** is president of Coal is one bulk commodity that is shipped via the nation's waterways.

Hollywood Marine, Inc., a major barge carrier moving petroleum and petrochemicals on the Gulf Intra-coastal Waterway.

Brig. Gen. **Patrick J. Kelly**, Director of Civil Works for the Army Corps of Engineers, will discuss the status and outlook for the nation's navigation system, which his agency is charged with planning, constructing and maintaining.

Wetlands management, which directly affects ports, terminals and waterfront industrial sites, will be assessed in a luncheon speech by **H. Leighton Steward**, who is chairman, president and chief executive officer of the Louisiana Land and Exploration Company. He is chairman of the National Wetlands Coalition, an organization which is seeking balance in the nation's environmental and economic goals.

The meeting program will open Thursday morning, September 27 with the annual report of NWC president **Harry N. Cook**. Mr. **Cook** will review the status of the waterways industry.

Several other waterway organizations have scheduled meetings in conjunction with the NWC convention. Included are the Arkansas Wa-

terways Commission, which will hold one of its regular monthly sessions in New Orleans; the Inland Rivers Ports & Terminals, Inc., which has scheduled a board meeting; and the U.S. section of the Permanent International Association of Navigation Congresses (PIANC).

At a PIANC-sponsored breakfast, **Robert D. Davinroy** of the Corps of Engineers' St. Louis District, will describe a new technique for constructing underwater weirs to control Mississippi River flows at sharp river bends. His paper on this subject recently won an international award.

The National Rivers Hall of Fame, which is located at Dubuque, Iowa, plans to present its achievement award, the highest honor bestowed by the organization, to a former NWC officer at the opening luncheon.

The Propeller Club of the Port of New Orleans will cosponsor the closing luncheon on Friday, September 28. The club's president is Capt. **Henry G. Joffray**, president of Joffray Maritime, Inc., will speak at the luncheon.

Spouses attending the NWC convention will be treated to a tour of

two Mississippi River plantation homes, Houmas House and Nottoway Plantation, where lunch will be served. The tour leader will be Mrs. **Edward S. (Pat) Reed**.

For the second year, the NWC Annual Meeting will include a waterways exhibition. Space has been reserved for a total of 17 booths, which are being offered to marine manufacturers, suppliers and services.

The exhibits will be located in the convention foyer just outside of the La Salle Ballroom in the Inter-Continental Hotel. The area will also be utilized for annual meeting registration and for coffee breaks.

For registration or exhibition information and an annual meeting package, contact the National Waterways Conference, Inc., 1130 17th Street, Northwest, Washington, D.C. 20036; telephone: (202) 296-4415; or fax: (202) 835-3861.

The annual meeting registration fee on or before September 7 is \$225. After that date, the fee is \$260. A block of rooms has been set aside at the Inter-Continental Hotel at a special rate of \$98 single or \$108 double, plus tax, but the cut-off date on reservations is August 25. ■

Do 'Increased Tax Revenues' Translate Into Higher Waterways User Taxes?

By Harry N. Cook, President
National Waterways Conference, Inc.



Harry N. Cook

In March, Transportation Secretary **Samuel K. Skinner** unveiled his much ballyhooed national transportation strategy. It proposed dramatic shifts in the responsibility for the nation's harbors, waterways and other transportation modes:

State and local governments would have a greatly expanded financial role. Privatization of transportation facilities and services would be encouraged. And user charges, imposed at the state and local, as well as Federal levels,

would become the basic concept for financing the transportation infrastructure.

Almost without exception, editorial writers, columnists and cartoonists castigated the policy statement. It was labeled as "empty," "a dud," "a disappointment," "a cop-out," "a toothless document," etc. As a result, most Washington observers and transportation industry officials dismissed the new strategy.

Secretary **Skinner**, however, has continued to plug away for his user-pay-all philosophy. And he seems to be making headway—not because of any new support but because of the absence of viable alternatives.

The Federal deficit is playing into his hands. If additional funding for the transportation infrastructure does not come from the Federal Government, then it must come from non-Federal sources.

Now pending in Congress is a White House-sponsored proposal to triple the ad valorem tax on deep-draft waterborne commerce. This tax, which went into effect in April 1987, is now 0.04 percent of cargo value and recovers 40 percent of the cost of maintaining deep-draft access channels.

The President wants to increase the tax to 0.125 percent of the cargo value. If Congress approves, waterway shippers would be paying

approximately 125 percent of the cost of harbor maintenance. In other words, this program would then be completely de-federalized or, in a sense, privatized since funding would come only from the private sector.

The real test of Secretary **Skinner's** new user charge policy will come this year with reauthorization of the aviation program. At present, non-military aviation users pay 57 percent of system costs, but DOT wants these users to pay 85 percent. In effect, this would be full cost recovery, since military use accounts for 15 percent of system costs.

If DOT succeeds in shifting most or all of the aviation cost burden to users, the highway program is the next target. It faces reauthorization next year.

In 1992, if not earlier, waterways could be in DOT's aim. Towboats and tugs plying the 27 principal shallow-draft inland waterways already pay a tax of 11 cents per gallon on their fuel. Under a 1986 law, this tax will increase annually until January 1, 1996, when it will reach 20 cents per gallon.

Fuel tax receipts are used to finance one-half of the cost of constructing inland locks and dams.

There is no recovery, at present, for operation and maintenance of

shallow-draft waterways.

This policy is in keeping with a 1985 agreement which resulted in the authorization of seven new locks and dams in return for the doubling of the fuel tax from 10 cents to 20 cents per gallon. But there is no lack of proposals calling for shallow-draft O&M recovery.

For instance, the Congressional Budget Office has repeatedly suggested inland waterway fees of 1.6 mills per ton-mile, which would recover about \$330 million annually, in its report to Congress on "spending and revenue options." Another option: turning over the Coast Guard's aids-to-navigation program to non-Federal interests.

Even though President **Bush** has backed away from his no-new-taxes pledge, most Washington observers don't believe major tax hikes are in the offing. They translate "increased tax revenues" as, in all likelihood, more and higher user taxes.

Rather than taking waterways off the hook, the President's new stance is seen as making it even more difficult to hold the line on user charges. The waterways sector, still reeling from the after-effects of a recession which lasted most of the last decade, has everything at stake in the continuing debate over national transportation policy. ■

The Who's Who In NWC

The National Waterways Conference's officers are generally considered among the leadership of the inland waterways industry.

NWC's board of directors consists of 75 members, serving staggered three-year terms and representing five membership categories: water carriers, waterway shippers, shipyards and other waterway services, port authorities and other public members and associations.

Berdon Lawrence, now completing his first term as conference chairman, is president of Hollywood Marine, Inc., a firm operating some 100 towboats and 230 tank barges engaged primarily in moving petrochemicals and petroleum products along the Gulf Intracoastal Canal.

NWC's vice chairman is **J.D. (Johnnie) Laman**, manager of marine and international operations for Dow Chemical USA, a major waterway shipper. He has worked with Dow since 1957 and headed the company's marine transportation unit since 1980.

Harry N. Cook, NWC's president since 1978, heads the organization's Washington headquarters staff. A former newsman, he was a Congressional aide and Alabama governor's press secretary before joining the NWC in 1964.

NWC's first vice president, **W. Richard Christensen**, is vice president-marine/surface transportation and facilities for Ashland Petroleum Co., which operates both towboats and tank barges.

Vice presidents are **Wallace A. Gieringer**, director, Pine Bluff-Jefferson County (Ark.) Port Authority; **Charles F. Lehman**, consultant, American Commercial Barge Line Co.; and **Donald G. Waldon**, administrator, Tennessee-Tombigbee Waterway Development Authority. **William J. Hull** is vice president and counsel.

H. Nelson Spencer III, publisher of Waterways Journal, is secretary, and **Donald C. McCrory**, port director, Port of Memphis, is treasurer.



Berdon Lawrence



J.D. (Johnnie) Laman



W. Richard Christensen

Members of the executive committee include: **Nicholas J. Bar-chie Jr.**, president, Warrior & Gulf Navigation Co.; **J. Ron Brinson**, president and chief executive officer, Port of New Orleans; **W.R. Coles**, manager-public works, Sverdup Corp.; **Brian L. Garrity**, supervisor-water distribution systems, IMC Fertilizer Corp.; **Dennis L. Kirwin**, vice president, Midland Marine Corp.; **David W. Kreutzer**, general manager-river division, Consolidation Coal Co.; **Gary P. LaGrange**, director, Port of West

St. Mary; **J. Stephen Lucas**, director-logistics/operations, Louis Dreyfus Corp.; **Gary L. Mills**, vice president, Cargill, Inc.; **Offa S. Nichols**, president, Warrior-Tombigbee Development Association; **Robert W. Portiss**, port director, Tulsa Port of Catoosa; **Gale R. Rhodes**, manager-river transportation, AEP Fuel Supply; **George J. Ryan**, president, Lake Carriers' Association; **T. Mark Simmons**, president, Yazoo-Mississippi Delta Levee Board; and **L.E. (Les) Sutton**, president, Ingram Barge Co.

NWC: Promoting Sound & Far-Sighted Waterways Policies

By Robert Boyd, Administrative Assistant
National Waterways Conference, Inc.

The National Waterways Conference, Inc., advocates fair and even-handed Federal navigation policies. It is the only waterway organization which directs practically all of its resources into the policy arena, working for adequate funding for navigation projects without repressive user taxes or stiff cost sharing.

NWC strongly supports Congressional efforts to boost general economic development through prudent port and waterway investments.

Efforts to reduce governmental involvement in the domestic economy have given impetus to proposals calling for recovery of most if not all Federal port and waterway construction and maintenance expenditures through high-level taxes and

fees. Such charges would unfairly burden waterborne commerce because they ignore the other beneficiaries of water resources development.

To promote sound and farsighted national waterways policies, NWC relies on a well rounded education and information program. It includes a highly regarded monthly newsletter, *Washington Watch*, economic research projects and special reports; a monthly Waterways Roundtable luncheon for Washington-based transportation leaders; a seminar series, often including publication of seminar proceedings; an annual meeting examining current issues, and frequent speeches and statements, including Congressional testimony.

NWC works closely with associations and industries in the water transportation and water resources fields to keep diverse shipper, carrier, and port interests "pulling together" for the common cause. Often it is necessary to find consensus on issues involved in pending legislation and put together coalitions to most effectively represent the waterways industry's views before Congress and Executive agencies.

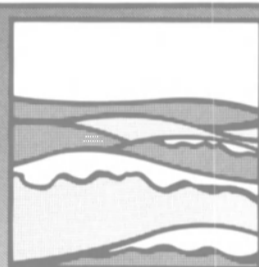
Over the last three decades, NWC has become a strong voice in Washington for the waterways industry. As a result, we have gained a reputation for exerting a "positive force" in shaping public policy.

Some 450 waterway-related businesses, industries, and agencies participate in NWC. Included are barge

and towing companies, shipyards and repair facilities, port authorities, fleetings and mid-stream services, waterway shippers, marine insurers, dredging firms, marine construction companies, and river valley associations.

Membership is open to all businesses involved in the water transportation industry. Annual dues are \$475 and entitle member firms to a principal and alternative representatives who receive publications, as well as discounts for NWC seminars, exhibits, and annual meetings.

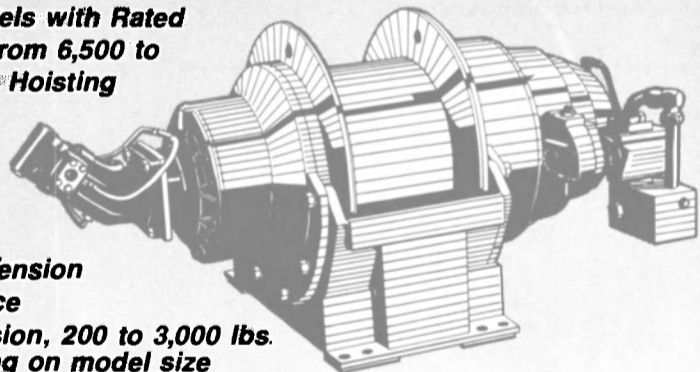
For further information, contact NWC, 1130 17th Street, N.W., Washington, D.C. 20036; telephone: (202) 296-4415. ■



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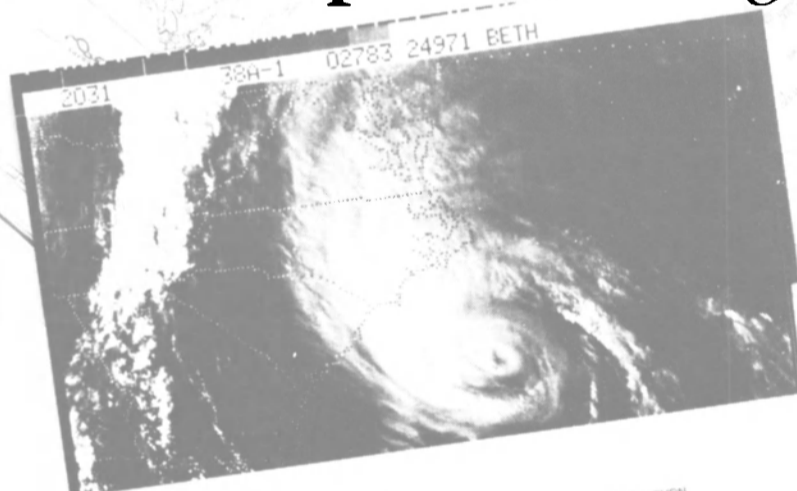
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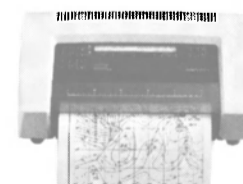
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Circle 20 on Reader Service Card

Maritime Reporter/Engineering News

Navy Adds \$26 Million To Ingalls Contract For Aegis Cruisers

Ingalls Shipbuilding, a Litton division, received a \$26.4-million increase to a 1981 Navy contract to provide continuing engineering and support service for the Ticonderoga (CG-47) class Aegis cruiser shipbuilding program.

The addition raises to \$203 million the amount granted Ingalls for engineering design, training support, logistical support, data and configuration management for the Aegis cruiser class.

Ingalls, the lead shipbuilder for the Aegis cruiser program, holds contracts to build 19 of the 27 ships authorized since the program began in 1978. So far, the company has delivered 12 of the cruisers.

Karl Senner To Supply Reverse Reduction Gears For Three New Towboats

Karl Senner, Inc. of Kenner, La., recently announced that they have received an order to supply the reverse reduction gears for three new towboats. Karl Senner, Inc. will supply two Reintjes Model WAV 4450 reverse reduction gears, 4.75:1 ratio, with internal hydraulic clutches and an internal hydraulically actuated propeller shaft brake per vessel. Karl Senner has also been chosen to supply the vessels with Rexroth (WABCO) pneumatic remote controls.

The towboats, designed by Viking Maritec of Pittsburgh, Pa., for National Marine, Inc., are to be built by Avondale Boat Division in New Orleans, La. Each will be powered by two Caterpillar 3612 engines.

The Viking 2000 vessels are designed to support the inland waterways system well into the 21st century.

Karl Senner, Inc. is the North American distributor for Reintjes marine gears and Berg Propulsion controllable pitch propellers and bowthrusters. Karl Senner, Inc. is also a Rexroth (WABCO) marine dealer, and maintains a full service and parts facility for ABB Brown Boveri turbochargers.

For further information and free literature,

Circle 44 on Reader Service Card

New Firefighting Foam Offered By Ansul For Flammable Liquid Fires

Ansul Fire Protection, Marinette, Wisc., has introduced a new 3-percent alcohol-resistant concentrate firefighting foam, Ansulite 3X3, for both polar solvent and hydrocarbon fuel fire applications.

Because new Ansulite 3X3 is multifunctional, vessel owners are no longer required to dedicate vessels to specific fuels or to change-out

foam proportioning hardware to match various cargoes.

According to the manufacturer, Ansulite 3X3 requires only one setting for all proportioning equipment, and vessel owners need only half the agent required for polar solvent fuels (such as methanol) when compared to conventional alcohol-type foam concentrates. Ansulite 3x3 is reportedly the only agent listed by Underwriters' Laboratories and accepted by the U.S. Coast

Guard for use as a 3-percent concentrate on both hydrocarbon (such as gasoline) and polar solvents, including MTBE (methyl tertiary butyl ether), TBA (tertiary butyl alcohol) and THF (tetrahydro furan).

Ansulite 3X3 alcohol-resistant concentrate is formulated from special fluorochemical and hydrocarbon surfactants, a high molecular weight polymer, and solvents. It is transported and stored as a concentrate to provide ease of use and consider-

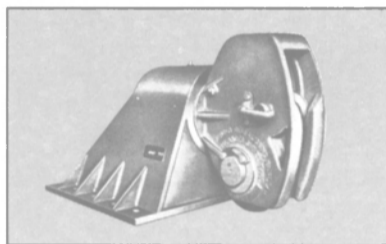
able savings in weight and volume.

Firefighting foams such as Ansulite 3X3 can be used in a variety of applications to extinguish flammable and combustible liquid fires on board vessels or offshore platforms or at marine docks.

For free literature detailing the specification guidelines and applications of Ansul 3X3 firefighting foam,

Circle 121 on Reader Service Card

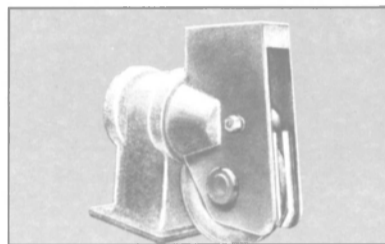
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Naval Class Fairleads

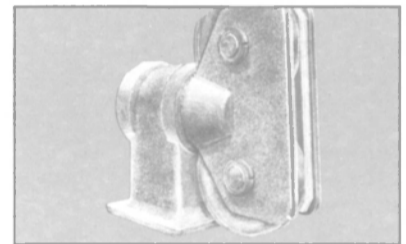
Berger Fairleads have set the standards for quality and reliability for over 50 years.

Berger Naval Class Fairleads are built to the exacting standards of the U.S. Navy and are designed for rugged offshore service.



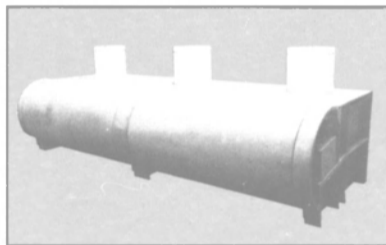
Mariner Class Balanced Head

Designed and built to the same standards of quality and reliability as the Naval Class but new techniques of fabrication and manufacturing have been applied to provide a cost effective answer to civilian marine industry requirements.



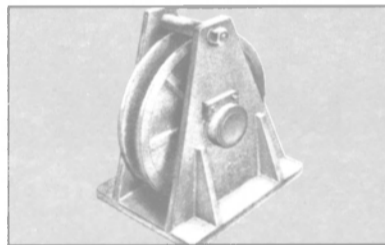
Mariner Class - Double Sheave

Berger quality in twin sheave fairleads for use in applications where the wire rope must be held in the center of the barrel or where directly inline pulls are expected. All Berger Fairleads use tapered roller bearings throughout.



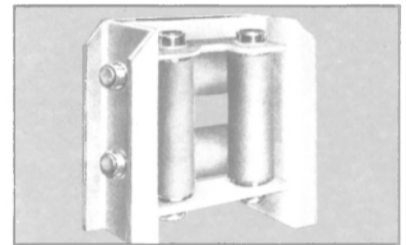
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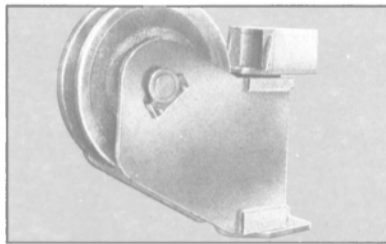
Guide Sheaves

A full line of vertical and horizontal guide sheaves for wire ropes up to 5 inch diameter is available with optional bronze or anti-friction bearings. Special wide throat sheaves for Pusher tug lines can be provided.



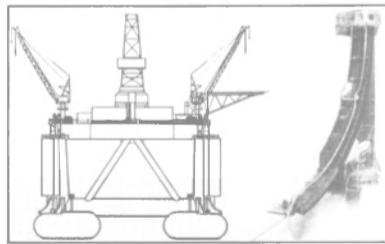
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Circle 291 on Reader Service Card

BOATS & BARGES

Freeport Shipbuilding Begins Construction On Trend-Setting Carambat Megayacht/Houseboat

Megayacht style and luxury have come to houseboats with the construction start of the Webb Tide II, a 124-foot, all-aluminum houseboat/yacht designed by David Carambat Marine Design, Covington, La.

The trend-setting boat is now under construction at Freeport Shipbuilding, Freeport, Fla., for Dudley Webb, owner of the Jamestown Resort Marina on Lake Cumberland in Jamestown, Ky., where he operates a fleet of rental houseboats.

Mr. Carambat said: "While the owner wanted something bigger and better than the typical 70-foot houseboat common to the area, he did not want the complexity or expense of an oceangoing yacht. He was emphatic that the boat should have the sleek lines of a megayacht, yet it had to retain the desirable characteristics of the traditional American houseboat."

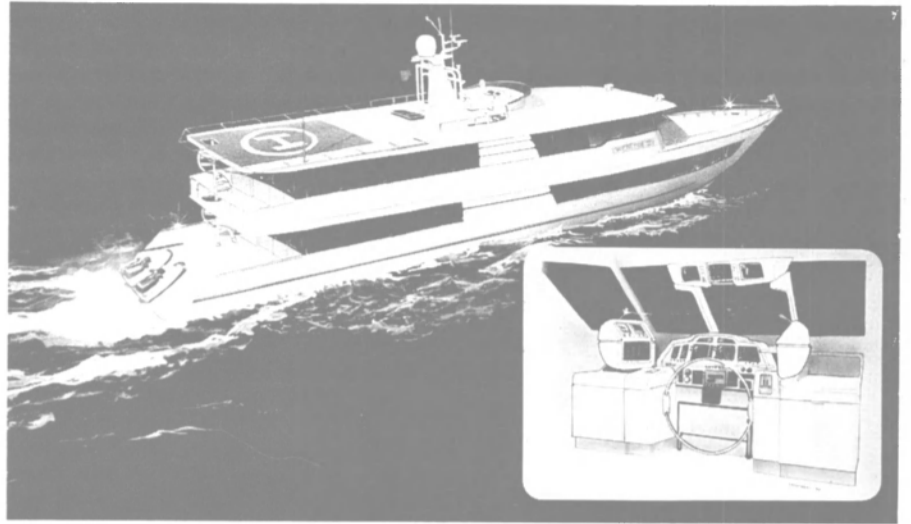
Those characteristics are maximum space utilization, low freeboard for easy access to the water,

shallow draft, and external propulsion power for ease of maintenance, and noise reduction.

The design features two closed decks. The first deck includes a 690-square-foot salon with an entertainment center, including a fireplace. Forward are three spacious guest rooms for seven with private bathrooms, an office, laundry, and hobby room for the owner. The aft deck includes partially covered fixed seating, a swim platform, the engine "box," and storage for water jet bikes or other water sports equipment.

The second deck boasts a 414-square-foot master stateroom complete with fireplace. Forward is a 575-square-foot dining room and den. This deck also includes a sun deck forward, and a private deck at the rear of the master stateroom.

Another feature of the second deck is the pilothouse which will include advanced technology electronics and a futuristic Carambat-



The Webb Tide II features a yacht-like design made possible by the use of a monohull as opposed to building a superstructure on a barge or over floats. The pilothouse includes a video system that can project four split screen views from video cameras aboard.

designed "hula hoop" helm. The hubless stainless steel loop will be supported by two sheaths which will house the pulleys and serve to steer the boat.

The upper deck will include a full pilot's station and a helicopter landing pad.

The Webb Tide II is expected to travel at about 14 knots. Her three high thrust Traktor II water jets will be driven by three Caterpillar 3208 diesel engines developing a total of 1,125 hp.

Another unusual feature for a houseboat is the use of bow and

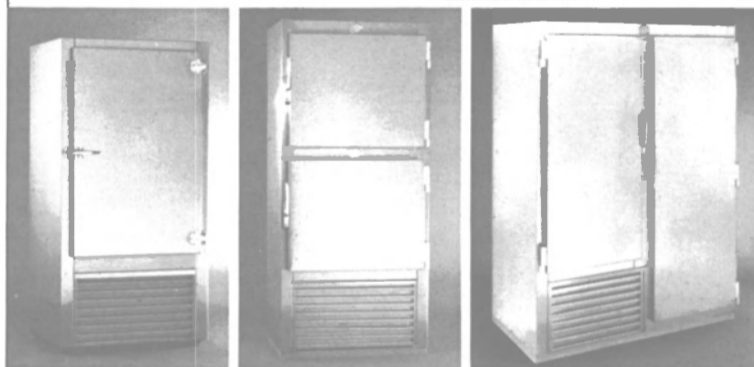
stern thrusters.

Overall, the Webb Tide II will be 124 feet in length, with a 24-foot beam, and 14-foot depth. Normal operating draft will be two feet. The houseboat will have a total of 3,340 square feet of enclosed space, and 1,735 square feet of open deck space. She can carry 800 gallons of fuel and 600 gallons of fresh water. Electrical power will be generated by two Cummins 50-kw generators.

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Maritime Reporter/Engineering News

Call For Papers Issued For 'Marine Computers '91' Symposium In Boston

A call for papers has been issued for the second symposium on computer applications in the marine industry to be held in Boston, Mass., September 26-27, 1991. Titled "Marine Computers '91," the two-day meeting is being hosted by the New

England Section of The Society of Naval Architects and Marine Engineers.

The goal of the symposium is to provide a forum for the presentation of current and future applications of computer hardware and software in the marine industry.

Authors are invited to submit abstracts and tentative outlines of their potential contributions. Deadlines are as follows: Abstract and Tentative Outline (6 copies), No-

vember 1, 1990; Tentative Acceptance Notice, December 1, 1990; Manuscript (5 copies) February 1, 1991; Final Acceptance Notice, April 1, 1991.

The following areas of the marine industry and computer technology are of interest; related topics will also be considered: Design and Engineering; Offshore Structures; Unmanned Marine Vehicles; Planning, Fabrication and Construction; Cargo Handling, Route Planning, Mon-

itoring; Computer Aided Design/Engineering/Manufacturing; Information Systems and Data Base Management; Robotics, Vision Systems; Numerical Control; and Expert Systems, Artificial Intelligence.

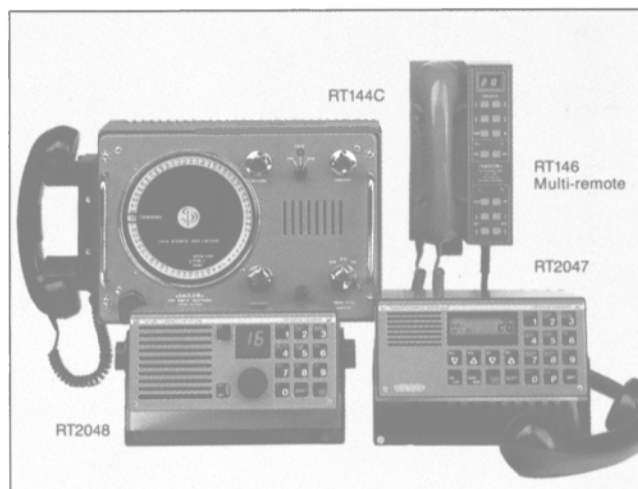
For full information, contact **A. Douglas Carmichael**, Chairman, Marine Computers '91, Massachusetts Institute of Technology, Room 5-213, Department of Ocean Engineering, Cambridge, Mass. 02139.

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INDIA: Elcome Marine Services Private Ltd. Bombay 400 001, ☎ (022) 2874292, 2874293
ITALY: Generalmare S.R.L. (Pleasure/Fishing) 16145 Genova, ☎ (010) 369066, 303198
 Società Italiana Radio Marittima S.I.R.M. SpA (Deep Sea) 00143 Rome, ☎ (06) 5910441
 Compagnia Generale Telemar (Deep Sea) 00196 Rome, ☎ (06) 3221800
IVORY COAST: Optim Afrique, Abidjan 18 ☎ 351843/356727
JAPAN: E E Company, Limited, Tokyo 105 ☎ (03) 572-7071
KUWAIT: Commercial Co-Ordination, Centre 13113 Safat, ☎ 24623478, 2422509
MALTA: Medcomms Ltd., Gzira, ☎ 335521
MOROCCO: Maroc Aviation, Casablanca ☎ 241267/68, 245431/53
NEW ZEALAND: Cossens & Black Ltd., Dunedin ☎ (024) 774-215
NIGERIA: Netarcomms Nigeria Ltd., Lagos State ☎ (01) 870517
NORWAY: AEG Norge A/S, 0902 Oslo 9, ☎ (02) 161111
PORTUGAL: Mendal-Mendes de Almeida, S.A. 1200 Lisbon, ☎ (01) 601219
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SINGAPORE: Radio Holland Singapore Singapore 9158, ☎ 4673144
SOUTH KOREA: Ships Electronics Korea Changwon, Kyungnam, ☎ (051) 84-3968
SPAIN: Nautical, Luis Arbulu, S.L., 28016 Madrid ☎ (91) 4588966, 2598717
SWEDEN: Translerma Communications AB 436 33 Askim/Goteborg, ☎ (031) 682239/682290
 Navelco Marin & Industri AB, 42130 Vastra Frolunda ☎ (031) 490205
TAIWAN R.O.C.: Pei Say Enterprise Co. Ltd., Taipei ☎ (02) 503-0048
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TURKEY: Hilkat Bolulu Co., Istanbul ☎ (01) 143-4576, 147-6221
 Elektro-Deniz Ltd. Sti., Istanbul ☎ (01) 143-4937, 143-4938
UNITED ARAB EMIRATES: Elcome International Dubai, ☎ (04) 371335/371374
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- quick channel 16
- low power consumption
- supply from 12/24V DC
- built-in loudspeaker
- clear operation with night-time illumination
- solid all metal cabinet.

RT144C has simplex/semi-duplex and can be equipped with selcall.

RT146, a radiotelephone with the possibility of many operation points. RT146 has full duplex and the option of selcall.

RT2047 is a part of the Compact programme and contains transmitter, receiver and loudspeaker. The unit has duplex and up to 5 operator-selected scanning programmes. The operating panel is provided with membrane switches with finger-guide.

The new VHF **RT2048** is also part of the Compact programme (H: 98 mm, W: 225 mm, D: 160 mm, W: 3.1 kg). Simplex/semi-duplex radiotelephone. The cabinet contains transmitter, receiver and a 6W loudspeaker.

RT2048 has push button keyboard with finger-guide. Operator-selected scanning programmes and built-in selcall as option.

The development of all the radiotelephones has been based on the main philosophy behind SAILOR products: reliability, sturdy construction, simple installation and operation, and easy servicing.

Contact your SAILOR agent and ask for detailed brochures for all our SAILOR products. In addition to VHF radiotelephones, there are SSB coast telephony, transmitters and receivers, HF SSB/Short wave radiotelephones, automatic radiotelex, Standard-C, and scrambler equipment.



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Circle 30 on Reader Service Card

11th International Tug Convention And International Marine Salvage Symposium

September 24-28, Halifax, Nova Scotia, Canada

The 11th International Tug Convention and International Marine Salvage Symposium and Exhibition, or "The Big One" for short, will be held at the World Trade & Convention Center in Halifax, Nova Scotia, Canada, from September 24 to 28, 1990. This will mark the first time that the two shows have been held together.

According to the show's promoters, this combined event will be the world's largest international gathering of executives involved in the tug, towage and salvage business.

It is the first time in many years that the International Tug Convention is visiting Canada and it is also the first time for several years that a major marine salvage conference has been held in North America.

The International Tug Convention has been held biennially all over the world during the past 20 years. To date, well over 3,000 delegates have attended these meetings which have been held in London, Vancouver, New Orleans, Rotterdam, Hamburg, Singapore and Sydney. The International Marine Salvage Symposium (IMSC 88) was first held in London in 1988 and attracted delegates from 19 countries. It broke new ground and covered all aspects of marine salvage topics, from artifact recovery through to legal, financial and contractual changes affecting the traditional salvage operation.

The combination of the two events will ensure an enlargement of the scope of the products and services in the related exhibition and will provide delegates to the conference with an opportunity to attend sessions on specific marine salvage topics, as well as the traditional tug-related subjects. The tug-related sessions will in themselves break new ground. The ideas which have sprung from the convention series has produced significant changes in tug and towage operations and this is reflected in the program of internationally renowned speakers.

For registration information, contact: The 11th International Tug Convention Secretariat, Thomas Reed Publications Limited, 80 Coombe Road, New Malden, Surrey KT3 4QS, England; telephone: 081-949-7033; telex: 883526 REED G; and fax: 081-949-0530.

PROVISIONAL PROGRAM

Monday, September 24

11 a.m.-5 p.m.—Delegate registration in the World Trade Center.



The International Tug Convention & International Marine Salvage Symposium will be held at the Halifax World Trade & Convention Center in Halifax, Nova Scotia.

6-8 p.m.—Organizers welcome cocktail reception in the World Trade Center.

Tuesday, September 25

7:45 a.m.—Delegate registration

10 a.m.—Opening by Premier J. Buchanan, Nova Scotia.

10:15 a.m.—Inaugural paper presented by Professor Edgar Gold.

10:30 a.m.—Coffee break

11:30 a.m.—"In the Wake of the Exxon Valdez," presented by Mark Cohen, partner in law firm Royston, Rayzor, Vickery & Williams.

11:45 a.m.—"United States Navy Versus Major Commercial Oil Spills," by Capt. Charles A. Bartholomew, U.S. Navy, Director of Ocean Engineering, Supervisor of Salvage and Diving.

12:30 p.m.—Lunch

2 p.m.—"Heavy Salvage Operations and the Use of Tugboats," by Hector V. Pazos, president, Ocean Oil International Engineering Corporation.

2:45 p.m.—"Design for Deep Ocean Salvage Systems," by David Siviter, managing director, Perry Tritech Ltd.

3:30 p.m.—"United States Navy Synthetic Tow Hawsers Pilot Program," by Robert C. Whaley, Naval Sea Systems Command's Office of the Supervisor of Salvage.

4:15 p.m.—Tea

4:30 p.m.—"Elastomeric Fenders: Materials and Specifications for Effective Design," by John E. Rector, marketing manager, Trellex Morse, USA.

5 p.m.—"The Noble Denton Towing Vessel Approvability Scheme," by Capt. John Lloyd, managing director, Noble Denton Marine Services Ltd.

5:30 p.m.—Happy hour at exhibition

Wednesday, September 26

9 a.m.—"U.K. Standard Towage Conditions," by Graham Mack, chairman and managing director, The Alexandra Towing Company Ltd.

"U.K. Standard Towage Conditions: The P&I View," by James Dowson, general man-

ager, Shipowners Protection Ltd.

"U.K. Standard Towage Conditions: The Legal View," by David Swaffield, solicitor and partner, Hill Dickinson Davis Campbell.

10:30 a.m.—Coffee

10:45 a.m.—"Tug and Barge: Push and Pull; That is the Question?" by Robert Sellmeijer, project manager, Ship Powering Dept., Holland.

12:15 p.m.—"Training—The Tugmaster/Pilot Interface," by Capt. Brian W. Lewis, Howard Smith Industries (Pty) Ltd.

1 p.m.—Lunch

3-5 p.m.—Tug demonstration and parade.

6-7:30 p.m.—Cocktail reception at the Maritime Museum.

Thursday, September 27

9 a.m.—"International Convention on Salvage, 1989, and LOF 90," by Mike Allen, partner, William A. Crump.

9:45 a.m.—"The Enhancement of Salvage Awards," by Richard F. Olsen, partner, Stephenson Harwood.

10:30 a.m.—Coffee

10:45 a.m.—"Refloating from a Strand—Practical Naval Architectural Aspects," by A.R. Colquhoun, naval architect, United Salvage Pty. Ltd.

11:30 a.m.—"Double Bottoms—A Salvor's Perspective," by Capt. William B. Gibbs, manager, Bugsier Towage & Salvage USA.

12:15 p.m.—"The Use of Explosives in Marine Salvage," by Sidney Alford, Sidney Alford Ltd., Explosives Engineering.

1 p.m.—Lunch

2:15 p.m.—"Marine Emergency Services: Towards a New Understanding," by Klaas J. Reinigert, president, International Salvage Union.

3 p.m.—"Salvage in the Oceania Region," by Capt. Ken Ross, United Salvage, Australia.

3:45 p.m.—Tea

4 p.m.—"Salvage Response in the United States," by Paul S. Smith, vice president,

Hudson Maritime Services Ltd. USA, and Capt. George H. Reid, Harrison Reid & Associates.

4:45 p.m.—"Acoustics as an Aid to Salvage Location and Recovery," by Nigel Kelland, operations director, Sonardyne Ltd. UK.

Friday, September 28

9:30 a.m.—"Tug Barge Systems into the 1990s," by Christopher Wright, president, The Mariport Group Ltd.

10:15 a.m.—"A Tale of Five Tugboats," by Robert G. Allan, president, Robert Allan Ltd.

11 a.m.—Coffee

11:30 a.m.—"Ocean Search and Recovery—A 'Dog & Pony' Show," by Commander Robert E. Kutzleb, Kutzleb Marine Services, USA.

12:15 p.m.—Closing paper.

1 p.m.—Lunch

4 p.m.—Exhibition closes.

INTERNATIONAL TUG CONVENTION & MARINE SALVAGE SYMPOSIUM

Exhibitor	Stand No.
Alexandra Towing	68
Bird-Johnson	80
Bisso Marine	87
Bridport Brownell	84
Canadian Marine	
Drilling (CANMAR)	98
Damen Shipyards	84
Enviroflex Inc.	66
GEC Alsthom	100
Goliath Transport	85
Halifax-Darmouth Industries	79
Hong Kong Bank Canada	64
Kobelt Manufacturing	76
Kort Propulsion	62
Krupp MaK Maschinenbau	78
Lekko	108
Lunnenberg Industrial	
Foundry (LIFE)	80
Marlow Ropes	90
McKeil Marine	89
MIBA American Corp.	70
Nova Scotia	
Trade Development Center	70
Salvage Association	101
Simrad Marine	120
Svenska Skum	61
Swath Ocean International	86
Trellex Morse	105
Twin Disc	107



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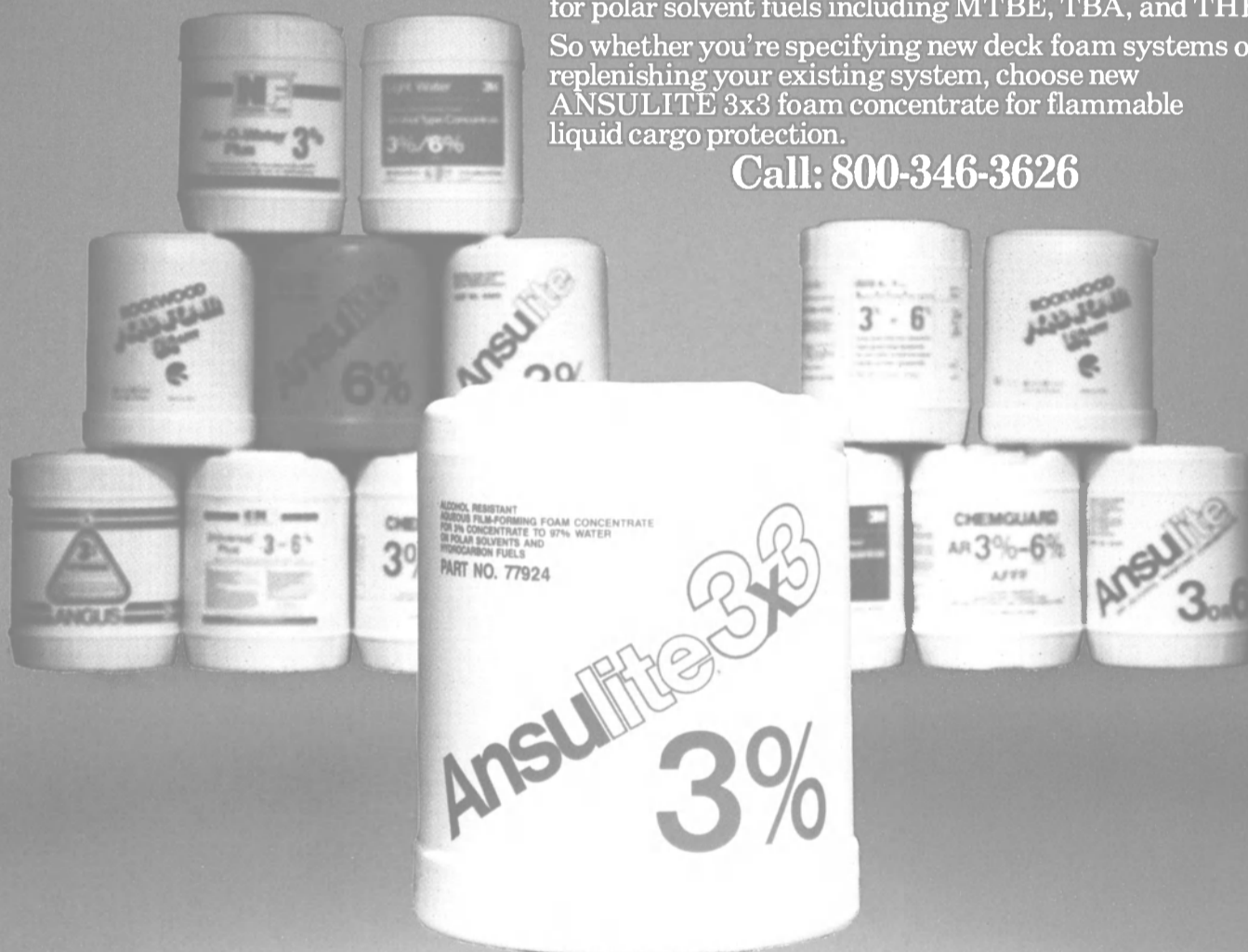
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ASSESSMENT OF THE U.S. MARINE MARKET

FOCUS ON THE STEADY GROWTH IN THE SMALL SHIP, BARGE & BOATBUILDING SECTOR

By Jim McCaul, President,
IMA Associates, Inc.

IMA has just completed an in-depth business assessment of the entire U.S. marine market. The study looks at 38 specific segments of the U.S. marine market—from large commercial ships through small municipal craft. The current situation in each sector is examined and a forecast made of business demand over the next five years.

This article highlights some of the findings and data in IMA's new report which deal with the small ship, boat and barge building segments of the U.S. marine industry.

Product Range

Ship and boatbuilders in the U.S. build a wide variety of small and medium-size ships and marine vessels. Included among annual deliveries are ferries, dinner and excursion boats, harbor tugs, naval landing craft, patrol boats for foreign and domestic delivery, Coast Guard cutters and tenders, offshore support vessels, fishing boats, recreational boats, pushboats, river barges and a variety of other floating equipment.

Trend In Orders

Shown in Exhibit 1 is the number of vessels ordered from U.S. yards over the past decade. As the data indicate, orders fell precipitously through the mid to late 1980s—reflecting a variety of underlying economic and weak market conditions.

The last three years have seen a dramatic pick up in this business sector. The nadir was reached in 1987, when only 146 small powered vessels and 119 barges were on order in U.S. yards.

At present, there are 384 powered vessels and 609 barges on order in U.S. yards. Steady and possibly dramatic growth will take place over the next few years as underlying market conditions improve.

Underlying Market Drivers

Each component of the small ship, boat and barge building sector has its own unique market drivers which will size and shape future construction demand:

•**Ferries**—increasing road congestion has created demand for commuter ferries in cities such as New York, Boston and San Francisco, a trend likely to continue;

•**Dinner & Excursion boats**—changes in gambling laws have impacted the market for river gambling boats, enhancing the near term market for small "theme" vessels for use on the river system;

•**Harbor tugs**—growth in future port traffic and resulting increases in ship entries will provide a steady, albeit modest, flow of future tug-boat orders;

•**Naval landing craft**—the tightening Navy budget and chang-

ing military requirements will slow the growth in this sector;

•**Patrol boats for foreign & domestic delivery**—sale of patrol boats under the Foreign Military Sales (FMS) program will create a continuing market for companies such as Halter Marine and Swiftships;

•**Coast Guard cutters & tenders**—the drug interdiction program and replacement requirements for aging Coast Guard vessels will make this one of the more interesting market segments over the next decade;

•**Offshore support vessels**—rising oil prices and increased U.S. offshore exploration and production will make this one of the most rapidly growing market segments during the 1990s;

•**Fishing boats**—this market segment will continue to benefit from the Magnuson Act, which provides protection for U.S. fishing vessels in the 200-mile coastal zone;

•**Recreational boats**—production of megayachts is already an export business in the U.S.; business prospects look very promising, but changes in foreign exchange rates could affect future demand;

•**Pushboats and river barges**—grain coal traffic on the river system will likely increase over the next several years, creating demand for river equipment; however, a large surplus of equipment continues to exist which has to be worked off before new construction requirements significantly increase.

Principal Players

There are about 60 U.S. firms currently involved in the small ship, boat and barge building sector. Many of these firms tend to specialize in certain types of products or markets. The principal builders are listed in Exhibit 2.

IMA's new report, "Assessment of the U.S. Marine Market and Forecast of Future Construction Requirements" (Report No. 7115, August 1990, is available for \$575 by contacting IMA Associates, Inc., 2600 Virginia Avenue, N.W., Suite 901, Washington, D.C. 20037; telephone: (202) 333-8501; or fax: (202) 333-8504. ■

Exhibit 2 Principal Small Ship, Barge and Boat Builders in the U.S.

Company	Location	Principal Current Product
Gulf Coast		
Aluminum Boats	Crown Point, LA	ferries and dinner boats
Halter Marine	Lockport, LA	small commercial craft
Halter Marine	Moss Pt., MS	small Navy ships
Moss Pt. Marine	Escatawpa, MS	Army LCUs
Equitable Shipyards	New Orleans, LA	patrol boats
Trinity Yachts	New Orleans, LA	megayachts
Avondale Boat Div.	New Orleans, LA	ferries
Avondale-Gulfport Div.	Gulfport, MS	Navy ACVs
McDermott	Morgan City, LA	small Navy ships
Service Marine	Morgan City, LA	dinner boats
Swiftships	Morgan City, LA	small military and commercial
Bollinger	Lockport, LA	Coast Guard cutters
Textron Marine	New Orleans, LA	Navy ACVs
Bender Shpbldg.	Mobile, AL	fishing boat conversions
No. Amer. Shpbldg.	LaRose, LA	icebreaker and conversions
Leevac	Jennings, LA	offshore vessels
Patti	Pensacola, FL	ferries
Eastern Shipyards	Panama City, FL	fishing and small commercial vessels
Master Marine	Bayou LaBatre, AL	fishing boats
Homeport Marine	Moss Point, MS	fish tenders
Steiner Shpyd.	Bayou LaBatre, AL	fishing boats and offshore vessels
Balehi Marine	Lacombe, LA	towboats
Conrad	Morgan City, LA	barges
Gulf Coast Fabr.	Pass Christian, MS	barges
Platzer	Houston, TX	tank barges
East Coast		
Atlantic Marine	Ft. Geo. Isl., FL	fishing boats and ferries
Lantana	Lantana, FL	yachts
Derecktor	Middletown, RI	Army tugs, Coast Guard cutters, yachts
Blount Marine	Warren, RI	ferries, dinner boats
Intermarine	Savannah, GA	MHC minehunter
Hatteras Yachts	High Point, NC	yachts
Gladding-Hearn	Somerset, MA	ferries
Washburn & Doughty	East Boothbay, ME	fishing boats and ferries
Broward Marine	Ft. Lauderdale, FL	yachts
Huckins Yachts	Jacksonville, FL	yachts
Freeport Shpbldg.	Freeport, FL	dinner boats and fishing boats
Denison Marine	Dania, FL	yachts
Goudy & Stevens	East Boothbay, ME	oil recovery vessels
Tidewater	Norfolk, VA	barges
Great Lakes and Rivers		
Petersen	Sturgeon Bay, WI	MCMs and other Navy craft
Marinette Marine	Marinette, WI	MCMs
Burger Yachts	Manitowoc, WI	yachts
Palmer Johnson	Sturgeon Bay, WI	yachts
Skipper Liners	LaCrosse, WI	dinner boats
Jeffboat	Jeffersonville, IN	barges
Carruthersville	St. Louis, MO	barges
Serodino	Chattanooga, TN	dinner boats
Seark	Monticello, AR	small work craft
West Coast		
Tacoma Boatbldg.	Tacoma, WA	FMS work and megayachts
Marco/Campbell	Seattle, WA and San Diego, CA	fishing and small commercial boats
Nichols Bros.	Whidbey Island, WA	ferries
Munson Mfg.	Edmonds, WA	small work craft
Christensen Yachts	Vancouver, WA	megayachts
Delta Marine	Seattle, WA	fishing boats, motor yachts
Westport Shipyards	Westport, WA	yachts and small commercial vessels
SWATH Ocean	San Diego, CA	passenger vessels
Hansen Boat	Marysville, WA	fishing boats
Martinac	Tacoma, WA	tuna seiners

Exhibit 1

Type Vessel	Number of Small Ships and Barges on Order in U.S. Shipyards: 1980 through 1990									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1990
Towboats	47	39	57	12	12	8	1	2	3	14
Tugboats	148	148	107	22	3	6	4	6	7	
Fishing vessels	105	86	65	24	11	8	13	6	3	29
Ferries, passenger vessels	0	1	2	7	12	13	15	15	20	
Offshore supply boats and crew boats	140	192	276	14	11	6	1	0	0	276
Military vessels	33	37	17	28	99	109	69	52	133	
Other power-driven vessels	177	150	103	99	124	97	82	65	52	609
River barges	2,274	2,958	800	182	217	266	166	145	276	
Offshore barges	81	108	102	15	10	8	5	4	6	

Note: Data for 1980-1988 not fully comparable to 1990 data.

Sources: American Waterways Shipyard Conference for 1980-1988 data; data for 1990 based on industry survey conducted by Maritime Reporter in January 1990

**Korody-Colyer Names
Eugene J. Zamiska
New Company Head**



Eugene J. Zamiska

Korody-Colyer (K-C) has appointed **Eugene (Geno) J. Zamiska** to the position of vice president and general manager. The announcement was made by **Bill Wade**, vice president and general manager of the Replacement Group for K-C's parent company, CR Industries, Elgin, Ill.

CR manufactures fluid sealing devices used in the automotive, heavy-duty truck, industrial, marine and agricultural markets.

Before joining K-C, Mr. **Zamiska** worked for CR for more than 23 years, where his most recent position was as vice president of manufacturing for CR's Original Equipment Group.

**Carrier Transicold Wins
\$17-Million Reefer Orders
From Chiquita Brands**

Carrier Transicold, a division of Carrier Corporation, announced recently receipt of orders for more than 1,400 model 69NT-40 Thinline container refrigeration units and 600 generator sets from Chiquita Brands, Inc., a subsidiary of Chiquita Brands International, based in Cincinnati, Ohio. The contracts are worth more than \$17 million.

The refrigeration units will be built for two container ships that Chiquita will use to transport bananas from Central America to the United States, and will be delivered during the second half of 1990.

Carrier Transicold, a leading container refrigeration manufacturer located in Syracuse, N.Y., also builds and markets transport refrigeration and air conditioning equipment for trucks, trailers, buses, and railway cars.

For more information on Carrier Transicold,

Circle 140 on Reader Service Card

**Magellan Offers Low-Cost
Portable GPS Receivers
—Literature Available**

Magellan Systems Corporation, Monrovia, Calif., recently unveiled three products that make use of Global Positioning System (GPS) technology.

The GPS NAV 1000, made specifically for marine application, provides an advantage over some other

receivers with its portability. The unit can be mounted in a quick-release bracket, where it will provide continuous navigation data while connected to ship's power, or it can be carried in hand. It weighs only 30 ounces, including the six AA batteries, and is designed to be rugged, waterproof, and floatable.

The GPS NAV 1000 is easy to use, and the user can even customize the information displays to read in the appropriate unit of measure. If

the GPS NAV 1000 encounters a gap in satellite service—that is, if it does not receive three clear signals—then it has the capability to use dead reckoning based on the last satellite fix.

The NAV 1000 PRO uses the same technology, but is basically made for use on land. The accessory kit comes with adapter hardware for a range pole or tripod mount. The NAV 1000 PRO also has an RS-232 port for computer interfacing.

The GPS Receiver Boardset is available to manufacturers interested in incorporating Magellan's GPS receiver technology into their products. A variety of electrical interfaces and software modules are available to adapt the boardset to specific needs.

For more information on Magellan GPS equipment and applications,

Circle 167 on Reader Service Card

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Circle 31 on Reader Service Card

ASRY Dry Dock Occupancy Near 90 Percent During First Quarter



The 263,516-dwt Texaco Japan in ASRY's drydock.

Arab Shipbuilding & Repair Yard Co. (ASRY), Bahrain, recently reported first quarter 1990 results were "very satisfactory" with drydock occupancy close to 90 percent, ship repair sales above budget and operation profits above those of the corresponding quarter last year.

The fifth of five VLCCs recently sent to ASRY by Texaco Marine Service, Port Arthur, Texas, was the Texaco Caribbean.

ASRY added that major repairs this year included work on K.O.T.C's 339,108-dwt ULCC Bubiyan and the 124,100-dwt OBO Jag Laxmi, owned by Great Eastern Shipping Company of Bombay.

ASRY expects additional life ex-

tension work as vessels reach their third Special Survey. ASRY has made a special study of owners' requirements for such work with a view to the systematic programming of repairs aimed at reducing costs by minimizing time spent on repairs.

For brochures containing full information on ASRY,

Circle 144 on Reader Service Card

Diversified Technologies Appoints Two

Diversified Technologies (Dt), Alexandria, Va., recently appointed **D. Andrew Lindsay** to senior engineer in its Chesapeake, Va., facility where he is responsible for management and design of mechanical systems and mechanical equipment. **Mr. Lindsay**, an engineer with the company since 1987, had been based in the Alexandria office.

The company also appointed **Jerry D. Flynn** as senior project manager and senior estimator. He brings more than 30 years' experience in logistics support and estimating to the company.

NKK To Construct 430-Passenger Icebreaker Cruise Ship

The Japanese shipbuilder Nippon Kokan (NKK) recently announced that it will construct an icebreaker cruise ship to carry passengers into the frozen waters of the northeastern Hokkaido coast of Japan. The vessel, to be built at the Narasaki Shipyard in Hokkaido, will begin

service in January 1991.

The 499-gross-ton cruise ship will be 145 feet long with a 39-foot beam, and will carry 430 passengers. Its maximum speed will be 14.5 knots, and it will be able to break through ice nearly three feet thick.

Plans call for the vessel to have economy-class as well as special cabins equipped with, among other amenities, large video screens and special seating so that passengers can enjoy the scenery in comfort.

Cruises will originate from Abashiri Port in northeastern Hokkaido from January until mid-April. Three routes are planned—from a short cruise around the harbor to a 15-mile trip into the Sea of Okhotsk, and trips selected according to ice conditions.

For free literature giving details on the facilities and capabilities of NKK,

Circle 33 on Reader Service Card

Wartsila Diesel Announces Recent Personnel Appointments

Wartsila Diesel has announced the following new personnel appointments:

Chestertown, Md.—Gary Fesenbek has been appointed materials manager for Wartsila Diesel's North America operation. He will be based at the headquarters office in Chestertown.

Max Haga has joined the Chestertown office as technical service superintendent. He has worked for Wartsila Diesel in Vaasa, Finland, for five years.

New Orleans, La.—Lennart Rosengren has joined Wartsila Diesel as service engineer. He was

formerly based at WD, Gothenburg in Sweden and is now based at the New Orleans facility.

Linda Cannon was appointed manager, customer training and documentation for North America. A new training center for customer training is to be developed and located on the New Orleans premises.

Seattle, Wash.—Joseph Gnagey has been named branch manager for the Seattle office. He was formerly the vice president of operations with Alaska Trawl Fisheries, Inc.

Miami, Fla.—Frits Tan has joined Wartsila Diesel as service engineer in the Miami office. He was formerly a field superintendent with Golten Service Company.

Matts Ramqvist has joined the company as supervisor in the Miami office. He was formerly the service area manager with SWD Gulf in Miami and has held various positions with SW Diesel for the past 10 years.

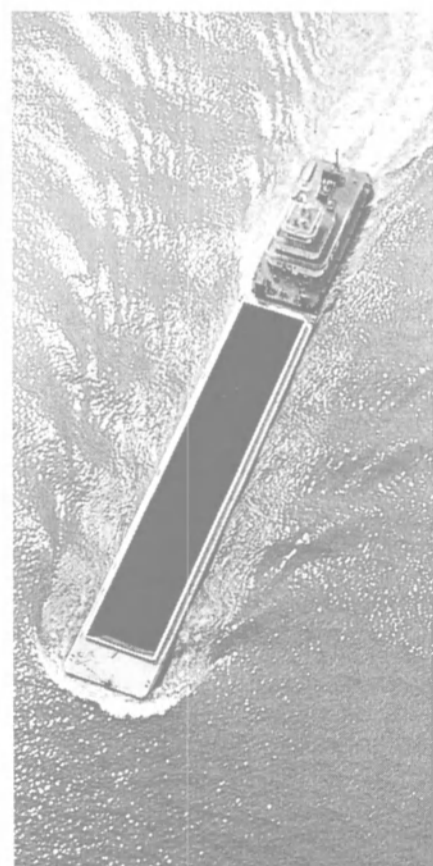
Santo Domingo, D.R. (The Service Department)—Hans Van Den Berg has been appointed service superintendent for the Santo Domingo office. He was formerly employed by Golten Service Company as a field superintendent.

Leif Julen has joined the Santo Domingo office as electrical service engineer. He was previously employed as Commissioning Engineer for ABB Generation.

Jascha Gustafsson has joined Wartsila Diesel, Inc., as service supervisor in Santo Domingo. He joined the company from the Wartsila Diesel Service Group in Vaasa, Finland.

For free literature giving full information on Wartsila Diesel,

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Cyclonaire Awarded \$3-Million Contract For Ship Unloader

Cyclonaire Corporation recently announced they have received a contract in the neighborhood of \$3 million for the construction of a gantry-mounted Docksider pneumatic ship unloader for Lone Star Northwest in the port of Seattle. The unloader is rated at 400 metric tons per hour and will be unloading bulk cement from 30,000-dwt vessels and transferring to the customer's storage silos.

The Docksider model G400E unloader, which will replace Lone Star's existing mechanical unloader, will vacuum material from the ship's hold to a series of pressure "kettles" which then transfer the cement to the silos. The system is totally enclosed and significantly less complicated than the current configuration.

Cyclonaire Corporation's Docksider Division has not only taken on responsibility for the supply of equipment, but also most of the responsibilities with regard to installation. The equipment is expected to go into operation by December 1990.

For further information and free literature from Cyclonaire Corporation,

Circle 48 on Reader Service Card

Riebling Appointed Vice President Of ES Marine Systems

ES Marine Systems Corporation of Mount Vernon, N.Y. (formerly known as Singer-Kearfott Marine) recently appointed **Walter G. Riebling** as vice president.

In the position, Mr. Riebling will be responsible for the total operations of ES Marine, one of the largest manufacturers of marine windows and windshield wipers in the United States.

Correction

In the June issue, the table "U.S. Parent Company Foreign Flag Ships" listing Petroleum Transport International Ltd. as a subsidiary of Mobil Oil Corporation was incorrect. Mobil Oil sold the subsidiary along with the tanker Mobil Refiner last year.

Coast Guard Announces Final Marine Vapor Control Regulations

The Coast Guard recently announced final regulations designed to ensure the safe design, installation and operation of marine vapor systems on tank vessels and at marine facilities.

During loading or ballasting of tank ships or tank barges, the liquid entering the tank displaces vapors within the tank. In many operations today, without vapor control, the vapors are released into the atmo-

sphere. Vapors from certain cargoes contain volatile organic compounds that lead to the formation of ozone, a major air pollutant.

In a typical vapor control system, vapors emitted from a tank vessel being loaded or ballasted are collected and piped ashore. There they are destroyed through a process such as incineration, recovered through a process such as refrigeration/condensation, returned to the

shore tank being emptied, or piped to a remote location and dispersed into the atmosphere if not prohibited by a state air quality implementation plan.

Unsafe vapor control system design or operation has resulted in fires, explosions, tank ruptures and oil spills.

Vapor control systems will become more common in the future as states attempt to meet the national

ambient air quality standard for ozone set by the Environmental Protection Agency under the Clean Air Act. Vapor emission control is also being considered as a means of reducing occupational exposure to toxic chemicals such as benzene.

The regulations do not require the installation or use of vapor control systems, but will ensure that state vapor control requirements follow uniform safety standards.



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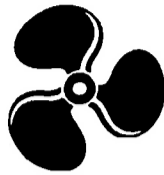
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Circle 303 on Reader Service Card

A New Course For AWO's Shipyard Conference

By Robert O'Neill, Director*
American Waterways Shipyard Conference



A conscious decision to expand the activities of the American Waterways Shipyard Conference was made by the conference members on March 10, 1989, so that our nation's small and medium-sized shipyards could strengthen their voice in Washington. To achieve that goal, AWSC increased the size and responsibility of the conference staff with the clear intent of working toward increasing activities and expanding membership in the organization. In June of 1989, AWSC hired a new director, and in August, a permanent, full-time assistant to the director was hired. Conference members voted to increase their assessments in order to adequately fund the new commitment to a more active organization.

To better reflect the Conference's new direction, members completely restructured AWSC's committees as follows:

Regulatory Committee—to analyze federal regulations and develop appropriate responses to regulatory proposals, with emphasis on proposals by Coast Guard, OSHA, EPA, and SBA.

Legislative Committee—to analyze legislative proposals and develop appropriate responses to those proposals;

Membership and Member Services Committee—to concentrate on member recruiting and retention, as well as oversee present AWSC services and develop new services; and,

Military and Government Contracts Committee—to focus on expanding AWSC's role in assisting members who repair and construct government vessels, as well as to seek new opportunities for small and medium-sized shipyards in the area of government contracts.

AWSC set as a top priority spreading the word about all that AWSC has to offer both current and prospective members. An undeniable challenge is expanding membership. Of over 300 small and medium-sized shipyards located throughout the country, only about 20 percent enjoy the benefits of being represented by a Washington, D.C.-based organization established to respond to their needs.

Among prospective members there is a common misconception that AWSC exclusively represents small shipyards involved in the construction and repair of tugboats and barges. There is little understanding of the diversity of the work done by conference members.

Few realize that several AWSC members are small repair shipyards affiliated with much larger shipyards capable of building huge government and commercial vessels. Because of their smaller size and the kind of work they do, however, they share many of the concerns of the other small and medium-sized yards which make up the conference

membership. The conference represents shipyards presently constructing both oceangoing barges and inland hopper barges. Several members are converting offshore supply vessels to fish processing vessels and dinner cruise vessels. Other shipyards concentrate strictly on the repair and construction of fishing vessels, while still others concentrate on passenger vessels and yachts.

Many AWSC members are becoming increasingly involved in government work, building and repairing vessels for the Coast Guard, Corps of Engineers, MarAd, NOAA, and the Navy. Several shipyards are not involved in construction at all. Some of these members focus on topside repairs; some are primarily gas-freeing and tank-cleaning facilities.

The common threads which bind together this group are their commitment to AWSC and AWO, and their desire to participate actively in the decision-making process in Washington, one which is often too cumbersome for the small businessman to influence alone. The shipyards are strong. They have survived the severe depression of the mid-1980s, and are slowly beginning to feel the recovery.

All in all, this adds up to an industry association that is extremely diversified in its individual members' operations, but uniquely unified in its mission: to promote, protect and defend the small to medium-sized shipyard industry.

In the last year, 58 shipyards in New York, Virginia, Mississippi, Louisiana, Texas, Washington, and California were visited by conference staff. In those visits, it became clear that the conference enjoys strong support from its members, and of those prospective members visited, it was obvious that most appreciated and understood the need to belong to a national trade association representing the interests of their industry.

Commensurate with reaching out to current and prospective members, AWSC has now completed the task of computerizing the database of the conference's Annual Shipyard Survey, assuring the accuracy of the results and greatly improving the efficiency of publishing those results. The conference is also exploring the development of an insurance program to assist members in addressing the growing cost of USL&H Compensation Act coverage; the possibility of developing a guide to assist members in meeting the quality assurance demands of

their customers; and, the publication of a national shipyard directory to provide the marine industry with a comprehensive guide to shipyards capable of meeting its needs.

In addition to these expanded and improved member services, AWSC has stepped up its activity in legislative and regulatory issues. On the legislative front, the opposition to efforts to weaken the Jones Act continues to dominate the agenda. Development of environmental issues must be monitored, and their impact on the shipyard industry must be defined as these issues are developed.

On the regulatory front, the Coast Guard's efforts to adopt the International Guide for Safety of Oil Tankers and Terminals (ISGOTT) as domestic regulation controlling any facility involved in tank-cleaning and gas-freeing operations must be defeated. AWSC has developed a safety manual for these operations which better address the Coast Guard's concerns and more adequately relate to our domestic industry. In addition, new measurement regulations intended to implement the International Convention on Tonnage Measurement have added about \$1,000 per vessel to the costs of constructing new domestic barges. AWSC has secured immediate changes in the new procedure which reduces the costs in the short term, but must seek a permanent statutory solution. Staff changes at OSHA have slowed the work of its Shipyard Employment Standards Advisory Committee and the devel-

opment of vertical standards. The conference has been working on this for several years, and must insist that this work continue.

Finally, AWSC has joined in a lawsuit seeking to reverse the Coast Guard's interpretation of the American ownership provisions of the Anti-Reflagging Act of 1987. The Coast Guard's decision would allow any vessel engaged in our domestic fishing industry prior to the Act's cutoff date to be sold to a foreign entity without losing its domestic trading privilege. This interpretation completely undermines the intent of Congress to Americanize our domestic fishing fleet.

The new AWSC has evolved into a stronger, more active organization representing the interests of our nation's small and medium-sized shipyards. The conference offers valuable member services and the opportunity for its members to actively participate in decisions which could impact their bottom line. Now the key rests in continuing to build a stronger membership and then a stronger industry. Of course, the conference's efforts to expand can only succeed with the continued and enthusiastic support of the general membership of AWO. ■

**Editor's Note: On June 21, the American Waterways Shipyard Conference appointed Robert F. O'Neill as the new director, AWSC. Mr. O'Neill replaces Cornel Martin, who served in the AWSC post for one year, and who is now AWO's vice president—Southern Region.*

Mr. O'Neill has over a decade of experience on Capitol Hill, having served as a professional staff member to the House Subcommittee on Science, Research and Technology since 1982. Prior to that, he acted as a legislative assistant to Representative Doug Walgren, and as a political consultant. He served in the military in the U.S. Air Force Intelligence Service.

Mr. O'Neill is a graduate of Wheeling Jesuit College.

AWO Fall Convention Set For Washington, D.C. From September 6 To 7

The American Waterways Operators (AWO), a national association for the barge and towing industry, will hold its 1990 Fall Convention and Board of Directors Meeting on September 6 and 7 at the Ritz-Carlton Hotel in Washington, D.C. A number of important legislative and regulatory matters will be discussed.

The Washington, D.C., meeting of the board of directors and AWO committees will bring members up to date on important current issues affecting the industry and will provide updates of internal matters of

the association as well. Committee and board meetings are open to all members.

Issues such as pending oil spill legislation and reauthorization of the Clean Air Act, random drug testing, impending state requirements on vapor recovery and boating safety will be discussed and examined by various AWO committees.

For further information on the AWO Fall Convention and Board of Directors Meeting, call (703) 841-9300.

Homeport Marine Delivers 'Eastern Wind,' First Of Two U.S.-Flag Fish Tenders

Moss Point, Mississippi-based Homeport Marine Services recently delivered the 195-foot, U.S.-flag fish tender Eastern Wind to Arctic Alaska Fisheries, Inc., Seattle, Wash. She is the first of a series of two under construction at the yard for the U.S. owner.

Designed as an oceangoing vessel for operation between Seattle, Alaska and Japan, the Eastern Wind is self loading and unloading by way of four cargo booms rated at 10,000 pounds each. She will not catch or process fish or crabs, but rather she will load cargo from factory trawlers, processor ships and shore-based processing and freezer plants. The seafood products she transports will be sold in the U.S., as well as Japan.

Under 500 gross tons, the Eastern Wind is 195 feet long, 41-1/2 feet wide and 28 feet deep. She has a total of 78,000 ft³ of cargo hold which will allow her to transport 3

million pounds of frozen fish at -24 degrees F. Propulsion for the fish tender is provided by two GM-EMD 645C 12-cylinder diesel engines developing a total of 3,000 hp, with Falk LST reduction gears (rebuilt by Haley Gear) and four-bladed propellers from Bird-Johnson.

Electrical power aboard the Eastern Wind, provided by three 165-kw generators driven by three Caterpillar 3306B diesel engines, totals 495 kw and is capable of full paralleling. The main electrical switchboard was built by Contec of Port Bienville, Miss., and is designed for parallel operation. The tender features Westinghouse Air Brake Co. (WABCO) engine controls with Logic Master panels. The electrohydraulic steering was manufactured by International Steering of Pearlinton, Miss. The electronics were furnished by Lunde of Seattle and include a gyrocompass by Sperry Marine, VHF, SSB and radar from



The EMD-powered fish tender Eastern Wind is one of the first of her type to be built in the U.S. in a number of years.

Raytheon, autopilot and compass from Robertson, satcom from Japan Radio Co. (JRC), echo sounder and navigational sounder from Simrad and Loran from Northstar.

Other equipment on board includes Peabody Barnes centrifugal pumps, a Maxim watermaker and fuel oil centrifuge and oily water separator from Alfa-Laval. The vessel is equipped with a modern galley which includes a walk-in freezer and cooler. The cargo freezing capacity of -24 degrees F is obtained with

freon and 35,000 feet of 1-1/2-inch cooling coils.

This is a new class of cargo vessel designed by Homeport Marine, Design Associates and Arctic Alaska's chairman **Francis Miller**, with the special purpose of transporting frozen seafood products.

For free literature detailing the building, repairing and conversion services of Homeport Marine Services,

Circle 100 on Reader Service Card

BOATS & BARGES

NABRICO Delivers 260-Foot RO/RO Barges For Boston Harbor Project

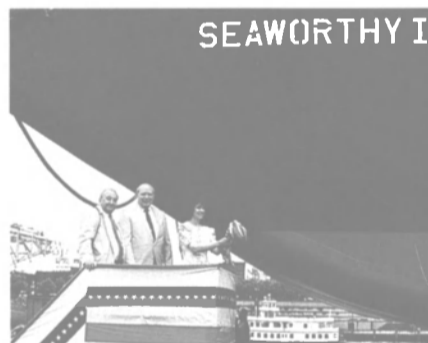
Nashville Bridge Company (NABRICO), a subsidiary of the American Ship Building Company, recently delivered two 260-foot specially configured Roll-On/Roll-Off (RO/RO) barges to Allied Maritime Management organization, a subsidiary of Seaworthy Systems, Inc., at its Nashville, Tenn., yard, for use in the Boston Harbor Clean-Up Project.

NABRICO president **Allen Zang** said that despite unfavorable weather conditions during the final stages of construction, the barges were delivered on time and within budget. Allied's chairman, **David O'Neil** and its president, **Ralph A. Corvino**, accepted the barges and extended their thanks to NABRICO for its near-record delivery.

The barges, each with a beam of 64 feet and draft of 12 feet, were



The 260-foot vehicle barge Seaworthy I at her launching at NABRICO, Nashville, Tenn.



Principals at the launching of the Seaworthy I included (L to R): **Allen Zang**, president of NABRICO; **David O'Neil**, chairman, Allied Maritime Management Organization, Inc.; and Mrs. **Joanne O'Neil**, sponsor.

christened the Seaworthy I and Seaworthy II. Mrs. **Joanne O'Neil**, wife of Mr. O'Neil, sponsored the Seaworthy I, while Mrs. **Patricia McCarthy**, wife of Seaworthy vice president, **William McCarthy**, sponsored the Seaworthy II. **Jon Wales**, vice president of Boston Towing & Transportation, which will operate the RO/RO system, was on hand to take delivery of the barges from Allied.

The two 25 tractor-trailer-capacity barges will be utilized to transport construction-related vehicles across Boston Harbor. The vessels will be loaded at the project's staging area at the former Fore River Shipyard in Quincy, Mass., on a reg-

ular "ferry-like" schedule. The unloading point will be at the major construction site in the extreme northeastern corner of the harbor at Deer Island. At the site, new primary and secondary sewage treatment facilities will be constructed along with an effluent outfall tunnel extending nine miles under the ocean floor in Massachusetts Bay.

The vessels are designed to permit the rapid securing of trailers to mate with purpose-built shoreside transfer bridges and incorporate many other safety and environmen-

tal features.

The 10-year project is under control of the Massachusetts Water Resources Authority and is being directed by the contract's program/construction managers, Kaiser Engineers, Inc. Seaworthy Systems, Inc., Essex, Conn., provided consulting engineering to RO/RO system operator Boston Towing & Transportation.

For free literature detailing the building services of NABRICO,

Circle 9 on Reader Service Card

Halter Marine Repowers Largest Texas Ferry

Halter Marine, Inc., Lockport, La., has completed repowering the Gibb Gilchrist, the largest ferry operated by the state of Texas, by replacing its original engines with rebuilt General Motors EMD 12-645E6 diesel engines.

The engines were rebuilt by Stewart & Stevenson Services, Inc., Harahan, La.

Halter also reconditioned the diesel electric ferry's two 900-kw main generators, two ships' service generators and installed a new exhaust system.

The double-ended ferry which can carry 500 passengers and 70 vehicles was built in 1977. It is 264 feet long, with a 66-foot beam, and 15.5-foot depth.

The ferry is operated by the Texas State Department of Highways and Public Transportation between Galveston Island and Bolivar Peninsula.

Halter Marine, Inc., is part of the 10-shipyard Trinity Marine Group, Gulfport, Miss., which is owned by



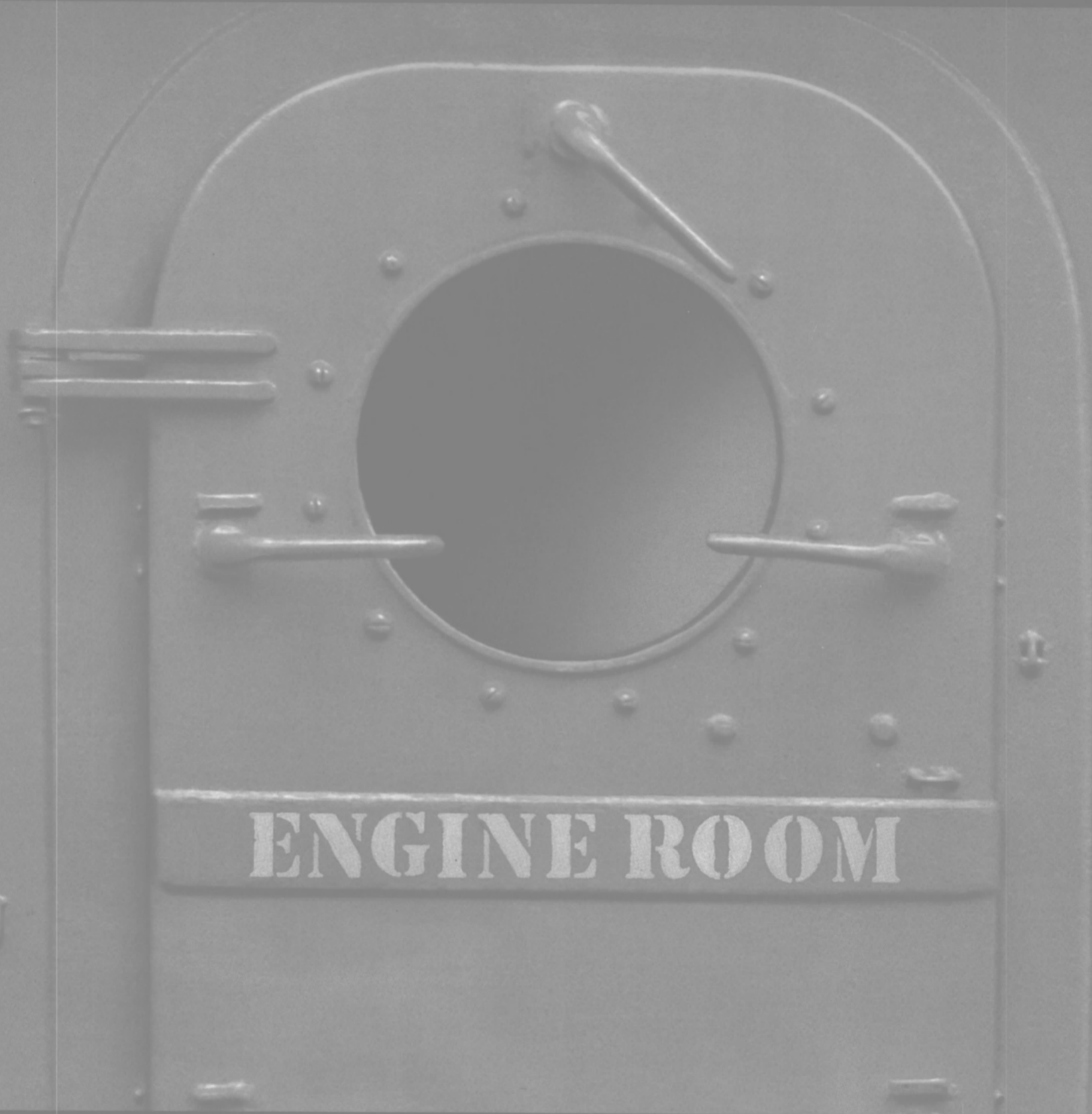
The passenger/vehicle ferry Gibb Gilchrist was recently repowered by Halter Marine with GM-EMD engines rebuilt by Stewart & Stevenson Services, Inc.

Trinity Industries, Inc., Dallas, Texas.

For free literature detailing the services of the Trinity Marine Group,

Circle 7 on Reader Service Card

**This is no room for
compromise.**



Because EMD, Caterpillar and Detroit Diesel marine engines are so different, Mobil has developed a separate Optimum Performance Oil for each.

Chances are, your engine isn't giving you all the power, economy and service it was built to deliver

Why not? Because, with rare exceptions, the marine oil being used wasn't formulated to meet the specific requirements of your engine. Instead, it's a compromise, an oil formulated to meet some of the requirements of the three major makes of diesels used in the United States inland waterway marine trade.

Mobil doesn't think "compromise" performance is good enough. We wanted you to get optimum performance and lower operating costs from either your EMD, your Caterpillar or your Detroit Diesel. The way to achieve that was to create new Optimum Performance Oils for the specific needs of each. Mobilgard[®] 450 for the EMD. Mobilmar[®] 300 for the Caterpillar. Mobilmar[®] 100 for the Detroit Diesel.

Optimum Performance Mobilgard 450 for the EMD engine.

Mobilgard 450 is a zinc-free engine oil that will keep EMD silver bearings in like-new condition. Mobilgard 450 also clearly demonstrates that Mobil advanced lubrication technology can significantly lengthen engine life and reduce oil consumption. Because, compared with leading 13 and 17 TBN level competitive oils, Mobilgard 450 provides an 18%-22% saving in oil consumption, 51%-72% better oxidation stability and oil life, and up to 33% better varnish and carbon control. Additionally, it increases load-carrying capability up to 20%.

In actual service, Mobilgard 450's high TBN level provides alkalinity retention surpassing that of competitive 13 and 17 TBN level products.

Optimum Performance Mobilmar 300 Series for the Caterpillar engine.

Mobilmar 300 is a high-ash zinc-containing oil formulated specifically to withstand the unusually heavy stresses placed on lubricants used in high-temperature, low-oil-consumption, 4-cycle, highly turbocharged Caterpillar engines. Mobilmar 300 makes Mobil the only oil company offering a separate marine engine oil specifically designed to meet the stringent oil performance requirements of the Caterpillar 3600 Series.

Mobilmar 300 optimizes Caterpillar engine life by assuring outstanding varnish, ring carbon, and piston undercrown deposit control. Both anti-scuff control and oxidation protection have been maximized. Mobilmar 300 also provides very good water separation. Another important characteristic is that it offers a high TBN level with outstanding alkalinity retention.

Optimum Performance Mobilmar 100 Series for the Detroit Diesel engine.

Mobilmar 100 is a specially formulated low-ash monograde marine engine oil with optimum film thickness to provide maximum protection in heavy-duty 2-cycle Detroit Diesels. As a result, its slipper bushing and piston liner wear protection are outstanding. Mobilmar 100 also provides these higher-speed engines with excellent valve train antiwear performance.

Additionally Mobilmar 100 extends oil service life and maximizes the periods between overhauls. It also provides high-temperature detergency with high dispersancy during intermediate, cyclic and high idling service, thereby helping control soot and sludge. Mobilmar 100 has outstanding water separation capabilities both in storage and during operation. It has a moderate TBN level, and its alkalinity retention is exceptional.

For more information on Mobil marine oils, call 1-800-662-4525.

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Mobil[®]

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ELECTRONICS UPDATE

Furuno Introduces New FR/FAR-2800 Big Ship Radar/ARPA Line

Furuno, makers of some of the world's finest marine radars, recently announced a new heavy duty, commercial line of rasterscan radars/ARPAs designed to fully meet IMO regulations for installation aboard all classes of vessels. Ten different models are available with a large variety of performance features and options that make them ideal for any commercial vessels and the largest yachts.

All units have a 28-inch-high resolution green phosphor CRT with 15-level quantization, six pulse-lengths and repetition rates, Furuno's MCI low noise receiver, plus echo stretch, echo averaging and radar interference rejector to provide an unsurpassed radar picture

in any weather conditions. Other standard features include dual EBLs and VRMs, alarmed guard zone, echo trail, electronic parallel index lines, off-centering, electronic plotting of up to 10 targets with 10 different symbols, choice of 25- or 50-kw X-band, or 30- or 60-kw S-band outputs, T/R up or down, and choice of a variety of antenna lengths.

The FAR-2800 ARPAs acquire up to 20 targets automatically, plus up to 20 additional targets manually, or all 40 targets manually. Movement of tracked targets can be shown by true or relative vectors and plots. On-screen digital readouts show range, bearing, course, speed, CPA and TCPA, BCR (bow crossing

range) and BCT of up to three target ships, as well as own ship course and speed. Additionally, the system displays user selectable traffic lane, buoys, danger points and other important references. A trial maneuver feature simulates the effect of own ship maneuver on all tracked targets without interrupting target information.

Furuno's FR/FAR 2800 Series has built-in interfacing for gyro, speed log and interswitch (optional) for dual radar/ARPA installation.

For complete information on the new Furuno 2800 Series radars and ARPAs,

Circle 46 on Reader Service Card



Furuno's new 2800 Series radars and ARPAs are available in 10 different models with a large variety of performance features.

Daniel Martin Joins Ingram Barge Company

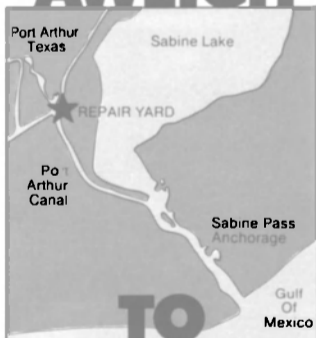
Daniel T. Martin recently joined Ingram Barge Company, Nashville, Tenn., as vice president of dry cargo sales, according to Les

Sutton, Ingram president.

Before joining Ingram, Mr. Martin had been associated with National Marine, previously Dravo Mechling Corporation, since 1979 where he held various sales management positions. His most recent position was senior vice president of marketing and sales.



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So when you need convenient and reliable service, contact Robert E. Lowrey, Bethlehem Steel Corporation, Sabine Yard, P.O. Box 1448, Port Arthur, TX 77641; (409) 985-0571; FAX: 409-985-0555.

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Our patented Armorshield shrink film process is the reliable method of protection... and we keep proving it! Ingalls Shipbuilding Company called on us to wrap the U.S. Navy's mock engine room modules for transportation. Traveling over 3,000 miles on a cargo ship from Mississippi to a naval facility in Great Lakes, Michigan, the modules arrived in perfect condition. We developed this process for storage and shipping of boats, aircrafts and heavy machinery.

Compared to other methods of protection, *only* the FANA system provides you with these advantages:

- Armorshield's special blend of resins forms a barrier that resists sun, wind, snow and acid rain
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- Special access doors and vents can be added to prevent mildew
- Armorshield film comes in various width sizes and conforms to any shaped object
- A FANA crew can come to your business and give you personal, on-site service anywhere in the world
- FANA can also furnish your business with a complete turnkey operation including on-site training and all necessary materials and hardware

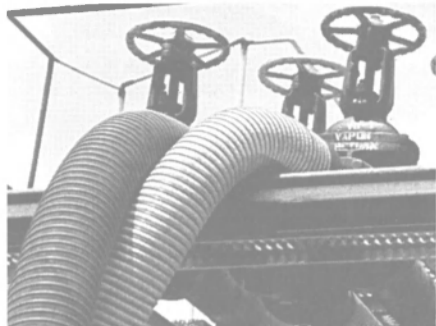
Call us today and learn more about this revolutionary form of protection. We're always on duty for you!



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NuFlex Offers Composite Vapor Hoses For Transfer Operations



NuFlex composite vapor return hose in operation at a shoreside facility in the New York Harbor area. Used in tanker and barge unloading operations, NuFlex vapor hoses have been designed to have the same chemical resistance as the company's transfer hoses.

NuFlex, Inc., Linden, N.J., manufacturers of composite transfer hoses for petroleum and chemicals, recently announced the availability of large bore composite vapor hoses. NuFlex manufactures 4-, 6-, 8- and 10-inch ID vapor hoses designed to meet recently announced Marine Vapor Control Regulations by the U.S. Coast Guard. These regulations are designed to ensure the safe design, installation and operation of marine vapor control systems on tank vessels and at marine facilities.

These vapor hoses have been designed to have equal chemical resistance as NuFlex's transfer hoses, but are lighter and easier to handle. They will handle 100 percent aromatics, corrosives and general chemical vapor, are ozone resistant and will maintain their flexibility in cold weather.

NuFlex, said to be the only U.S. manufacturer of composite hose, plans to open a second, larger manufacturing facility later this year in order to accommodate the increase in sales for their complete line of composite hoses.

For free literature detailing the complete line of NuFlex composite hoses,

Circle 123 on Reader Service Card

James Baalman Joins Property/Marine Division Of Marsh & McLennan

James G. Baalman has joined Marsh & McLennan, Incorporated in the International Risk Management's Property/Marine Division. He is responsible for client servicing, marketing, claims handling and the production of marine business.

Mr. Baalman, a licensed broker, has 20 years' experience in the marine industry.

Marsh & Lennan is one the nation's largest insurance brokerages.

Conferees Agree On Scheduling Of Tanker Double-Hull Phase-In

Although the legislation has yet to be approved, it appears that all

ocean-going tankers operating within U.S. waters will have to be equipped with a double hull by 2015, according to a recent proposal by a joint House-Senate conferees committee.

A joint committee made up of Congressional conferees recently unanimously voted to include a double-hull provision in pending oil spill liability and compensation legislation.

The conferees included the following stipulations as part of the

double-hull requirement:

- New tankers built in the U.S. must have double hulls;

- All tankers trading in the U.S. must have double hulls by 2010;


- Single-hull tankers operating to deepwater terminals or in lightering operations 60 miles off the U.S. coast will be phased out by 2010 and those with either a double bottom or double sides by 2015;

- A sliding scale will be used from 1995 to 2000 to phase-out single-


hull tankers; beginning in January 1995, all tankers 28 years old or more will be excluded from U.S. waters;

Oil barges and tankers in U.S. domestic and inland waterways trades would not be exempt from the double-hull requirement.

The oil spill liability and compensation legislation is expected to be passed by both Houses and approved by President **Bush** later this year.



“Take your first step toward vaporless loading.”



How to choose the right valve. No vapor valve is perfect for every application. That's why MMC gives you a choice of six. This checklist provides you with the information you need to make the right decision between the two most widely used models.


FEATURE	U-VALVE (Fits on existing ullage hatches)	B-VALVE
Vaporless gauging	Yes	Yes
Hot work required for installation	No	Almost always
Easy installation by ship's crew	Yes	Sometimes
Ship removed from service	No	Almost always
Zero ullage available	8" above zero	Yes
Sampling capability	1/2 liter	1/2 liter
Valve mechanism	Check valve	Ball valve (Positive shut off)
Standard material of manufacture	Bronze	Stainless steel
Maintenance requirements	None	None
Cost (approx.) of valve only	10" and larger \$1,700 8" and smaller \$1,400	Less than \$600
Installation cost	None	Always

No matter which you choose, MMC is prepared to help you meet revised regulations pertaining to petroleum and chemical barges. Remember, the MMC name stands for more than 30 years of reliability; there's simply no substitute for that kind of proven performance.

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Keeping You in Control

Circle 245 on Reader Service Card

New York Shipyard Reports Busy Vessel Repair Schedule



The tank barge Cibro Savannah, which sustained damage after a fire and explosion, is shown in New York Shipyard for repairs.

The New York Shipyard Corporation, Brooklyn, N.Y., is completing extensive repairs on the 700-foot containership S/S Guayama, operated by Puerto Rico Marine Management. The work involves drydocking for tail shafting, sea valves, boiler repairs and replacement of a 60-ton evap-

orator and hull coating. The S/S Guayama underwent a vessel life extension program with the removal and replacement of 120 tons of steel. Extensive steel replacement was made in the forward peak, aft peak and double-bottom tanks, including replacements of internals, bulkheads and tank tops.

The yard has entered into a contract to repair the tank barge Cibro Savannah. The 130,000-barrel tank barge sustained damage after a fire and explosion last spring in the Kill Van Kull, Kearny, N.J.

Five hundred tons of steel will be replaced, along with cargo piping and valves.

At present, New York Shipyard is preparing to drydock the S/S Bermuda Star.

New York Shipyard is the only fully equipped deep draft drydock operating in the Port of New York.

For free literature on the facilities and capabilities of New York Shipyard,

Circle 27 on Reader Service Card

Robert Goehring Named New VP Of Henschel Manufacturing Operations

Henschel, producer of ship control and interior communications, recently named **Robert**

W. Goehring, as vice president in charge of manufacturing.

He succeeds **Gunter Waehling**, who recently was promoted to general manager of Henschel.

Prior to joining Henschel, Mr. **Goehring** had been director of operations for Fiskars Electronics Corp., Littleton, Mass. Before that position, he held a succession of management jobs in manufacturing and materials management with companies including NEC Information Systems, Prime Computer, United Engineers & Construction, and B.F. Goodrich.

Fibergrate Introduces High Endurance Composite Flooring

The Fibergrate Corporation, Dallas, Texas, recently introduced FiberPlate, a durable fiberglass flooring product designed to be installed over structural members, such as existing grating to provide a solid walkway or extend the life of an existing path.

FiberPlate is available, the company said, in thicknesses ranging from 1/8 to 3/4 inches with panel sizes up to 5 by 12 feet.

For more information on Fibergrate,
Circle 145 on Reader Service Card

USCG APPROVED the Humphrey SEWAGE TREATMENT

CERTIFIED PROTECTION FOR THE FUTURE

TYPE II, MARINE
SANITATION DEVICES
U.S.C.G. CERT. NOS.
159.15/1054/1/II
159.15/1054/2/II
159.15/1054/3/II

SMALL RUGGED
AFFORDABLE

THE Model 12
(two components)
Designed for vessels
with limited space
Sizes:
F-12 Filter:
12 1/2" x 12 1/2" h
D-12 Digester:
27" x 15" w x 12" h
Weight:
40lbs. dry, 115lbs. wet
Power:
low draw
12 volt system
drawing 6 amps
or 110 volt
drawing 10 amps

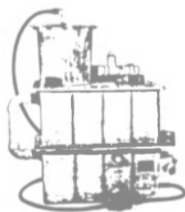
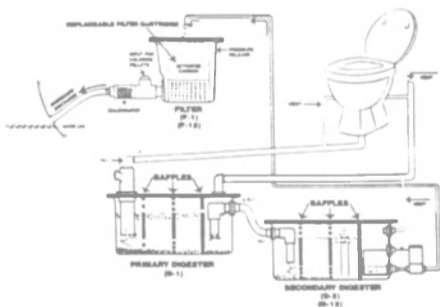
Unique Simple Process

Sewage flows from the head directly into the Digester(s) where it makes its way through a series of baffles. It is broken down and dissolved by natural bacterial action during this stage. The resulting liquid (effluent) is then pumped through the Filter and passes through the chlorinator, where the final stage of purification and deodorization takes place. Upkeep simply requires an addition of the Humphrey Activator flushed through the head periodically, a spot check on the chlorine pellets and filter. That's it, No Muss, No Fuss!

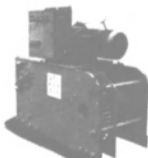
This compact Sewage Treatment system emits clear and odorless discharge better than the TYPE III, no discharge devices, which requires the use of pump out facilities that are inadequate across the country.

THE Model 10A
(three components)
Sizes:
F-1 Filter:
12 1/2" x 15" w x 12" h
D-1 & D-2 Digester:
27" x 15" w x 12" h
Weight:
66lbs. dry, 225lbs. wet
Power:
Available in 12V or 110V
6 or 10 amp draw

Models available for any crew size



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Barge Lights



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winches
hatches &
deck fittings

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- The ideal satcom for smaller ships and pleasure craft as well as backup communications for larger vessels
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- Less than 26 pounds total weight
- Compact, robust, and easy to install
- Meets IMO carriage requirements for vessels of 300 GRT and over in Sea Area A3 under GMDSS
- As simple to use as a typewriter



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Circle 27 on Reader Service Card

Rick Ralph Named TANO VP Of Sales



Richard B. Ralph

Richard B. (Rick) Ralph has been named vice president of sales for TANO Marine Systems Inc. of New Orleans and its General Regulator division.

TANO designs and manufactures computer-based automation and control systems for military and commercial ships.

Mr. Ralph, who is also responsible for TANO customer service, has established new sales and service offices for TANO and General Regulator on the East Coast, West Coast and Gulf Coast. He joined TANO in 1989 as East Coast regional sales manager, based in the Baltimore, Md., area. His former experience includes 14 years at Bethlehem Steel Corporation's Baltimore Marine Division.

For free literature giving full information on TANO Marine Systems,

Circle 30 on Reader Service Card

Adams Named Project Manager At Conrad

Keith Adams, a 17-year veteran of the shipbuilding business, has been named project manager for Conrad Industries, Inc., Morgan City, La., according to Ronald P. Chiasson, general of the company.

Mr. Adams, who began his career in the marine industry in 1973, brings to Conrad Industries a vast amount of experience in the construction, repair and conversion of vessels.

Parker Conrad, founder and president of Conrad Industries, noted that South Louisiana's shipbuilding industry is surging with new vitality and the strongest market performance since the early 1980s.

Working two shifts, the Conrad facility has contracts for about 20 vessels, either in progress or planned for the near future.

WATERCOM Installs 600th Direct-Dial Phone —Literature Available

WATERCOM officials announced recently the company, Waterway Communications Systems Inc., Jeffersonville, Ind., had installed more than 600 telephone units on vessels.

Since the first unit was installed, more than 100 companies have

equipped their vessels with WATERCOM telephones.

With WATERCOM, callers dial numbers directly; there is no need for a marine operator to complete the call. It is the only direct-dial telephone network on the water, and serves more than 4,000 miles of America's waterways.

For more information on WATERCOM,

Circle 157 on Reader Service Card

McVay Appointed VP At Moran Towing

Moran Towing Corporation, Greenwich, Conn., recently announced the appointment of Russell G. McVay as vice president—environmental protection and safety, a newly created position at the company.

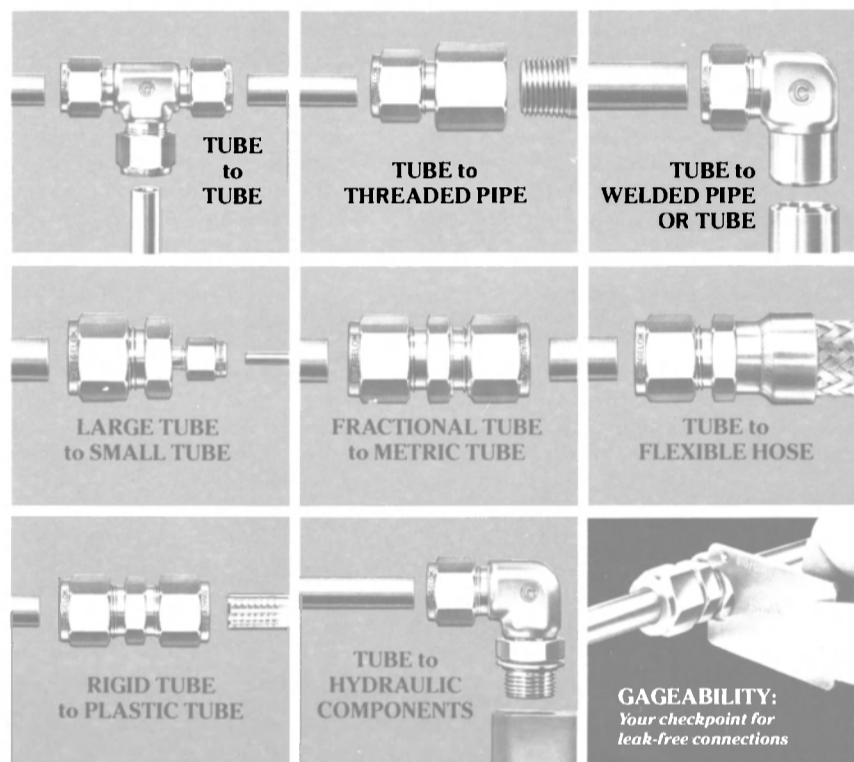
In the new post, Captain McVay will oversee compliance by the Moran group of companies with appli-

cable environmental regulations, and will have responsibility for the safety of personnel and equipment aboard the Moran fleet.

He will report to Thomas E. Moran, chairman and chief executive officer of Moran, and to Malcolm W. MacLeod, president of the company.

Moran Towing Corporation subsidiaries own and operate 67 tugs and barges on the East Coast and the Gulf of Mexico.

Only SWAGELOK Tube Fittings make all these connections with Gageable Reliability



All these types of SWAGELOK Tube Fitting connections contain fluids safely. They maintain a leak-tight seal under vibration, shock, pressure surges and temperature variations.

They are the *only* tube fittings that are gageable to confirm proper pull-up... a major factor in reducing hazardous risk.

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From *BoatLIFE*...
The world's leading maker of Marine Sealants.

40 miles of 2 Part Life Calk were installed on Carnival Cruise Lines newest ship "FANTASY"

BoatLIFE's 2-Part Polyurethane Meter, Mix, and Dispensing Unit is used here to lay in the sealant. No need to mix and pour into caulking guns - saving time and money!

Whether you have a little ship, a ferry ship, a tall ship, a cruise ship, or even a battleship — BoatLIFE® has the answers, products, and equipment to solve your marine sealant problems.

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Circle 217 on Reader Service Card

It's NEW! Dual-12

12" Blower/Exhauster Delivers 4,700 cfm, Weighs Only 48 lbs!

Carling blowers that operate on steam or compressed air are now available in two sizes. The new 12" Dual-12, gives you big air-moving capacity in a lightweight, easy-to-handle unit that mates with "Butterworth" openings. The 20" Dual-20, a high-volume blower/exhauster sized to fit standard tank openings, delivers 11,000 cfm. Both units are equipped with high- and low-pressure nozzles, need little maintenance attention, and handle a wide range of ventilating, cooling, drying, and air-cleaning jobs. 12A and 20A single nozzle designs are available for air operation only.

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Circle 296 on Reader Service Card

\$200-Million Japanese Liner Fitted With Magnavox Advanced Multi-Channel SatCom System



The Crystal Harmony, built at a cost of over \$200 million at Mitsubishi Heavy Industries Shipyard in Nagasaki, Japan, is the first giant luxury passenger ship Japan has built since before World War II. The vessel will feature specially commissioned statuary from Japanese artists, and the first floating casino to be operated by Caesars Palace of Las Vegas.

The recently delivered luxury cruise liner Crystal Harmony is the latest ship to be fitted with an advanced multi-channel marine satellite communications system.

A Magnavox multi-channel SatCom station was fitted on the Crystal Harmony at Mitsubishi Heavy Industries Shipyard in Nagasaki, Japan, where the ship was under construction.

The multi-channel system was developed by Magnavox to meet the growing demand from cruise ship operators, offshore oil platforms and other users with a high volume of ship-shore communications traffic. The Crystal Harmony is the third ship to be fitted with this equipment. The Norway and QE 2 were fitted with similar systems last year.

The system is derived from Magnavox's MX 2400 Inmarsat-A ship earth station, and consists

of four functionally separate MX 2400 operator stations, each with its own CRT screen, keyboard and printer, all connected to a single stabilized 2.2-meter parabolic dish antenna, sealed inside a fiberglass radome. This provides simultaneous access to four separate Inmarsat satellite channels, each of which can be used independently for transmitting and receiving voice, data, fax or telex calls.

The Crystal Harmony will use the Magnavox SatCom system to provide a variety of enhanced high-tech ship-to-shore telecommunications services, such as facsimile, electronic mail, electronic banking and credit-card telephones, in addition to normal direct-dial telephone calling from private staterooms. The ship has a variety of business and meeting facilities, including a board room and private business offices equipped with personal computers, which can be hooked into the SatCom for ship-to-shore data transmission.

The 49,400-ton Crystal Harmony is the first luxury ship for Crystal Cruises, a Los Angeles-based subsidiary of Japan's NYK Line. Carrying 960 guests in refined luxury, the vessel is reported to be one of the most spacious ships afloat in its class, with a guest-space ratio of 51.5. It will also offer a variety of innovative industry firsts, including one of the largest penthouses afloat; one of the highest stateroom and penthouse verandah ratios; an advanced refrigeration system; and the first floating casino to be operated by Caesars Palace of Las Vegas.

The Crystal Harmony was delivered to Los Angeles last month, and will kick off the 1990-91 inaugural season with sailings to Alaska/Canada, Trans-Canal and Europe.

For more information on the Magnavox multi-channel SatCom system for cruise ships,

Circle 24 on Reader Service Card

New Firm Offers Field Service And Maintenance For Pipe Support Systems

Service Concepts, Inc., a new company located in Warwick, R.I., has been formed for the purpose of addressing the need for dedicated pipe support and system maintenance and material services. The company plans to operate on a worldwide scale.

Comprised of industry experts with average experience of over 20 years, Service Concepts officials have created the concept of field services for pipe support system manufacturers. According to Service Concepts, field services is defined, but not limited to, pipe support system maintenance, replacement material and more importantly, consultation to implement more cost-effective pipe support component maintenance programs which can help cut down on costly plant downtime.

For more information on services provided by Service Concepts, Inc.,

Circle 97 on Reader Service Card

New Offices For Stolt-Nielsen In New Orleans

The New Orleans staff of Stolt-Nielsen Inc. recently completed its move to 2 Lakeway Center, 3850 N. Causeway Blvd., Suite 1275, Metairie, LA 70002. The Stolt-Nielsen Inc. New Orleans office is responsible for the company's parcel tanker and transportation services operations in the New Orleans/Mississippi River area. Stolt-Nielsen Inc. has six other offices in the United States and 14 offices in eleven other countries.

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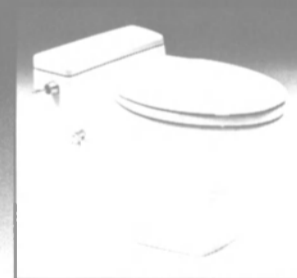
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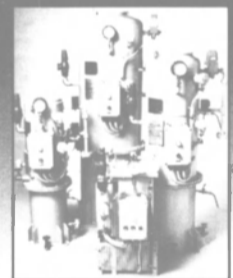
Circle 233 on Reader Service Card



SHIP'S STORES



Marine Head



Oily Water Separator

Quality Products For The Worldwide Marine Industry

Microflush Marine Heads in stainless steel or vitreous china use only two quarts of water per flush. Options include rear or downward discharge, internal or remote flush activators.

Marine Sanitation Devices have no moving parts, no power requirements and low maintenance. Discharge by gravity or sump/pump. Accommodates crews from 3 to 100 men. IMO approved. USCG certified.

Oily/Water Separators in seven models: .15-5.0 cu. meters per hour. Coalescing technology means no replacement filters required.

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Circle 281 on Reader Service Card

Maritime Reporter/Engineering News

NAVSEA Awards \$5-Million Order To MagneTek

MagneTek Inc., an electrical equipment manufacturer, has received orders from the Naval Sea Systems Command for equipment and services exceeding \$5 million, the company announced recently.

The order calls for MagneTek to supply 10 electronic countermeasure systems and associated data to the Navy by May 1992. The company will also deliver 122 rectifier and inverter-module power-connector assembly kits. MagneTek will install the kits on the CG 63-CG 73, AEGIS-class guided missile cruisers and on the DDG 51-DDG 53, AEGIS-class guided missile destroyers.

MagneTek Defense Systems, a unit of MagneTek Inc., designs and develops custom and standard power-conversion and conditioning equipment for government and military applications.

For more information on MagneTek,

Circle 166 on Reader Service Card

Schichau Seebeckwerft To Build Containership For German Owner

Schichau Seebeckwerft AG, Bremerhaven, West Germany, recently received an order for the construction of a 1,597-TEU containership from Hamburg-based shipowner H. Schuldt.

Scheduled for delivery in second quarter of 1991, the containership will be based on the BV 1600 design. She will have an overall length of about 535-1/2 feet, molded breadth of 90 feet, maximum draft of 35 feet and deadweight (on maximum draft) of about 23,465 metric tons. She will be powered by a Bremer Vulkan-MAN B&W 6L60MC diesel engine, with a maximum continuous rating of 14,000 hp.

Henschel Named Exclusive U.S. Licensee For Speed Measuring Units

Henschel, Inc., the Newburyport, Mass., subsidiary of SPD Technologies of Philadelphia, recently agreed to become the exclusive U.S. licensee for a line of marine speed measuring products produced by Aeronautical and General Instruments (AGI) of the United Kingdom.

AGI is a leading producer of solid-state speed measuring systems, currently used in 33 navies worldwide.

The AGI systems provide accurate, repeatable speed log information with digital, synchro, analog and pulse outputs. One system has two calibration curves per probe. Each curve has 14 operator-selected calibration points along the ship's speed range.

"You calibrate the system once and forget it, unless the probe is replaced," said Gunter J. Waehl-

ing, Henschel vice president and general manager.

Henschel is one of the nation's leading designers and manufacturers of ship control and interior communications systems for the U.S. Navy and commercial maritime markets.

For more information on Henschel,

Circle 162 on Reader Service Card

Admiralty Systems Names O'Neill Program Manager

Thomas McKillop, president of Admiralty Systems Inc., Newington, Va., recently appointed Michael O'Neill as program manager for Military Sealift Command support.

Mr. O'Neill, a 1982 graduate of the Massachusetts Maritime Acade-

my, has extensive experience in logistics and ship management programs.

He previously worked at ASI providing support for the T-AGS 39/40 ship construction program at Bethlehem Steel's yard at Sparrows Point, Md.

For more information on Admiralty Systems,

Circle 161 on Reader Service Card



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Thordon's tough elastomeric properties provide extended wearlife at reduced friction levels. Extended wearlife means less time in dock and reduced lifecycle costs.

Thordon does this without the aid of petroleum lubricants. Thordon can be lubri-

cated by seawater, or in some applications will run dry.

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**EXTRA BONUS
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**9th S.N.A.M.E. II
MARITIME I**

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS

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IN BOSTON (OCTOBER)

FISH E)

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NOTE
THIS YEAR FOR THE 1st TIME
THE S.N.A.M.E. SHOW ISSUE
WILL BE
OCTOBER

WITH **ONE** ADVERTISEMENT . . . AT **ONE** COST . . . you can be there, selling at two marine industry events in October.

Plus . . . only Maritime Reporter backs your advertising with the sales power of the **world's largest total marine industry circulation.**

With features covering both the deep draft and shallow draft sectors of the market . . . and the two-show extra distribution . . . this October '90 issue will be the best read in years . . . and the most productive for advertisers.

**RESERVE ADVERTISING SPACE NOW . . .
TAKE ADVANTAGE OF THE TREMENDOUS READER INTEREST**

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**DISTRIBUTION
D BIG SHOWS**

BER 31-NOVEMBER 3)

INTERNATIONAL EXPOSITION

ENGINEERS ANNUAL SYMPOSIUM & SHOW

IS

TOBER 18-20)

KPO '90

IS

HANDLING EQUIPMENT REVIEW

The S.N.A.M.E. Annual Meeting and Show, being held in San Francisco for the first time this year, (Society of Naval Architects and Marine Engineers) has always been a premier event... for decades, one of the world's most important industry meetings.

FISH EXPO '90 feature article... with extra distribution at this important Boston show... adds the shallow draft dimension to this big October issue.

Only Maritime Reporter will give your advertising **maximum** exposure in October... for **maximum sales results** for you.

BEST THIS OCTOBER SPECIAL WILL GENERATE

Advertising Closing Date for October is September 7.

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GIVES YOUR ADVERTISING
THESE POWERFUL
SALES-BUILDING
ADVANTAGES**

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- **THOUSANDS** MORE U.S. NAVY BUYERS
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- **100% REQUESTED CIRCULATION**... in writing... by each individual reader
- **100% ADDRESSED TO INDIVIDUAL PEOPLE**... by name and title
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- **UNEQUALLED PASS-ALONG READERSHIP**... 5.5 readers per copy... over 140,000 monthly readership.
- **MOST SALES LEADS FOR ADVERTISERS**—more than any other marine magazine

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THE ADVERTISING LEADER in 1989, a larger number of advertisers placed more pages of advertising in Maritime Reporter than in the No. 2 magazine.

In the first half of 1990, Maritime Reporter carried **60% more paid advertising pages** than in the No. 2 marine magazine.

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FOR ADVERTISERS**

Advertisers report MARITIME REPORTER produces more sales leads than any other marine magazine in the entire world... two times to five times more sales leads than the next nearest marine publication.

AMERICA'S SMALL- AND MEDIUM-SIZED YARDS REFERENCE GUIDE AND REVIEW

Since the focus of the Annual National Waterways Conference August issue is on the inland and coastal waterways of the U.S., MARITIME REPORTER AND ENGINEERING NEWS thought it might be interesting and informative to examine and review a selection of small and medium-sized shipyards that serve the vessels operating in these waters. The following is a quick reference guide and review of a select group of inland and coastal yards that serve the tug, towboat, shallow-draft vessel, and barge market by offering such services as new construction, repair, conversion, and maintenance.

A Reader Service Number has been assigned to each yard included in this review for the convenience of readers who would like further information from a particular company or companies.



The 183-foot, 1,000-passenger dinner/cruise boat California Hornblower, delivered by the Escatawpa, Miss., shipyard of Moss Point Marine, Inc., a member of the Trinity Marine Group. The dinner/excursion boat market is one of the thriving sectors of the resurgent U.S. shallow-draft construction industry.

ATLANTIC MARINE

Circle 81 on Reader Service Card

Atlantic Marine Corporation, Jacksonville, Fla., builds, repairs, overhauls, and converts both Navy and commercial vessels. The Jacksonville shipyard can construct vessels up to 400 feet in length, drydock vessels up to 4,000 tons and perform topside repairs on ships as long as 800 feet.

At present, Atlantic Marine is building three 200-foot casino-dinner boats for the Steam Development Corporation of Davenport, Iowa. Delivery of the vessels is expected to be in the first quarter of 1991.

Facilities: Two marine ways, one with a 4,000-long-ton capacity and one with a 1,500-long-ton capacity, 1,500 feet of wet berths with up to 35 feet in depth and complete shop facilities.

AVONDALE BOAT

Circle 134 on Reader Service Card

Avondale's Boat Division was established to meet growing demands for all types of smaller craft by the military, municipal governments and private industry. Facilities include the Westwego Yard, located on the Mississippi River near Avondale's main yard upriver from New Orleans, and yards on the Gulf Intracoastal Waterway in Harvey, La.

One of the latest deliveries from the yard is the 40-knot-plus Surface Effect Ship (SES) Metro Manhattan, a commuter boat currently operating between J.F. Kennedy Airport and Wall Street in Manhattan.

Facilities: Five drydocks—two 2,500-ton-capacity units, one 1,700-ton-capacity unit, and two 1,000-ton-capacity units; full welding equipment, machine, propeller, fabrication, electric and diesel and machine repair shops, nine overhead cranes with capacities up to 45 tons, one gantry crane with a 45-ton capacity and three locomotive cranes, with capacities up to 15 tons.

BENDER SHIPBUILDING

Circle 82 on Reader Service Card

Mobile, Alabama-based Bender Shipbuilding & Repair Co. is a full service shipyard which engages in all phases of shipbuilding, conversion and repair. Bender's entire shipyard complex provides it with more than 5,000 front feet of deep water on the Mobile River adjacent to downtown Mobile. The facilities comprise more than 54 acres including 102,000 square feet of covered warehouse space and 523,000 square feet

of welding and assembly space.

Recent activities at Bender have ranged from complex conversions to new construction in mid-size steel vessels to major overhauls and modernization projects.

Facilities: Three steel floating drydocks, with lifting capacities of 18,000 tons, 7,000 tons, and 4,000 tons. Machine shop, optical and numerical control burning shops, panel and plate shops, joiner and woodworking shops, opened and covered fabrication and subassembly areas and pipe and electrical shops.

BETHLEHEM STEEL

Circle 83 on Reader Service Card

Bethlehem Steel Corporation's Baltimore Marine Division located at Sparrows Point, Md., is a full service shipyard specializing in the repair and conversion of oceangoing vessels of all types. The yard has also designed and built various kinds of barges, offshore drilling rigs, and production platforms, as well as naval auxiliaries and commercial ships of all kinds. Vessels up to 1,200 feet in length and 200 feet abeam can be repaired, constructed or converted at BMD.

BMD's last new construction contract was for two oceanographic survey ships for the U.S. Navy. The second of these vessels is to be delivered this month. These ships are 500 feet in length by 72 feet abeam, and are powered by two 12,500-bhp medium-speed Enterprise diesels driving a single propeller.

Facilities: One 1,200- by 200-foot building basin for construction and repairs can handle vessels with drafts of as much as 26 feet. The basin can be subdivided in length to handle smaller vessels more efficiently. One 44,000-ton-capacity drydock, Bethpride, for repair and conversion. Drydock is 900 feet long and has 140 feet between wing walls. Full range of shops and equipment.

BLOUNT MARINE

Circle 84 on Reader Service Card

Warren, Rhode Island-based Blount Marine Corporation offers new construction of vessels ranging in size from 65 to 200 feet in length.

One of the latest deliveries by the Rhode Island builder is the 192-foot dinner boat Spirit of Boston for Cruise International, Inc. Blount Marine at present is constructing a 149-foot passenger/cargo vessel, the Santa Maria, and two 130-foot Ellis Island Class

passenger vessels for Circle Line/Statue of Liberty, Inc.

Facilities: One open 200-foot marine ways, one open 300-ton lift dock, one 150-foot enclosed hull shop and one 200-foot enclosed hull shop.

BOLLINGER

Circle 61 on Reader Service Card

Bollinger Machine Shop & Shipyards, Inc., with facilities at Lockport and Larose, La., performs new construction work in steel, aluminum and FRP for vessels in oilfield support and fishing industries, as well as various military craft. The firm also offers complete marine repair services.

Some of the activity at Bollinger includes: the design and construction of a liftboat to U.S. Coast Guard regulations; installation of a 40-MW electric power generator on board a barge for Wartsila Diesel; and delivery of thirty-seven 110-foot fast patrol boats for the Coast Guard.

Facilities: At Lockport—build and repair vessels up to 200 feet and barges up to 300 feet. At Larose—repair vessels to 250 feet in length and displacements of less than 3,000 tons and barges up to 300 feet long.

NC cutting machine, CADAM, electric, carpentry and machine shops, hydraulic work, propeller repair to 150 inches, gas freeing, blasting and painting services.

CAMPBELL INDUSTRIES

Circle 62 on Reader Service Card

Campbell Shipyard, Campbell Industries, San Diego, Calif., recently delivered the last of three Super Pacific Class 257-foot tuna purse seiners to Silla Trading Co. of Seoul, Korea. The San Diego firm is scheduled to deliver a similar vessel to Saupiquet Armeement of Concarneau, France, this month.

An innovator in the fishing vessel construction business, Campbell builds vessels up to 400 feet in length and has the ability to drydock vessels up to 2,800 tons.

Facilities: Three drydocks with capacities of 400, 1,100 and 2,800 tons, a marine railway with a capacity of 800 tons, 3,200 feet of pier-side berthing, a machine shop, complete steel and aluminum fabrication, plasma arc cutting, pipe shop, carpentry shop and electrical shop.

CONRAD INDUSTRIES

Circle 85 on Reader Service Card

Southern Louisiana builder Conrad Indus-

tries builds, repairs and converts all types of vessels for the inland waterway, offshore and fishing industries, as well as government craft. Additionally, the firm, headquartered in Morgan City, La., constructs floating drydocks for commercial and naval applications.

At present, Conrad has more than 20 vessels under contract. Included in the company's orderbook are four 130-foot deck barges for Great Lakes Dredge & Dock Co., Oak Brook, Ill., two 120-foot deck barges for Moody Brothers of Jacksonville, Fla., two 4,000-ft², 250-foot split hopper barges for T.L. James, Inc., six 140-foot barges for Doujon Marine Co., Inc., Hillside, N.J., and five 60-foot tank barges for Shell Oil Co. Additionally, the firm has orders for a 200-ton naval drydock and a 900-ton steel floating drydock.

Facilities: Four drydocks—two 2,400-ton-capacity units and two 900-ton-capacity units—with indoor facilities to construct barges up to 210 feet long.

EASTERN SHIPYARDS

Circle 86 on Reader Service Card

Eastern Shipyards, Inc., Panama City, Fla., is engaged in the design, construction, conversion and repair of all types of vessels. The Florida firm can build vessels up to 40,000 dwt, including tankers, utilizing advanced modular fabrication techniques. In addition, Eastern Shipyards can drydock vessels to 220 feet and 1,000 tons.

Eastern Shipyards is also developing specialized high-speed vessel programs, including Surface Effect Ships (SES) and hovercraft for the commercial and governmental/military markets.

The Florida yard recently delivered the converted 387-foot U.S.-flag fisheries processor Northern Victor.

Facilities: Drydock/railway system; large launch basins; computer cutting equipment, large crawler cranes; and auto-welding equipment.

FREEPORT SHIPBUILDING

Circle 63 on Reader Service Card

Freeport, Florida-based Freeport Shipbuilding & Marine Repair, Inc., is a full-service yard, performing new vessel construction in steel and aluminum, and conversion and repair in those materials, as well as wood and some fiberglass.

At present, Freeport is building a 110-foot custom steel trawler yacht.

Facilities: The builder can construct or perform dockside repairs and conversions on vessels up to 200 feet in length. Drydock repairs can be performed on vessels up to 300 tons.

Freeport Shipbuilding has a side launch ways for construction, a railway for repairs and complete sandblasting and fabrication facilities. At present, a new fabrication building, 150 feet by 90 feet, is under construction and expected to be completed by the fall.

GLADDING-HEARN

Circle 87 on Reader Service Card

Located on the Tauton River across from the city of Fall River in Southeastern Massachusetts, Gladding-Hearn Shipbuilding is widely known for the construction and design of pilot boats, tugs, fishing boats and all-aluminum high-speed passenger ferries.

At present, Gladding-Hearn has three catamaran passenger ferries under contract.

GULF CRAFT

Circle 64 on Reader Service Card

Specializing in new construction of various types of aluminum vessels ranging in size from 32 to 165 feet, Gulf Craft, Inc., also repairs steel and aluminum vessels up to 185 feet in length.

The Patterson, Louisiana, builder recently delivered the 160-foot M/V Billy McCall, one of the world's largest aluminum crew-boats.

Facilities: The yard has four sets of ways, cranes, machine shop, and hydraulic shop. Services at the facility include aluminum and steel welding, carpentry, electrical work, plumbing, painting, engine installation and sandblasting.

HOMEPORTR MARINE SERVICES

Circle 65 on Reader Service Card

Homeport Marine Services performs new construction, conversion, repair on various steel and aluminum vessels. The firm can build vessels as large as 300 feet in length, with maximum drafts of 16 feet and widths of 78 feet.

The firm recently delivered the 195-foot Eastern Wind, a fish tender, to Arctic Alaska Fisheries, Inc. of Seattle.

Facilities: Platens, lifting and welding equipment, launching ways, dock space, shore power, etc. Access to 2,500-ton drydock.

HOUMA FABRICATORS

Circle 66 on Reader Service Card

Recent deliveries from Houma, Louisiana-based Houma Fabricators, a division of L.O.R., Inc., include two 3,000-hp, 94-foot Voith tractor tugs and a conventional 3,000-hp kort nozzle tug. Among the current work at the yard is a contract for two 180-foot oilfield supply vessels.

Facilities: Complete shipyard fabrication and oilfield fabrication facilities. Build both steel and aluminum vessels up to 300 feet in length. Perform topside repair and conversion and oilfield-related fabrication.

JEFFBOAT

Circle 67 on Reader Service Card

One of the premier inland waterways builders in the U.S., Jeffboat, Inc., Jeffersonville, Ind., has the capability to construct barges up to 600 feet in length and tow-boats up to 10,000 hp, as well as perform marine repair on these type vessels.

Some of the most noteworthy work at the yard includes the delivery of fifteen 10,000-barrel chemical barges and five 30,000-barrel tank barges in 1989. At present, the yard has 100 hopper barges on its orderbook.

Facilities: Four building ways and four drydocks with capacities as high as 3,000 tons on a 90-acre facility.

KOCH-ELLIS BARGE & SHIP

Circle 88 on Reader Service Card

Koch-Ellis Barge and Ship Service, located at mile 104 of the Mississippi River near New Orleans, offers two cleaning and gas freeing plants with a powerful new vacuum pump system.

Facilities: Machine shop, gas freeing, product steaming and above waterline repair services.

LEEVC SHIPYARDS

Circle 68 on Reader Service Card

Jennings, Louisiana-based Leevac Ship-

yards, Inc., recently received an order for the construction of a 200-by-40-by-15-foot offshore supply boat from a U.S. Gulf firm. This order along with another order received by the Trinity Marine Group represents an important breakthrough in the U.S. supply boat construction market. Leevac expects to deliver the boat in December.

In addition, the Louisiana builder also expects to deliver a 150-foot excursion vessel this month.

Facilities: One 400-foot side-launching ways, one 1,500-ton, 200-by-64-foot drydock, a rail system off the drydock for barges and certain boats, and a 40,000-square-foot fab-

rication building. Services include CAD-CAM, computer-aided plasma arc welding, welding, pipe fitting, electrical work, sandblasting, painting and engineering. Can construct offshore and inland vessels up to 400 feet in length, 100 feet in width, and light drafts of 11 feet.

LOUISIANA DOCK

Circle 69 on Reader Service Card

Louisiana Dock Company, Inc., with facilities at St. Louis, Mo., and Harahan, La., performs all types of marine repair on virtually any size barge or boats up to 10,000 hp.

Facilities: The company has at its dispos-

al five drydocks (maximum capacity of 3,000 tons) and one marine railway.

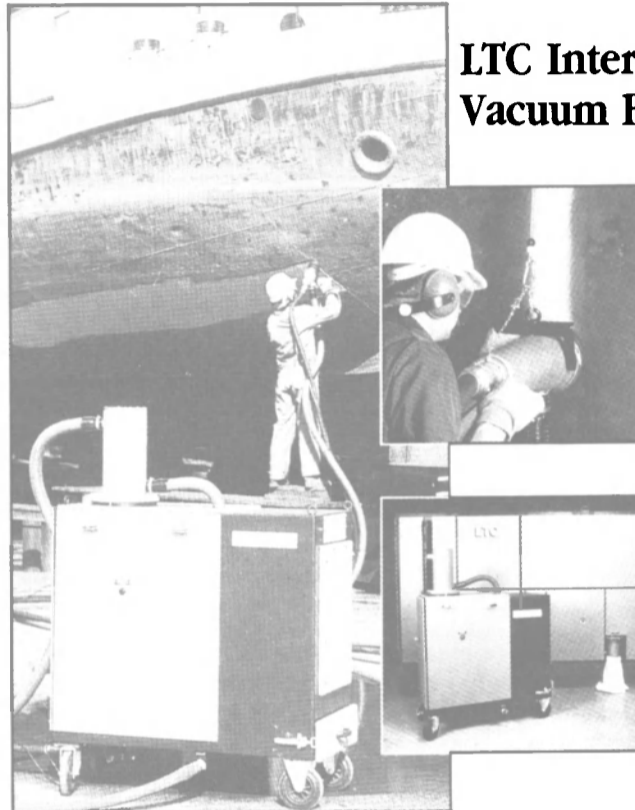
MARCO-SEATTLE

Circle 70 on Reader Service Card

MARCO-Seattle of Seattle, Wash., can build and repair vessels of wood, steel and aluminum up to 250 feet in length. Additionally, the firm also can drydock vessels up to 1,800 tons and offers off-site services for larger vessels.

At present, the MARCO is lengthening the

(continued)



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Circle 219 on Reader Service Card

Yards

(continued)

fishing vessel Golden Dawn and plans to shortly commence a similar project on the F/V Pelagos. The shipyard recently completed the 24-foot lengthening and RSW conversion of the North Pacific trawler Commodore.

Facilities: One 70-ton lift dock, one 500- and one 1,800-ton floating drydock, steel, aluminum, electrical, piping, machine, paint and carpentry/cabinetry shops, CAD/CAM support in both naval architecture and marine engineering.

MARINETTE MARINE

Circle 90 on Reader Service Card

Privately owned Great Lakes builder Marinette Marine Corporation, located at Marinette, Wis., has built over 1,300 vessels, ranging in size from 36-foot fish tugs to 300-foot research vessels, since its founding 48 years ago.

One of the most recent contracts received by the yard calls for the construction of a 120-foot Aids-To-Navigation (ATON) barge for the U.S. Coast Guard. The contract, which contains an option for a second unit, calls for a spring 1991 delivery.

Other work undertaken at the yard includes the construction of twenty 120-foot Torpedo Weapons Retrievers, twenty 108-foot Yard Patrol craft, and three 224-foot Mine Countermeasure vessels, all for the Navy.

Facilities: The 57-acre yard has 440,000 ft² of enclosed workspace, Ship Erection Building, large fabrication shops and erection areas, a 200-ton shiplift, three launchways, overhead bridge cranes with 10- to 50-ton capacities, multiple crawler cranes, 1,760-ton-capacity Dual Walking Beam ship transfer system, and design and engineering services.

MASTER MARINE

Circle 71 on Reader Service Card

At present, Master Marine, Inc., Bayou La Batre, Ala., is converting a 150-foot oil supply vessel into an Alaskan processor. Over the past year, other noteworthy work has included the drydocking, repair and maintenance of six U.S. Coast Guard 110-foot Island Class patrol boats and the conversion of a 110-foot crabber hull into a live-aboard dive/cruise vessel to Truk Islands in Micronesia.

Facilities: Specializing in the new construction of fishing vessels, tugs and barges,

and the repair and conversion of all types of vessels up to 200 feet, Master Marine's main yard has two construction ways, one open and one closed, 1,000 feet of wet dock space, a fabrication building, carpentry department, paint department, pipe shop, three platens and overhead cranes.

MCDERMOTT SHIPYARD

Circle 91 on Reader Service Card

At present, McDermott Shipyard, headquartered in New Orleans, La., is constructing the USNS Victorious (T-AGOS-19), a 232-foot Small Waterplane Area Twin Hull (SWATH) ocean surveillance ship. The vessel was recently launched at the firm's Amelia yard.

Facilities: At Gulfport, Miss.—One 1,600-ton-capacity drydock. New construction and repair. At Amelia, La.—Three drydocks, one 5,000 ton capacity and two 1,600 ton capacity. Fabrication, machine and propeller shops. New construction and repair.

MUNSON MANUFACTURING

Circle 72 on Reader Service Card

One of the leading builders of small aluminum workboats in the U.S., Munson Manufacturing Edmonds, Wash., recently delivered a 63-foot extreme weather pilot boat for Valdez, Alaska, and a 65-foot, 150-passenger, 26-knot excursion boat.

Facilities: The Washington yard has more than 15,000 square feet of enclosed space to construct top quality aluminum workboats, with the ability to build vessels ranging in size from 21 to 72 feet in two-foot increments.

NABRICO

Circle 92 on Reader Service Card

The Nashville Bridge Company (NABRICO), with yards at Nashville and Ashland City, Tenn., offers new construction of liquid cargo barges for oceangoing and river service, dry cargo barges with or without covers, and all types of deck barges, as well as a complete line of deck hardware and hatches. NABRICO, a subsidiary of American Ship Building, is capable of constructing barges up to 360 feet in length by 75 feet in width. The Tennessee firm also offers underwater repair on a marine railway on vessels up to 210- by 38-feet and 1,500 tons. Topside repair is offered on two wet docks at Nashville and one at Ashland City, with 45-ton overhead crane service.

Several noteworthy projects have been undertaken by NABRICO as of late including the construction of a 125-ton-lift-capacity

floating crane of the Huntington District Corps of Engineers, three 7,500-ton-capacity, 350-foot coal barges for a Maryland utility company, five 30,000-barrel tank barges for a Texas company, and a 45-ton steam-powered floating crane for the City of New York Department of Ports & Terminals.

Facilities: At Nashville—A 320-foot, 1,200-ton sidelaunch ways, a 210-foot, 1,500-ton marine ways, two wet docks with 45-ton overhead crane service, electrical, water and other shipyard amenities and services. Utilize modular fabrication. At Ashland City—A 360-foot sidelaunch ways, one wet dock with 27-ton whirley crane service, and shot blast facility. Modular fabrication and barge/vessel construction under cover, with 50-ton overhead crane service of 125-foot span. All normal amenities.

NEW YORK SHIPYARD

Circle 73 on Reader Service Card

At present, New York Shipyard Corporation, Brooklyn, N.Y., is completing extensive repairs to the 700-foot containership S/S Guayama, as well as the 130,000-barrel tank barge Cibro Savannah. Additionally, the yard is drydocking the S/S Bermuda Star, which recently sustained bottom damage when she ran aground.

Facilities: Three drydocks—a 40,000-ton-capacity, 720-foot graving dock and one 16,000-ton-capacity, 600-foot floating dock, and one 7,500-ton-capacity, 370-foot floating dock—five piers with up to 1,200 feet in length, a 70,000-ft² industrial machine shop, steel plate, pipe, electrical, sandblasting and coating shops.

NICHOLS BROS. BOAT BUILDERS

Circle 74 on Reader Service Card

Located in Freeport, Whidbey Island, Wash., Nichols Bros. Boat Builders offers new construction, conversion, repair and maintenance services for steel and aluminum vessels, with maximum lengths of 350 feet.

At present, the yard is involved in the construction of a 115-foot wave-piercing catamaran and a 186-foot catcher/processor North Pacific scalloper.

Facilities: Four covered fabrication buildings, machine shop, electrical shop, pipe shop, carpenter shop, warehousing, engineering, and pier space.

NORTH FLORIDA SHIPYARDS

Circle 135 on Reader Service Card

The Jacksonville, Florida, shipyard of North Florida Shipyards specializes in the

repair, conversion, rebuilding and drydocking of vessels as large as 450 feet long. North Florida can also perform topside repairs on any size vessel.

At present, North Florida's commercial yard is finishing the major reconstruction of the M/V Seabulk, a U.S.-flag chemical/product tanker.

The Florida yard's Mayport Division, dedicated to Naval work, has been busy with a number of repair, overhaul and maintenance contracts for U.S. Navy destroyers, cruisers, frigates and aircraft carriers.

Facilities: One drydock with 6,500-ton lifting capacity, 5,000 feet of quayside, machine, pipe and steel fabrication shops, brit blasting, painting and coating, tank cleaning and engine repairs.

PATTI SHIPYARD

Circle 75 on Reader Service Card

Patti Shipyard, Pensacola, Fla., is currently constructing a 2,500-passenger gambling excursion boat, the Dubuque Casino Belle, for Robert River Rides of Iowa.

Facilities: Capable of constructing all types of steel passenger, fishing and work vessels, Patti has a fully paved yard with fabrication and sandblasting buildings, warehouses and 400 feet of dockside space with utilities.

PETERSON BUILDERS

Circle 93 on Reader Service Card

Peterson Builders, Inc. (PBI), Sturgeon Bay, Wis., has received a contract option to construct three more 224-foot wooden hull Mine Countermeasure ships (MCMs). This option, valued at \$180,500,000, is a continuation of the Avenger class MCMs for which PBI is the lead shipbuilder. Delivery of the three newly awarded MCMs will be late 1993. This new option will bring the company up to maximum employment of almost 1,000 employees by the middle of next year. The award of these vessels gives PBI a solid backlog of work which includes five other MCMs in various stages of construction.

ROBERT E. DERECKTOR

Circle 76 on Reader Service Card

Robert E. Derecktor of Rhode Island Inc., Middletown, R.I., can construct or perform repairs on military, commercial and pleasure boats up to 600 feet in length and 20,000 tons (light ship).

The Rhode Island builder recently delivered its ninth Medium Endurance Cutter to



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Circle 290 on Reader Service Card

the Coast Guard and completed the dry-docking and overhaul of the frigate USS Jack Williams. In the pleasure boat market, Derektor delivered a 74-foot high-speed sport yacht.

Facilities: Three drydocks, with lengths of 200 feet, 400 feet and 600 feet, 1,500-foot pier, 300-ton crawler crane and 200,000-ft² covered shops.

SEAARK MARINE

Circle 77 on Reader Service Card

SeaArk Marine has over 30 years' experience building all-aluminum, special purpose workboats for use in both domestic and international markets. The company manufactures craft ranging in length from 17 to 60 feet for military use, as well as patrol and rescue, survey, navigation, fire control, transportation and offshore industry use.

One of the Monticello, Arkansas-based firm's latest contracts, worth about \$4 million, is for the construction of 21 workboats for a British company.

Facilities: A 200,000-ft² all-welded aluminum workboat manufacturing facility, fork trucks, cranes, and overhead gantries.

SERODINO

Circle 78 on Reader Service Card

Serodino, Inc., of Chattanooga, Tenn., builds and repairs all types of excursion vessels, whariboats, towboats, and specialty marine equipment.

Some of the most noteworthy projects completed by Serodino include the construction of what is believed to be the world's largest floating fountain at 410 feet, a landing whariboat that is 100 feet wide by 300 feet long, and a 270-foot steamboat replica.

Facilities: Marine ways and floating drydock.

SERVICE MARINE

Circle 94 on Reader Service Card

Service Marine Industries, Inc., Morgan City, La., designs and constructs oilfield supply boats, tugs, barges, dinner/excursion boats and casino vessels, as well as repairing and converting all types of boats and barges. Service Marine has the ability to construct vessels as long as 250 feet with a maximum draft of 18 feet.

The Louisiana builder recently received a contract to construct an 800-passenger, 175-foot megayacht-style dinner/excursion boat for a Chicago firm. The firm's most recent delivery is the 175-foot, 800-passenger Spirit of Puget Sound for Cruise International.

Facilities: The 32-acre yard has three drydocks, one of 1,500 ton capacity, one of 1,000 ton capacity and one of 600 ton capacity; two high-bay assembly buildings; large enclosed warehouse; machine and propeller shops, sand blasting and gas-freeing services. New construction, conversion and repair work.

SKIPPERLINER

Circle 79 on Reader Service Card

Skipperliner Shipyards, Inc., La Crosse, Wis., designs and constructs U.S. Coast Guard-certified vessels, workboats and custom pleasure yachts with lengths up to 110 feet and beams of 32 feet.

The Wisconsin firm recently launched a 150-passenger "nostalgic" sidewheeler for operation out of Bismarck, N.D., on the Missouri River.

Facilities: One 75-ton and one 35-ton travel lift and a 275- by 50-foot drydock.

ST. LOUIS SHIP

Circle 95 on Reader Service Card

Caruthersville Shipyard/St. Louis Ship, St. Louis, Mo., constructs all types of barges up to 320 feet in length and performs minor topside repairs on barges which do not require drydocking.

St. Louis Ship is in the process of building twelve 11,000-barrel, 200-foot double-skin tank barges. The St. Louis firm recently completed four 260-foot tank barge hulls. The hulls will be fitted with cylindrical pressure tanks by another company.

Facilities: Six acres of covered fabrication and production line area including a steel uncoiler (for widths up to 74 inches), wheelabrator and preconstruction priming booth, plasma arc steel burning and panel welders.

SWIFTSHIPS

Circle 136 on Reader Service Card

Swiftships, Inc., with facilities at Morgan City, La., and Freeport, Texas, was estab-

Circle 343 on Reader Service Card ➤

lished in 1969 to design and construct aluminum and steel vessels between 40 and 200 feet for the military, commercial and private sectors. The firm also has the capability to repair vessels up to 250 feet in length.

At present, Swiftships is building four motoryachts—from 85 feet to 155 feet in length—as well as constructing 10 LCM-8s (landing craft, mechanized) for the U.S. Navy and an 80-foot steel support vessel and transporter for use by the U.S. Air Force in Greenland.

Facilities: At Morgan City (Site 1): Located near the intersection of the Atchafalaya River and the Intracoastal Waterway, with 1,000 feet of waterfront space. About 35

percent of the 15-acre facility is under cover. Specializes in the construction of aluminum military craft, oilfield vessels, specialty boats and custom motoryachts. At Morgan

City (Site 2): Three miles from Site 1, has 185 feet of waterfront along the Intracoastal Waterway with an additional 102 feet of out-fitting/slip space with water depths of 12 feet. The 10-acre plant, 25,000 square feet of which is under cover, has a covered 210- by 70- by 45-foot manufacturing bay. Specializes in fiberglass construction and custom yacht outfitting. At Freeport: Two drydocks, one 2,500-ton unit and 3,500-ton unit, which will accommodate vessels with widths up to 85 feet; and one 165-ton Travel lift. This facility, which specializes in marine repair,

has 1,00 feet of frontage on the Intracoastal Ship Channel and 1,200 feet of frontage on the Union Oil Canal.

TEXTRON MARINE SYSTEMS

Circle 80 on Reader Service Card

Textron Marine Systems (TMS), New Orleans, La., engineers, designs, constructs and tests specialty military and commercial craft, including Landing Craft, Air Cushion (LCAC), Coast Guard motor lifeboat (MLB) and Patrol Boats (WSES), Navy SES-200 and commercial air cushion vehicles.

TMS recently delivered 15 U.S. Navy

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Yards

(continued)

LCACs and is currently designing and constructing a new Coast Guard 47-foot MLB prototype. Additionally, the New Orleans firm is overhauling and modernizing the Navy SES-200 and beginning work on two new New York City SES fireboats.

Facilities: The firm can construct or repair aluminum or glass-reinforced plastic vessels up to 300 feet in length. TMS has completely covered, climate-controlled construction facilities certified for GRP and aluminum. Outfitting bays and dock space access to Intracoastal Waterway.

TRINITY MARINE GROUP

The Trinity Marine Group of Trinity Industries now encompasses 10 shipyards—Aluminum Boats, Crown Point, La.; Equitable Shipyards (yards in New Orleans and Madisonville, La.); Gretna Machine & Iron Works, Harvey, La.; Halter Marine (yards in Lockport, La. and Moss Point, Miss.); HBC Barge, Brownsville, Pa.; Moss Point Marine, Escatawpa, Miss.; Moss Point South, Moss Point, Miss.; and Trinity-Beaumont, Beaumont, Texas. The following is a brief overview of each yard.

ALUMINUM BOATS

Circle 96 on Reader Service Card

Located in Crown Point, La., on the Intracoastal Waterway and Vendome Canal, Aluminum Boats, Inc., was established in 1983 for the purpose of constructing, repairing and converting aluminum boats. The yard was acquired by Trinity Industries, Inc., in October 1988.

Aluminum Boats is expected to deliver the 140-foot, 350-passenger dinner yacht Anita Dee II shortly to Tee Dee Enterprises, Inc. Because of an eight-month construction schedule called for in the contract, the boat's hull and superstructure were fabricated at Equitable Shipyards in New Orleans.

Facilities: New construction, conversion and repair of all types of aluminum vessels.

EQUITABLE SHIPYARDS

Circle 97 on Reader Service Card

One of the 10 shipyards in the Trinity Marine Group, Equitable Shipyards, Inc., has long been associated with the construction of barges and workboats.

Equitable Shipyards, Inc., Madisonville, La., has been awarded a \$6.5-million contract to build thirty-seven 175-foot coal-carrying hopper barges for the Indiana Michigan Power Co. (I&M), Ft. Wayne, Ind.

Facilities: At New Orleans—Two 80- by 60-foot drydocks. New construction and repairs. At Madisonville—All types of new construction, specializing in river hopper barges.

GRETNA MACHINE

Circle 98 on Reader Service Card

Established in 1935 and acquired by Trinity Industries, Inc., in 1981, Gretna Machine & Iron Works, Inc., is located in Harvey, La., on the Harvey Canal.

Facilities: One 700-foot graving dock, two 310-foot graving docks; repairing, cleaning, gas freeing, flaring and purging facilities. Performs new barge construction and repairs.

HALTER MARINE

Circle 99 on Reader Service Card

Halter Marine, Inc., operates two shipyards, one in Lockport, La., on the Bayou Lafourche and one in Moss Point, Miss., on the Escatawpa River. Both yards perform new vessel construction and repairs.

At present, Halter Marine, Inc. is converting the Marsea 14, an offshore supply vessel owned by the EPA, into a research vessel. The work is being performed under a \$4.2-million Maritime Administration contract.

In addition, the Trinity Marine Group recently received a \$15-million contract for the construction of three 220-foot supply boats for U.S. Gulf interests. The offshore supply boat construction contract, which is one of the first awarded to a U.S. yard in a number of years, was assigned to the Halter-Lockport yard.

Facilities: At Lockport—Has 150-ton-capacity floating crane, sandblasting and painting, and machine shop. At Moss Point—Machine shop.

HBC BARGE

Circle 1 on Reader Service Card

Located in Brownsville, Pa., HBC Barge, Inc., was established in 1938 and became a member of the Trinity Marine Group in 1989.

Facilities: Marine ways include nine double cradle 200-ton-capacity units, dry barge cleaning services and complete barge building and repair facilities. Hopper and tank barge construction and tug and pushboat construction. Has 300-foot marine railway for vessel repairs.

MOSS POINT MARINE

Circle 2 on Reader Service Card

Located in Escatawpa, Miss., on the East Pascagoula River, Moss Point Marine, Inc., was established in 1981 and acquired by Trinity Industries, Inc., in 1987.

Moss Point Marine recently completed the delivery of two 106-foot docking tugs to the Jordan Ports Corporation of the Hashemite Kingdom of Jordan. The tugs were part of a five-vessel construction contract undertaken by the Trinity Marine Group.

Facilities: One 160- by 60-foot, 2,000-ton-capacity drydock. New construction, conversion and repair services.

MOSS POINT SOUTH

Circle 3 on Reader Service Card

Located about five miles from Moss Point Marine, Inc., Moss Point South serves as an adjunct to Moss Point Marine.

TRINITY-BEAUMONT

Circle 4 on Reader Service Card

Located on the former site of Bethlehem-Beaumont Shipyard in Beaumont, Texas, Trinity-Beaumont is the newest member of Trinity Marine Group. Acquired from Bethlehem Steel in 1989, the yard was used to

build and repair commercial and military vessels, mobile offshore platforms, and for the fabrication of industrial products.

Facilities: Over one-half million square feet of production and storage space, advanced shipbuilding equipment, 4,600 feet of piers, wharves, and bulkheads, 1,400 lineal feet of launching ways, and 500-ton-lift capacity. Capability of constructing vessels up to 960 feet. Deep water and unrestricted access to the Gulf of Mexico.

WESTPORT SHIPYARD

Circle 5 on Reader Service Card

Westport Shipyard, Inc., of Westport, Wash., constructs passenger vessels ranging in size from 70 to 105 feet and motor yachts from 80 to 130 feet.

Some of the latest activity at the Washington State yard includes the delivery of two high-speed, 149-passenger, 95-foot ferries.

Facilities: 60,000-ft² building facility, 225- by 65-foot main finish bay, and launching facilities up to 130 feet. Primarily perform FRP construction with capability to work in aluminum and wood.

ZIDELL MARINE

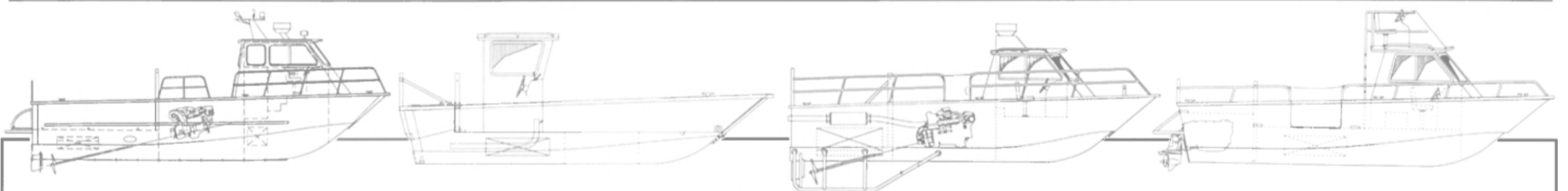
Circle 6 on Reader Service Card

Zidell Marine Corporation, Portland, Ore., has the facilities to build, convert or repair a wide range of oceangoing and inland barges as long as 300 feet and as wide as 76 feet. Zidell has built over 300 barges, including such types as chemical, petroleum, self-unloading grain, deck cargo, and chip barges, as well as dump scows.

The yard was recently reactivated for the construction of a 273- by 42-foot self-unloading grain barge. A second barge is slated for construction next month.

In addition to the construction and repair of barges, Zidell, Inc., an affiliate of Zidell Marine Corporation, has a full range of leasing and charter-hire arrangements available to customers.

Facilities: Two 35-ton Clyde Whirley cranes, one 75-ton gantry crane servicing erection area. Three bridge cranes are in the undercover 600- by 70-foot fabrication and NC burning shop.



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Newpark Shipbuilding Names Joseph O'Toole As Repair Manager



Joseph P. O'Toole

Newpark Shipbuilding & Repair, Inc. of Houston, Texas, has named **Joseph P. O'Toole** as repair manager, according to **James H. Sessions**, president.

Mr. O'Toole brings 38 years of experience in all phases of new construction and repair to Newpark. He was formerly employed by General Dynamics, Equitable Equipment, Marathon LeTourneau and Bethlehem Steel.

Newpark, a major Gulf Coast shipyard, is equipped for inland towboat and tank barge new construction and repair; offshore boat and barge new construction, conversion and repair; geophysical vessel new construction, conversions and repair; and small merchant ship repairs.

For free information giving full details on the facilities and capabilities of Newpark Shipbuilding & Repair,

Circle 31 on Reader Service Card

NKK To Build Two 300,000-DWT VLCCs For Norwegian Owner

Nippon Kokan K.K. (NKK) of Japan recently signed a contract with Norwegian shipowner Bergen D.Y. A/S of Oslo for the construction of two 300,000-dwt Very Large Crude Carriers (VLCC).

The two crude carriers will be built at the Tsu shipyard and delivered in March and October 1993. The vessels will be designed to have the option of incorporating double bottoms or double hulls. Additionally, each will be equipped with NKK's new off-center propeller shaft (NOPS), which reportedly improves propeller efficiency by about 4 percent.

Sulzer RTA Engines To Power Four Gotaas-Larsen Tankers

The four 300,000-dwt tankers recently ordered by Gotaas-Larsen Shipping Corp. from Daewoo Shipbuilding & Heavy Machinery Ltd. in South Korea will be powered by Sulzer 7RTA84M low-speed diesel engines, Sulzer announced.

Sulzer said the order "marks a breakthrough into the Korean VLCC market" for the RTA84M engines.

The RTA84M is the longest

stroke model in the Sulzer RTA series of low-speed marine diesel engines, and is designed for very large tankers, bulkers, and combination carriers which can accommodate large propeller diameters.

For more information on Sulzer, Circle 163 on Reader Service Card

Northwest Marine Wins Major Repair Contract From Sea-Land Services

Northwest Marine Inc., Portland, Ore., a division of Southwest Marine, Inc., has been awarded a con-

tract by Sea-Land Services, Inc. to carry out major overhaul work on their container vessel Sea-Land Hawaii.

The contract calls for routine dry-docking, renewing steel, and major modifications to the engineering plant.

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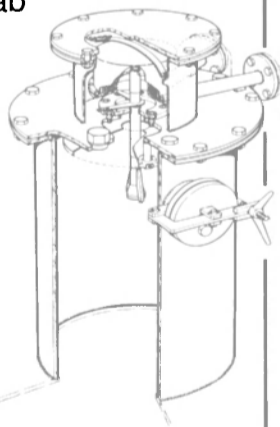
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Circle 212 on Reader Service Card

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Circle 247 on Reader Service Card

Marine Gears Delivers Haley Units For Three Vessels At Main Iron

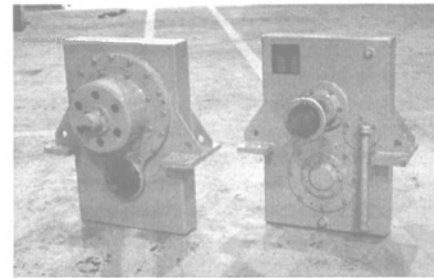
Marine Gears, Inc., Greenville, Miss., recently delivered six new main propulsion Haley gear units and six Haley auxiliary drive units to Main Iron Works, Houma, La. These gears were installed in three new vessels operated by G & H

Towing of Galveston, Texas. The three vessels and their owners are: M/V Deacon, Suderman & Young; M/V Jupiter, ITT; and M/V Andrew K., Bay-Houston Towing.

The three vessels each received two Haley RV2835 marine reverse reduction gears of the flywheel-mount clutch series. These gears, equipped with Haley 35TB650 clutches, are matched with 16-cylinder EMD engines and rated 1,950

hp at 900 rpm with a ratio of 4.5:1.

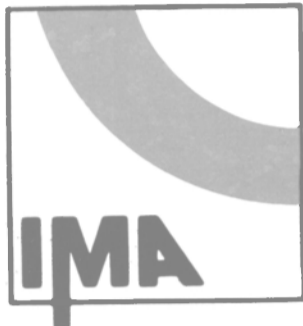
Each vessel also received two Haley Auxiliary Drive Units (HADU 12) used as speed increasers with 1,200 rpm input and 1,800 rpm output. The purpose of these auxiliary units is to drive hydraulic pumps which power the towing winch and capstan. These auxiliary units are powered by mounting them to the front end of the crankshaft of the 6-71 Detroit Diesel generator pack-



Haley auxiliary drive units.

age. The HADU 12 units are designed with an air pneumatic disc plate clutch allowing for remote operation from pilothouse or aft deck.

For more information and free literature from Marine Gears, Circle 23 on Reader Service Card



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* * * * *

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Large Commercial Ships

- cruise ships
- coastal container and ro/ro ships
- coastal crude carriers
- coastal product tankers
- chemical and specialty tankers
- Great Lakes self-unloaders
- bulk carriers and seagoing barges

Major Government Ships

- combatants
- support ships
- sealift ships
- research ships
- icebreakers
- foreign ship sales

Small Ships and Boats

- ferries
- dinner and excursion boats
- coastal and river cruise vessels
- municipal craft
- harbor and coastal tugboats
- small naval craft
- Coast Guard cutters and tenders
- Army watercraft
- FMS patrol boats

Offshore Equipment

- offshore rigs and drill ships
- production platforms
- support vessels

Fishing Boats

- processing ships
- catcher/processors
- catcher boats

Recreational Boats

- megayachts

Inland Waterway Equipment

- pushboats
- river barges

Dredges

- hopper dredges
- dustpan dredges
- bucket wheel and clamshell dredges

Other Fabrications

- prison barges
- floating production platforms
- dam caissons
- sunken tube tunnel sections

EACH SEGMENT IS ANALYZED IN DETAIL

Size and Shape of Current Business Base

- current operating inventory and orderbook
- age and condition of current fleet

Assessment of Underlying Market Drivers

- trends and direction of underlying industry demand
- regulatory and policy developments impacting future building requirements

Forecast of Construction Requirements

- five year forecast of orders
- projected value of orders
- sensitivity of forecast to changes in underlying demand

Assessment of Key Players

- likely future customers
- likely bidders for future work

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Circle 262 on Reader Service Card

Versatile Pacific Wins Soviet Fishing Fleet Repair Contract

Versatile Pacific Shipyards Inc. recently signed an agreement with Sovrybflot, an umbrella organization representing Russian fishing companies, to dock and repair Soviet factory trawler vessels operating off the British Columbia coast.

The contract covers two Soviet companies, Kamchatka Base Ocean Fishing Co. and Zapriga Baltic Fishing Co., that together sail more than 30 vessels in the Pacific from the Vladivostok and Baltic Sea areas.

Versatile Pacific Shipyards, British Columbia, Canada, which operates yards in North Vancouver and Victoria, said it expects to dock up to four vessels this fall when the main fishing season ends. Several more vessels will follow during the next 12 months, the company said.

Southwest Marine Awarded \$1.5-Million MarAd Repair Job

The Maritime Administration recently awarded a \$1,528,681 contract to Southwest Marine Inc., San Francisco division, San Francisco, Calif., for repairs to the Ready Reserve Force cargo vessel Cape Bover.

The work includes topside painting, drydocking, machinery refurbishing, and miscellaneous repairs.

Wireless Data Separates From Acurex/Autodata

The Wireless Data Coupler product line, formerly manufactured by the Autodata division of Acurex was sold and the division incorporated as Wireless Data Corporation in April 1990.

Wireless Data is now a new subsidiary of Microdyne Corporation of Ocala, Fla., It plans no immediate changes of staff and will remain in Mountain View, Calif.

The company offers products to the pulp and paper, marine, auto, and turbo-machinery test industries.

For more information on Wireless Data Coupler products, Circle 158 on Reader Service Card

Hitachi Zosen Wins Two VLCC Orders

Japanese shipbuilder Hitachi Zosen recently received orders for two 280,000 metric-ton VLCCs from Hong Kong and Greece.

The two vessels will be built at Hitachi Zosen's Ariake Works with delivery scheduled for the 1992 fiscal year.

Plans call for each pair to be 1,033-feet long with a molded beam of 187 feet and a molded depth of 101 feet, and powered by Hitachi Zosen-MAN B&W 80MC type diesels.

When completed, Hong Kong Ming Wah Shipping Co. Ltd. will operate the tanker owned by New Dynasty Shipping Inc., Hong Kong, and Lykiardopulo & Co. Ltd. will operate the other for Greek owner Arosa Maritime Inc.

AESA Launches 344-Foot Tuna Seiner

The Barreras Shipyard of Astilleros Espanoles, S.A. (AESA) at Vigos, Spain, recently launched the 344-foot Albacora, reportedly one of the largest tuna purse seiners in the world.

Expected to be delivered in December to owners Albacora of Spain, the Albacora has a length between perpendiculars of 298-1/2 feet, breadth of 55 feet, draft of 24 feet and gross registered tonnage of 2,640. With a wet fish capacity of 3,000 m³ and frozen fish capacity of about 2,350 m³, she is fitted with Krupp MaK main propulsion machinery, producing 7,000 bhp at 400 rpm, driving a fixed-pitch propeller via Renk gearing.

As for deck and fishing equipment, the main and auxiliary winches, net hauler and power block were all supplied by Marco.

For further information on the building services of AESA,

Circle 130 on Reader Service Card

Wyle Laboratories Names Holland Senior Vice President

Stanley A. Wainer, chairman of the board of Wyle Laboratories, announced recently the promotion of R. Van Ness Holland to senior vice president of the company that sells electronic components and computer systems, and offers research, engineering and testing services for the aerospace, defense and energy industries.

Mr. Holland will continue as corporate controller, responsible for accounting and financial affairs as well as corporate communications. He will report directly to Theodore M. Freedman, executive vice president-finance and treasurer of the El Segundo, Calif., company.

Joining Wyle in 1979 as director of financial controls, Mr. Holland became assistant corporate controller in 1980, corporate controller five years later, and vice president in 1985. He earlier had been a certified public accountant with Arthur Andersen & Co.

COMSAT Acquires Interest In MMS

Communications Satellite Corporation (COMSAT) recently announced that it has acquired, through its subsidiary COMSAT Investments Inc., a minority interest in Marine Management Systems (MMS) of Stamford, Conn., with the option to increase its holdings in

the future.

Marine Management Systems is an international leader in supplying integrated shipboard and shoreside management services often using satellite communications. The company provides computer software, hardware and related services and specializes in such applications as shipboard maintenance management, vessel performance reporting, and shipboard administration.

COMSAT officials said that the COMSAT/MMS affiliation will be particularly beneficial to maritime users in meeting their growing needs for shipboard and shoreside management systems. These users will be able to utilize MMS's application software and related products as part of the communications services available over the INMARSAT system through COMSAT's coast earth stations.

No ship is too small...

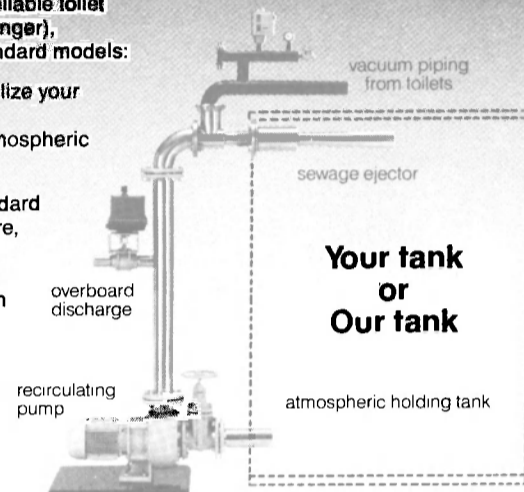
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Circle 223 on Reader Service Card



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Circle 232 on Reader Service Card

PROPULSION UPDATE

ZF Announces Improvements In Four Marine Transmissions

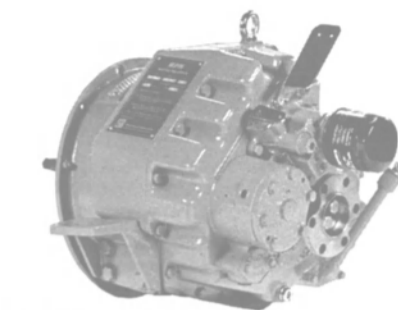
ZF of North America has announced reliability and horsepower capacity improvements in four of its marine transmission models.

The input torsional couplings on the transmissions are now attached to the input shaft by means of an SKF® keyless taper. This design modification improves the reliability

and increases the horsepower capacity of the transmissions.

The improvements have been made to the IRM 301 PL-2, IRM 301 A-2, IRM 320 PL-1 and IRM 320 A-1 transmissions.

All four transmissions are designed for high-performance, planing hull vessels in private use, such



The IRM 301 A2 marine transmission from ZF of North America is rated for engines up to 490 bhp.

as sport fishing boats, express cruisers and other high-horsepower-to-weight applications. All are rated for continuous, medium, light and

pleasure craft duty cycles for diesel engines.

The IRM 301-A-2 is rated for engines up to 490 bhp; the IRM 301 PL-2 for engines up to 543 bhp; the IRM 320 PL-1 for engines up to 707 bhp; and the IRM 320 A-1 for engines up to 704 bhp.

ZF, headquartered in Friedrichshafen, West Germany, is a leading manufacturer of major power train components—gears, transmissions, pumps, axles and other drive systems.

ZF of North America is headquartered in Lincolnshire, Ill.

For more information and free literature

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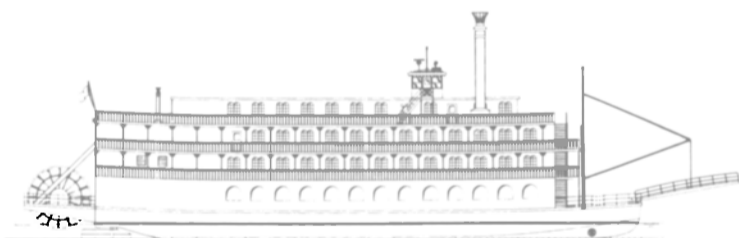
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Henley, O'Leary To Manage ACL Marine Operations

Atlantic Container Line officials recently announced the transfer of **Peter J. Henley** from Southampton, England, to company headquarters in South Plainfield, N. J.,

where he will continue as operations vice president. The company also announced the appointment of **Kathleen O'Leary** as general manager, marine operations, reporting to Mr. Henley.

In his position as operations vice president, Mr. Henley is responsible for all facets of marine operations, both vessels and terminals.

He has been with ACL since 1972, working in various positions in the operations area.

As the new general manager of marine operations, Ms. O'Leary is responsible for all operating aspects of ACL vessels, including vessel scheduling, monitoring vessel utilization, and directing the activities of ACL tonnage centers.

Avondale Awards Design Engineering Subcontract To JJH

JJH Inc., Cherry Hill, N.J., has been awarded an engineering subcontract by Avondale Shipyards, Inc., New Orleans, La., for assistance in developing the detail design of the T-AGS 45 oceanographic survey ship. The 456-foot-long vessel will conduct environmental and bathymetric surveys and experimental operations in support of the Undersea and Warfare Office of the Space and Naval Warfare Systems Command. The vessel is intended to replace an existing U.S. naval vessel currently in operation.

JJH will have the responsibility of providing engineering design, analysis and detail construction drawings per Avondale's methodology for mechanical, electrical, piping, HVAC and outfitting systems. T-AGS 45 will be built by Avondale to commercial ABS and Coast Guard standards and operated by the Military Sealift Command.

For more information and free literature from JJH,

Circle 37 on Reader Service Card

Hanna Company Promotes Henry And Lindsey

The M. A. Hanna Company, Cleveland, Ohio, announced recently that **Garth W. Henry**, vice president and comptroller, has been appointed to the newly created position of vice president of marine services and special projects while assistant comptroller **Thomas E. Lindsey** has been promoted to comptroller.

In his new position, Mr. Henry will report to **Martin D. Walker**, chairman and chief executive officer, and will oversee a variety of special operating and administrative projects, as well as Hanna's marine services division.

As comptroller, Mr. Lindsey will report to **Ronald G. Fountain**, vice president, finance and chief financial officer.

Kim Hotstart Mfg. Offers New 28-Page Catalog Outlining Industrial Heaters

Spokane, Wash.-based Kim Hotstart Manufacturing Co.'s expanded line of industrial coolant heaters and oil heaters is featured in a new 28-page catalog. The units are available for off-road construction, mining, marine, locomotives and standby power engines.

New products include a watertight THA model tank heater designed for wet or damp locations, and an improved VH series of engine coolant heaters able to be mounted vertically or horizontally. Sections in the catalog give information and specification charts on water heaters, oil heaters, battery heaters, and controls and accessories.

For more information and a free copy of the catalog,

Circle 154 on Reader Service Card



Shipboard corrosion problems solved.

Aeroquip engineers, working with the Navy on corrosion resistance technology for the DDG51 program, developed a line of noncorrosive Monel and stainless steel reusable fittings.

In addition to solving the corrosion problem, the Aeroquip designed hose fittings also extend service life and quickly refit at sea. Replacement fittings are not necessary. With Aeroquip reusable fittings, "inventory" is already in place on the old fluid line.

This corrosion resistance technology and product development solves the needs of shipbuilders everywhere. A range of reusable fittings in sizes from

3/8" to 10" are available. Configurations include 90° doglegs, male O-Ring seals, and 150 pound and 600 pound commercial flanges. If you have other requirements, call us and we'll team you with our engineers to solve your problem.

Send for **FREE Bulletin 2286**.

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RISIC Couplings

Aeroquip RISIC 3 Couplings provide improved system flexibility for piping on ship water and oil service. RISIC 3 is approved for use on U.S. Navy surface and subsurface vessels.

Consult **Aeroquip** for your application.

Circle 269 on Reader Service Card

Marine Hose and Fittings

Aeroquip FC300 AQP* hose now has NAVSEA approval. FC300 hose has been engineered for demanding high temperature shipboard applications and is available with a complete selection of fittings. FC300 also exceeds SAE 100R5 specifications.

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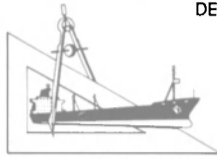
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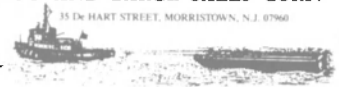
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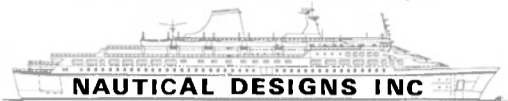
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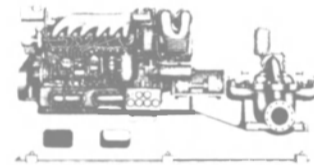
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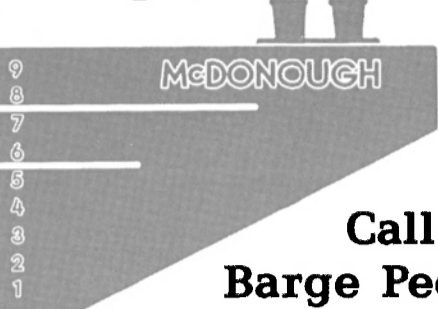
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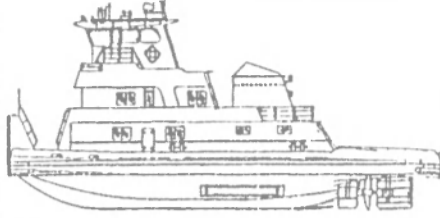
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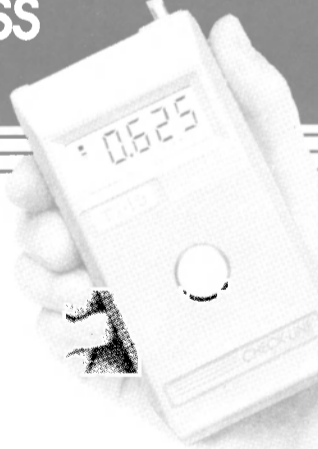
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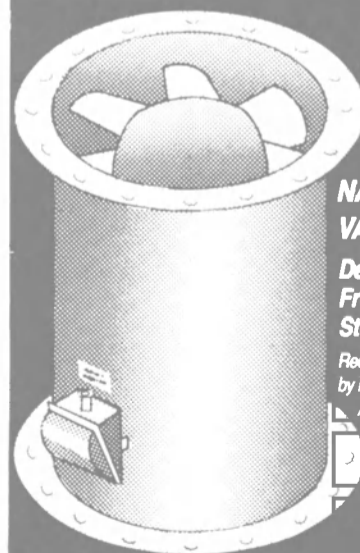
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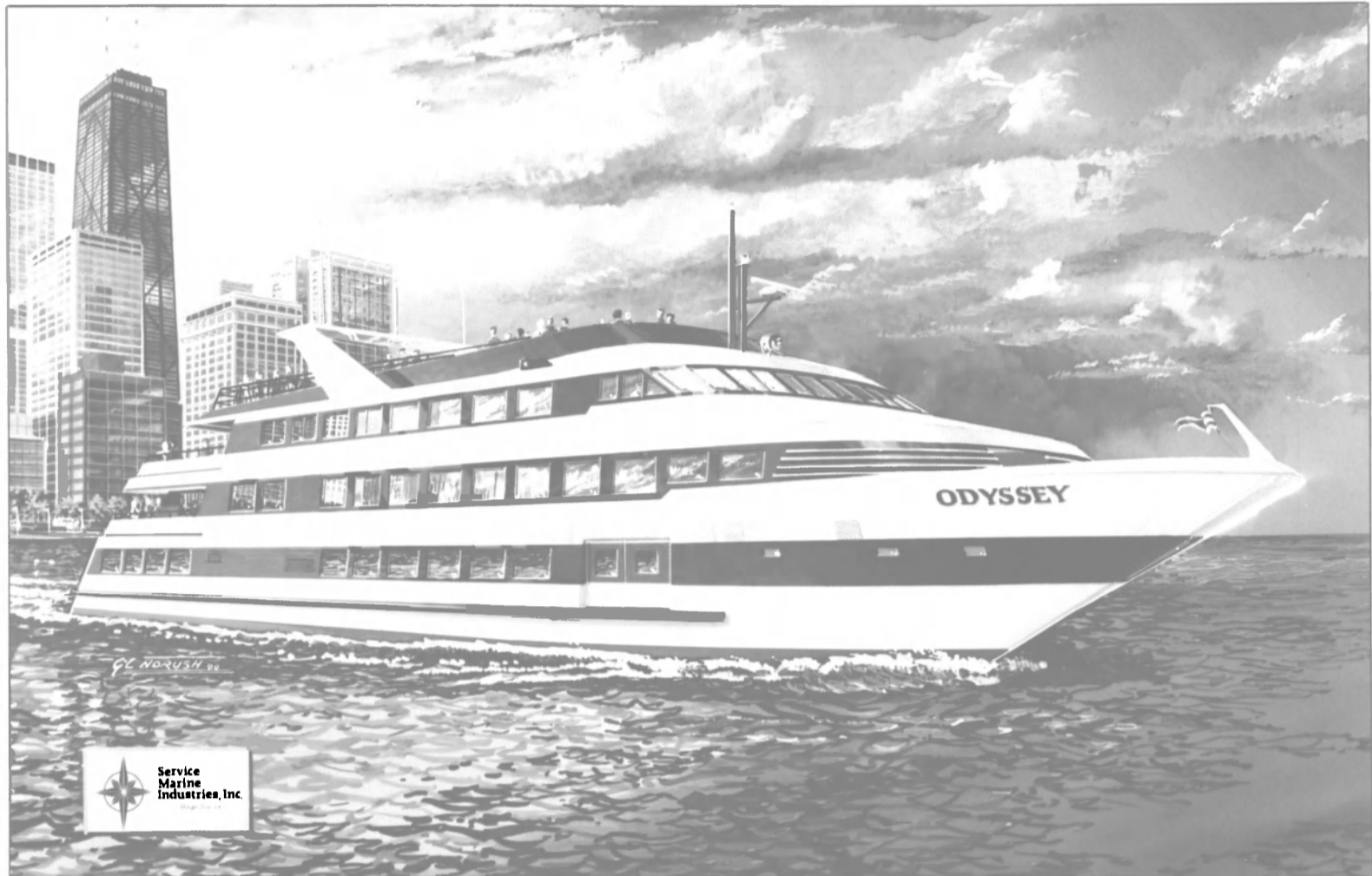
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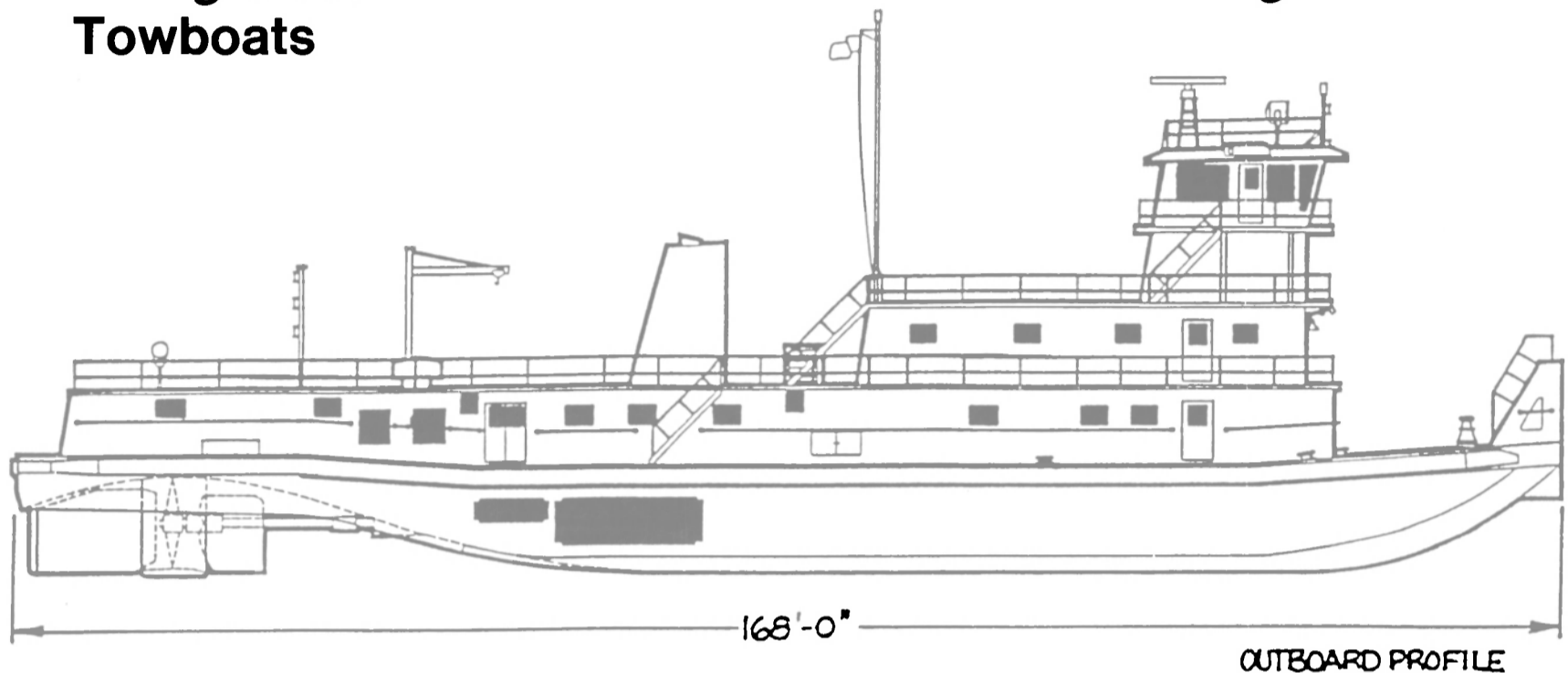
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